

## VARIATION NOTICE

Pollution Prevention and Control Act 1999  
The Environmental Permitting (England and Wales) Regulations 2010,  
Regulation 20



Certified a true copy of the notice served by the Council and as this copy  
RECEIVED RECORDS 1/12/12  
James Rowe Signature

PPC Permit Ref: 1.2/SR/02/06  
Variation notice Ref: WK201106369  
EP Permit Ref: MC1/DJR/01/12

To:  
**The BOC Group, Chertsey Road, Windlerham, Surrey. GU20 6HJ**

Ipswich Borough Council ("the Council"), in the exercise of the powers conferred upon it by regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 hereby gives you notice as follows:

The Council has decided to vary the conditions of permit reference 1.2/SR/02/06 granted under The Pollution Prevention and Control (England and Wales) Regulations 2000 in respect of the operation of the installation at The BOC Group, Hadleigh Road Industrial Estate, Ipswich, IP2 0EX

The varied consolidated permit and the date on which it takes effect are specified in Schedule 1 to this notice.

Signed on behalf of Ipswich Borough Council

Sara Boyles  
Principal Environmental Health Officer  
An authorised Officer of the Council

Date: 31<sup>st</sup> January 2012

Permit issued by:


Environmental Protection Services  
Ipswich Borough Council  
Floor 4 East  
Grafton House  
15-17 Russell Road  
Ipswich  
IP1 2DE

Telephone: 01473 433115  
Fax: 01473 433062  
Website: [www.ipswich.gov.uk](http://www.ipswich.gov.uk)  
Email: [environmentalprotection@ipswich.gov.uk](mailto:environmentalprotection@ipswich.gov.uk)

**Schedule 1**

The conditions contained in the varied consolidated permit MC1/DJR/01/12 overleaf come into effect immediately and supersede any previous permits.

Signed on behalf of Ipswich Borough Council

  
.....  
Sara Boyles  
Principal Environmental Health Officer  
An authorised Officer of the Council

Date: 31<sup>st</sup> January 2012

# Permit With Introductory Note



**IPSWICH**  
BOROUGH COUNCIL

The Pollution Prevention and Control Act 1999  
The Environmental Permitting (England and Wales) Regulations 2010  
The Solvent Emissions Directive

The BOC Group  
Chertsey Road  
Windlerham  
Surrey  
GU20 6HJ  
LAPPC Permit Ref no:  
**MC1/DJR/01/12**

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## Chronicle

<b>Detail</b>	<b>Date</b>	<b>Comments</b>
First Authorised	20 January 2004	6.5/15/RJD
LAPPC Deemed Application	1 April 2004	Duly Made
Temporary Permit	27 May 2005	6.4/RJD/6
Consultation Permit	21 December 2005	6.4/RJD/6/05
Permit Issued	2 March 2006	1.2/SR/02/06
Consultation Permit	31 January 2012	MC1/DJR/01/12

Permit issued by:

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## **INTRODUCTORY NOTE**

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

The following Permit is issued under Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010, hereinafter referred to as the EP Regulations, to operate a scheduled installation carrying out an activity, or activities covered by the description in section 6.4 in Part 2 to Schedule 1 of the EP 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.

In determining BAT, the Operator should pay particular attention to relevant sections of the Secretary of State's Process Guidance Note 6/23 (04) 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 60 of the EP 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 EP 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 EP 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 24(3) of the EP Regulations.

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

The permit is given in relation to the requirements of the EP 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.

- 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 if provided with this Permit**

Any Ordnance Survey mapping included if 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 433115 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 Environmental Permitting (England and Wales) Regulations 2010  
The Solvent Emissions Directive



**IPSWICH**  
BOROUGH COUNCIL

LAPPC Permit Ref No: **MC1/DJR/01/12**

**Ipswich Borough Council** (hereinafter known as the Regulator) in exercise of its powers under Regulation 13 of The Environmental Permitting (England and Wales) Regulations 2010, hereby authorises:

The BOC Group (hereinafter known as the Operator)

whose Registered Office is:

The BOC Group  
Chertsey Road  
Windlerham  
Surrey  
GU20 6HJ

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:

Sara Boyles  
Principal Environmental Health Officer  
The Authorised Officer for this purpose

Date: 31<sup>st</sup> January 2012

Permit issued by:

Environmental Protection Services  
Floor 3 West  
Ipswich Borough Council  
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## OPERATING CONDITIONS

### Process Description and General Information

The process is carried out by BOC Limited at Brunel Road, Hadleigh Road Industrial Estate, Ipswich, IP2 0EX, within the site boundary shown in Appendix A.

The process involves the painting of compressed gas cylinders and associated activities.

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

At the next stage, each cylinder is shot blasted to remove any existing paint. The shot blasting process is undertaken in one of two dedicated, purpose-built facilities. The main facility consists of an enclosure, with entry and exit doors operating as each conveyerised cylinder passes through. Grits are continually recycled as long as they are fit for the purpose. The plant has one dedicated local exhaust ventilation system, consisting of a centrifugal system with a filter unit to abate total particulate matter release. This system comprises of fabric bags and is located outside the building within the car park. A magnehelic gauge monitors the filter performance. A second shot blasting unit is located within the building. Emissions are ducted into an internal axial filter unit comprising of fabric bags.

Upon completion of shot blasting, the cylinder is spray painted 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 has a laminar airflow and water wash extraction system. 3 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.

BOC undertakes the degreasing of component parts at certain stages of the process using either a solvent bath or an enclosed degreasing vessel.

Appendix A shows the layout and location of the premises



## Solvent Management Plan

1 A Solvent management plan (SMP) shall be used by the operator to demonstrate compliance with the volatile organic compounds (VOCs) requirements set out in this Permit.

2 The Operator shall use the contained and fugitive emission limits compliance scheme for volatile organic compounds for the coating process (wet spraying and equipment cleaning)

Under the requirements of the contained and fugitive emission limits scheme, the Operator shall submit a solvent inventory showing the organic solvent consumption in a 12 month period for the wet spraying and equipment cleaning to Ipswich Borough Council annually.

The following limits shall be met :-

Emission limit – 100mg Carbon / Nm<sup>3</sup> (to be tested annually by manual extractive testing) and

Fugitive limit – 25% of solvent input (determined by calculation once only – except if the process is changed or the equipment is modified when the calculation shall be done again)

To demonstrate compliance with the fugitive limit, the fugitive emissions (F) shall be calculated from a solvent management plan

$$F = I_1 - O_1 - O_5 - O_6 - O_7 - O_8$$

O<sub>1</sub> represents the emissions in waste gases

O<sub>5</sub> represents the quantity of organic solvents lost due to chemical or physical reactions

O<sub>6</sub> represents the quantity of organic solvents contained in collected waste

O<sub>7</sub> represents the quantity of organic solvents, or organic solvents contained in preparations, which are sold or are intended to be sold as a commercially viable product.

O<sub>8</sub> represents the quantity of organic solvents contained in preparations recovered for reuse but not as input into the process / activity, as long as not counted under O<sub>7</sub>

The value of F obtained above is then used to calculate its percentage of solvent input as follows:  
Fugitive emission value (%) = 100 x (F/I)

Where, I is calculated from the solvent management plan as the sum of I<sub>1</sub> and I<sub>2</sub>

I<sub>2</sub> represents the quantity of organic solvents or their quantity in preparations recovered and reused as solvent input into the process.

Thus, compliance to the fugitive limit is achieved if the fugitive emission value is less than or equal to 25% of the solvent input.

The variables in the formulae above are as follows:

I stands for the input of organic solvents in the time frame over which the mass balance is being calculated.

I<sub>1</sub> stands for the quantity of organic solvents or their quantity in preparations purchased which are used as input into the process / activity (including organic solvents used in the cleaning of equipment).

I<sub>2</sub> stands for the quantity of organic solvents or their quantity in preparations recovered and reused as solvent input into the process / activity ( the recycled solvent is counted every time it is used to carry out activity).

O stands for the outputs of organic solvents in the time frame over which the mass balance is being calculated.

A SMP inputs and outputs diagram showing the above variables is included in Appendix B for reference.

#### VOC Control Storage

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

4 All new static bulk organic solvent storage tanks containing organic solvent with a composite pressure that is likely to exceed 0.4Kpa at 20<sup>o</sup>C (293K) shall be fitted with a pressure vacuum relief valves. Pressure vacuum relief valves shall be examined at regular intervals for signs of contamination, incorrect seating and be cleaned and/or corrected as required. the normal minimum examination frequency shall be once every 6 months, but less frequent examination may be justified having regard for the tank contents and the potential emissions as a result of a valve failure.

5 Delivery connections to bulk storage tanks for organic solvents shall be located within a bunded area.

6 Where the operator can not demonstrate to the satisfaction of the regulator that suitable management controls and training with regard to bulk storage deliveries of organic solvents and organic solvent containing materials are in place, along with adequate on site security, then connections to bulk storage tanks shall be fixed and locked when not in use.

7 All fixed storage tanks shall be fitted with high level alarms or volume indicators to warn of overfilling. Where practicable the filling systems shall be interlocked to the alarm system to prevent overfilling.

8 Bunding shall completely surround the bulk liquid storage tanks, be impervious and resistant to the liquids in storage and be capable of holding 110% of the capacity of the largest storage tank.

#### VOC Control Handling

9 Coatings containing VOC shall be stored in closed storage containers.

10 All measures shall be taken to minimise VOC emissions during mixing.

11 Emissions from the emptying of mixing vessels and transfer of materials shall be adequately contained, preferably by the use of closed transfer system.

#### VOC Control Cleaning

12 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.

13 Application of cleaning solvents shall be:

- (i) from a contained device or automatic system when applied directly onto machine rollers; and
- (ii) dispensed by piston type dispenser or similar contained device, when used on wipes.

14 When organic solvent is used on wipes

- (i) pre-impregnated wipes shall be held within an enclosed container prior to use.
- (ii) where practicable no organic solvent cleaning fluids or significant less volatile organic solvents, cleaning fluids shall be used.

15 Fixed equipment shall be cleaned in-situ, and such equipment shall, where practicable, be kept enclosed whilst cleaning is carried out.

16 Where equipment is cleaned off line (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.

17 Residual coating materials contained in parts of the application equipment shall be removed prior to cleaning.

#### VOC Control Operational

18 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

19 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.

20 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 all that handle them are aware of their contents and hazardous properties.

21 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.

22 Prior to disposal, used wipes and other items contaminated with organic solvent shall be placed in a suitably labelled metal bin fitted with a self-closing lid.

#### General Control Techniques

23 Dusty wastes shall be stored in closed containers and handled in a manner that avoids emissions.

24 Dry sweeping of dusty materials shall not normally be permitted unless there are environmental or health and safety risks in using alternative techniques.

25 Suitable organic solvent containment and spillage equipment shall be readily available in all organic solvent handling areas.

26 A high standard of housekeeping shall be maintained.

Emission Limits, Monitoring and other Provisions

27 The reference conditions for emission limits specified in this permit shall be expressed as 273.15K, 101.3Kpa without correction for water vapour content.

28 The Operator shall comply with the provisions and emission limits of table 1:

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

Table 1: Non-VOC Emission Limits

29 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.

30 The process operator shall maintain a list of key abatement plant and shall have a written plan for dealing with its failure in order to minimise any adverse effects.

31 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.

32 The results of non-continuous emission testing shall be forwarded to Ipswich Borough Council within 8 weeks of the completion of the sampling.

33 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

34 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.

35 All releases to air, other than condensed water vapour, shall be free from persistent visible emissions.

36 All emissions to air shall be free from droplets.

37 There shall be no offensive odour beyond the site boundary, as perceived by an authorised officer of Ipswich Borough Council.

38 In the case of abnormal emissions, malfunction or breakdown leading to abnormal emissions the Operator shall:

- (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

39 Ipswich Borough Council shall 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

36 All appropriate precautions shall be taken to minimise emissions during start-up and shutdown.

37 The introduction of dilution air to achieve emission concentration limits shall not be permitted.

38 Dilution air may be added for waste gas cooling or improved dispersion where justified, but this shall not be considered when determining the mass concentration of the pollutant in the waste gases.

39 Operations likely to generate particulate matter shall be continuously monitored to indicate the performance of the abatement plant by using equipment such as a pressure drop indicator.

40 Calibration and compliance monitoring shall meet the following requirements as appropriate. No result shall exceed the emission concentration limits specified, except where either;

- (i) data is obtained over at least 5 sampling hours in increments of 30 minutes or less; or
- (ii) at least 20 results are obtained where sampling time increments of more than 30 minutes are involved; AND in the case of (i) or (ii)
- (iii) no daily mean of all 30 minute mean emission concentrations shall exceed the specified emission concentration limits during normal operation (excluding start-up and shutdown); and
- (iv) no 30 minute mean emission concentration shall exceed twice the specified emission concentration limits during normal operation (excluding start-up and shutdown).

41 Calibration and compliance monitoring for all substances shall be carried out using methods below or methods which can be demonstrated to be equivalent to those stated:

- (i) Stationary source emissions – Determination of the mass concentration of total gaseous organic carbon in flue gases from organic solvent using processes – Continuous flame ionisation detector method. EN13526.
- (ii) Stationary source emissions – Determination of mass concentration of individual gaseous organic compounds. EN13649.
- (iii) 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.

42 Consistent compliance shall be demonstrated using the results from at least;

- (i) Three or more monitoring exercises within two years; or
- (ii) Two or more monitoring exercises in one year supported by continuous monitoring.

43 The regulator shall determine consistent compliance by considering:

- (i) The variability of the monitoring results

- (ii) The margin between the results and the emission limit
- (iii) Any significant process changes, which might have affected the monitored emission.

44 The frequency of testing shall be increased as part of the commissioning of new or substantially changed activities, or where emission levels are near to or approach the emission concentration limits.

45 Where emission limit values for VOCs are consistently met without the use of abatement equipment, the monitoring requirement for those pollutants shall be dispensed with, subject to conditions 41, 42 and 43.

46 The Operator shall ensure that adequate facilities for sampling are provided on vents or ducts.

47 Sampling points on new plant shall be designed to comply with the British or equivalent standards.

#### Minimising dust emissions

48 Stocks of dusty or potentially dusty materials and wastes shall be stored in such a manner as to prevent wind whipping for example by covering or screening. All such materials shall be stored dry in covered containers or undercover.

49 All spray booths and shot blasting equipment shall be provided with adequate extraction to minimise the escape of fugitive emissions from the building. Such extraction shall be ducted to arrestment equipment where such equipment is necessary to meet the relevant emissions limit stated in the permit.

50 Adequate provision shall be made for the containment of liquid and solid spillages. All spillages shall be cleared as soon as possible and in the case of solid materials this shall be achieved by the use of vacuum cleaning, wet methods, or other appropriate techniques. Dry sweeping shall not be permitted unless there are environmental or health and safety risks in using alternative techniques. A vacuum cleaning method or other appropriate techniques shall be used.

51 Abrasive blasting shall be carried out in specially designed booth and exhausts shall be vented to suitable arrestment plant.

52 The cleaning of the particulate matter arrestment plant, coating application plant and extract ductwork shall be carried out so as to minimise emissions to air.

53 Cleaning of powder application booths shall be carried out with the booth extract and arrestment plant kept running.

54 Flues and ductwork shall be cleaned to prevent accumulation of materials as part of the routine maintenance programme.

55 Extraction equipment, booths and ductwork shall be inspected regularly and cleaned as necessary to minimise accumulation of material.

#### Continuous monitoring

56 Operations likely to generate particulate matter shall be continuously monitored to indicate the performance of the abatement plant, by using equipment such as a pressure drop indicator.

57 Where continuous monitoring is required it shall be on display to appropriately trained staff.

58 Instruments shall be fitted with audible and visual alarms situated appropriately to warn the operator of abatement plant failure or malfunction.

59 The activation of alarms shall be automatically recorded, where possible.

60 All continuous monitors shall be operated, maintained and calibrated in accordance with manufacturers instructions. The relevant maintenance and calibration shall be recorded and such records be made available for inspection by Ipswich Borough Council.

61 All new continuous monitoring equipment shall be designed for less than 5% downtime over any 3 month period.

#### Control Techniques

62

Release Source	Substance	Control Techniques
Storage and handling of organic solvents and materials containing organic solvents	VOC	Use of low organic solvent coating materials
		Use of low volatility organic solvent cleaning solutions
		Use of enclosed mixing and storage vessels
Shot blasting	Particulate matter	Particulate capture

#### Stacks, Vents and Process Exhausts

63 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.

64 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.

65 Stacks and ductwork shall be cleaned to prevent accumulation of materials, as part of the routine maintenance programme.

66 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.

67 A minimum discharge velocity shall be required in order to prevent the discharge plume being affected by aerodynamic downwash.

#### Management

68 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.

69 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.

70 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

71 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.

72 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

73 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

74 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

75 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.

76 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

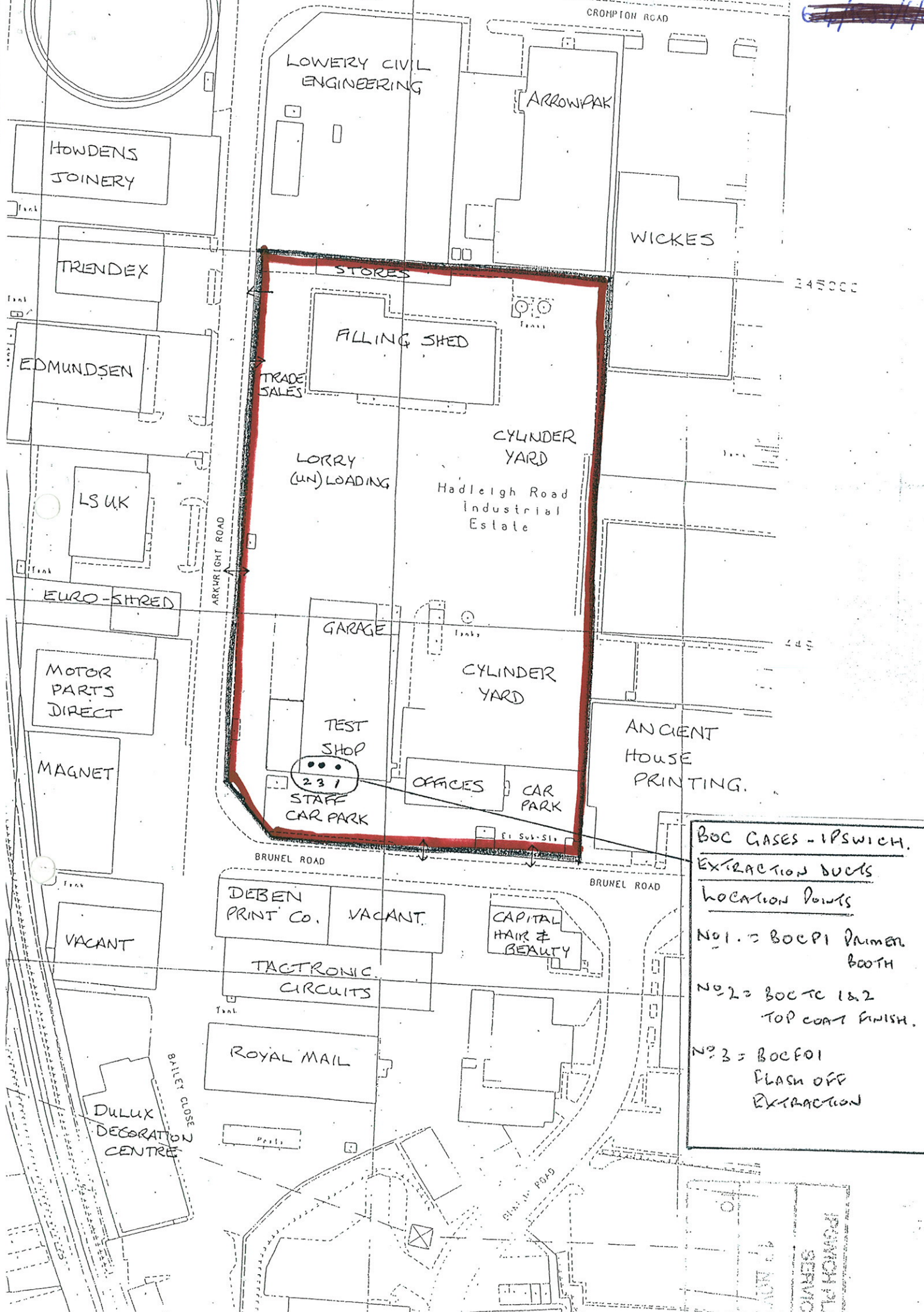


- (iii) resumption of the operation of part or all of the Permitted Installation after a cessation has been notified.

77 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.

## Appendix A



**BOC CASES - IPSWICH.**  
**EXTRACTION DUCTS**  
**LOCATION POINTS**

- NO 1 = BOCPI PRIMER BOOTH
- NO 2 = BOC TC 1&2 TOP COAT FINISH.
- NO 3 = BOC FO1 FLASH OFF EXTRACTION

245000

245

92 NOV 2

IPSWICH PLU SERVICE

## Appendix B

Appendix B

