



Office for Nuclear Regulation (ONR) Site Report for Torness Power Station

Report for period 1 July to 30 September 2018

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

1.1 Dates of inspection

1. The ONR nominated site inspector made inspections on the following dates during the quarter:
 - 23-28 July 2018
 - 14-17 August 2018
 - 17-21 September 2018
2. In addition there was an inspection of compliance with the Fire (Scotland) Act 2005 by a fire safety specialist.

2 ROUTINE MATTERS

2.1 Inspections

3. 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 Fire (Scotland) Act 2005
 - the Nuclear Industries Security Regulations 2003
4. The inspections entail monitoring the 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.
5. In this period, the following routine inspections were undertaken:
 - Inspection of the arrangements made by Torness to comply with regulations for safe transport of nuclear material;
 - Inspection of compliance with Licence Condition (LC) 2 – Marking of the site boundary and LC16 - Site plans, designs and specifications;
 - A themed inspection of Organisational capability
 - Inspection of conventional (non-nuclear) safety;
 - Participation in EDF's Rapid Trending Review – an internal inspection of the Reactor 2 Statutory Outage: a period when Reactor 2 is shut-down for maintenance.

Transport of Nuclear Material

6. This inspection focussed primarily on the arrangements made by Torness for compliance with the Carriage of Dangerous Goods etc. Regulations 2009 (CDG), in particular the safe despatch from the site of spent nuclear fuel in very large, and robust purpose-built containers referred to as 'flasks'. It was found that management of CDG by Torness included an adequate management system,

suitably trained staff and standards of fuel flasks and waste drums management that met relevant good practice.

Licence Conditions 2 (Marking of the Site Boundary) and 16 (Site Plans, Designs and Specifications)

7. For this inspection, ONR looked at the way that the station ensures that the boundary of the nuclear licensed site is adequately marked, including after changes. For LC2, it was found that the Station had processes in place for monitoring and maintaining the existing markings of the site boundary which, at Torness, covers a much wider area than that enclosed by the site security fence. However there were a small number of areas where members of the public may not be aware that they were entering a nuclear licensed site, and improvements were agreed with site management. For LC16, ONR found that site plans are updated as changes are made to the layout of buildings.

Themed Inspection – Organisational Capability

8. For this inspection, ONR examined how the company ensures that it has adequate human resources for safety, including the numbers of skills and competent staff it requires. It was found that there is active management of the adequacy of human resources for nuclear safety by Torness management, and some good practices were evident beyond those required by the company's arrangements. ONR rated this inspection as 'Green, no formal action'.

Conventional Safety and Fire Protection

9. ONR inspectors examined industrial safety at the site in September jointly with the EDF Rapid Trending Review Team during the early stage of the Reactor 2 outage. Generally good standards were found, although there were a number of recommendations for improvement in protection of pedestrians from vehicles and of workers entering confined spaces. ONR found the Rapid Trending Review to be an effective initial EDF safety review.
10. The fire protection inspector, who also visited in September, found good standards and no new issues were raised.

2.2 Systems-based inspections

11. System-based inspections at Torness look at the key technical systems important to nuclear safety. These are 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 Torness site are safe. Each of these system 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
12. During the reporting period, there was one safety related systems inspected:

Fuelling machine and Decay Store

13. This system-based inspection focussed on the fuelling machine in particular. This is a very large, mobile machine that (amongst other things) inserts nuclear fuel assemblies into the two reactors, and removes it again once spent.
14. For this inspection, the site inspector was accompanied by specialist inspectors in mechanical engineering and control and instrumentation. ONR found good standards, and raised one regulatory issue which concerned plans for longer term maintenance of some older electronic components. .

2.3 Other work

15. The period included the beginning of the Torness 2018 statutory outage period. This is the maintenance period that ONR requires all civil nuclear reactors to undergo every three years, under Licence Condition 30 (Periodic Shutdown). Torness Reactor 2 is now in outage and ONR inspectors from a range of disciplines will be visiting to inspect the activities on site during the period up to return to service. EDF are required to seek the agreement of ONR to restart the reactor, which we will give once we are satisfied the evidence from inspections and that submitted by EDF tells us that it is safe to do so.

3 NON-ROUTINE MATTERS

16. The Torness nominated site inspector reviews incidents that meet the criteria for routine reporting to ONR under the site's Licence Condition 7 arrangements. The site inspector samples the station's follow up reports and corrective actions. In this period the incidents included the following:
17. Reactor 1 shut down safely after being manually tripped in September due to a cooling water inlet valve being inadvertently closed at the condenser. The reactor was safely restarted soon after and the cause of the error is being investigated. There was no direct nuclear safety implication.
18. An irradiated fuel flask despatched from Torness was found to have a number of lid bolts fastened less tightly than specified. The function of these bolts is to fasten down a six-tonne lid so that a water-tight boundary is maintained for the cooling water around the spent fuel. This event was not a cause of danger as more than enough bolts were tightened correctly, and as normal a seal test was completed that showed the flask was water-tight before departure. In addition to the bolts, there were a number of mechanical 'chocks' bolted into place that provide further downward pressure on the lid.
19. From the evidence sampled, the inspector was satisfied that these incidents are being adequately investigated and appropriate event recovery actions identified. In addition the site inspector held meetings with the Torness independent nuclear assurance inspector and had ONR issues follow-up meetings.

4 REGULATORY ACTIVITY

20. 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 |
|------|------|--------|-----------------------------------------------------------------------------|
| N/A | | | No Licence Instruments or Enforcement Notices were issued during the period |

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

5 NEWS FROM ONR – July-September 2018

Stakeholder Engagement

- In August our Chief Nuclear Inspector Mark Foy and Deputy Chief Inspector Mina Golshan, hosted a webinar for stakeholders on the outcomes of the UK report to the Joint Convention. This is a new channel of communication which we have introduced, and further webinars are planned for November and February 2019. If you would like to find out more, please contact the ONR Communications team at contact@onr.gov.uk
- The ONR/NGO engagement forum took place on 11 October in London. This is a forum to discuss strategic, cross-cutting regulatory matters. Site specific matters are normally addressed via Site Stakeholder Groups. We are always keen to engage with a range of stakeholders and groups on nuclear safety and security issues, so if you do represent a nuclear-interest Non-Governmental Organisation, and are not already involved through our forum or via a Site Stakeholder Group, then please get in touch with the ONR Communications team for further details, via contact@onr.gov.uk

Regulatory News

- On 25 July we announced our decision to prosecute the Atomic Weapons Establishment for offences under Section 2 (1)* of the Health and Safety at Work etc. Act (1974). This charge related to an electrical incident on 27 June, 2017, which resulted in injury to an AWE employee. The incident was a conventional health and safety matter and there was no radiological risk to workers or the public. At a court hearing on 18 September, AWE pleaded guilty to the charge and sentencing was adjourned until 9 November, 2018.

In a separate case brought by ONR, EDF Energy Nuclear Generation Ltd and Doosan Babcock Ltd pleaded guilty on 10 October, 2018) to offences under the Health & Safety at Work etc. Act 1974, section 3(1) and the Work at Height Regulations 2005, Regulation 4(1) respectively. The charges relate to an incident on 12 April 2017 at the Hinkley Point B nuclear power station, which resulted in a serious injury to a Doosan Babcock Ltd employee. Following a hearing at Taunton Magistrates Court, the case was committed for sentencing at Taunton Crown Court with an initial hearing date set for 16 November 2018, although this date is subject to change.

Both of these cases related to conventional, industrial-type incidents that would have been subject to regulation by the Health and Safety executive prior to ONR's creation four years ago, when we gained responsibility for such matters on licensed sites. There was no radiological risk to workers or the public.

Updates on each case will be published on our website www.onr.org.uk

- We have recently published our [Statement of civil incidents](#) meeting the Ministerial Reportable Criteria (MRC) reported to ONR - Q2 2018 (1 April 2018 to 30 June 2018). Full details are available on our [website](#).

Corporate News

- In July we published our second [gender pay report](#). The organisation-wide results show that ONR has a mean gender pay gap of 35.2%, which is wider than last year, although it is broadly similar to the rest of the UK nuclear industry and anticipated given our workforce profile, and that of the industries from which we have historically recruited. ONR is committed to addressing this issue and continues to focus on improving diversity and inclusion.
- Our Chief Executive, Adrienne Kelbie, has agreed a three-year contract extension, taking her term of employment to January 2022.
- The Department for Work and Pensions has started the process for recruiting a new ONR Chair (further details can be found on the [public appointments website](#)). Our current Chair, Nick Baldwin CBE, will remain in office until 31 March, 2019.

6 CONTACTS

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