



**Office for Nuclear Regulation (ONR)
Quarterly Site Report for
Sellafield, Calder Hall and Windscale West Cumbria
Sites Stakeholder Group (WCSSG)**

Report for period 1 April 2014 – 30 June 2014

Foreword

This report is issued as part of ONR's commitment to make information about inspection and other regulatory activities relating to the above site available to the public. Reports are distributed quarterly to members for the West Cumbria Site Stakeholder Group and are also available on the ONR website (<http://www.onr.org.uk/lrc/>).

Site inspectors from ONR usually attend West Cumbria Site Stakeholder Group scrutiny 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 inspectors made inspections on the following dates during the quarter:

Project Inspection	WEDD & Infrastructure	Spent Fuel Management	Corporate inspection	Decommissioning
12 – 16 May	7- 8 April	8 -10 April	8 June	29 April
9 – 13 June	14 – 15 April	14 – 15 April	17 June	30 April
31 July	14 – 16 April	7 May		28 – 29 May
	8 May	13 – 15 May (THORP)		10 – 11 June
	4 June	13 – 15 May (PF&S)		12 June
	16 – 17 June	3 – 5 June		9 – 10 July
	12 – 13 July	17 – 19 June		12 – 13 July
		8 – 10 July		
		15 – 17 July		
		21 – 24 July		
		30 – 31 July		

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 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 inspectors will monitor progress during future visits. Where necessary, ONR will take formal regulatory enforcement action to ensure that appropriate remedial measures are implemented within reasonably practicable timescales.

In this period, routine inspections of the Sellafield site covered the following:

Sellafield Compliance Intelligence and Enforcement (SCIE) sub programme.

The SCIE sub-programme's objective is to provide evidence-based confidence that nuclear safety compliance is being effectively achieved by Sellafield Limited across the site.

- Spent Fuel Management

We continue to deliver our programme of licence compliance and system inspections across Spent Fuel Management (SFM). In accordance with Licence Condition 15 (Periodic Review), Sellafield Limited has a rolling 10 year programme to review the safety cases for its nuclear facilities. ONR is currently assessing four such reviews for the SFM area (Fuel Handling Plant, Magnox Reprocessing Facility, THORP Receipt and Storage and one of the plutonium management facilities). We anticipate completing these in the next quarter. With regard to periodic reviews, we are pleased that our regulatory focus has led to an improvement in Sellafield Limited's periodic safety review programme, with submissions being delivered on time. However there are still opportunities to improve the delivery of the improvements. ONR's main and on-going focus is to ensure that Sellafield Limited effectively implements the identified improvements to plant and procedures.

- Magnox

We have carried out Licence compliance inspections in the Magnox Reprocessing plant and based on the evidence sampled, we judged the implementation of Sellafield Limited's compliance arrangements to be adequate, and no significant areas for improvement were identified.

- The Plutonium Management Facilities.

As part of the implementation of the revised regulatory strategy for the Sellafield site, Plutonium plants (PMF), Encapsulation Plants and Effluent treatment plants (E&EP) have been grouped under a single integrated intervention plan.

Through our interventions, we have engaged with Sellafield Limited on two emergent Issues / improvement projects.

- Plutonium Management Facilities (North) [PMF(N)] Ventilation Improvement Project.

Our inspections of the PMF(N) facilities revealed a specific issue with the aged and obsolete ventilation system fitted to the original 1940's era finishing line facility associated with the reprocessing of Magnox fuel. Sellafield Limited has a project in progress to implement a programme of improvements that will improve the nuclear safety of these facilities.

- Plutonium Management Facilities (South) [PMF(S)] Maintenance Backlog.

Our inspections of the PMF(S) facilities revealed an issue regarding under staffing of the maintenance teams resulting in a large backlog of routine maintenance. We engaged with PMF(S) and a backlog recovery programme is in progress.

Discussions were also held with Sellafield Limited regarding the impending submission of its Long Term Periodic Review (LTPR) for the Waste Encapsulation Plant (WEP). This facility encapsulates the waste cladding material (hulls) arising from the nuclear fuel reprocessing in the THORP facility by immobilising the waste material in stainless steel drums with a concrete and grout mixture, pending storage in a geological disposal facility (GDF).

The Encapsulation management group wish to delay the submission of the LTRP for WEP so that it will align with the corresponding submission for THORP. This would allow the resource to be deployed on supporting plant improvements in the intervening time and allow for more efficient working on the LTPRs. We consider that this is a sensible proposal and have suggested that Sellafield Limited submit a proposal with suitable justification to demonstrate continued safety during the period of deferral.

- THORP

There were no significant events to report during the last period and we delivered our routine compliance inspections in line with the sub programme plan. THORP completed a planned outage at the end of the quarter and the recommencement of fuel shearing began on 1 July 2014.

- WEDD

We have maintained our regulatory oversight of the planned outages associated with the Waste Vitrification Plant's Lines 1 and 2 and the work associated with the return to service of Line 3 following last year's power failure and subsequent migration of contamination into manned areas of the plant.

- Corporate Inspection Programme

Our corporate inspection programme covers a range of activities focussed on the overall management of the Sellafield site. We are engaging with Sellafield Limited on the following topics: governance and leadership, defining the nuclear baseline and organisational capability, assurance and internal regulation. In addition, we are examining the overall adequacy of Sellafield Limited's arrangements for each of the licence conditions. We will cover all licence conditions over a five-year period. Future reports will provide updates on this programme of work.

- Decommissioning

We continue to carry out our programme of planned compliance inspections within the Decommissioning Division; of significance were two systems inspections carried out on legacy ponds and silos. Our system inspection on the crane operations within the Magnox Swarf Storage Silo (MSSS) concluded that these were adequate against acceptable nuclear standards for its current permitted operations.

A systems inspection on the MSSS liquor control system included participation by the Environment Agency; this judged the system as adequate but highlighted minor issues with maintenance which the licensee has undertaken to address. Other work of note included an inspection of work planning which demonstrated adequate planning in the site remediation and decommissioning projects (SR&DP) areas, and an inspection of emergency arrangements on the SR&DP & Windscale plants which was rated as adequate.

The Passive Ventilation system has recently been commissioned on the Magnox Swarf Storage Silo. This provides a significant improvement in safety and resilience against any potential loss of ventilation or power events.

2.2 Other work

Project Delivery Sub Programme

The ONR Project Delivery sub programme regulates the programmes, projects and activities which deliver risk and hazard reduction on the site. This includes legacy ponds, legacy silos, decommissioning, high level waste and infrastructure areas of the site. In addition to regulating these areas, the sub programme also has a number of improvement themes which encourage the acceleration of risk and hazard reduction:

- prioritisation of our work to effectively use our resources,
- removal of blockers,
- removal of diversions and distractions,
- incentivisation and
- fit for purpose solutions.

Of note from our work with the licensee during Quarter 1 (April – June 2014):

- Legacy Ponds: ONR has carried out specialist assessments of safety documentation and inspection of facilities to provide the basis for permissioning (LI869) of the agreement to commence continued operations of export of Pile Fuel Storage Pond canned fuel route, granted on the 17th June 2014. We have also been in discussion with Sellafield Limited regarding the transfer of sludge from First Generation Magnox Storage Pond to the newly constructed and tested Sludge Packaging Plant 1 facility and are finalising an effective regulatory permissioning strategy for this.
- Legacy Silos: ONR has been assessing Sellafield Limited's containment strategy and underpinning assessments for Magnox Sludge Storage Silo and is undertaking interventions on the seismic resilience improvement project. Sellafield Limited is working with key stakeholders, including ONR and the Environment Agency, to accelerate the Box Encapsulation Plant project and ensure the capability is delivered as early as practicable with sustained lifetime operability. Sellafield Limited is continuing to move towards a final technology decision as planned (December 2014). ONR has been engaging with Sellafield Limited on delivery of the Silo Direct Encapsulation Plant project and related design decisions, however, the project has slowed during the competitive tender process and the programme is being re-forecast.
- Decommissioning: ONR continues to engage on several current projects; amongst the projects discussed were the Windscale Pile chimney filter gallery demolition and removal of residues from Finishing Line 3 (FL3), both of which are scheduled to be completed before the end of 2014. In addition, longer-term projects such as FL3 glove box decommissioning, First Generation Reprocessing Plant stack demolition and ventilation ductwork removal remain on schedule.
- High Level Waste Plants: ONR is assessing the continued use of Evaporator C; to date ONR has not identified any concerns relating to the way forward proposed by Sellafield Limited.
- Infrastructure: ONR has been engaged with Sellafield Limited relating to needed improvements in Sellafield's electrical infrastructure following the loss of power events last year. ONR wrote a letter to Sellafield Limited requiring necessary areas for improvements. Sellafield Limited has developed an improvement plan in response, and we are monitoring delivery in relation to these improvements closely. ONR has observed positive progress during the first quarter of financial year 2014/15 but a sustained focus will be maintained by ONR to ensure that Sellafield Limited implements necessary improvements, thereby ensuring the resilience of the site wide electrical distribution system.

Overall the new ONR strategy for regulating Sellafield has had a positive start in terms of response from the licensee and we are encouraged by our interactions. However, it is early

days and there is much to deliver in terms of risk and hazard reduction projects. We will be utilising our improvement themes to challenge Sellafield Limited to reduce bureaucracy, distractions and over engineered solutions which have the potential to elongate timescales.

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.

Fire Enforcement Notice issued

ONR issued a fire enforcement notice to Sellafield Limited, following a fire safety inspection earlier this year. The inspection, which was carried out in a building in the final stages of construction, identified concerns about the provision of fire safety arrangements in relation to means of escape from the building in the event of a fire. ONR concluded that the inadequate means of escape in part of the building was in breach of the Regulatory Reform (Fire Safety) Order 2005. Sellafield Limited are now required to make improvements to the escape arrangements within the building by 1 May 2015, and put short term emergency measures in place immediately.

ONR is content that Sellafield Limited has now implemented all the required, immediate temporary measures effectively as well as starting work on some of the long-term measures.

WVP Line 3 Improvement Notice issued

ONR served an Improvement Notice on Sellafield Limited, requiring the company to improve the physical containment barriers and the resilience of the ventilation systems in its waste vitrification plant (WVP - the facility where radioactive waste is turned into glass for storage).

ONR has engaged with Sellafield Limited to ensure that it is fully aware of the requirements of the notice, and to ensure clarity of regulatory expectations. The licensee has developed a return to service strategy and we are monitoring progress on delivery of a programme of work to close out the Improvement Notice and return the plant to operation.

We will undertake a readiness inspection of WVP before it restarts to ensure that the wider preparations undertaken by the licensee are sufficient to ensure a safe return to operations, as well as provide confidence in the sustained, long term availability of this key hazard reduction facility.

Calder Hall operating rule breach

In March, there was an operating rule breach at Calder Hall reactor 1 when the dry air supply was interrupted beyond the allowed time period (168 hours). The dry air supply had been isolated to allow cutting and flanging of a line to permit access to enable demolition of redundant buildings. Sellafield Limited took appropriate action to restrict work activities and closely monitor moisture levels until the dry air supply was restored. The moisture levels remained well inside the safety margins throughout. Sellafield Limited has concluded its own investigation. We are engaging with Sellafield Limited to confirm that learning from the event has been promulgated effectively across the Sellafield site and that a suitable programme to address the recommendations from these investigations is in place. The conclusions of this engagement will be reported in the next quarter.

4 REGULATORY ACTIVITY

ONR inspectors 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
April 2014	Agreement	LI873	EPS3 Agreement to Commence Active Commission under Arrangements Made Under LC21(1)
June 2014	Agreement	LI869	Agreement To Commence Routine Operations Of The Pile Fuel Storage Pond Canned Fuel Transfer Route
June 2014	Acknowledgement	LI876	Acknowledgement of Receipt of Safety Case Doc and Application for Licence Instrument for the Implementation of PMP: PCM HEPA Filter Moves
June 2014	Improvement Notice		WVP Line 3 – ONR requires the company to improve the nuclear site licence condition compliance arrangements with respect to the physical containment barriers and resilience of the facility's ventilation systems by end of October 2014
June 2014	Enforcement Notice		ONR requires improvements to measures in relation to means of escape in the building - to be completed by 1 st May 2015.

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

5.1 ONR Annual Report and Financial Position 2013-14

The ONR annual report is a companion document to [HSE's Annual Report and Accounts 2013/14](#) and is intended to present our opening position both in terms of achievements and financial management, as we begin life as a public corporation. It includes the Chief Nuclear Inspector's Annual Statement 2013/14 on the safety and security of the nuclear estate and summarises ONR's judgements on the areas it regulates. In this report we say that all of the sites we regulate are safe and secure and are working to reduce hazards. There is further work to be done at some sites, particularly Sellafield where we have a new regulatory strategy in place, and we are engaging with licensees to secure improvements in specific areas. The report is available on the [ONR website](#)

5.2 ONR Strategy 2015-2020

ONR is seeking feedback on its new strategy, which provides vision and direction for ONR and nuclear regulation for the next five years. The consultation will run from 14 July to 6 October on the ONR website. ONR has a statutory obligation to have the new strategy in place by 1 December.

You can download the strategy via the [public consultations page](#) of the ONR website.

6 CONTACTS

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