



Office for Nuclear Regulation (ONR) Site Report for Dounreay

Report for period 1 October to 31 December 2020

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

Site inspectors from ONR usually attend Dounreay 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

The ONR site inspectors have made visits to site on the following dates during the report period 1st October to 31st December 2020:

- 13th to 15th October 2020
- 10th to 12th November 2020

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 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.

Arrangements for the restart of operational activities: ONR assessed the arrangements in place to support the restart of operational activities within the FCA Decommissioning Area.

These visits also provided the opportunity to observe DSRL's activities that had recently recommenced, focusing on the implementation of arrangements to take account of Covid-19 guidelines. ONR is satisfied that there was clear evidence of a systematic approach to the safe restart of operations. The arrangements in place demonstrated a considered review of the status of the plant, the competency of the personnel and, the suitability of the operational documentation. Additionally, ONR is satisfied that the governance associated with the restart of operations was adequate.

Construction activities: ONR assessed the arrangements in place to support the implementation of arrangements for the control of design intent during constructions activities. Specifically:

- Construction and installation of new plant;
- Modification to plant under construction;
- Commissioning.

Overall ONR is satisfied that DSRL has adequate arrangements in place and that they have been adequately implemented in support of the construction activities inspected.

2.2 Other work

Technical assessment work: ONR has continued to undertake assessment activities necessary to support the release of regulatory hold-points placed on a number of the projects on site. Specifically, ONR has continued to hold regular technical review meetings with the

Shaft and Silo Project Team and remains confident to be in a position to release the regulatory hold-point placed on the commencement of construction activities early next year.

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.

There was one matter notified to ONR during this period:

- Fuel Lift and Transfer Hoist: ONR was informed of an incident where one of the engineered safety systems on a fuel lift and transfer hoist failed necessitating manual intervention to cease operations. The site investigation identified the root cause to be a type of data storage device that was locking during periods of rapid data transfer. An improved data storage device has now been fitted and operations resumed. A programme of work is also underway to identify other safety systems where this type of data storage is used. ONR Control and Instrumentation Specialist Inspectors have been engaged with regards the technical investigation resulting from this event and are broadly content with the outcomes of that investigation. Consequently, ONR has no objection to the resumption of fuel lifting and transfer operations.

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). In addition, inspectors may take a range of enforcement actions, including the issuing of an Enforcement Notice.

ONR issued one Licence Instrument (LI) this period. This LI granted 'Approval' for DSRL to implement its revised Emergency Arrangements that had been updated to reflect the requirements of REPP19 and to align with the revised Highland Council Off-Site Emergency Plan.

No Enforcement Notices or Formal Letters were issued during this period.

5 NEWS FROM ONR

COVID-19

ONR continues to obtain assurance that nuclear site licensees and other duty-holders are adequately resourced to continue to safely and securely carry out their activities. We remain satisfied with industry's response at this time and there has been no significant change to duty-holders' safety and security resilience. As COVID-19 restrictions change, our focus is on the preparedness for the weeks and months ahead and maintaining safe and secure operations. All licensed sites are required to determine minimum staffing levels necessary to ensure safe and secure operations and contingency arrangements in the event that these levels are not met. This condition is specifically designed to ensure that industry can adequately manage and control activities that could impact on nuclear safety and security under all foreseeable circumstances, including pandemics.

ONR staff continue to work at home, primarily. We have considered our priorities, deferred non-critical activities, and are carrying out as much of our work as possible via videoconference, phone and email.

We continue to inspect, assess and permission remotely where necessary to protect staff, workers on site, and the public around sites.

Enforcement action

In December, we [announced](#) that The Atomic Weapons Establishment (AWE) had been fined £660,000 after pleading guilty to an offence under Section 3 of the Health and Safety at Work etc. Act (1974). AWE was also ordered to pay costs of £9,945.71 during a virtual hearing at High Wycombe Magistrates Court. It followed an electrical incident on 20 June 2019 at the AWE Aldermaston site which resulted in a contractor narrowly avoiding injury when a flash over of electricity occurred from a 415V electrical source. The incident was a conventional health and safety matter and took place in a ‘non-nuclear’ building, so there was no radiological risk to workers or the public.

In October, we [notified](#) Sellafield Ltd that it would be prosecuted under Section 2 (1) of the Health and Safety at Work etc. Act (1974). The charge related to an incident on Friday, 24 April 2020 at the Sellafield site where an employee sustained injuries while working on high voltage electrical equipment. This incident was also a conventional health and safety matter and there was no radiological risk to workers or the public. The hearing took place at Carlisle Magistrates Court on 18 December 2020, where Sellafield Ltd was fined £320,000 and ordered to pay costs of £12,079.07 after pleading guilty to the offence.

Regulatory updates

In October, we [announced](#) an Information Exchange Arrangement (IEA) with the Canadian Nuclear Safety Commission (CNSC). The IEA is a bilateral agreement between our two organisations which provides a framework for the sharing of information, experience, and good practice to enable both parties to learn from and train each other on technical regulatory issues. It also allows for more effective communication between the two regulators. The agreement had already been used to develop a Memorandum of Cooperation (MoC) between ONR and the CNSC which allows the sharing of best practices and experience around reviewing advanced reactor and small modular reactor (SMR) technologies.

In November, our Chief Nuclear Inspector (CNI), Mark Foy, published his [annual report](#) detailing the performance of Great Britain’s nuclear industry during 2019/20. The CNI reports he is satisfied that overall, the nuclear industry has continued to meet the high standards of safety and security required to protect workers and the public. In areas where duty-holders have fallen short of these standards, the CNI is satisfied that these facilities remain safe and that ONR has intervened in a proportionate manner to ensure plans are in place to improve performance.

In November, we also [announced](#) the appointment of a new member to the Chief Nuclear Inspector’s Independent Advisory Panel (IAP). Chris McDonald has joined the panel, which was set up in 2016 to provide independent advice on technically complex nuclear matters by engaging with industry experts to inform our regulatory strategies and approaches. Chris has a wealth of experience in industrial strategy and manufacturing research. He has a degree in Chemical Engineering and has been the CEO of the Materials Processing Institute since it was founded in 2014. Chris also has a proven record in the areas of innovation and low-carbon energy which will be of great benefit to ONR.

In December, we became an [Affiliated Organisation](#) member of the Society for Radiological Protection (SRP). We have actively participated and supported SRP for many decades. This affiliation formally recognises our involvement and contributions towards radiological protection and enhances the links between the two organisations.

In November, we played a [leading role](#) in the first ever virtual IRRS Mission. The virtual mission to Lithuania was conducted via the IAEA’s International Regulatory Review Service and explored the feasibility of using modern communications tools for future missions. The mission was led by ONR’s Technical Director Dr Anthony Hart and supported by Superintending Inspector Colin Tait. Other countries taking part in the mission included Canada, Pakistan, Finland and the Netherlands.

In December, we became the [UK’s nuclear safeguards regulator](#), in charge of the domestic safeguards regime and operating the UK State System of Accountancy for, and Control of,

Nuclear Materials (SSAC). Following the end of the transition period as laid out in the Withdrawal Agreement, ONR assumed its responsibilities at 23.00 on Thursday 31 December 2020. This has been a major project for ONR, setting up a new team, new systems and new processes, led by Dr Mina Golshan. Since being tasked by Government to establish a domestic safeguards regime after Brexit, we have developed a team of safeguards specialists, including inspectors and nuclear material accountants, and implemented a bespoke IT system, SIMRS (Safeguards Information Reporting and Management System). Nuclear safeguards are measures to verify that countries comply with their international obligations not to use nuclear materials from their civil nuclear programmes to manufacture nuclear weapons. The safeguards work remains a key priority for the organisation and sits in our Civil Nuclear Security and Safeguards Division.

Corporate updates

In October, we announced that Chief Executive Adrienne Kelbie had been appointed a [Commander of the Order of the British Empire](#) (CBE) in the Queen's Birthday Honours List 2020 for services to the nuclear industry and to diversity and inclusion. Adrienne said: "This honour is a tribute to the ONR team and all others who work tirelessly to create a more inclusive world and safe nuclear sector, as well as those on the long and sometimes arduous journey of leadership and self-development. "Inclusion goes hand in hand with safety, because diverse teams are essential to improve decision making – therefore it's a non-negotiable in nuclear. That's why, as Chief Executive of ONR, I've been personally committed to visibly drive the inclusion agenda and encourage others to do so too."

In December, we announced plans to [align our leadership structure](#) to other nuclear regulators around the world with a new combined post of Chief Nuclear Inspector/Chief Executive. Chief Nuclear Inspector Mark Foy will take up the new combined post, subject to detailed government approvals, supported by current Deputy Chief Executive, Sarah High. A new senior regulatory role, Executive Director of Operations/Deputy Chief Inspector, will also be established. The exact timescales have yet to be confirmed, but the changes will come into effect later in 2021. Under existing contractual arrangements, current Chief Executive Adrienne Kelbie CBE was always expected to step down as her extended term of office comes to an end in January 2022. The change reflects ONR's successful transition into a mature and high performing organisation since becoming an independent Public Corporation in 2014.

In December, we were delighted to announce that our Deputy Chief Inspector and Director of ONR's Sellafield, Decommissioning, Fuel and Waste Division, Dr Mina Golshan, had been awarded a [Commander of the Order of the British Empire](#) (CBE) in the New Year's Honours 2021, for 'services to nuclear regulation'. Mina said: "I am very grateful to have been awarded this honour. It reflects the work of many talented and dedicated professionals that I am lucky to work with. It also shows the significance of ONR's role in securing safe nuclear operations for the protection and benefit of the society."

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