Office for Nuclear Regulation (ONR)
Quarterly Site Report for
Hinkley Point B Power Station

Report for period 01 October 2015 – 31 December 2015

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 Site Stakeholder Group and are also available on the ONR website (http://www.onr.org.uk/llc/).

Site inspectors from ONR usually attend the Hinkley Point Site Stakeholder Group meetings 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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1 INSPECTIONS

1. The ONR nominated site inspector made inspections on the following dates during the quarter:

   - 1 – 2 October.
   - 6 – 8 October.
   - 17 – 19 November.
   - 1 – 3 December.

2. In addition, ONR specialist inspectors undertook inspections on the following dates during the quarter:

   - 6 - 7 October (radioactive waste inspection).

2 ROUTINE MATTERS

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).
   - Regulations made under HSWA74, for example the Ionising Radiations Regulations 1999 (IRR99) and the Management of Health and Safety at Work Regulations 1999 (MHSWR99).

4. The inspections entail monitoring 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, inspections of Hinkley Point B covered the following:

   - Incidents on the site.
   - Emergency arrangements.
   - Commissioning.
   - Control and supervision of operations.
   - Safety mechanisms, devices and circuits.
   - Examination, inspection, maintenance and testing.
   - Accumulation of radioactive waste.
   - Disposal of radioactive waste.
   - Leakage and escape of radioactive material and radioactive waste.
   - Meeting of the Emergency Planning Consultative Committee.

6. These inspections were carried out against nine licence conditions.

7. In addition, the following activities were undertaken:

   - **System based inspections**: One system based inspection (SBI) was carried out during the period (heating and ventilation systems). SBI involve scrutiny of the safety case and supporting documentation to determine the adequacy of the implementation of the licensee's arrangements as part of licence condition compliance. These inspections are generally undertaken with the support of

specialists within ONR or external support contractors (on this occasion it was a joint inspection with EDF Nuclear Generation Ltd.'s (NGL) Independent Nuclear Assurance team). The inspections are informed through a review of the safety case (including supporting references and records), discussions with station specialists, plant inspection, and sampling of documents and records. We concluded that the arrangements and their implementation associated with the heating and ventilation systems met the requirements of the safety cases which were judged to be satisfactory.

- **COMAH (Control of Major Accident Hazards):** a COMAH inspection was carried out. COMAH applies mainly the chemical industry, but some nuclear sites qualify under the regulations if threshold quantities of some substances are stored. The inspection did not reveal anything of concern but a number of enhancements to fire resistance in bunding for flammable liquids, repairs to the bases of bulk fuel tanks and management of ageing plant were discussed.

- **Conventional health & safety:** A review of conventional health and safety matters was carried out. This included a recent event on site that resulted in the partial amputation of an operator's finger (detail below), lifting operations, slips, trips and falls, working at height and vehicle movements on the site.

- **Information exchange meetings included discussion on**
  - progress with the new nitrogen plant
  - unplanned trip of reactor 3
  - gas turbine fuel oil tanks
  - performance of turbine alternator 7
  - hot standpipes
  - pressure systems safety regulations
  - leakage of pond water into the active effluent treatment plant
  - repairs to the dump condenser
  - investigation into a control rod that failed to fully insert during the last Reactor 3 trip,
  - loading of super articulated control rods,
  - an event at the buffer store resulting from a pressure imbalance on an interlock,
  - station performance in 2015
  - preparations for the Reactor 3 statutory outage
  - Review of the ONR issues database..

8. Details of these inspections can be found in the Hinkley Point B Intervention Reports located at http://www.onr.org.uk/civil-nuclear-reactors/operating-reactors.htm

9. ONR judged the arrangements made and implemented by the site in response to safety requirements to be at least adequate in the areas inspected.

10. However, where improvements were considered necessary, the licensee made satisfactory commitments to address the issues, and the ONR nominated site inspector will monitor progress during future visits. Where necessary, ONR will take formal regulatory enforcement action to ensure that appropriate remedial measures are implemented to reasonably practicable timescales.

3 NON-ROUTINE MATTERS

11. 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. Two non-routine matters arose in the period:

- An operations engineer was checking the position of a ventilation damper in the Combined Radioactive Waste Disposal (CRAWD) building, when one of his fingers caught the edge of a bolt on a ventilation housing, causing serious injury to his finger and resulting in partial amputation. NGL has commenced an internal investigation. The accident was reported to ONR and a follow up investigation is planned.
- Graphite keyway root cracking. ONR was made aware in October that a type of age-related cracking had been discovered in three bricks of the graphite core of Hunterston B reactor 3, during routine inspections as part of its periodic shutdown. This type of cracking is an anticipated phenomenon that has been predicted by detailed analysis and substantial testing carried out by the licensee and was also discovered in the core of Reactor 4 in 2014. The implications for Hinkley Point B are currently being assessed.

4 REGULATORY ACTIVITY

12. ONR inspectors 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' (LI's), but can take other forms. In addition, inspectors may issue Enforcement Notices to secure improvements to safety. Two licence instruments were issued in the period:

- LI 549: Agreement to Extension of Hinkley Point B Reactor 3 Operating Period by 47 days.
- LI 550: Agreement to suspension of approved operating rule under Licence Condition 23(6) relating to fuel stocks held on site.

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

14. Information specific to Hinkley Point B can be found at http://www.onr.org.uk/sites/hinkley-point-b.htm

5 NEWS FROM ONR

15. **Chief Executive:** Adriènne Kelbie joined ONR as Chief Executive on 18 January 2016. Previously, Adriènne was the Chief Executive of the Disclosure and Barring Service, and prior to this had a varied career including periods as Deputy Chief Executive in a local authority and as Director of Operations responsible for national and international funding at the Big Lottery Fund.

16. **Chief Nuclear Inspector:** ONR is currently recruiting for its Chief Nuclear Inspector. The Chief Nuclear Inspector has the key role in providing assurance on the effectiveness of the UK's nuclear regulatory system to the ONR Board, ministers, licensees and the British public and will represent ONR nationally and internationally. The closing date for applications was Sunday 17 January 2016 and the recruitment campaign has now progressed to the next stage. Further updates on the recruitment campaign will be published on our website www.onr.org.uk.

Regulation Matters magazine

17. Insight into ONR's work as an independent regulator of the nuclear industry can be found in Regulation Matters. This quarterly online publication (http://www.onr.org.uk/regulation-matters.htm) reports on the key themes and developments in each of ONR's regulatory programmes and provides an update about

the on-going changes at ONR. For the latest news and updates from ONR, you can also visit the website and sign up for our e-bulletin: http://www.onr.org.uk/index.htm.

6 CONTACTS

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