



HM NUCLEAR INSTALLATIONS INSPECTORATE

BRADWELL NUCLEAR POWER STATION

LOCAL LIAISON COMMITTEE REPORTS

QUARTERLY REPORT FOR 01 October to 31 December 2004

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 Bradwell Power Station's Local Community Liaison Council and covers activities associated with the regulation of safety at Bradwell Nuclear Power Station. These reports are distributed quarterly. Site Inspectors of HM Nuclear Installations Inspectorate normally attend LCLC meetings and will respond to any questions raised there or subsequently by members of the LCLC. Any other person wishing to inquire about matters covered by this report should contact the HSE, Nuclear Safety Directorate Information Centre on 0151 - 951 - 4103.

This report will be put onto the HSE website at: <http://www.hse.gov.uk/nsd/nsdhome.htm>
- under the heading: Local Liaison Committee Reports.

1. Inspections

1.1 Bradwell was visited for inspections, meetings and investigations on three occasions during this quarter, the inspections containing both a routine element and a reactive element. The visits were made on the following dates:-

26 – 28 October 2004

15 – 18 November 2004

06 – 08 December 2004

In addition to the site inspector's planned inspection activities, a number of additional activities were carried out. The main thrust in this period has been concerned with Bradwell's implementation of an improvement programme in order to return to defuelling operations. Bradwell's Periodic Safety Review (PSR), which is required by the nuclear site licence under Licence condition 15, has been assessed by HMNII and a report of that assessment is attached to this report.

2. Routine Matters

2.1 Routine Inspections

Routine inspections carried out in against the following licence Conditions in this quarter;

- 11 Emergency arrangements
- 15 Periodic safety review
- 18 Radiation Protection
- 23 Operating Rules
- 24 Operating Instructions
- 36 Control of organisational change

The results of these inspections showed Bradwell's arrangements made under these licence conditions to be generally adequate. Where any minor deficiencies were identified, improvements were agreed with the station.

2.3 Meetings

A Local Community Liaison Committee meeting was attended during this quarter.

2.4 Periodic safety review

Licence Condition 15 requires Bradwell to undertake a periodic and systematic review of safety cases. The outcome of the Bradwell PSR was the production of a comprehensive safety case for the reactors and radioactive waste facilities, the case being consistent with modern standards for nuclear power plant. A number of plant modifications were carried out, these primarily addressing the requirement to ensure that the reactors could not be repressurised or achieve criticality at any point in the future. Modifications were also carried out to verify that all fuel had been removed from the reactors and, ultimately, from the site. Post-trip cooling of the reactors was shown to adequately supplied by existing plant and that plant modification or the

building of new plant could not be justified. The minimal cooling requirements once decay heat had fallen to a low level and the long time available to commission alternative cooling plant in the event of plant failure meant that the installed plant was adequate and the position regarding reactor cooling was ALARP. A new safety case for the radioactive waste systems has been prepared against the modern standard.

The PSR has, therefore, provided a comprehensive review of the Station safety case and underwrites the operation of the plant for the next 10 years. A short report of HMNII's assessment of the Periodic safety Review is attached as an Appendix to this report.

3. Non-Routine Matters

Follow up inspections were carried out against several areas where previous inspections had identified deficiencies in the station's arrangements. These inspections were carried out in the following areas;

- Control and use of lifting equipment
- Production and implementation of risk assessments
- Station Improvement Programme
- Licence Condition 32 – Accumulation of radioactive waste
- Testing of portable electrical equipment.

Progress in these areas was monitored and, with the exception of risk assessments, seen to be satisfactory and to programme. Risk assessment is dealt with below under Regulatory activities.

4. Regulatory Activities

4.1 Licence Instruments

There was one Licence Instrument issued during the period, No. 500. This permitted the introduction on to the station of new operating rules. These new rules better reflect the safety requirements for a nuclear reactor which has been shut down for over 600 days. This Licence Instrument was issued following assessment by HMNII of Bradwell's justification for this project and inspections on the site.

4.2 Risk assessment

An inspection of Bradwell's system for producing and implementing risk assessments on 26 January 2004 found severe deficiencies in the station's systems. The findings were presented to the Lead Team on 27 January followed up by a letter (BWA70673) on 05 February. The station produced a programme to complete this by August 2004.

A follow up inspection found that the programme of work has not been completed. It was concluded that these risk assessments are not suitable and sufficient as required by Reg. 3 of the Management of Health & Safety at Work Regulations 1999. As such, an Improvement Notice was issued against the station's arrangements made in compliance with this legislation. The station was required to implement improvements by 01 March 2005.

4.3 Investigation into leak from sump.

The HMNII part of the joint investigation into the leak of active liquor from the sump in a decontamination bay was completed. It was concluded that the station had done all that is reasonably practicable to prevent any further leaks and that no further regulatory action from HMNII was merited. However, the Environment Agency continues to investigate possible breaches of legislation under its jurisdiction.

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10 January 2005

APPENDIX 1 TO QUARTERLY REPORT 01 October – 31 December 2004

The Bradwell Periodic Safety Review 2002

Nuclear Site Licence Condition (LC) 15 requires the licensee to carry out a periodic review of the site safety case. For the Magnox stations these reviews have been carried out at 10-year intervals, the review underpinning operation for the subsequent 10 year period.

The cessation of power generation at Bradwell Power Station coincided with the end of the 10 year period of operation underwritten by the Periodic Safety Review (PSR) approved by HMNII in March 1992. Bradwell submitted this PSR in 2002 to cover the work to be carried out in defuelling and decommissioning the power station

The Health and Safety Executive's Nuclear Installations Inspectorate (HMNII) has completed an independent assessment of the Periodic Safety Review (PSR) undertaken by Magnox Electric plc for the Bradwell nuclear power station. On the basis of this assessment and the safety improvements Magnox Electric has made at Bradwell, HMNII has concluded that there is an adequate basis to justify operations at Bradwell to continue for the next ten years. It should be noted that by September 2006 it is expected that there will be no nuclear fuel remaining on the Bradwell site thus 98% of the hazard will have been removed.

A PSR is required to satisfy HMNII that the site remains adequately safe for operations to continue. Topics addressed by these reviews have traditionally included criticality, reactor pressure circuit and internals, shutdown cooling, electrical systems, defuelling, fault studies, probabilistic safety assessment, human factors. Internal and external hazards and radioactive waste management. Due to the fact that Bradwell is undergoing final defuelling and decommissioning, some of these topics are not as important, for example, at present, there is no possibility of a criticality.

Safety improvements already assessed by HMNII and implemented by Bradwell in order to carry out final defuelling of the reactors have been taken into account in the PSR, these primarily addressing the requirement to ensure that the reactors could not be repressurised or achieve criticality at any point in the future. The plant involved in defuelling the reactors has also been modified to make it more reliable. Modifications were also carried out to verify that all fuel had been removed from the reactors and, ultimately from the site.

In the future at Bradwell, with ongoing decommissioning, the safety of the management of radioactive waste will become more important. Some work was carried out regarding this topic as part of the PSR but Magnox Electric has now produced a revised radioactive waste management safety case. HMNII is assessing this case separate to the PSR.

The PSR has, therefore, provided a comprehensive review of the station safety case, and this, together with the revised radioactive waste management safety case, will continue to underwrite relevant operations at Bradwell for the next ten years.