



**ENVIRONMENT  
AGENCY**

## **Permit with introductory note**

Pollution Prevention and Control (England & Wales) Regulations 2000

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**Ford Motor Company Limited  
Waterton Industrial Estate  
Bridgend  
CF31 3PJ**

Permit number

**BL2548IF**

### **Contents**

<b>Introductory note.....</b>	<b>ii</b>
<b>Permit.....</b>	<b>1</b>
1 General.....	2
2 Operating conditions .....	5
3 Records .....	15
4 Reporting .....	16
5 Notifications.....	17
6 Interpretation .....	19
Schedule 1 - Notification of abnormal emissions .....	21
Schedule 2 - Reporting of monitoring data.....	22
Schedule 3 - Forms to be used .....	23
Schedule 4 - Reporting of performance data .....	24
Schedule 5 - Site Plan.....	25

## Introductory note

### ***This introductory note does not form a part of the Permit***

The following Permit is issued under Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (S.I.2000 No.1973), as amended, ("the PPC Regulations") to operate an installation carrying out activities covered by the description in Section 1.1 A(1) (a) in Part 1 to Schedule 1 of the PPC Regulations, to the extent authorised by the Permit:

Aspects of the operation of the installation which are not regulated by conditions of the Permit are subject to the condition implied by Regulation 12(10) of the PPC Regulations, i.e. the Operator shall use the best available techniques for preventing or, where that is not practicable, reducing emissions from the installation.

Techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

In some sections of the Permit conditions require the Operator to use Best Available Techniques (BAT), in each of the aspects of the management of the installation, to prevent and where that is not practicable to reduce emissions. The conditions do not explain what is BAT. In determining BAT, the Operator should pay particular attention to relevant sections of the IPPC Sector guidance, appropriate Horizontal guidance and other relevant guidance.

A non-technical description of the installation is given in the Application, but the main features of the installation are as follows.

The permit relates to an installation that encompasses only the boiler house at the engine works. It does not include the engine works.

There are five boilers; boilers 1 to 4 have a net thermal input of 12.7 megawatts each and boiler 5, 3.8 megawatts. (An aggregated total of 54.8 megawatts.) The primary fuel is natural gas with gas oil being used as a standby fuel used in case of the natural gas supply being unavailable. The boilers are used to heat water to supply to the engine works. The main releases from the activity are the product of combustion from the boilers (Oxides of carbon, oxides of nitrogen, particulates and sulphur dioxide) which are released to air via 33 metre high chimneys. Boilers 1 to 4 discharge via chimney A1 and boiler 5 via its own chimney A2.

The boiler house supplies High Pressure Hot Water (HPHW) re-circulation system at up to 180°C and a pressure of 1.7 – 2.5 MPa. The system provides heat to the engine works. The HPHW is circulated by distribution pumps and returns to the boiler plant at a temperature of about 130°C and a lower pressure. The pressure in the HPHW system is controlled by the pressurisation unit where a pressure vessel holds a cushion of nitrogen that expands and contracts to maintain the system pressure.

The water for the boiler house and the HPHW system is supplied from either town's water or borehole water (supplied by the local Authority), which is treated in the demineralisation plant before use. As the HPHW system is a closed loop re-circulation system, little top-up water is required. The system and the boilers are only periodically drained for inspection and maintenance.

Blowdown water from the boilers and contaminated waters from bunds and general waste storage areas are discharged to via the wider Ford works system to public sewer. Uncontaminated stormwater is collected in the site drainage system of the wider Ford works before discharging into the River Ewenny via an interceptor.

Note that the Permit requires the submission of certain information to the Agency (see Sections 4 and 5). In addition, the Agency has the power to seek further information at any time under regulation 28 to the PPC Regulations provided that it acts reasonably.

#### Other PPC Permits relating to this Installation

Permit holder	Permit Number	Date of Issue
Not applicable	None	Not applicable

#### Superseded Licences/Authorisations/Consents relating to this installation

Holder	Reference Number	Date of Issue
Not applicable	None	Not applicable

Other activities may take place on the site of this Installation which are not regulated under this Permit or any other PPC Permit referred to in the Table above.

#### Other existing Licences/Authorisations/Registrations relating to this site

Holder	Reference Number	Date of Issue
Not applicable	None	Not applicable

## Public Registers

Considerable information relating to Permits including the Application is available on public registers in accordance with the requirements of the PPC Regulations. Certain information may be withheld from public registers where it is commercially confidential or contrary to national security.

## Variations to the Permit

This Permit may be varied in the future (by the Agency serving a Variation Notice on the Operator). If the Operator itself wants any of the Conditions of the Permit to be changed, it must submit a formal Application. The Status Log within the Introductory Note to any such Variation Notice will include summary details of this Permit, variations issued up to that point in time and state whether a consolidated version of the Permit has been issued.

## Surrender of the Permit

Before this Permit can be wholly or partially surrendered, an Application to surrender the Permit has to be made by the Operator. For the application to be successful, the Operator must be able to demonstrate to the Agency that there is no pollution risk and that no further steps are required to return the site to a satisfactory state.

## Transfer of the Permit or part of the Permit

Before the Permit can be wholly or partially transferred to another person, an Application to transfer the Permit has to be made jointly by the existing and proposed holders. A transfer will be allowed unless the Agency considers that the proposed holder will not be the person who will have control over the operation of the installation or will not comply with the conditions of the transferred Permit. If, however, the Permit authorises the carrying out of a specified waste management activity, the transfer will only be allowed if the proposed holder is also considered to be "a fit and proper person" as required by the PPC Regulations.

## Talking to us

Please quote the Permit Number if you contact the Agency about this Permit.

To give a Notification under Condition 5.1.1, the Operator should use the Incident Hotline telephone number (0800 80 70 60) or any other number notified in writing to the Operator by the Agency for that purpose.

## Status Log

Detail	Date	Response Date
Application BL2548IF	Received 1 December 2003	
Request to extend determination till 1 June 2004	Request dated 17/3/2004	Request accepted 24/3/2004
Request to extend determination till 3 August 2004	Request dated 14/05/2004	Request accepted 20/5/2004
Response to Schedule Notice for additional information	Request dated 28/5/2004	Responses dated: 23/6/2004 and 14/9/2004
Permit determined	19/11/ 2004	

End of Introductory Note.

**Permit**

Pollution Prevention and Control  
Regulations 2000



**ENVIRONMENT  
AGENCY**

## Permit

Permit number  
**BL2548IF**

The Environment Agency (the Agency) in exercise of its powers under Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations (SI 2000 No 1973), hereby authorises **FORD MOTOR COMPANY LIMITED** ("the Operator"),

whose Registered Office is

**Eagle Way,  
Brentwood,  
Essex,  
CM13 3BW**

Company registration number **00235446**


to operate an Installation at

**Bridgend Engine Works  
Waterton Industrial Estate  
Bridgend  
CF31 3PJ**

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

Signed

Date

	19 November 2004
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**Barbara Tate**

Authorised to sign on behalf of the Agency

# Conditions

## 1 General

### 1.1 Permitted Activities

- 1.1.1 The Operator is authorised to carry out the activities and the associated activities specified in Table 1.1.1.

**Table 1.1.1**

Activity listed in Schedule 1 of the PPC Regulations / Associated Activity	Description of specified activity	Limits of specified activity
Section 1.1 A(1) (a) – Combustion Activities	Burning of gas oil or Natural Gas in a boiler to heat water.	Combustion of fuel in boilers 1 - 5
Associated activity	Receipt, storage and handling of fuels including all pipe work, valves fitting etc.	Gas oil delivery area, gas oil storage tank and associated pipework within the installation.
Associated activity	Water treatment of boiler feed water, including the storage of raw materials including water treatment chemicals	From water tank to disposal to Ford's sewer

### 1.2 Site

- 1.2.1 The activities authorised under condition 1.1.1 shall not extend beyond the Site, being the land shown edged with a dotted line on the Site Plan at Schedule 5 to this Permit.

### 1.3 Overarching Management Condition

- 1.3.1 Without prejudice to the other conditions of this Permit, the Operator shall implement and maintain a management system, organisational structure and allocate resources that are sufficient to achieve compliance with the limits and conditions of this Permit.

### 1.4 Improvement Programme

- 1.4.1 The Operator shall complete the improvements specified in Table 1.4.1 by the date specified in that table, and shall send written notification of the date of completion of each requirement to the Agency within 14 days of the completion of each such requirement.

**Table 1.4.1: Improvement programme**

Reference	Requirement	Date
IP1	<p>The Operator shall provide the Agency with detailed written proposals sent to the reporting address for a trials (minimum of three months) using continuous emission monitors and other monitoring equipment, to investigate the performance of one of the 12.7 MWth boilers under various operating conditions i.e.:</p> <ul style="list-style-type: none"> <li>- Fuel: Natural Gas and Gas oil</li> <li>- Thermal Loads</li> <li>- Burner settings</li> </ul> <p>with the view of optimising the burner settings so as to minimise the environmental impact of the releases to air by the establishment of any interrelationships between the variables, in particular any relationships between the concentration of releases of NOx and CO with a view to achieving as a minimum, emission levels of:</p> <ul style="list-style-type: none"> <li>• CO &lt;100 mg/m<sup>3</sup> when fired on Gas oil or fired on Natural Gas</li> <li>• NOx&lt;200 mg/m<sup>3</sup> when fired on Gas oil and &lt;140 mg/m<sup>3</sup> on Natural Gas</li> </ul> <p>The proposed monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring shall have either MCERTS certification or MCERTS accreditation (as appropriate)</p>	30 April 2005
IP2	<p>The Operator shall undertake an analysis of the costs vs. benefit of reducing the sulphur content of the gas oil purchased from &lt;0.2 %S to &lt;0.1 %S and provide a detailed report to the Agency at the reporting address into the findings of the analysis together with any proposals.</p>	31 March 2005
IP3	<p>The Operator shall undertake the trials as proposed in condition IP1 above and agreed with the Agency, and provide the Agency with a detailed report to the reporting address with conclusions as to how they intend to achieve the levels as a minimum the emission limits for NOx and CO within condition IP1</p>	<p>Whichever is the later of:</p> <p>31 March 2006</p> <p>or within 9 months of the written agreement of the Agency of the proposed trial</p>

- 1.4.2 Where the Operator fails to comply with any requirement by the date specified in Table 1.4.1 the Operator shall send written notification of such failure to the Agency within 14 days of such date.

## 1.5 Minor Operational Changes

- 1.5.1 The Operator shall seek the Agency's written agreement to any minor operational changes under condition 2.1.1 of this Permit by sending to the Agency: written notice of the details of the proposed change including an assessment of its possible effects (including waste production) on risks to the environment from the Permitted Installation; any relevant supporting assessments and drawings; and the proposed implementation date.
- 1.5.2 Any such change shall not be implemented until agreed in writing by the Agency. As from the agreed implementation date, the Operator shall operate the Permitted Installation in accordance with that change, and relevant provisions in the Application shall be deemed to be amended.

- 1.5.3 When the qualification "unless otherwise agreed in writing" is used elsewhere in this Permit, the Operator shall seek such agreement by sending to the Agency written notice of the details of the proposed method(s) or techniques.
- 1.5.4 Any such method(s) or techniques shall not be implemented until agreed in writing by the Agency. As from the agreed implementation date, the Operator shall operate the Permitted Installation using that method or technique, and relevant provisions in the Application and the Site Protection and Monitoring Programme, shall be deemed to be amended.

## **1.6 Pre-Operational Conditions**

- 1.6.1 There are no pre-operational conditions

## **1.7 Off-site Conditions**

- 1.7.1 There are no off-site conditions



## 2 Operating conditions

### 2.1 In-Process Controls

- 2.1.1 The Permitted Installation shall, subject to the conditions of this Permit, be operated using the techniques and in the manner described in the documentation specified in Table 2.1.1, or as otherwise agreed in writing by the Agency in accordance with conditions 1.5.1 and 1.5.2 of this Permit.

**Table 2.1.1: Operating techniques**

Description	Parts	Date Received
Application	The response to questions 2.1 and 2.2 given in section 2.1 & 2.2 of the application	1 December 2003
Response to Schedule 4 notice for further information.	Responses to questions 6 - 12	23 June 2004

- 2.1.2 The Permitted Installation shall, subject to the other conditions of this Permit, be operated using the techniques and in the manner described in the Site Protection and Monitoring Programme submitted under condition 4.1.7 of this Permit or as otherwise agreed in writing by the Agency.

### 2.2 Emissions

#### 2.2.1 Emissions to Air, (including heat, but excluding Odour, Noise or Vibration) from Specified Points

- 2.2.1.1 This Part 2.2.1 of this Permit shall not apply to releases of odour, noise or vibration.
- 2.2.1.2 Emissions to air from the emission points in Table 2.2.1 shall only arise from the sources specified in that Table.

**Table 2.2.1: Emission points to air**

Emission point reference or description	Source	Stack Height Metre	Location of emission point
A1/1	Boiler No. 1	33	Stack 1 (containing 4 separate flues) on Figure 2 – Installation Layout in the application
A1/2	Boiler No. 2	33	
A1/3	Boiler No. 3	33	
A1/4	Boiler No. 4	33	
A2	Boiler No. 5	33	Stack 2 on Figure 2 – Installation Layout in the application

- 2.2.1.3 The limits for emissions to air for the parameter(s) and emission point(s) set out in Table 2.2.2 shall not be exceeded.

**Table 2.2.2 : Emission limits to air and monitoring**

Emission point reference	Parameter	Limit (including Reference Period) <sup>1</sup>	Monitoring frequency	Monitoring method
<b>Using Natural Gas as fuel</b>				
A1/1	Carbon monoxide	100 mg/m <sup>3</sup>	6 monthly periodic monitoring	ISO 12039 <sup>(2)</sup>
A1/2				
A1/3	Oxides of Nitrogen (as NO <sub>2</sub> )	250 mg/m <sup>3</sup>	6 monthly periodic monitoring	ISO 10849 <sup>(2)</sup>
A1/4				
A2	Carbon monoxide	100 mg/m <sup>3</sup>	6 monthly periodic monitoring	ISO 12039 <sup>(2)</sup>
	Oxides of Nitrogen (as NO <sub>2</sub> )	175 mg/m <sup>3</sup>	6 monthly periodic monitoring	ISO 10849 <sup>(2)</sup>
<b>Using Gas oil as fuel</b>				
A1/1	Particulates	15 mg/m <sup>3</sup>	Annual periodic monitoring	US EPA method 201A
A1/2	Carbon monoxide	100 mg/m <sup>3</sup>	Annual periodic monitoring	ISO 12039 <sup>(2)</sup>
A1/3				
A1/4	Oxides of Nitrogen (as NO <sub>2</sub> )	350 mg/m <sup>3</sup>	Annual periodic monitoring	ISO 10849 <sup>(2)</sup>
A2	Particulates	15 mg/m <sup>3</sup>	Annual periodic monitoring	US EPA method 201A
	Carbon monoxide	100 mg/m <sup>3</sup>	Annual periodic monitoring	ISO 12039 <sup>(2)</sup>
	Oxides of Nitrogen (as NO <sub>2</sub> )	250 mg/m <sup>3</sup>	Annual periodic monitoring	ISO 10849 <sup>(2)</sup>

Note 1: See Section 6 for reference conditions

Note 2 Where this standard is applied to periodic stack-emission monitoring equipment, it shall be supplemented by a set of work instructions addressing the sampling and quality control procedures. CEN will be producing a standard detailing the requirements and this shall be used when available.

2.2.1.4 Total emissions to air from emission point(s) set out in Table 2.2.1 in any year of a substance listed in Table 2.2.3 should not exceed the relevant limit in that Table.

**Table 2.2.3 Annual limits**

Substance	Limit – kg
No limits have been set	

## 2.2.2 Emissions to water (other than groundwater), including heat, from specified points

2.2.2.1 This Part 2.2.2 of this Permit shall not apply to releases of odour, noise or vibration or to releases to groundwater.

- 2.2.2.2 Conditions 2.2.2.3 - 2.2.2.6 shall not apply to emissions to sewer.
- 2.2.2.3 There are no specific controls imposed on emissions to water in Part 2.2.2 of this Permit.
- 2.2.2.4 No condition applies
- 2.2.2.5 No condition applies
- 2.2.2.6 No condition applies

## Emissions to sewer

- 2.2.2.7 Emissions to sewer from the specified emission points in Table 2.2.7 shall only arise from the source(s) specified in that Table.

**Table 2.2.7 Emission points to sewer**

Emission point reference or description	Source	Sewer
S1 (Point F50 on Figure 5 – Installation drainage Network supplied as part of the application)	Demineralisation plant and other wash down waters from boiler plant building	Ford Motor Company Limited Works sewerage system at Bridgend Engine Works.
S2 (Point F50A on Figure 5 – Installation drainage Network supplied as part of the application)	Blowdown Pit	
S3 (Point F95 on Figure 5 – Installation drainage Network supplied as part of the application)	Bund water from Oil storage tank bund.	

- 2.2.2.8 There are no specific controls imposed on emissions to sewer in this Part of the Permit.
- 2.2.2.9 No condition applies
- 2.2.2.10 No condition applies

## 2.2.3 Emissions to groundwater

- 2.2.3.1 No emission from the Permitted Installation shall give rise to the introduction into groundwater of any substance in List I (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)).
- 2.2.3.2 No emission from within the Permitted Installation shall give rise to the introduction into groundwater of any substance in List II (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)) so as to cause pollution (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)).
- 2.2.3.3 For substances other than those in List I or II (as defined in the Groundwater Regulations 1998 (SI 1998 No.2746)), the Operator shall use BAT to prevent or where that is not practicable to reduce emissions to groundwater from the Permitted Installation provided always that the techniques used by the Operator shall be no less effective than those described in the Application,

## **2.2.4 Fugitive emissions of substances to air**

**2.2.4.1** The Operator shall use BAT so as to prevent or where that is not practicable to reduce fugitive emissions of substances to air from the Permitted Installation in particular from:

- storage areas
- buildings
- pipes, valves and other transfer systems
- open surfaces

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

## **2.2.5 Fugitive emissions of substances to water and sewer**

**2.2.5.1** Subject to condition 2.2.5.2 below, the Operator shall use BAT so as to prevent or where that is not practicable to reduce fugitive emissions of substances to water (other than Groundwater) and sewer from the Permitted Installation in particular from:

- all structures under or over ground
- surfacing
- bunding
- storage areas

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

**2.2.5.2** There shall be no release to water that would cause a breach of an EQS established by the UK Government to implement the Dangerous Substances Directive 76/464/EEC.

## 2.2.6 Odour

2.2.6.1 The Operator shall use BAT so as to prevent or where that is not practicable to reduce odorous emissions from the Permitted Installation, in particular by:

- limiting the use of odorous materials
- restricting odorous activities
- controlling the storage conditions of odorous materials
- controlling processing parameters to minimise the generation of odour
- optimising the performance of abatement systems
- timely monitoring, inspection and maintenance
- employing, where appropriate, an approved odour management plan

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

2.2.6.2 No condition applies

2.2.6.3 No condition applies

## 2.2.7 Emissions to Land

2.2.7.1 This Part 2.2.7 of this Permit shall not apply to emissions to groundwater.

2.2.7.2 No emission from the Permitted installation shall be made to land.

2.2.7.3 No condition applies

## 2.3 Management

2.3.1 A copy of this Permit and those parts of the application referred to in this Permit shall be available, at all times, for reference by all staff carrying out work subject to the requirements of the Permit.

### *Training*

2.3.2 The Permitted Installation shall be supervised by staff who are suitably trained and fully conversant with the requirements of this Permit.

2.3.3 All staff shall be fully conversant with those aspects of the Permit conditions which are relevant to their duties and shall be provided with adequate professional technical development and training and written operating instructions to enable them to carry out their duties.

2.3.4 The Operator shall maintain a record of the skills and training requirements for all staff whose tasks in relation to the Permitted Installation may have an impact on the environment and shall keep records of all relevant training.

### **Maintenance**

- 2.3.5 All plant and equipment used in operating the Permitted Installation, the failure of which could lead to an adverse impact on the environment, shall be maintained in good operating condition.
- 2.3.6 The Operator shall maintain a record of relevant plant and equipment covered by condition 2.3.5 and for such plant and equipment:
- 2.3.6.1 a written or electronic maintenance programme; and
  - 2.3.6.2 records of its maintenance.

### **Incidents and Complaints**

- 2.3.7 The Operator shall maintain and implement written procedures for:
- 2.3.7.1 taking prompt remedial action, investigating and reporting actual or potential non-compliance with operating procedures or emission limits and if such event occur;
  - 2.3.7.2 investigating incidents, (including any malfunction, breakdown or failure of plant, equipment or techniques, down time, any short term and long term remedial measures and near misses) and prompt implementation of appropriate actions; and
  - 2.3.7.3 ensuring that detailed records are made of all such actions and investigations.
- 2.3.8 The Operator shall record and investigate complaints concerning the Permitted Installation's effects or alleged effects on the environment. The record shall give the date and nature of complaint, time of complaint, name of complainant (if given), a summary of any investigation and the results of such investigation and any actions taken. —————

## **2.4 Efficient use of raw materials**

### **2.4.1 The Operator shall -**

- 2.4.1.1 maintain the raw materials table or description submitted in response to Section 2.4 of the Application and in particular consider on a periodic basis whether there are suitable alternative materials to reduce environmental impact;
- 2.4.1.2 carry out periodic waste minimisation audits and water use efficiency audits. If such an audit has not been carried out in the 2 years prior to the issue of this Permit, then the first such audit shall take place within 2 years of its issue. The methodology used and an action plan for increasing the efficiency of the use of raw materials or water shall be submitted to the Agency within 2 months of completion of each such audit and a review of the audit and a description of progress made against the action plan shall be submitted to the Agency at least every 4 years thereafter; and
- 2.4.1.3 ensure that incoming water use is directly measured and recorded.

## **2.5 Waste Storage and Handling**

- 2.5.1 The Operator shall design, maintain and operate all facilities for the storage and handling of waste on the Permitted Installation such that there are no releases to water or land during normal operation and that emissions to air and the risk of accidental release to water or land are minimised.
- 2.5.2 The Operator shall use BAT so as to prevent or where that is not practicable to reduce emissions of litter from the Permitted Installation provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

## **2.6 Waste recovery or disposal**

- 2.6.1 Waste produced at the Permitted Installation shall be:

2.6.1.1 recovered to no lesser extent than described in the Application; and

2.6.1.2 where not recovered, disposed of while avoiding or reducing any impacts on the environment provided always that this is not done in any way that would have a greater effect on the environment than that described in the Application.

- 2.6.2 The Operator shall maintain the waste recovery or disposal table or description submitted in response to Section 2.6 of the Application and in particular review the available options for waste recovery and disposal for the purposes of complying with condition 2.6.1 above.

- 2.6.3 The Operator shall maintain and implement a system which ensures that a record is made of the quantity, composition, origin, destination (including whether this is a recovery or disposal operation) and where relevant removal date of any waste that is produced at the Permitted Installation.

## **2.7 Energy Efficiency**

- 2.7.1 The Operator shall produce a report on the energy consumed at the Permitted Installation over the previous calendar year, by 31 January each year, providing the information required by condition 4.1.2.
- 2.7.2 The Operator shall maintain and update annually an energy management system which shall include, in particular, the monitoring of energy flows and targeting of areas for improving energy efficiency.
- 2.7.3 The Operator shall design, maintain and operate the Permitted Installation so as to secure energy efficiency, taking into account relevant guidance including the Agency's Energy Efficiency Horizontal Guidance Note as from time to time amended. Energy efficiency shall be secured in particular by:
- ensuring that the appropriate operating and maintenance systems are in place;
  - ensuring that all plant is adequately insulated to minimise energy loss or gain;
  - ensuring that all appropriate containment methods, (e.g. seals and self-closing doors) are

employed and maintained to minimise energy loss;

- employing appropriate basic controls, such as simple sensors and timers, to avoid unnecessary discharge of heated water or air;
- where building services constitute more than 5% of the total energy consumption of the installation, identifying and employing the appropriate energy efficiency techniques for building services, having regard in particular to the Building services part of the Agency's Energy Efficiency Horizontal Guidance Note H2; and

maintaining and implementing an energy efficiency plan which identifies energy saving techniques that are applicable to the activities and their associated environmental benefit and prioritises them, having regard to the appraisal method in the Agency's Energy Efficiency Horizontal Guidance Note H2.

## **2.8 Accident prevention and control**

- 2.8.1 The Operator shall maintain and implement when necessary the accident management plan submitted or described in response to Section 2.8 of the Application. The plan shall be reviewed at least every 2 years or as soon as practicable after an accident, whichever is the earlier, and the Agency notified of the results of the review within 2 months of its completion.

## **2.9 Noise and Vibration**

- 2.9.1 The Operator shall use BAT so as to prevent or where that is not practicable to reduce emissions of noise and vibration from the Permitted Installation, in particular by:

- equipment maintenance, eg. of fans, pumps, motors, conveyors and mobile plant;
- use and maintenance of appropriate attenuation, eg. silencers, barriers, enclosures;
- timing and location of noisy activities and vehicle movements;
- periodic checking of noise emissions, either qualitatively or quantitatively; and
- maintenance of building fabric,

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

- 2.9.2 No condition applies

- 2.9.3 No condition applies

## **2.10 On-site Monitoring**

- 2.10.1 The Operator shall maintain and implement an emissions monitoring programme which ensures that emissions are monitored from the specified points, for the parameters listed in and to the frequencies and methods described in Tables 2.2.2, unless otherwise agreed in writing, and that the results of such monitoring are assessed. The programme shall ensure that monitoring is carried out under an appropriate range of operating conditions.

- 2.10.2 The Operator shall carry out environmental or other specified monitoring to the frequencies and methods described in Table 2.10.1.



**Table 2.10.1 : Other monitoring requirements**

Emission point reference or source or description of point of measurement	Substance or parameter	Monitoring frequency	Monitoring method	Other specifications
A1/1, A1/2, A1/3, A1/4, A2	Exhaust gas Flow	6 monthly	ISO 9096	Whilst required emissions monitoring, being undertaken
Natural gas usage	kWh <sup>Φ</sup>	Annual	Suppliers meter	None
Gas oil usage	kWh <sup>Φ</sup>	Annual	Certified meter	None
Water usage	m <sup>3</sup>	Annual	Certified meter	None

<sup>Φ</sup> 1 kWh = 3.6 MJ

2.10.3 The Operator shall carry out monitoring of the process variables listed in Table 2.10.1 to the frequencies and methods described in that Table.

2.10.4 No condition applies

2.10.5 The Operator shall notify the Agency at least 14 days in advance of undertaking monitoring and/ or spot sampling, where such notification has been requested in writing by the Agency.

2.10.6 The Operator shall maintain records of all monitoring taken or carried out (this includes records of the taking and analysis of samples instrument measurements (periodic and continual), calibrations, examinations, tests and surveys) and any assessment or evaluation made on the basis of such data.

2.10.7 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme in condition 2.10.1 of this Permit and other monitoring specified in condition 2.10.2 shall have either MCERTS certification or MCERTS accreditation (as appropriate) unless otherwise agreed in writing.

2.10.8 There shall be provided:

2.10.8.1 safe and permanent means of access to enable sampling/monitoring to be carried out in relation to the emission points specified in Schedule 2 to this Permit, unless otherwise specified in that Schedule; and

2.10.8.2 safe means of access to other sampling/monitoring points when required by the Agency.

2.10.9 The Operator shall carry out the on-going monitoring identified in the Site Protection and Monitoring Programme submitted under condition 4.1.7, unless otherwise agreed in writing by the Agency.

2.10.10 The Operator shall, within 6 months of the issue of this Permit, in accordance with and using the format given in the Land Protection Guidance:

2.10.10.1 collect the site reference data identified in the Site Protection and Monitoring Programme submitted under condition 4.1.7, and

2.10.10.2 report that site reference data to the Agency,

- unless otherwise agreed in writing by the Agency.

## **2.11 Closure and Decommissioning**

- 2.11.1 The Operator shall maintain and operate the Permitted Installation so as to prevent or minimise any pollution risk, including the generation of waste, on closure and decommissioning in particular by: -
- 2.11.1.1 attention to the design of new plant or equipment;
  - 2.11.1.2 the maintenance of a record of any events which have, or might have, impacted on the condition of the site along with any further investigation or remediation work carried out; and
  - 2.11.1.3 the maintenance of a site closure plan to demonstrate that the Installation can be decommissioned avoiding any pollution risk and returning the site of operation to a satisfactory state.
- 2.11.2 Notwithstanding condition 2.11.1 of this Permit, the Operator shall carry out a full review of the Site Closure Plan at least every 4 years.
- 2.11.3 The site closure plan shall be implemented on final cessation or decommissioning of the Permitted activities or part thereof.
- 2.11.4 The Operator shall give at least 30 days written notice to the Agency before implementing the site closure plan.

## **2.12 Multiple Operator installations**

- 2.12.1 This is not a multi-Operator installation

## **2.13 Transfer to effluent treatment plant**

- 2.13.1 No transfers to effluent treatment plant are controlled under this part of this Permit.
- 2.13.2 No condition applied

### 3 Records

- 3.1 The Operator shall ensure that all records required to be made by this Permit and any other records made by it in relation to the operation of the Permitted Installation shall:-
- 3.1.1 be made available for inspection by the Agency at any reasonable time;
  - 3.1.2 be supplied to the Agency on demand and without charge;
  - 3.1.3 be legible;
  - 3.1.4 be made as soon as reasonably practicable;
  - 3.1.5 indicate any amendments which have been made and shall include the original record wherever possible;
  - 3.1.6 be retained at the Permitted Installation, or other location agreed by the Agency in writing, for a minimum period of 4 years from the date when the records were made, unless otherwise agreed in writing; and
  - 3.1.7 where they concern the condition of the site of the Installation or are related to the implementation of the Site Protection and Monitoring Programme, be kept at the Permitted Installation, or other location agreed by the Agency in writing, until all parts of the Permit have been surrendered.

## 4 Reporting

- 4.1.1 All reports and written and or oral notifications required by this Permit and notifications required by Regulation 16 of the PPC Regulations shall be made or sent to the Agency using the contact details notified in writing to the Operator by the Agency.
- 4.1.2 The Operator shall, unless otherwise agreed in writing, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:-
- 4.1.2.1 In respect of the parameters and emission points specified in Table S2 to Schedule 2;
  - 4.1.2.2 for the reporting periods specified in Table S2 to Schedule 2 and using the forms specified in Table S3 to Schedule 3;
  - 4.1.2.3 giving the information from such results and assessments as may be required by the forms specified in those Tables; and
  - 4.1.2.4 to the Agency within 28 days of the end of the reporting period.
- 4.1.3 The Operator shall submit to the Agency a report on the performance of the Permitted Installation over the previous year, by 31 January each year, providing the information listed in Tables S4.1 and S4.2 of Schedule 4, assessed at any frequency specified therein, and using the form specified in Table S3 to Schedule 3.
- 4.1.4 The Operator shall review fugitive emissions, having regard to the application of Best Available Techniques, on an annual basis, or such other period as shall be agreed in writing by the Agency, and a summary report on this review shall be sent to the Agency detailing such releases and the measures taken to reduce them within 3 months of the end of such period.
- 4.1.5 Where the Operator has a formal environmental management system applying to the Permitted Installation which encompasses annual improvement targets the Operator shall, not later than 31 January in each year, provide a summary report of the previous year's progress against such targets.
- 4.1.6 The Operator shall, within 6 months of receipt of written notice from the Agency, submit to the Agency a report assessing whether all appropriate preventive measures continue to be taken against pollution, in particular through the application of the best available techniques, at the Installation. The report shall consider any relevant published technical guidance current at the time of the notice which is either supplied with or referred to in the notice, and shall assess the costs and benefits of applying techniques described in that guidance, or otherwise identified by the Operator, that may provide environmental improvement.
- 4.1.7 The Operator shall, within two months of the date of this permit, submit a detailed Site Protection and Monitoring Programme, in accordance with and using the appropriate template format given in the Land Protection Guidance. The Operator shall implement and maintain the Site Protection and Monitoring Programme (SPMP) submitted under condition 4.1.7, and shall carry out regular reviews of it at a minimum frequency of every 2 years. The results of such reviews and any changes made to the SPMP shall be reported to the Agency within 1 month of the review or change.

## 5 Notifications

### 5.1.1 The Operator shall notify the Agency without delay of: -

- 5.1.1.1 the detection of an emission of any substance which exceeds any limit or criterion in this Permit specified in relation to the substance;
- 5.1.1.2 the detection of any fugitive emission which has caused, is causing or may cause significant pollution;
- 5.1.1.3 the detection of any malfunction, breakdown or failure of plant or techniques which has caused, is causing or has the potential to cause significant pollution; and
- 5.1.1.4 any accident which has caused, is causing or has the potential to cause significant pollution.

### 5.1.2 The Operator shall submit written confirmation to the Agency of any notification under condition 5.1.1, by sending:-

- 5.1.2.1 the information listed in Part A of Schedule 1 to this Permit within 24 hours of such notification; and
- 5.1.2.2 the more detailed information listed in Part B of that Schedule as soon as practicable thereafter;

and such information shall be in accordance with that Schedule.

### 5.1.3 The Operator shall give written notification as soon as practicable prior to any of the following:-

- 5.1.3.1 permanent cessation of the operation of part or all of the Permitted Installation;
- 5.1.3.2 cessation of operation of part or all of the Permitted Installation for a period likely to exceed 1 year; and
- 5.1.3.3 resumption of the operation of part or all of the Permitted Installation after a cessation notified under condition 5.1.3.2.

### 5.1.4 The Operator shall notify the Agency, as soon as reasonably practicable, of any information concerning the state of the Site which adds to that provided to the Agency as part of the Application or to that in the Site Protection and Monitoring Programme submitted under condition 4.1.7 of this Permit.

### 5.1.5 The Operator shall notify the following matters to the Agency in writing within 14 days of their occurrence: -

#### 5.1.5.1 where the Operator is a registered company:-

- any change in the Operator's trading name, registered name or registered office address;
- any change to particulars of the Operator's ultimate holding company (including details of an ultimate holding company where an Operator has become a subsidiary)
- any steps taken with a view to the Operator going into administration, entering into a company voluntary arrangement or being wound up;

#### 5.1.5.2 where the Operator is a corporate body other than a registered company:

- any change in the Operator's name or address;
- any steps taken with a view to the dissolution of the Operator.

#### 5.1.5.3 In any other case: -

- the death of any of the named Operators (where the Operator consists of more than one named individual);
- any change in the Operator's name(s) or address(es);

- any steps taken with a view to the Operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case them being in a partnership, dissolving the partnership;

5.1.6 Where the Operator has entered into a Climate Change Agreement with the Government, the Operator shall notify the Agency within one month of: -

- 5.1.6.1 a decision by the Secretary of State not to re-certify that Agreement.
- 5.1.6.2 a decision by either the Operator or the Secretary of State to terminate that agreement.
- 5.1.6.3 any subsequent decision by the Secretary of State to re-certify such an Agreement.

5.1.7 Where the Operator has entered into a Direct Participant Agreement in the Emissions Trading Scheme which covers emissions relating to the energy consumption of the activities, the Operator shall notify the Agency within one month of:-

- 5.1.7.1 a decision by the Operator to withdraw from or the Secretary of State to terminate that agreement.
- 5.1.7.2 a failure to comply with an annual target under that Agreement at the end of the trading compliance period.

## 6 Interpretation

### 6.1.1 In this Permit, the following expressions shall have the following meanings:-

**"Application"** means the application for this Permit, together with any response to a notice served under Schedule 4 to the PPC Regulations and any operational change agreed under the conditions of this Permit.

**"background concentration"** means such concentration of that substance as is present in:

- water supplied to the site; or
- where more than 50% of the water used at the site is directly abstracted from ground or surface water on site, the abstracted water; or
- where the Permitted Installation uses no significant amount of supplied or abstracted water, the precipitation on to the site.

**"BAT"** means best available techniques means the most effective and advanced stage of development of activities and their methods of operation which indicates the practical suitability of particular techniques to prevent and where that is not practicable to reduce emissions and the impact on the environment as a whole. For these purposes: "available techniques" means "those techniques which have been developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the cost and advantages, whether or not the techniques are used or produced inside the United Kingdom, as long as they are reasonably accessible to the operator"; "best" means "in relation to techniques, the most effective in achieving a high general level of protection of the environment as a whole" and "techniques" "includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned." . In addition, Schedule 2 of the PPC Regulations has effect in relation to the determination of BAT.

**"CO"** means carbon monoxide.

**"Fugitive emission"** means an emission to air or water (including sewer) from the Permitted Installation which is not controlled by an emission or background concentration limit under conditions 2.2.1.3, 2.2.2.4, 2.2.2.5, 2.2.2.8 or 2.2.2.9 of this Permit.

**"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.

**"Land Protection Guidance"** means the version of the Agency guidance note "H7 - Guidance on the Protection of Land under the PPC Regime: Application Site Report and Site Protection and Monitoring Programme", including its appended templates for data reporting, which is current at the time of issue of the Permit.

**" $L_{Aeq,T}$ "** means the equivalent continuous A-weighted sound pressure level in dB determined over time period, T.

**" $L_{A90,T}$ "** means the A-weighted sound pressure level in dB exceeded for 90% of the time period, T.

**" $L_{AFmax}$ "** means the maximum A weighted sound level measurement in dB measured with a fast time weighting.

**"MCERTS"** means the Environment Agency's Monitoring Certification Scheme.

**"Monitoring"** includes the taking and analysis of samples, instrumental measurements (periodic and continual), calibrations, examinations, tests and surveys.

**"NOx"** means oxides of nitrogen expressed as nitrogen dioxide.

*Permitted Installation* means the activities and the limits to those activities described in Table 1.1.1 of this Permit.

*PPC Regulations* means the Pollution, Prevention and Control (England and Wales) Regulations SI 2000 No.1973 (as amended) and words and expressions defined in the PPC Regulations shall have the same meanings when used in this Permit save to the extent they are specifically defined in this Permit.

*Sewer* means sewer within the meaning of section 219(1) of the Water Industry Act 1991.

*Staff* includes employees, directors or other officers of the Operator, and any other person under the Operator's direct or indirect control, including contractors.

*Year* means calendar year ending 31 December.

6.1.2 Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

6.1.3 Unless otherwise stated, any references in this Permit to concentrations of substances in emissions into air means: -

6.1.3.1 in relation to gases from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or

6.1.3.2 in relation to gases from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content

6.1.4 Where any condition of this Permit refers to the whole or parts of different documents, in the event of any conflict between the wording of such documents, the wording of the document(s) with the most recent date shall prevail to the extent of such conflict.



## Schedule 1 - Notification of abnormal emissions

This page outlines the information that the Operator must provide to satisfy conditions 5.1.1 and 5.1.2 of this Permit.

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 PPC Regulations.

### Part A

Permit Number	
Name of Operator	
Location of Installation	
Location of the emission	
Time and date of the emission	

Substance(s) emitted	Media	Best estimate of the quantity or the rate of emission	Time during which the emission took place
	<i>eg air</i>		
	<i>eg groundwater</i>		

Measures taken, or intended to be taken, to stop the emission	
---	--

### Part B

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 or harm which has been or may be caused by the emission	
The dates of any unauthorised emissions from the installation in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

\* authorised to sign on behalf of Ford Motor Company Limited

## Schedule 2 - Reporting of monitoring data

Parameters for which reports shall be made, in accordance with conditions 4.1.2 and 4.1.3 of this Permit, are listed below.

**Table S2: Reporting of monitoring data**

Parameter	Emission point	Reporting period	Period begins	Other specifications
Oxides of nitrogen mg m <sup>-3</sup>	A1/1, A1/2, A1/3, A1/4, A2	Every 6 months	01/01/2005	Condition 2.10.8.1 does not apply
Carbon Monoxide mg m <sup>-3</sup>	A1/1, A1/2, A1/3, A1/4, A2	Every 6 months	01/01/2005	Condition 2.10.8.1 does not apply
Particulates mg m <sup>-3</sup>	A1/1, A1/2, A1/3, A1/4, A2	Every 6 months	01/01/2005	Condition 2.10.8.1 does not apply
Exhaust Flow m <sup>3</sup> hr <sup>-1</sup>	A1/1, A1/2, A1/3, A1/4, A2	Every 6 months	01/01/2005	Condition 2.10.8.1 does not apply
Water usage		Every 12 months	01/01/2005	
Natural Gas usage		Every 12 months	01/01/2005	
Gas oil Usage		Every 12 months	01/01/2005	

## Schedule 3 - Forms to be used

Table S3: Reporting Forms		
Media / parameter	Form Number	Date of Form
Air emissions when fired with gas oil	A1/ GO	05/11/2004
Air emissions when fired with natural gas	A1/ NG	05/11/2004
Performance Indicators	PER1	18/11/2004

## Schedule 4 - Reporting of performance data

Data required to be recorded and reported by Condition 4.1.3. The data should be assessed at the frequency given and reported annually to the Agency.

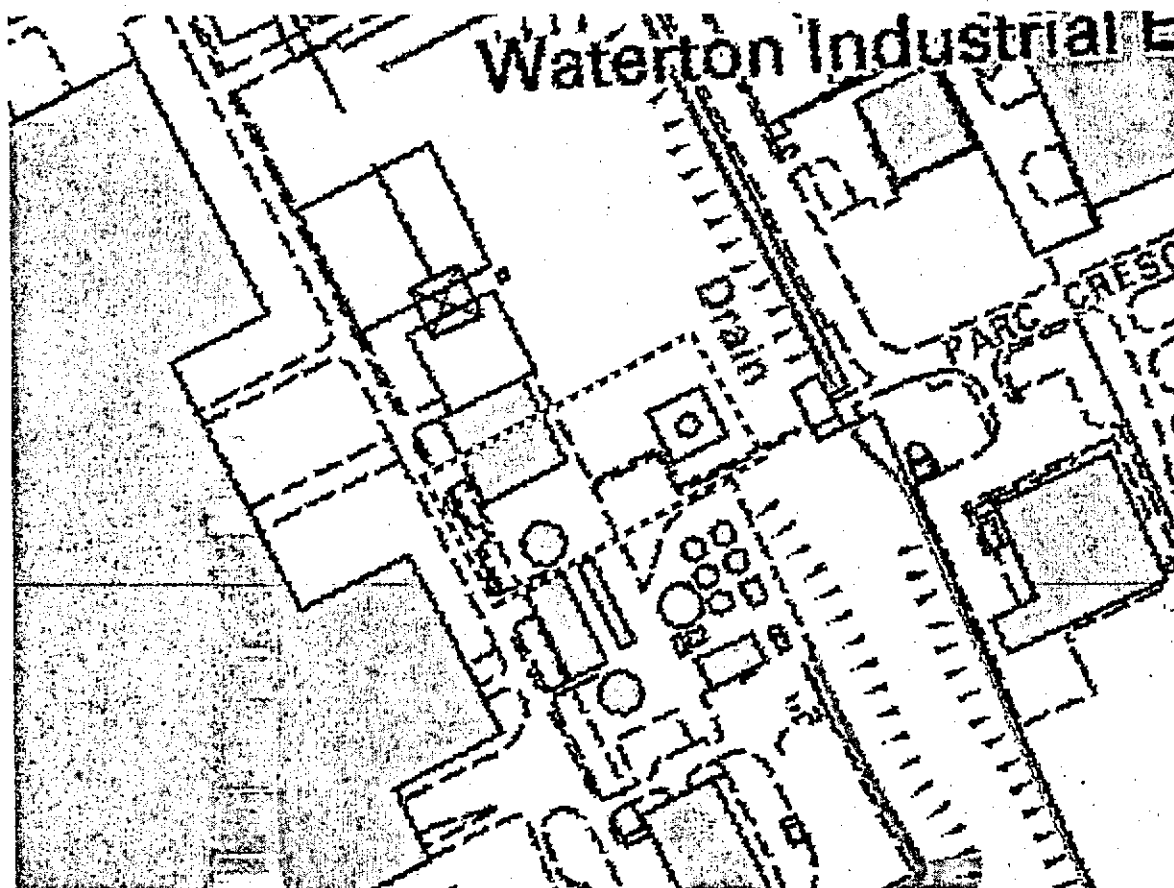
**Table S4.1: Annual Production/Treatment**

Not required	Not required
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**Table S4.2: Performance parameters**

Parameter	Frequency of assessment	Performance indicator
Natural Gas Usage	Annual	kWh <sup>Ⓢ</sup>
Gas Oil Usage	Annual	kWh <sup>Ⓢ</sup>
Water Usage	Annual	m <sup>3</sup>

## Schedule 5 - Site Plan



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END OF PERMIT

Permit Reference Number : BL2548IF

Installation : Bridgend Engine Works Combustion Plant

Operator : Ford Motor Company Limited

Form Number : PER1

Dated: 18/11/2004

Reporting of Performance Indicators for the year .....

Performance Indicators

Parameter	Annual Usage	Units
Natural Gas		kWh <sup>⓪</sup>
Gas Oil		kWh <sup>⓪</sup>
Water		m <sup>3</sup>

Trends in Performance			
Year	Parameter		
	Natural Gas	Gas Oil	Water
2005			
2006			
2007			

⓪ 1 kWh  $\approx$  3.6 MJ

Operator's comments :

Signed ..... Date.....  
(authorised to sign as representative of the Operator)

Operator : Ford Motor Company Limited

Form Number : A1/NG  
Dated: 5/11/2004

Permit Reference Number : BL2548IF

Installation : Bridgend Engine Works Combustion Plant

Reporting of Emissions to Air for the period from .....to.....

Emission Points	Substance / Parameter	Emission Limit Value	Result (1)	Test Method (2)	Sample Date and Times (3)	Accreditation/ Certification (4)	Uncertainty (5)
Using Natural Gas as fuel							
A1/1	Carbon monoxide	100 mg/m <sup>3</sup> (6)					
A1/2							
A1/3							
A1/4,							
A2							
A1/1	Oxides of Nitrogen (as NO <sub>2</sub> )	250 mg/m <sup>3</sup> (6)					
A1/2							
A1/3							
A1/4,							
A2		175 mg/m <sup>3</sup> (6)					

- [1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum - maximum' measured values.
- [2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. gas chromatography.
- [3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
- [4] The accreditation status of the equipment and/or the monitoring organisation, as appropriate, for the methods used for both sampling and analysis.
- [5] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated. The following uncertainties are quoted on a different basis (basis as stated) – {The basis of any other uncertainty figure needs to be stated. Where no figure is available the Agency will need to agree an appropriate uncertainty value.}
- [6] The emission limit values for are expressed as hourly averages and corrected to 273K, 101.3kPa, 3% oxygen, dry.

Signed .....  
(authorised to sign as representative of the Operator)

Date.....



Permit Reference Number : BL2548IF

Operator : Ford Motor Company Limited

Installation : Bridgend Engine Works Combustion Plant

Form Number : A1/GO  
Dated: 5/11/2004

Reporting of Emissions to Air for the period from .....to.....

Emission Points	Substance / Parameter	Emission Limit Value	Result (1)	Test Method (2)	Sample Date and Times (3)	Accreditation/ Certification (4)	Uncertainty (5)
Using Gas Oil as fuel							
A1/1	Particulates	15 mg/m <sup>3</sup>					
A1/2							
A1/3							
A1/4							
A2							
A1/1	Carbon monoxide	100 mg/m <sup>3</sup> (3)					
A1/2							
A1/3							
A1/4							
A2							
A1/1	Oxides of Nitrogen (as NO <sub>2</sub> )	350 mg/m <sup>3</sup> (3)					
A1/2							
A1/3							
A1/4							
A2		250 mg/m <sup>3</sup> (3)					

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum - maximum' measured values.

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. gas chromatography.

[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

[4] The accreditation status of the equipment and/or the monitoring organisation, as appropriate, for the methods used for both sampling and analysis.

[5] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated. The following uncertainties are quoted on a different basis (basis as stated) – {The basis of any other uncertainty figure needs to be stated. Where no figure is available the Agency will need to agree an appropriate uncertainty value.}

[6] The emission limit values for are expressed as hourly averages and corrected to 273K, 101.3kPa, 3% oxygen, dry.

Signed .....  
(authorised to sign as representative of the Operator)

Date.....