

# Permit With Introductory Note

The Pollution Prevention and Control Act 1999  
The Pollution Prevention and Control (England & Wales) Regulations 2010



**BOC Limited**  
**The Priestley Centre**  
**10 Priestley Road**  
**The Surrey Research Park**  
**Guildford, Surrey**  
**GU2 7XY**

**LAPPC Permit Ref No: EP08/5**

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## Chronicle

Detail	Date	Comments
First authorised	20 <sup>th</sup> January 2004	6.5/15/RJD
LAPPC Deemed Application	1 <sup>st</sup> April 2004	Duly made
Temporary Permit	27 <sup>th</sup> May 2005	6.4/RJD/6
Consultation Permit	21 <sup>st</sup> December 2005	6.4/RJD/6/05
Permit Issued	2 <sup>nd</sup> March 2006	1.2/SR/02/06
Consultation Permit	31 <sup>st</sup> January 2012	MC1/DJR/01/12
Permit Issued	13 <sup>th</sup> March 2012	MC1/DJR/01/12
Variation Notice	14 <sup>th</sup> January 2013	
Varied Permit	14 <sup>th</sup> January 2013	EP08/5

Permit issued by:

Environmental Protection Services  
Ipswich Borough Council  
Floor 3W, Grafton House  
15-17 Russell Rd  
Ipswich  
IP1 2DE

Telephone: 01473 433039  
Fax: 01473 433062  
Website: [www.ipswich.gov.uk](http://www.ipswich.gov.uk)  
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## **INTRODUCTORY NOTE**

### ***This introductory note does not form part of the permit***

The following Permit is issued under Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2010, as amended, to operate a scheduled installation carrying out an activity, or activities covered by the description in sections 1.2B(d) in Part 1 to Schedule 1 of the PPC regulations, to the extent authorised by the Permit.

Conditions within this Permit detail Best Available Techniques (BAT), for the management and operation of the installation, to prevent, or where that is not practicable, to reduce emissions.

Aspects of the operation of the installation that are not regulated by conditions in this Permit are subject to BAT through the condition implied by regulation 12(10) of the PPC Regulations.

In determining BAT, the Operator should pay particular attention to relevant sections of the LAPPC Process Guidance note 6/23(11), and any other relevant guidance. Techniques include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

Note that the Permit requires the submission of certain information to the Regulator, and in addition, the Regulator has the power to seek further information at any time under Regulation 28 of the PPC Regulations provided that the request is reasonable.

### **Public Registers**

Information relating to Permits, including the application, is available on public registers in accordance with the PPC Regulations. Certain information may be withheld from the public registers where it is commercially confidential, or if it is in the interest of national security to do so.

### **Variations to the Permit**

The Regulator may vary the permit in the future, by serving a variation notice on the Operator. Should the Operator want any of the conditions of the Permit to be changed, a formal application must be submitted to the Regulator (the relevant forms are available from the Regulator). The Status Log that forms part of this introductory note 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.

### **Transfer of the Permit or Part of the Permit**

Before the Permit can be wholly or partially transferred to another Operator, an application to transfer the Permit has to be made jointly by the existing and proposed Operators. A transfer will not be approved if the Regulator is not satisfied that the proposed Permit holder will be the person having control over the operation of the installation, or will not comply with the conditions of the transferred Permit. In addition, if the Permit authorises the Operator to carry out a specified waste management activity, the transfer will not be approved if the Regulator does not consider the proposed Permit holder to be a 'fit and proper person' as required by the PPC Regulations.

### **Surrender of the Permit**

Where an operator intends to cease the operation of an installation (in whole or in part) the Regulator should be informed in writing. Such notification must include the information specified in Regulation 20(3) of the PPC Regulations.

### **Responsibility under Workplace Health and Safety Legislation**

The permit is given in relation to the requirements of the PPC Regulations. It must not be taken to replace any responsibilities an Operator may have under the workplace health and safety legislation.

### **Appeal Against Permit Conditions**

Any person who is aggrieved by the conditions attached to a Permit can appeal to the Secretary of State for Environment, Food & Rural Affairs. Appeals must be received by the Secretary of State no later than 6 months from the date of the decision (the date of the Permit).

Appeals relating to installations in England should be received by the Secretary of State for Environment, Food & Rural Affairs. The address is as follows:

**The Planning Inspectorate  
Environmental Appeals Administration  
Room 4/19 – Eagle Wing  
Temple Quay House  
2 The Square  
Temple Quay  
Bristol, BS1 PN**

The appeal must be in the form of a written notice or letter stating that the person wishes to appeal and listing the condition(s) which is/are being appealed against. The following five items must be included:

- (a) A statement of the grounds of appeal;
- (b) A copy of any relevant application;
- (c) A copy of any relevant Permit;
- (d) A copy of any relevant correspondence between the person making the appeal and the Council;
- (e) A statement indicating whether the appellant wishes the appeal to be dealt with.
  - by a hearing attended by both parties and conducted by an inspector appointed by the Secretary of State; or
  - by both parties sending the Secretary of State written statements of their case (and having the opportunity to comment upon one another's statements).

At the same time, the notice of appeal and documents (a) and (e) must be sent to the Council, and the person making the appeal should inform the appropriate Secretary of State that this had been done.

At the same time, the notice of appeal and documents (a) and (e) must be sent to the Council, and the person making the appeal should inform the appropriate Secretary of State that this has been done.

- An appeal will not suspend the effect of the conditions appealed against; the conditions must still be complied with.
- In determining an appeal against one or more conditions, the Act allows the Secretary of State in addition to quash any of the other conditions not subject to the appeal and to direct the local authority to either vary any of these conditions or to add new conditions.

### **Copyright of any Maps Provided with this Permit**

The Ordnance Survey mapping included within this publication is provided by Ipswich Borough Council, under licence from the Ordnance Survey in order to fulfil its public function to provide information regarding environmental searches, site notices or authorisations for prescribed processes. Persons viewing this mapping should contact Ordnance Survey copyright for advice where they wish to licence Ordnance Survey mapping for their own use.

### **Talking to us**

Please quote the Permit Number if you contact the Regulator about this permit. To give a notification, the Operator should telephone 01473 433012 or any other number notified in writing by the Regulator for that purpose.

***~ End of Introductory Note~***

# Permit

The Pollution Prevention and Control Act 1999  
The Pollution Prevention and Control (England & Wales) Regulations 2010

**LAPPC Permit Ref No: EP08/5**

Ipswich Borough Council in exercise of its powers under Regulation 10 of The Pollution Prevention and Control (England and Wales) Regulations, hereby authorises: **BOC Limited**

Whose Registered Office is:

**BOC Limited**  
**The Priestley Centre**  
**10 Priestley Road**  
**The Surrey Research Park**  
**Guildford, Surrey**  
**GU2 7XY**

to operate an installation at:

**The BOC Group**  
**Hadleigh Road Industrial Estate**  
**Ipswich**  
**Suffolk**  
**IP2 0EX**

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

Signature:

Ben Hunter  
Principle Environmental Health Officer

Date:

Permit issued by:

Environmental Protection Services  
Ipswich Borough Council  
Floor 3W, Grafton House  
15-17 Russell Rd  
Ipswich  
IP1 2DE

Telephone: 01473 433039  
Fax: 01473 433062  
Website: [www.ipswich.gov.uk](http://www.ipswich.gov.uk)  
Email: [environmentalprotection@ipswich.gov.uk](mailto:environmentalprotection@ipswich.gov.uk)

## **OPERATING CONDITIONS**

### **Process Description and General Information**

The process is carried out by BOC Limited at Hadleigh Road Industrial Estate, Ipswich, IP2 0EX.

The process is defined as the painting of compressed gas cylinders and associated components.

Compressed gas cylinders are 'devalued' and then inspected using high-intensity light sources for its internal and external condition. Each passed cylinder is then secured to a conveyor.

The next stage encompasses the shot blasting of each cylinder. This process is undertaken to remove any existing paint. The shot blasting process is undertaken in a dedicated, purpose-built facility. The shot blasting takes place in a sealed enclosure, with entry and exit doors operating as each conveyerised cylinder passes through the unit. Grits are continually recycled as long as they are fit for the purpose. The plant has 2 off dedicated local exhaust ventilation systems, encompassing a cyclone system with bag filter unit to abate total particulate matter releases.

The next stage is the spray painting of cylinder in a dedicated primer spray booth. The booth is open-fronted type and has a laminar airflow and water wash extraction system. The exhaust washing system is of the water work venturi type, incorporated within the booth-washing chamber.

A single exhaust fan extracts the booth. The fan produces a face velocity of 1.1m/sec with a motor rating of 17.1KW. The booth extraction is via a 0.55m diameter circular duct without additional abatement.

The cylinders then pass through a dedicated, enclosed Dapco ultrasonics non-destructive testing facility. Once cylinders are tested they are passed through to the topcoat spray booth. The topcoat spray booth is an open-fronted type and by a laminar airflow and water wash extraction system. 3 off exhaust fans operate, 2 x 0.60m diameter ducts extract the spray booth and 1 x 0.6m diameter duct extracts its flash off enclosure.

The spray booth fans produce a face velocity of 1.4m/sec at a motor rating of 17.1KW and all three ducts have a mean efflux velocity >15m/sec.

The cylinders then pass through a ventilated flash off enclosure giving a flash off period of 8 – 10 minutes before final inspection.

The attached site plan 1 shows the site boundary and location of stacks.

## Conditions

### Emission Limits, Monitoring and other Provisions

1. The following emission limit values, expressed at reference conditions of 273.15K and 101.3kPa and without correction for water vapour content unless otherwise stated shall not be exceeded in any emission to air:

#### Non VOC Emission Limits

Substance	Source	Emission limit/provisions	Monitoring frequency
Particulate matter	All processes/ activities	50mg/Nm <sup>3</sup> as 30 minute mean for contained sources	Annual

2. The Operator shall demonstrate compliance with EC Directive 1999/13/EC (the 'Solvent Emissions Directive') through the implementation of a **Solvent Reduction Scheme**.
3. The Operator shall submit the details of the Scheme to the Council. The Scheme [emission reduction plan] shall include in particular:
  - Mechanisms to decrease the average solvent content of the total input; and/or
  - Systems to increase efficiency in the use of solids to achieve a reduction of the total emissions from the installation.
4. The Operator shall demonstrate compliance with the Reduction Scheme if the annual actual solvent emission determined by the Solvent Management Plan is less than or equal to the Target Emission. This is calculated using the following formula:

The **Target emission** for 5-15 tonnes solvent consumption =

Total mass of solids per year x 0.6

Where the annual **actual solvent emission** =  $I_1 - O_8 - O_7 - O_6$  ( $O_5$  if abatement has been used).

#### Inputs of Organic Solvent in the time frame over which the mass balance is being calculated (I)

**I1** The quantity of organic solvents or their quantity in mixtures purchased which are used as input into the process/activity (including organic solvents used in the cleaning of equipment, but not those used for the cleaning of the products).

**I2** The quantity of organic solvents or their quantity in mixtures recovered and reused as solvent input into the process/activity. (The recycled solvent is counted every time it is used to carry out the activity.)

**Outputs of Organic Solvents** in the time frame over which the mass balance is being calculated (O)

- O1** Emissions in waste gases.
- O2** Organic solvents lost in water, if appropriate taking into account waste water treatment when calculating O5.
- O3** The quantity of organic solvents which remains as contamination or residue in products output from the process/activity.
- O4** Uncaptured emissions of organic solvents to air. This includes the general ventilation of rooms, where air is released to the outside environment via windows, doors, vents and similar openings.
- O5** Organic solvents and/or organic compounds lost due to chemical or physical reactions (including for example those which are destroyed, e.g. by thermal oxidation or other waste gas or waste water treatments, or captured, e.g. by adsorption, as long as they are not counted under O6, O7 or O8).
- O6** Organic solvents contained in collected waste.
- O7** Organic solvents, or organic solvents contained in mixtures, which are sold or are intended to be sold as a commercially valuable product.
- O8** Organic solvents contained in mixtures recovered for reuse but not as input into the process/activity, as long as not counted under O7.
- O9** Organic solvents released in other ways

**VOC Storage**

All potentially odorous waste materials shall be stored in suitable closed containers or bulk storage vessels with lids.

**VOC Control Handling**

Coatings containing VOC shall be stored in closed storage containers.

**VOC Control Cleaning**

1. Cleaning operations involving organic solvents shall be periodically reviewed, normally at least once every two years, to identify opportunities for reducing VOC emissions (eg cleaning steps that can be eliminated or alternative cleaning methods). Ipswich Borough Council shall be provided with a report on the conclusions of the review.
2. Fixed equipment shall be cleaned in-situ, and such equipment shall, where practicable, be kept enclosed whilst cleaning is carried out.
3. Where equipment is cleaned off (such as screens, plates, drums, rollers and coating trays) cleaning shall be carried out using enclosed cleaning systems. Enclosed cleaning systems shall be sealed to prevent emissions whilst in operation, except during purging at the end of the cleaning cycle. If this is not practicable emissions shall be contained and vented to abatement plant.
4. Residual coating materials contained in parts of the application equipment shall be removed prior to cleaning.



### **VOC Control Operational**

5. A programme to monitor and record the consumption of coatings/organic solvent against product produced shall be used to minimise the amount of excess organic solvent/coating used.

### **VOC Control Waste**

6. Efforts shall be made to minimise the amount of residual organic solvent bearing material left in drums and other containers after use. All organic solvent contaminated waste shall be store in closed containers.
7. Prior to disposal, empty drums and containers contaminated with organic solvent shall be closed to minimise emissions from residues during storage prior to disposal and labelled, so that it is clear that they may contain hazardous properties.
8. Nominally empty drums or drums containing waste contaminated with VOC awaiting disposal shall be stored in accordance with the requirements for full or new containers.
9. All potentially odorous waste materials shall be stored in suitable closed containers or bulk storage vessels.

### **General Control Techniques**

10. Dusty wastes shall be stored in closed containers and handled in a manner that avoids emissions.
11. Dry sweeping of dusty materials shall not normally be permitted unless there are environmental or health and safety risks in using alternative techniques.
12. Suitable organic solvent containment and spillage equipment shall be readily available in all organic solvent handling areas.
13. A high standard of housekeeping shall be maintained.

### **Monitoring, investigating and reporting**

14. The Operator shall keep records of inspections, tests and monitoring, including all non-continuous monitoring, inspections and visual assessments. In such cases:
  - (i) current records shall be kept on site and made available for an authorised officer of Ipswich Borough Council to examine.
  - (ii) records shall be kept by the Operator for at least 2 years.

### **Information required by the regulator**

15. The Operator shall notify Ipswich Borough Council at least 7 days before any periodic monitoring exercise to determine compliance with emission limit values. The Operator shall state the provisional time and date of monitoring, pollutants to be tested and the methods to be used.
16. The results of non-continuous emission testing shall be forwarded to Ipswich Borough Council within 8 weeks of the completion of the sampling.
17. Adverse results from any monitoring activity shall be investigated by the Operator as soon as the monitoring data has been obtained/received. The Operator shall:
  - (i) identify the cause and take corrective action;
  - (ii) record as much detail as possible regarding the cause and effort of the problem, and the action taken by the Operator to rectify the situation.
  - (iii) re-test to demonstrate compliance
  - (iv) notify Ipswich Borough Council

### **Visible Emissions**

18. Emissions from combustion processes shall in normal operation be free from visible smoke and in any case shall not exceed the equivalent of Ringelman Shade 1 as described in British Standard BS2742: 1969.
19. All releases to air, other than condensed water vapour, shall be free from persistent visible emissions.
20. All emissions to air shall be free from droplets.
21. There shall be no offensive odour beyond the site boundary, as perceived by an authorised officer of Ipswich Borough Council.
22. In the case of abnormal emissions, malfunction or breakdown leading to abnormal emissions the Operator must:
  - (i) investigate immediately and undertake corrective action
  - (ii) adjust the process or activity to minimise those emissions; and
  - (iii) promptly record the events and actions taken
23. Ipswich Borough Council must be informed without delay:
  - (i) if there is an emission that is likely to have an effect on the local community
  - (ii) in the event of the failure of key abatement plant
24. All appropriate precautions must be taken to minimise emissions during start-up and shutdown.
25. The introduction of dilution air to achieve emission concentration limits must not be permitted.

### **Non VOC Releases**

26. Non continuous emissions monitoring of particulate matter shall be carried out according to the main procedural provisions of BS ISO 9096:2003, with averages taken over operating periods excluding start-up and shutdown.
27. The frequency of testing shall be increased where emission levels are near to or approach the emission concentration limits.
28. The Operator shall ensure that adequate facilities for sampling are provided on vents or ducts.
29. Emissions of particulate matter shall be abated if necessary to meet the emission limit.

### **Stacks, Vents and Process Exhausts**

30. Adequate insulation shall be provided to minimise the cooling of waste gases and prevent liquid condensation by keeping the temperature of the exhaust gases above the dewpoint.
31. Where a linear velocity of 9m/s is exceeded in the ductwork or existing wet abatement plant, the linear velocity shall be reduced, to ensure that droplet fallout does not occur.
32. Stacks and ductwork shall be cleaned to prevent accumulation of materials, as part of the routine maintenance programme.
33. Stacks or vents shall not be fitted with any restriction at the final opening such as a plate, cap or cowl, with the exception of a cone which may be necessary to increase the exit velocity of the emissions.

### **Management**

50. The Operator shall be aware that important elements for effective control of emissions shall include:
  - (i) proper management; supervision and training for process operations
  - (ii) proper use of equipment
  - (iii) effective preventative maintenance on all plant and equipment concerned with the control of emissions to the air; and
  - (iv) it is good practice to ensure that spares and consumables are available at short notice in order to rectify breakdowns rapidly. This is important with respect to arrestment plant and other necessary environmental control. It is useful to compile a list of essential items.
51. The Operator shall keep spares and consumables on site, in particular those subject to continual wear, or shall be available at short notice from a guaranteed supplier.
52. The Operator shall implement suitable and sufficient management systems to provide an effective technique for ensuring that all pollution prevention and control techniques (BAT) are delivered reliably and on an integrated basis.

### **Training**

53. The Operator shall ensure staff at all levels need the necessary training and instruction in their duties relating to control of the process and emissions to air.
54. The Operator shall ensure that training of all staff with responsibility for operating the process shall include:
  - (i) awareness of their responsibility under the permit; in particular supervising and performing unloading operations of tankers
  - (ii) actions to minimise emissions during abnormal conditions
55. The Operator shall maintain a statement of training requirements for each operational part and keep a record of the training received by each person whose actions may have an impact on the environment. These documents shall be made available to an authorised officer of Ipswich Borough Council at their request.

### **Maintenance**

56. The Operator shall employ an effective preventative maintenance on all aspects of the process including all plant, buildings and the equipment concerned with control of emissions to air. In particular:
  - (i) a written maintenance programme shall be provided to the regulator with respect to pollution control equipment; and
  - (ii) a record of such maintenance shall be made available for inspection.

### **Notifications**

57. The Operator shall notify Ipswich Borough Council without delay of:-
  - (i) 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
  - (ii) any accident, which has caused, is causing or has the potential to cause significant pollution.
58. The Operator shall give written notification as soon as practicable prior to any of the following:-
  - (i) permanent cessation of the operation of part or all of the Permitted Installation;
  - (ii) cessation of operation of part or all of the Permitted Installation for a period likely to exceed one year; and
  - (iii) resumption of the operation of part or all of the Permitted Installation after a cessation has been notified.
59. The Operator shall notify the following matters to Ipswich Borough Council in writing within 14 days of their occurrence:

- (i) any change to the operation capable of altering the substances from the operation;
- (ii) any change in the Operator's trading name, registered name or registered office address;
- (iii) 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);
- (iv) any steps taken with a view to the Operator going into administration, entering into a company voluntary arrangement, or being wound up.

End of permit