

Office for Nuclear Regulation (ONR)

Site Report for Torness Power Station

Report for period 1 April – 30 June 2021

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 of the Local Community Liaison Committee and are also available on the ONR website (<http://www.onr.org.uk/lc/>).

Site inspectors from ONR usually attend the Torness Local Community Liaison Committee meetings and will respond to any questions raised there. Any person wishing to enquire about matters covered by this report should contact ONR.



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1 Inspections

Dates of inspection

ONR inspectors undertook interventions relevant to Torness Power Station on the following dates during the report period:

- 11 – 13 May 2021
- 11 May 2021
- 18 May 2021
- 08 – 10 June 2021

2 Routine Matters

Inspections

Compliance 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 the licensee's, EDF Energy Nuclear Generation Ltd's (EDF NGL) 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 compliance inspections were undertaken:

- A Safeguards System Based inspection.
- Observation of Torness Transport Emergency Demonstration Exercise "PEGASUS".
- A Configuration Control/ Procedural Quality Use and Adherence Themed Inspection.

CONFIGURATION CONTROL/ PROCEDURAL QUALITY USE AND ADHERENCE THEMED INSPECTION

The purpose of this intervention was to conduct a Procedural Quality Use and Adherence and Configuration Control Themed Inspection of EDF Energy Nuclear Generation Ltd (NGL) at Torness (TOR) Power Station, the inspection was undertaken from 8th to 10th June 2021. The inspection was rated against Licence Condition 24 (Operating Instructions), Licence Condition 26 (Control and Supervision of Operations) and Licence Condition 28 (Examination, Inspection, Maintenance and Testing).

Interventions ratings of Green were assigned for LC24 and LC26. An intervention rating of Amber was assigned to LC28, relating to ensuring a full and accurate report of examination, inspection, maintenance and test identified during the inspection sample.

Whilst shortfalls identified in relation to LC 28(9) may not in itself be sufficient to rate the inspection findings as Amber, a combination of the LC24, LC26 and associated LC28 issues that were raised collectively have relevance to LC28 shortfalls and are of significance from ONR's sample to assign an Amber rating for LC28.

Examples of the gaps identified included compliance with internal processes (relating to control of procedures and work briefings) and a review of a sample of test records identified missing information and other amendments made without following the correct process. The inspection sample of defect labels during an ONR plant walk down identified an indication of a tolerance of degraded plant condition, and further samples identified issues regarding the timely response to issues raised in station plant walk down reports.

To gauge the extent of these issues beyond ONR's sample, an inspection rating of Amber was assigned for LC28 and a level 3 Regulatory Issue and appropriate actions have been raised to clarify the extent of condition, and ensure any further improvements are adequately implemented. There were no findings from this inspection that could significantly undermine nuclear safety.

SAFETY SYSTEM BASED INSPECTION (SBI)

SBI consist of a series of inspections which are intended to establish that the basic elements of a site/facility safety case, as implemented in Safety Systems and Structures (SSS) are fit for purpose and that they will fulfil their safety functional requirements. In an SBI, the adequacy of implementation of the licensee's arrangements for six Licence Conditions (LC) (10, 23, 24, 27, 28 & 34) is tested for the SSS chosen.

In this period, no safety system-based inspections were undertaken.

SAFEGUARDS SYSTEM BASED INSPECTION (SSBI)

SSBIs are an essential tool in the safeguards regulatory framework to build an intelligence base that provides confidence that equipment with significant role in nuclear material accountancy control and safeguards (NMAC&S) is available, suitably maintained, adequately backed up and operated by staff who are suitably qualified and experienced. The overall aim is to seek confidence that such equipment delivers the NMAC&S function, which is claimed within operator's arrangements. ONR inspectors gather evidence, on a sampling basis, against five Fundamental Safeguards

Expectations (FSE's) to reach a balanced judgement that regulatory expectations have been met. These are,

FSE3 - Competence Management
FSE5 - Reliability, Resilience and Sustainability
FSE6 - Measurement Programme and Control
FSE7 - Nuclear Material Tracking
FSE8 - Data Processing and Control

ONR carried out this inspection between 11th and 13th May 2021. The purpose of the SSBI at Torness was for ONR to determine the adequacy of the implementation of EDFs arrangements and procedures for accountancy and control with respect to the NuMAS electronic accountancy and control system. The inspection was rated against a sample of selected Fundamental Safeguards Expectations (FSE) most relevant for the scope of the Torness SBI.

FSE 3 (Competence Management) – Based on the evidence sampled during the inspection, ONR consider that EDF did not demonstrate that adequate competency management arrangements such as role profiles, are implemented for their Nuclear Material Accountancy (NMAC) staff at Torness. Torness provided ONR with an outline plan to develop role profiles for those staff with NMAC responsibilities, however ONR concluded that this plan alone did not adequately address the underlying issues with the competence management of NMAC staff at Torness and is a shortfall against NSR19 Regulation 9 which states that all NMAC staff should have role profiles.

Based on the findings an inspection rating of Amber was assigned and a level 3 regulatory issue was raised to seek improvements in the development of role profiles at Torness.

For the remaining FSE's and the evidence sampled which included FSE5 - reliability, resilience and sustainability, FSE7 - nuclear material tracking and FSE8 - data processing and control, ONR judged that there was sufficient evidence that the dutyholder has complied with all legal duties, and adequately implemented those accountancy and control plan claims that relate to the sampled systems, structures and components and a Green rating was assigned.

Other work

Exercise Demonstrations

ONR observed a Transport Emergency Demonstration Exercise “PEGASUS” at Torness on 18th May 2021. This intervention was to assess whether EDF Energy Nuclear Generation Limited (NGL) had taken all reasonable steps to arrange, for all those with a role in their transport emergency plan, and required under the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (CDG 2009), to participate to such an extent necessary to ensure the test of the plan was considered effective.

Due to the impact of the Coronavirus pandemic and the need to minimise the spread of this virus, NGL's test of its transport emergency plan was carried out as a desk-top exercise. NGL provided live play at the following locations which ONR Inspectors observed to confirm the effectiveness of the test:

- Notification of a transport incident to Torness Power Station's Central Control Room, and establishment of the Station's Emergency Control Centre. Here effective command and control were demonstrated.
- The incident location to evaluate Torness RadSafe response team interface with Local Authority Emergency Services in providing advice and guidance.
- The Barnwood Central Emergency Support Centre (CESC) to assess timely establishment of CESC and effective command and control with development of a transport recovery plan.

The incident location was staged at East Lothian Council's Strategic Control Centre, Penston House. NGL produced a model of the incident to allow Local Authority emergency services (Police, Fire brigade and Ambulance) to understand the situation given the hazards posed from transport of a package containing radioactive material. This allowed participants to initiate their response to the situation they were faced with.

Based on observations made by the ONR Inspectors it was considered NGL had simulated all the roles within its CDG 2009 transport emergency plan. ONR concluded that NGL had undertaken an effective test of its CDG 2009 transport emergency plan, with all reasonable steps taken to demonstrate all the roles within their plan.

Other Meetings

Due to travel restrictions being imposed during the previous reporting periods in 2020/21 due to COVID-19, the site inspector worked remotely to monitor the performance of the site.

However, in this reporting period, the site inspector has taken the opportunity to carry out site visits in April, May and June in line with COVID-19 arrangements. The duration of the station visits has been kept to a minimum and focused on plant walkdowns and other inspection activities.

The site inspector considers that the site has managed its response to the pandemic during the period in a manner that, so far as is reasonably practicable, protected its own staff and contractors on site and ensured that there was no degradation in nuclear safety.

3 Non-Routine Matters

The Torness nominated site inspector reviews incidents that meet the criteria for routine reporting to ONR under the site Licence Condition 7 arrangements. The site inspector samples the station's follow up reports and corrective actions.

Matters and events of particular note during the period were:

INF1 2021/191 – In the Q1 report shortfalls were identified by licensee's assessment work on the fuelling machine safety cases at Torness & Heysham 2 for Low Pressure Refuelling, Off-load Pressurised Refuelling, and Off-load Depressurised Refuelling.

Both stations have entered the safety case anomalies process and continue to work their way through justifying continued pressurised operations using their Fuelling Machines. Until continued operations are justified, pressurised refuelling operations are embargoed. The only current means available for refuelling currently is off load depressurised refuelling (ODR).

Events

No Incidents reported within this reporting period.

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

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

5 News from ONR

Below are summaries of key activities for the period covered by this report. Further detail is available on our [website](#).

COVID-19 (CORONAVIRUS) (ONR POSITION)

We are continuing to obtain assurance that nuclear site licensees and other dutyholders 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 dutyholders' safety and security resilience.

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.

Although ONR staff continue to work primarily at home, (carrying out as much of our work as possible via videoconference, phone and email), we are carefully and progressively increasing our site footprint. We continue to assess our on-site presence in line with government guidelines and our business needs, ensuring we have a balanced portfolio of on-site inspections and interventions, that are important to support effective regulation across our purposes.

Our latest position can be found on our website.

ENFORCEMENT ACTION

- In April, we announced that EDF complied with a Direction we served on 14 December 2020, under the Pressure Systems Safety Regulations (2000). This followed an inspection, at which found a number of pressure system components at Heysham 1 Power Station were overdue their scheduled examination.
- In May, we agreed to extend an improvement notice served on EDF in September 2020, recognising the progress made so far. The notice was served after some of the equipment used to measure reactor power at Heysham 2 was incorrectly configured. We judged that Heysham 2 is able to operate safely, and that additional time to demonstrate the required improvements will not pose a risk to safety. EDF must now comply with the improvement notice by 31 July 2021.
- In June, we announced that Rolls-Royce Submarines Ltd (RRSL) had complied with an improvement notice served on 29 May 2020. The notice was served after RRSL operators brought 21 units of fissile material into the facility – which exceeding the limit defined within the safety case and set out in the Criticality Control Certificate for the facility.

Stakeholder Engagement

- In April, we published an [article](#) introducing our newest board member, Jean Llewellyn, who joined us in October 2020, as security lead. Jean brings with her a wealth of experience, including serving as a non-executive director on the board of the World Institute for Nuclear Security since 2018 – which has given her a good understating of the global security challenges facing the nuclear industry.
- In May, we issued our e-bulletin ‘[ONR News](#)’ to subscribers. This issue included farewell reflections from our outgoing chief executive, a leadership update, further information on our COVID -19 response, and the results of our latest stakeholder survey. You can sign up for our e-bulletin [here](#)
- On 1 June, we [announced](#) the full implementation of our new leadership structure. Mark Foy is now our combined Chief Executive and Chief Nuclear Inspector. He is supported by Sarah High as Deputy Chief Executive, and Donald Urquhart as Executive Director of Operations.
- In June, we published our new [Corporate Plan for 2021/22](#), which sets out our key priorities to protect the public by securing safe nuclear operations.
- In June, our State System of Accounting for and Control of Nuclear Material (SSAC) project - which saw ONR become the UK’s national nuclear safeguards regulator from 31 December 2020, was [shortlisted for a national award](#) in the Project Management Institute’s UK National Project Awards in the ‘Project of the Year (Public Sector)’ category.
Nuclear safeguards are measures to verify that countries comply with international obligations not to use nuclear materials from civil nuclear programmes for non-peaceful purposes.

6 Contacts

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