


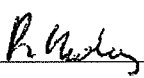
BRADWELL SITE

SUMMARY OF ENVIRONMENTAL MANAGEMENT SYSTEM

BRAD/EN/REP/100

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PURPOSE

The purpose of this document is to provide additional information for the application to the Environment Agency (EA) for an Environmental Permit Variation of EPR/DP3127XB in support of the alternative discharge route from Bradwell Site. The application form Part C2, section 3d requires a summary of the site's Environmental Management System.

1. SCOPE

This document summarises the Environmental Management System (EMS) for Bradwell Site. It includes:

- The control measures that manage the site's impact on the environment;
- The environmental monitoring arrangements to ensure that mitigation measures are effective;
- The arrangements to ensure compliance with ISO 14001; and
- The policy and management review procedures.

2. INTRODUCTION

Magnox operates an integrated Quality Management System that addresses the management of the business including Environment, Radiological Safety, Conventional Safety, Nuclear Safety and Security.

The EMS for Bradwell Site is applied through the Plan-Do-Check-Act methodology. To ensure the EMS is implemented effectively, the following processes have been adopted and applied:-

- a) Environmental Policy;
- b) Planning;
- c) Implementation and Operation;
- d) Checking; and
- e) Management Review and Independent Validation.

3. SUMMARY OF ENVIRONMENTAL MANAGEMENT SYSTEM

3.1 Environmental Policy

The Environmental, Health and Safety (EH&S) policy provides a declaration of intent, with a commitment to ensure that site activities adequately address environment issues and are consistent with the nature, scale and environmental impacts. Copies of the policy are made available to all employees and contractors, and are distributed to the Local Council Liaison Committee (LCLC) members and available on request from members of the public.

3.2 Planning

3.2.1 Environmental Aspects

All site activities are assessed to evaluate their effect on the environment, and those that are notable are included in the Environmental Aspects Register. The aspects are each assessed by determining category, calculating the significance of each aspect and considering the likelihood of occurrence. The results constitute the baseline data that is used for the future setting and evaluation of targets and objectives. Any potential new aspects are identified in the decommissioning project/plant modification process and Best Practical Environmental Option Studies. The Bradwell Register of Environmental Aspects is amended as necessary, and a significance review is carried out at least biennially.

3.2.2 Non-Radiological Environmental Legal Requirements

Bradwell maintains a legislation database containing legislation applicable to site. Each piece of legislation is individually assessed, applied and reviewed in accordance with Management Control Procedure (MCP) BRAD/MCP/17/004 Chapter 5 – Environmental Legislation Compliance.

3.2.3 Environmental Objectives and Targets

The compilation of environmental objectives and targets is known as the Environmental Management Programme. This serves as an environmental action plan. The Programme originates from various sources including the environmental policy, significant Environmental Aspects, environmental feedback forms and the Environmental Legislation review. The Programme is reviewed quarterly for progress, and an annual review of the environmental objectives and targets is carried out as part of the Management Review process.

3.3 Implementation and Operation

3.3.1 Resources, Roles, Responsibility and Authority

The Environment, Health, Safety, Security and Quality (EHSS&Q) Manager is the Environmental Management Representative, and is responsible for the maintenance of the EMS and the requirements of ISO 14001, as well as formally reporting on environmental matters to the Site Lead Team. The site has a dedicated Environment Team, which deals with environmental issues and ensures that the Company's Environment, Health & Safety Policy is adhered to. Key roles and responsibilities in the implementation of environmental management are defined in the respective Post Profiles within the Department, and the Department Manager is responsible for allocating sufficient resource.

3.3.2 Competence, Training and Awareness

Staff performing specific tasks are assessed and appointed in order to manage significant environmental aspects. For example, an Environmental Specialist undergoes rigorous assessment on the suitability to become a provider of expert Non-Radiological Environmental Advice. Each post on site has a training profile, which specifies the training requirements and the training modules for either general or specific environmental training. Regardless of post, all staff and contractors receive environmental awareness training, which includes the correct usage of spill kits and the importance of correct waste identification and segregation. In addition, all staff receive specific emergency preparedness training, which includes response requirements and environmental emergency arrangements for both nuclear and non-nuclear.

3.3.3 Communication

The site reports on environmental performance through company reports and the EA Nuclear Sector Plan. The site provides environmental progress reports annually to the LCLC. The site uses the Company communications standard S-335, which covers internal and external communications, environmental complaints, concerns and requests for environmental information.

3.3.4 Documentation and Control of Documents

The Operational Quality Assurance Programme and the Quality Management System (QMS) are used as a framework to document the requirements of ISO 14001. The Quality System is managed in accordance with ISO 9001. All QMS documentation is controlled in agreement with site BRAD/MCP/3, 'Document Control', which sets out the requirements for periodic review, availability, withdrawal and archiving.

3.3.5 Operational Control

Operations and activities which will impact on environmental aspects are assessed appropriately, and included on the Environmental Aspects Register. Procedures are established within the Work Control System to differentiate between tasks which must be done by continuous consultation to documentation and tasks where the appropriate documentation is available at a specific location. All goods and services are procured in accordance with Company procedures that require supplier environmental integrity assessments.

3.3.6 Emergency Preparedness and Response

Contingency plans are adopted for emergency situations to control significant operational activities, and these plans are agreed with the appropriate external organisations, to give assurance of preparedness in the event of an emergency, including nuclear, fire, chemical, security, medical and flooding. Regular emergency exercises are held to test the process.

3.4 Checking

3.4.1 Monitoring and Measurement

Key characteristics of the site's operations that can have a significant environmental impact are monitored to ensure they conform to environmental objectives and targets. All monitoring equipment is managed in accordance to BRAD/MCP/22, 'Control and Calibration of Measuring and Test Equipment'. Statutory monitoring includes routine measuring of point source discharges and environmental survey. The monitoring and measuring programme is regularly reviewed to ensure that all relevant areas are addressed, including significant environmental aspects and the Nuclear Sector Plan. An audit programme checks compliance with procedures and Regulations.

3.4.2 Non-Conformity and Corrective and Preventative Action

Any environmental non-compliance issues are reported and investigated to determine root causes. Corrective and preventative actions can then be monitored through the Event Action Tracking System, an improvement plan or mandatory assessment.

3.4.3 Control of Records

Arrangements are in place to identify and subsequently retain all documents and records required by statutory, regulatory, ISO 14001 and other requirements. BRAD/MCP/03 outlines the details for Document Control.

3.4.4 Internal Auditing

Assessments and procedural reviews by qualified auditors are conducted as required to measure environmental performance against environmental standards, regulations, policies, objectives and targets. Site inspections are routinely performed to identify potential environmental concerns, and to confirm that required control procedures and equipment are functioning correctly.

3.5 **Management Review and Independent Validation**

3.5.1 **Management Review**

The Environment Team regularly review the EMS including environmental improvement activities, the Register of Environmental Aspects and the Environmental Management Programme. The results of these reviews are reported to the Site Lead Team and the Head of Environment at the annual EHSS&Q Management Review meeting, which is chaired by the EHSS&Q Manager, who is the nominated Environmental Management Representative.

3.5.2 **Independent Validation**

The site is routinely audited and inspected by external verifiers to ensure that the EMS is robust and conforms to ISO 14001. A full external audit is performed once every three years, with surveillance every 6 to 9 months.

4. **REFERENCES**

BRAD/ENDI/17/007 – Register of Environmental Aspects

POL-008 – Environment, Health & Safety Policy

British Standards (2004), BS EN ISO 14001:2004 Environmental Management Systems – Requirements with guidance for use

Centre for Environment, Fisheries and Aquaculture Science, Radioactivity in Food and the Environment, 2011

Environment Agency (April 2010), Horizontal Guidance Note H6 – Environmental Management Systems

BRAD/MCP/03 – Document Control

BRAD/MCP/22 - Control and Calibration of Measuring and Test Equipment

BRAD/MCP/17/004 Chapter 5 – Environmental Legislation Compliance

S-335 – Communications Standard