



HM Nuclear Installations Inspectorate

British Energy Generation Ltd - Heysham Power Stations

Local Community Liaison Council Report

Quarterly Report for 1 July 2007 to 30 September 2007

Foreword

This report is issued as part of the Health and Safety Executive's commitment to make information about inspection and regulatory activities relating to the above site available to the public. It is for distribution to members of the Heysham Power Stations' Local Community Liaison Council (LCLC) and covers activities associated with the regulation of safety at Heysham 1 & 2 Nuclear Power Stations. These reports are distributed quarterly and are also available on the HSE's web site at <http://www.hse.gov.uk/nuclear/lc/index.htm>. Site Inspectors of HM Nuclear Installations Inspectorate (NII) attend LCLC meetings and will respond to questions raised there by members of the LCLC. Any other person wishing to enquire about matters covered by this report may contact the HSE's Nuclear Directorate on 0151 951 3484/3290.

**Nuclear Directorate
Health and Safety Executive
Redgrave Court
Merton Road
Bootle
Merseyside
L20 7HS
Inspections**

The Nuclear Installations Inspectorate (NII) Site Inspectors and other inspectors made inspections at Heysham on the following dates during the quarter:-

Heysham 1		Heysham 2
3, 5, 10, 11, 17 & 23	July 2007	10 & 11
None	Aug 2007	None
14, 18, 19, 24, & 26	Sept 2007	12, 13, 14, 19 & 20

Routine Matters

Inspections at Site: Inspections are undertaken at site as part of the process for monitoring compliance with:

- (i) the conditions attached by HSE/NII to the nuclear site licence;
- (ii) the Health and Safety at Work etc Act (HSWA) 1974 and
- (iii) regulations made under the HSWA for example the Ionising Radiations Regulations 1999 and the Management of Health and Safety at Work Regulations 1999.

This entails monitoring licensee's actions on the site in relation to incidents, operations, maintenance, projects, modifications, safety case changes and any other matters which 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 on site covered:

- a. Examination, Maintenance, Inspection and Testing.
- b. Management of operations including control and supervision.
- c. Staff training and qualifications.
- d. Operating Rules and Instructions.
- e. Plant modifications.
- f. Periodic Safety Review.
- g. Periodic Shutdown.
- h. Emergency preparedness.
- i. Incidents on the site.
- j. Management of Change.
- k. Industrial Safety.

In general the arrangements made and implemented by the stations in response to safety requirements were deemed to be adequate in the areas inspected. However, where improvements were considered necessary, satisfactory commitments to address the issues were made by or are being sought from the licensee, and the site inspectors will monitor progress during future visits. Where necessary, formal regulatory intervention action may be taken to ensure that appropriate remedial measures are implemented to reasonably practicable timescales.

Heysham 1 Periodic Shutdown of Reactor 1. Reactor 1 returned to service on 26 August following the successful completion of its scheduled three yearly Periodic Shutdown. NII inspectors examined the adequacy of such aspects of the outage as: the integrity of the steel primary pressure boundary; examination of the prestressed concrete pressure vessel; the inspection and radiographic examination of boiler closure units (BCUs); and maintenance of the electrical and mechanical systems. Specialist inspectors also examined the arrangements for radiological protection, quality assurance and industrial safety. Site inspection activities included control of modifications, progress with plant defects and industrial safety. Prior to NII granting consent for return to service, NII's Superintending Inspector accompanied the site inspector on a tour of the plant and met with station personnel to discuss the plant's state of readiness to operate for a further three years. At the meeting the Station Director provided a commitment to address a number of issues before returning the unit to service. Heysham 1 subsequently addressed these and on 2 August NII granted its consent for reactor 1 to return to service.

Heysham 2 Annual Review of Safety. NII and Station held the annual safety review meeting on 20 September 2007 to review the station's last period of operation, discuss plans for the period ahead and to progress any outstanding safety issues. Prior to the meeting the NII team inspected various parts of the plant. The Station gave commitments to making enhancements in certain areas with a view to improving its safety performance, these were subsequently confirmed in a letter from NII to the Station Director, which included items such as reducing work backlogs in respect of safety related plant.

Non- Routine Matters

Licensees are required to have arrangements to respond to non-routine matters and events. NII inspectors judge the adequacy of the licensee's response including actions taken to implement any necessary improvements. Matters of particular note considered during the period include the following:

Heysham 1 & 2 Maintenance Training Centre.

September saw the opening of a newly constructed maintenance training centre for use by both stations' personnel. This is part of an ongoing BE commitment to enhancing its arrangements for staff training and provides practical hands-on facilities in a safe environment.

Heysham 1

The station reported no nuclear reportable events during this quarter. However, the site reported the following industrial safety incidents in accordance with relevant statutory provisions.

Passing Valve in Sulphuric Acid Dosing Plant. On 2 July the station reported that personnel working at the water treatment plant (WTP) detected an acrid smell and upon investigation identified the source as sulphuric acid discharging into an open channel drain. Staff safely isolated the source of the acid, evacuated the area and informed the duty Emergency Controller. The station declared a Site Incident, instructed all staff to muster and accounted for all 629 staff within 45 mins. The station set up the Emergency Control Centre and called the emergency services to site. No personnel were injured. My investigation concluded that the event was caused by a passing valve that resulted in the unplanned transfer of concentrated sulphuric acid from its storage tank to a bulk effluent sump via an engineered route. The prompt isolation of the acid storage tank halted the transfer. No personnel were exposed to the acid. I judge that the station's decision to declare a site incident was appropriate and the subsequent muster helped secure the safety of all personnel. The station has attributed the incident to the use of the wrong valve diaphragm and has taken the appropriate corrective action.

Scaffolder Fall From Height. Just before midnight on 19 July 2007 a Capes employee striking scaffold fell more than 12 m landing on a lower scaffold platform and sustained injuries to both legs. Lancashire Fire & Rescue and Ambulance services attended site and assisted Capes' and station personnel to recover the casualty to safe location before moving him to Royal Lancashire Infirmary at approximately 01:30. The NII Site Inspector and a specialist industrial safety inspector attended the station on 21 July to conduct a preliminary investigation. This investigation established that the injured party is an advanced scaffolder who conducts scaffold inspections. There was some evidence of poor working practices but, in the absence of any witnesses to the fall, the investigation was unable to establish why the injured party was not secured by a safety harness in line with the contractor's strict safety policy. The investigation did not find any evidence that any other party was involved in, or responsible for, this accident. The HSE has met with the scaffolder's employer to discuss appropriate corrective action and does not intend to take enforcement action.

Heysham 2

Unplanned Reactor Shutdown. In early August staff were performing maintenance on an electrical inter-connector; during the work they inadvertently tripped a switch that in turn caused one of the four quadrants on reactor 7 to be disabled. Soon after the reactor automatically shut itself down because of high local reactor coolant gas temperatures. An unforeseen consequence of this event was that the boiler in the quadrant over-filled with water, some of which eventually found its way onto the reactor building roof. Station instigated its event recovery arrangements and systematically inspected and repaired the affected plant over a period of 3 weeks. Thereafter a safety case was produced to justify restart of the reactor. Investigation into the circumstances surrounding the human performance aspects of this event have been furnished to NII. Station has since introduced a team to enhance the implementation of human performance improvement tools for all staff, NII will monitor the effectiveness of this initiative.

Improvement Notice (IN). In June 2006 NII issued an IN relating to the adequacy of maintenance of dampers designed to prevent the potential propagation of fires between compartments or rooms on Station. The work on 277 such dampers was completed within the timescales specified on the IN (31 August 2007) and the new maintenance arrangements should assist in facilitating reliable operation of these nuclear safety related dampers should they be called upon in future.

Regulatory Activities

Under Health and Safety legislation NII Site Inspectors, and other HSE Inspectors, may issue formal documents to ensure compliance with regulatory requirements. Under nuclear site licence conditions NII issues regulatory documents, which either permission an activity or requires some form of action to be taken; these are collectively termed Licence Instruments (LI). In addition inspectors may issue enforcement notices to secure improvements to safety.

Three LI were issued to Heysham during the quarter: -

LC 535 on 27 June - Agreement to refurbishment of Heysham 1's ECW Buried Cast Iron Seawater Cooling Pipework.

LC 536 on 2 August - Consent to the Start Up of Heysham 1 reactor 1 following its 3 yearly Periodic Shutdown.

LC 537 on 18 September - Agreement to replacement of Heysham 1's Reactor Safety Circuits Temperature Rate Trip Unit Equipment.

No enforcement notices were issued during the reporting period.