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| ONR Site Report  Torness Power Station |



ONR Site Report

Torness Power Station

Report for period: 1 April – 30 June 2023

Authored by: Lead Site Inspector

Approved by: Superintending Inspector

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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 Torness site stakeholder group and are also available on the ONR website (<http://www.onr.org.uk/llc/>).

Site inspectors from ONR usually attend Torness site stakeholder 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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# Inspections

## Date(s) of Inspection

The ONR site inspector made inspections on the following dates during the report period 1 April – 30 June 2023:

05 - 06 April

16 - 17 May

20 – 21 June

# Routine Matters

## 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 etc 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 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 Torness power station covered the following:

* Training;
* Emergency arrangements;
* Duly authorised and othes suitably qualified and experienced persons;
* Operating rules;
* Operating instructions;
* Safety mechanisms devices and circuits;
* Examination, inspection, maintenance and testing;

Overall the findings from the compliance inspections were good. Further information and clarification is being sought through an ONR regulatory issue associated with LC11 emergency arrangements, the issue is relating to how the control room log and coordinate specific plant configuration actions.

The main finding from this quarter was compliance shortfalls associated with Fire (Scotland) Act 2005 and Fire Safety (Scotland) Regulations 2006 and LC28 examination, maintenance, inspection and testing. These shortfalls were identified in the administration, welfare, workshop and stores building complex during a fire safety systems based inspection.

Torness did self identify a number of gaps to compliance relating to fire safety in these areas prior to the inspection and have been sourcing specialist independent parties to assist in closing the compliance gap, however additional findings were identified and physical improvements to close identified compliance gaps have been slow.

There were no findings from the inspections that could significantly undermine nuclear safety, however enforcement action is being considered to ensure the gap to compliance for the fire safety inspection findings is adressed in a timely manner.

Members of the public, who would like further information on ONR’s inspection activities during the reporting period, can view site Intervention Reports at [www.onr.org.uk/intervention-records](http://www.onr.org.uk./intervention-records) on our website [www.onr.org.uk](http://www.onr.org.uk).

Should you have any queries regarding our inspection activities, please email [contact@onr.gov.uk](mailto:contact@onr.gov.uk).

## Other Work

Torness have recently experienced a number of national grid disturbance issues which have revealed themselves through electrical power dips, in one instance an unplanned trip of reactor 2 occurred which was managed appropriately with only minor post trip cooling issues.

The national grid has been undertaking a programme of grid stability/optimisation actions which seems, at this time to have resolved the grid stability issues. ONR, EDF/NGL and the National Grid have implemented routine stakeholder meetings over and above the routine scheduled meetings to resolve the issue with the aim to prevent recurrence.

Due to the increased temperature fluctuation conditions the United Kingdom has been exposed to, Torness have entered the safety case anomaly’s process to re assess plant and equipment limits and conditions that extreme ambient temperatures may pose, ensuring all equipment is substantiated in line with the potential increase in temperatures.

# 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 note during the period were:

**Reactor 2 unplanned trip due to grid disturbances – 12th June 2023 -** Whilst operating at steady load turbine generator 2 tripped on generator protection excitation fault followed by an unplanned reactor 2 trip.Reactor 2 protection systems initiated and the reactor shutdown safely.

Torness response was appropriate, station is liaising with national grid who are investigating the incident. Torness have request the output from the investigation once complete and ONR, EDF/NGL and the National Grid have implemented routine stakeholder meetings over and above the routine scheduled meetings to resolve the issue with the aim to prevent further recurrence.

**Reactor 2 partial trip due to grid disturbances – 16th June 2023 -** Reactor 1 was shut down and depressurised for off-load refuelling. A loss of 400 kV grid supplies caused the reactor 1 generator transformer to trip out of service resulting in the loss of essential supplies to equipment associated with reactor 1 quadrants. In addition, a cooling water pump, which had been supplying cooling water to reactor 2, tripped and consequently there was a vacuum excursion on reactor 2, however no change in reactor 2 power or generated load was experienced.

The plant transient was managed in accordance with station instructions. Reactor 1 station supplies which are derived from the 132 kV grid were interconnected to the 11 kV unit boards and essential plant was returned to service.

This was the second such grid disturbance incident experienced at Torness recently and there has also been a number of additional minor grid disturbances detected which have not challenged the reactor protection systems due to short duration electrical power disturbances.

Torness response was appropriate, station is liaising with national grid who are investigating the incident. Torness have request the output from the investigation once complete and ONR, EDF/NGL and the National Grid have implemented routine stakeholder meetings over and above the routine scheduled meetings to resolve the issue with the aim to prevent further recurrence.

**Torness extreme ambient temperature safety case anomaly – 15th June 2023 –**Torness have entered their safety case anomalies process as part of ongoing work to define the “high extreme ambient temperature hazard” at station that the current safety case stipulates. This is in line with the EDF/NGL fleet wide approach being undertaken to ensure essential equipment is substantiated, taking account of potential future climate conditions.

# 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 take a range of enforcement actions, to include issuing an Enforcement Notice.

* The following LIs, Enforcement Notices and Enforcement letters have been issued during the period:

None issued in this period.

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

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Type | Ref. No. | Description |
|  |  |  |  |
|  |  |  |  |
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|  |  |  |  |

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

# News from ONR

For the latest news and information from ONR, please read and subscribe to our regular email newsletter ‘ONR News’ at [www.onr.org.uk/onrnews](http://www.onr.org.uk/onrnews).

# Contacts

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