

Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Magnox Limited

Treatment facility serving

Bradwell Site

Magnox Limited

Bradwell-On-Sea

Southminster

Essex

CM0 7HP

Permit number

EPR/DP3127XB

Treatment facility serving Bradwell Site

Permit Number EPR/DP3127XB

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

Bradwell Nuclear site is located at the mouth of the River Blackwater. The power station is now in the process of being decommissioned and most of the plant and buildings on site are being dismantled.

The containers that the nuclear fuel were placed in were transported away from the site. The protruding parts of the containers were cut off to improve packing efficiency and are known as Fuel Element Debris. It is this FED that is being dissolved in an acid solution which is then treated before being discharged to the Blackwater Estuary.

The permit is for the discharge of 30m³/day of effluent prior to 50:1 dilution with seawater over 30minutes each day during the first 90 minutes of the ebb tide. The discharge is for a 12 month period.

The status log of the permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit

Description	Date	Comments
Application EPR/DP3127XB/A001	Duly made 04/08/2011	
Permit determined EPR/DP3127XB	01/12/2011	Permit issued to Magnox Limited

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number
EPR/DP3127XB

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010

Magnox Limited (“the operator”),

whose registered office is

Berkeley Centre

Berkeley

Gloucestershire

GL13 9PB

company registration number **2264251**

to operate a water discharge activity at

Bradwell Site

Magnox Limited

Bradwell-On-Sea

Southminster

Essex

CM0 7HP

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Christopher Hall	1st December 2011

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").

2.2 The site

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in green and the discharge shall be made at the point marked on the site plan at schedule 7 to this permit and as listed in table S3.2 (discharge points).

2.3 Operating techniques

- 2.3.1 (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- (b) If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan specified in schedule 1, table S1.2 or otherwise required under this permit, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

2.4 Pre-operational conditions

2.4.1 The activities shall not be brought into operation until 1st March 2012.

3 Emissions and monitoring

3.1 Emissions to water

3.1.1 There shall be no point source emissions to water except from the sources and emission points listed in schedule 3.

3.1.2 The limits given in schedule 3 shall not be exceeded.

3.1.3 Unless the concentration is specifically regulated by condition 3.1.2 and appears in table S3.1 of this permit, the concentration of a List 1 Substance (as defined in the Dangerous Substances Directive 2006/11/EC) and a Priority Substance, (as defined in the River Basin Districts Typology, Standards and Groundwater threshold values (Water Framework Directive)(England and Wales) Directions 2010, Part 5 of Schedule), in the discharge shall not exceed that specified for that substance in the "Priority Substances and List 1 General Standards" in schedule 3B of this permit.

3.1.4 Unless the concentration is specifically regulated by condition 3.1.2 and appears in table S3.1 of this permit, the discharge shall not contain a concentration of any List 2 Substance (as defined in the Dangerous Substances Directive 2006/11/EC) or Specific Pollutant (as defined in the River Basin Districts Typology, Standards and Groundwater threshold values (Water Framework Directive)(England and Wales) Directions 2010, Part 4 of Schedule) such as to cause any relevant Environmental Quality Standards, set out in DOE Circular 007/89, SI 1997 No 2560 and SI 1998 No 389 or River Basin Districts Typology, Standards and Groundwater threshold values (Water Framework Directive)(England and Wales) Directions 2010, Part 4 of Schedule, to be exceeded in the receiving water.

3.2 Emissions of substances not controlled by emission limits

3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan;
- (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Monitoring

- 3.3.1 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.2 and S3.3 unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

- 4.1.1 All records required to be made by this permit shall:
- (a) be legible;
 - (b) be made as soon as reasonably practicable;
 - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
 - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made.
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.3 Notifications

- 4.3.1 The Environment Agency shall be notified without delay following the detection of:
- (a) any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution;
 - (b) the breach of a limit specified in the permit; or
 - (c) any significant adverse environmental effects.
- 4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

- 4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

- 4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "without delay", in which case it may be provided by telephone.

Schedule 1 - Operations

Table S1.1 Activities	
Description of activity	Limits of specified activity
Discharge of trade effluent consisting of treated dilute nitric acid via outlet 1	<p>The discharge will take place over 30 minutes each day during the first 90 minutes of the ebb tide for a 12 month period. The treatment process comprises neutralisation, filtration, adsorption and ion exchange.</p> <p>A carrier flow of seawater in the siphon tank will dilute the effluent by a factor of 50:1 before discharge to the estuary and ensure complete effluent displacement from within the outfall pipe.</p>

Table S1.2 Operating techniques		
Description of documentation	Parts	Date Received
Risk Assessment	Supplied with the application form	10/08/2011
Non Technical Summary	Supplied with the application form	10/08/2011
Treatment Process	Supplied with the application form	10/08/2011

Schedule 2 - Waste types, raw materials and fuels

Wastes are not accepted as part of the permitted activities and there are no restrictions on raw materials or fuels under this schedule.

Schedule 3 – Emissions and monitoring

Table S3.1 Point Source emissions to water (other than sewer) – emission limits and monitoring requirements						
Discharge source and discharge point ref. & location	Parameter	Limit (including unit)	Reference Period	Limit of effective range	Monitoring frequency	Compliance Statistic
Trade effluent consisting of treated dilute nitric acid	Maximum daily discharge volume	30 m ³ /day	Total daily volume	30m ³ /day prior to dilution of 50:1 with seawater		Maximum
Trade effluent consisting of treated dilute nitric acid	Maximum rate of discharge	16.7 litres per second	Instantaneous (spot sample)	N/A		Maximum
Trade effluent consisting of treated dilute nitric acid	pH	6 to 9	Instantaneous (spot sample)	N/A		Minimum and maximum
Trade effluent consisting of treated dilute nitric acid	Visible oil or grease	No significant trace present	Instantaneous (spot sample)	N/A	N/A	No significant trace

Table S3.2 Discharge points			
Effluent Name	Discharge Point	Discharge point NGR	Receiving water/Environment
Trade effluent consisting of treated dilute nitric acid	Outlet 1	TL 99650 09150	Blackwater Estuary

Table S3.3 Monitoring points			
Effluent and discharge point	Monitoring type	Monitoring point NGR	Monitoring point reference
Trade effluent consisting of treated dilute nitric acid	Effluent sample point	TM 00060 08880	

Schedule 3B –List I General Standards

List I General Standards	
Substance	Limit Total Concentration (ug/l) Surface Waters
Cadmium depending on (Water hardness classes) List 1	0.4
Lead and its compounds	14.4
Mercury and its compounds List 1	0.1
Nickel and its compounds	40

Schedule 4 - Reporting

There is no reporting under this schedule.

Schedule 5 - Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution

To be notified within 24 hours of detection

Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit

To be notified within 24 hours of detection unless otherwise specified below

Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit

Parameter	Notification period

(c) Notification requirements for the detection of any significant adverse environmental effect

To be notified within 24 hours of detection

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Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B - to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 - Interpretation

“accident” means an accident that may result in pollution.

“adverse visible effect” means dead or distressed fish, other animals or plants in the vicinity of the discharge, appreciable deposit of solid material; growth of sewage fungus; or appreciable discolouration

“annually” means once every year.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

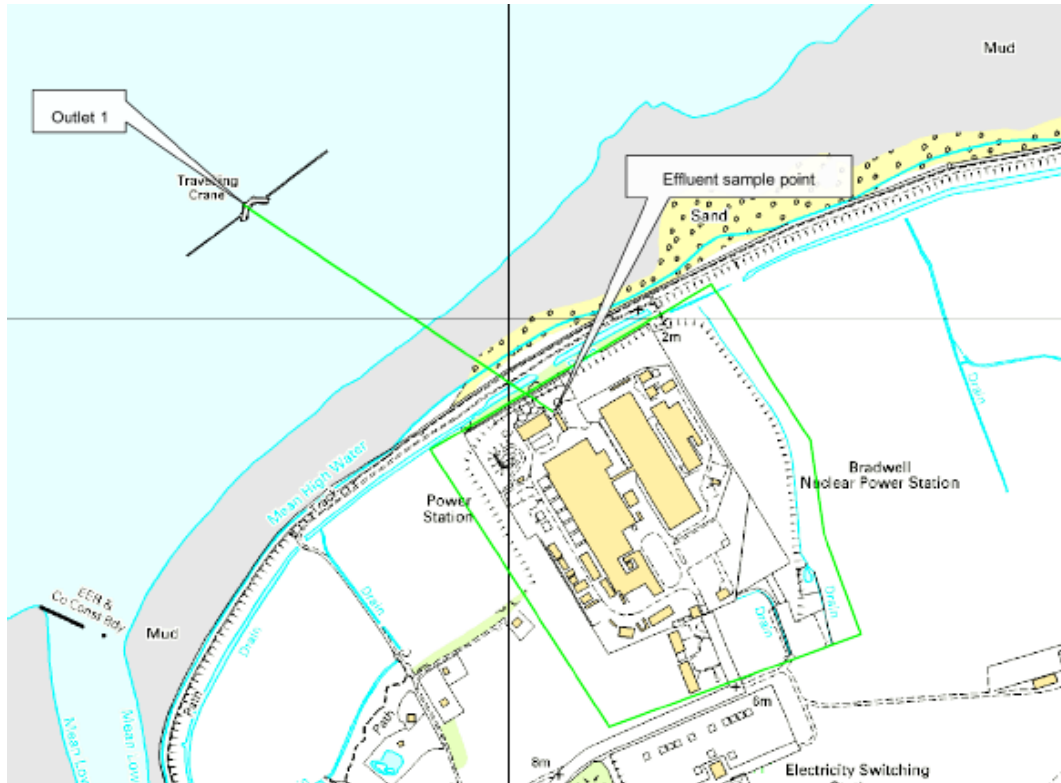
“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission limit.

“groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“year” means calendar year ending 31 December.

Schedule 7 - Site plan



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END OF PERMIT