MANCHESTER
CITY COUNCIL

Permit with introductory note

Pollution Prevention and Control Regulations 2000

K2 Direct Limited
Kay Street
Openshaw
Manchester
M11 2XX

Permit Number

PPC/B/19/05/AW

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 Regulations 2000 (S.I. 2000 No. 1973) ("the PPC Regulations") to operate an installation carrying out one or more of the activities listed in Part 1 to Schedule 1 of those Regulations, to the extent authorised by the Permit.

The Permit includes the conditions that have to be complied with. It should be noted that aspects of the operation of the installation which are not regulated by those conditions are subject to the condition implied by regulation 12 (10) of the PPC Regulations, that 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.

Brief description of the installation regulated by this Permit

Summary

The purpose of the activity at the installation is printing using heat set web offset lithographic processes involving the use of more than 5 tonnes of organic solvent in any 12 month period, including all storage and handling activities, as defined in Part B of section 6.4 (Coating Activities) of Schedule 1 to the Pollution Prevention and Control (England and Wales) Regulations 2000 SI2000 : 1973 (as amended).

Confidentiality

The permit requires the Operator to provide information to the Environmental Health Division of the City Council ('the Council'), which it will place onto the public register in accordance with the requirements of the PPC Regulations. If the Operator considers that any information provided is commercially confidential, it may apply to the Council to have such information withheld from the register as provided in the PPC Regulations. To enable the Council to determine whether the information is commercially confidential, the Operator should clearly identify the information in question and should specify clear and precise reasons.

Variations to the Permit

This Permit may be varied in the future. The Status Log within the Introductory Note to any such variation 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 person, a joint application to transfer the Permit has to be made by both the existing and proposed holders, in accordance with Regulation 18 of the PPC Regulations. A transfer will not be allowed if the Council considers that the proposed holder will not be the person who will have control over the installation or will not ensure compliance with the conditions of the transferred Permit. If the Permit authorises the carrying out of a specified waste management activity, then there is a further requirement that the transferee is considered to be a "fit and proper person" to carry out that activity.

Compliance Overview

For VOC two compliance options are available:

- Reduction Scheme
- Emission and Fugitive Limits

Prior to 31 October 2007 existing SED installations shall apply the provisions of:

- Reduction Scheme, OR
- Emission Limits (see Condition 1.1)

In addition to the above, the requirements of the emission limits and conditions for certain designated risk phrase materials must be met.

New and substantially changed SED installations, and by the 31 October 2007, existing SED installations shall apply the provisions of:

- Reduction Scheme; OR
- Emission and Fugitive Limits

} (see Conditions 1.1 to 1.5)

In addition to the above, the requirements of the emission limits and conditions for certain designated risk phrase materials must be met.

The Reduction Scheme is the preferred method of preventing and minimizing emissions of VOC, using non-abatement techniques such as:

- water borne coatings and inks, (low organic solvent content)
- higher solids content coatings and inks
- powder coatings and inks
- organic solvent free liquid coatings and inks
- radiation cured coatings and inks (for example, ultra violet and electron beam)

For definitions see section 7 of this Permit, 'Interpretations'.

Status log

Detail	Date	Comment
Request for Commercial Confidentiality	Not applicable	
Permit Granted	07 June 2005	

End of introductory Note.

MANCHESTER
CITY COUNCIL

PERMIT

Pollution Prevention and Control Regulations 2000

Manchester City Council
Environmental Health Division
PO Box 463, Manchester M60 3NY

Permit Number
PPC/B/19/05/AW

The Pollution Control Section, Environmental Health at Manchester City Council in exercise of its powers under Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (S.I. 2000 No. 1973), hereby permits

K2 Direct Limited ("the Operator")

Whose Registered Office is:-

Kay Street
Openshaw
Manchester M11 2XX

Company registration number:- **00635275**

To operate an installation at

Kay Street
Openshaw
Manchester M11 2XX

to the extent permitted by and subject to the schedule of this Permit.

Signed Dated:

R Christie
Head of Environmental Services

Conditions

1. Emission Limits and Monitoring

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

Substance and source	Emission Limit	Type of Monitoring (See Note 1)	Monitoring Frequency (subject to Condition 1.34	Compliance Date, from
From the oxidation plant				
Carbon monoxide	100mg/Nm^3 as 30-minute mean	Manual extractive tests	Annual	The date of issue of this permit
Total particulate matter	50 mg/Nm^3 as 30-minute mean	Manual extractive tests	Annual	The date of issue of this permit
Oxides of nitrogen (measured as nitrogen dioxide)	100mg/Nm^3 as 30-minute mean	Manual extractive tests	Annual	The date of issue of this permit
From all processes/activities NOT using the Reduction Scheme				
VOC in waste gases, expressed as total carbon excluding particulate matter **see Notes 2 and 3**	100mg/Nm^3 as 30-minute mean	Monitoring and recording	continuous	The date of issue of this permit
		Manual extractive tests	Annual	

Note 1. *For continuous monitoring and recording see Conditions 1.18 to 1.34. For manual extractive testing see Conditions 1.24 to 1.36.*

Note 2. *The emission limit values for VOC shall not apply where the mass emission of VOC from an individual source is less than 1kg in any 8 hour period.*

Note 3. *The emission limit values for VOC shall not apply where all inks and cleaning materials used in the process contain less than 15% by weight of organic solvents.*

From heatset web offset printing installations NOT using the Reduction Scheme				
VOC in waste gases from oxidation plant	**Emission Limits / requirements**	**Fugitive Emission Values**	**Monitoring**	**Compliance Date, from**
Organic solvent consumption 5-15 tonnes in any 12 month period, expressed as total mass of organic carbon	50 mg Carbon/Nm^3	25% of organic solvent input	Continuous monitoring and recording plus annual manual extractive testing. See Conditions 1.18 to1.34. For fugitive emissions see Conditions 1.7 to 1.9	31st October 2007
Organic solvent consumption 15-25 tonnes in any 12 month period, expressed as total mass of organic carbon	50 mg Carbon/Nm^3	30% of organic solvent input		
Organic solvent consumption 25 tonnes or more in any 12 month period, expressed as total mass of organic carbon. **See Note 4**	50 mg C/Nm^3 or 20 mg C/Nm^3 until 1 April 2013. 20 mg C/Nm^3 after 1 April 2013.	30% of organic solvent input		
VOC in other waste gases	**Emission Limits / requirements**	**Fugitive Emission Values**	**Monitoring**	**Compliance Date, from**
Organic solvent consumption 15-25 tonnes in any 12 month period, expressed as total mass of organic carbon	100 mg Carbon/Nm^3	30% of organic solvent input	annual manual extractive testing. See Conditions 1.18 to1.34. For fugitive emissions see Conditions 1.7 to 1.9	31st October 2007
Organic solvent consumption 25 tonnes or more in any 12 month period, expressed as total mass of organic carbon. **See Note 4**	20 mg Carbon/Nm^3			

Note 4. *For abatement plant existing prior to 1 April 2001, the higher contained emission figure may be used until 1 April 2013, if:*

- *the total emissions of the whole installation (fugitive + contained emissions) does not exceed the total emission allowed after 1 April 2013 (fugitive + contained emission after 1 April 2013).*

The Reduction Scheme

1.2 The Operator shall demonstrate compliance with the Reduction Scheme on or before the 31st October 2005 and annually thereafter, by submitting the details of the Scheme to the Council. The Scheme shall include in particular

- decreases in the average solvent content of the total input; and/or
- increased efficiency in the use of solids

to achieve a reduction of the total emissions from the installation.

1.3 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. Where:

Annual Actual Solvent Emission = I_1-O_8-O_7-O_6-O_5 (for definitions see Schedule 1)

The Target Emission is specified below:

	Target emission Value by 31/10/2005	**Target emission Value from 31/10/2007**
5-15 tonnes solvent consumption per annum	Total mass of solids x 2.4	Total mass of solids x 1.6
15 tonnes or more solvent consumption per annum	Total mass of solids x 1.5	Total mass of solids x 1

1.4 The Reduction Scheme compliance route shall not permit

- the replacement of a low or no organic solvent coating with a conventional high organic coating system, or
- the introduction of such a high organic solvent coating system into a process / activity, or
- the introduction of such a high organic solvent coating system into a product where it was not in use before, or
- the introduction of high solids formulations which have no beneficial effect on the product but increase the solids used, except where a reduction in the overall VOC emissions can be demonstrated.

1.5 Any proposal to introduce a conventional high organic coating system shall be submitted to the Council Regulator, together with the reasons why lower organic solvent systems are not considered technically appropriate or practicable.

Determination of Solvent Consumption

1.6 A determination of the Organic Solvent Consumption for the installation over a 12-month period shall be made, and submitted to the Council annually, in the form of a mass balance in order to determine the actual consumption of organic solvent (**C**).

Where: $\mathbf{C = I_1 - O_8}$

For $\mathbf{I_1 = IS + PS - FS}$

Where: -

IS = the mass of organic solvent contained in raw materials and preparations in the initial stock at the start of the accounting period;

PS = The mass of organic solvent contained in raw materials and preparations in the purchased stock during the accounting period; and

FS = the mass of organic solvent contained in raw materials and preparations in the final stock at the end of the accounting period.

(for definitions see Schedule 1).

Determination of Fugitive Emissions

1.7 The fugitive emissions shall be determined by application of the solvent consumption calculation specified in Condition 1.6.

1.8 To demonstrate compliance with fugitive emission values the Operator shall determine the fugitive emissions (F) from the installation using the following:

F = I1 - O1 - O5 - O6 - O7 - O8
or
F = O2 + O3 + O4 + O9 (for definitions see Schedule 1)

The Fugitive Emission value as a percentage of the Solvent Input (I) is determined by Fugitive Emission Value = 100 x F/I

Where the Solvent Input (I) = I1+ I2 (determined as part of the Solvent Management Plan).

1.9 The Operator shall submit a Solvent Management Plan (SMP), calculated as per Schedule 1 on or before 31st October 2005, and annually thereafter.

- Where the emission and fugitive limits apply, the SMP shall be used for determining the fugitive emissions. Once completed, it need not be recalculated until any equipment modification is carried out.
- Where the total emission limit values apply, the SMP shall be used for determining the total emission and the organic solvent input annually.

Designated Risk Phrase Materials

1.10 Any Designated Risk Phrase Materials used in the permitted installation shall be either replaced, controlled and or limited, as set out below:

Requirements	Monitoring / timescales
Designated Risk Phrase Materials with Risk Phrases R45, R46, R49, R60, R61	
Replace as far as possible by less harmful substances or preparations.	Existing installations shall comply within the shortest possible time. New and substantially changed installations shall comply from 1 April 2001
Control under contained conditions as far as technically and economically feasible to safeguard public health and the environment. Normally, in accordance with Conditions 2.4 to 2.33 of this Permit	Existing installations shall comply by 31 October 2007 New and substantially changed installations shall comply from 1 April 2001.
Limit - where the sum of the mass flows of all the discharges of all the compounds causing the risk phrase labelling is greater or equal to 10 g/h, a limit value of 2 mg/Nm^3 for the mass sum of the individual compounds shall apply.	Annual manual extractive testing, see Conditions 1.24 to 1.36 Existing installations shall comply by 31 October 2007 New and substantially changed installations shall comply from 1 April 2001
Halogenated VOC with Risk Phrase R40	
Control under contained conditions as far as technically and economically feasible to safeguard public health and the environment. Normally, in accordance with Conditions 2.4 to 2.33 of this Permit.	Existing installations shall comply by 31 October 2007 New and substantially changed installations shall comply from 1 April 2001
Limit - where the sum of the mass flows of all the discharges of all the compounds causing the risk phrase labelling is greater or equal to 100 g/h, a limit value of 20 mg/Nm^3 for the mass sum of the individual compounds shall apply.	Annual manual extractive testing, see Conditions 1.24 to 1.36 Existing installations shall comply by 31 October 2007 New and substantially changed installations shall comply from 1 April 2001

Monitoring Records

1.11 The operator shall keep records of inspections, tests and monitoring, including all non-continuous monitoring, inspections and visual assessments. The records shall be:

- kept on site
- kept by the operator for at least two years; and
- made available for the Council regulator to examine.

Visible and Odorous Emissions

1.12 Emissions from combustion processes shall in normal operation be free from visible smoke and in any case shall not exceed the equivalent of Ringelmann Shade 1 as described in British Standard BS 2742:1969.

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

1.14 There shall be no offensive odour beyond the site boundary, as perceived by the Council regulator.

Abnormal Events

1.15 The regulator shall be informed without delay

- if there is an emission that is likely to have an effect on the local community, or
- in the event of the failure of key arrestment plant.

1.16 In the case of abnormal emissions, malfunction or breakdown leading to abnormal emissions the operator shall

- investigate and undertake remedial action immediately;
- adjust the process or activity to minimise those emissions;
- reduce or close down operations as soon as practicable, and
- promptly record the events and actions taken.

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

Continuous Monitoring

1.18 The oxidation plant shall have continuous monitoring of temperature as a surrogate for VOC measurement. If any new ink/coating is introduced, sufficient VOC monitoring data shall be collected to clearly demonstrate adequate VOC destruction at normal operating temperatures to the Council Regulator.

1.19 All continuous monitoring readings shall be on display to appropriately trained staff.

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

1.21 The activation of alarms shall be automatically recorded.

1.22 All continuous monitors shall be operated, maintained and calibrated (or referenced) in accordance with the manufacturers' instructions, which shall be made available for inspection by the Council regulator. The relevant maintenance and calibration (or referencing) shall be recorded.

1.23 All new continuous monitoring equipment installed after 31st October 2005 shall be designed for less than 5% downtime over any 3-month period.

Calibration and Compliance Monitoring

1.24 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.

1.25 Calibration and compliance monitoring for VOCs shall be carried out using methods below or methods which can be demonstrated to be equivalent to those stated.

- 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; EN 13526.
- Stationary source emissions – Determination of mass concentration of individual gaseous organic compounds (as may be periodically required); EN 13649.

1.26 Emissions monitoring of nitrogen dioxide shall be carried out in accordance with ISO 10849.

1.27 Emissions monitoring of carbon monoxide shall be carried out in accordance with ISO 12039.

1.28 Where monitoring is not in accordance with the main procedural requirements of the relevant standards listed in Conditions 1.24 to 1.27, deviations shall be reported as well as an estimation of any error invoked.

1.29 No result shall exceed the emission concentration limits specified, except where either:

(a) data is obtained over at least 5 sampling hours in increments of 30-minutes or less; or

(b) at least 20 results are obtained where sampling time increments of more than 30-minutes are involved.

AND in the case of (a) or (b)

(c) no daily mean of all 30-minute mean emission concentrations shall exceed the specified emission concentration limits during normal operation (excluding start-up and shut-down); and

(d) no 30-minute mean emission concentration shall exceed twice the specified emission concentration limits during normal operation (excluding start-up and shut-down).

1.30 For any continuous monitoring of VOC (see Condition 1.18):
(a) none of the average over 24 hours of normal operation shall exceed the emission limit values, and
(b) none of the hourly averages shall exceed the emission limit value by more than a factor of 1.5. [The hourly average of the 30-minute means value may be used to demonstrate compliance].

1.31 For periodic measurements of VOC at least three readings shall be obtained during each measurement exercise. The emission limit values shall be considered to be complied with if, in one monitoring exercise,

(a) the average of all the readings does not exceed the emission limit values, and
(b) none of the hourly averages exceeds the emission limit value by more than a factor of 1.5. [The hourly average of the 30-minute means value may be used to demonstrate compliance].

1.32 The introduction of dilution air to achieve the emission concentration limits is not permitted.

1.33 Exhaust flow rates shall be consistent with efficient capture of emissions, good operating practice and meeting the requirements of the legislation relating to the workplace environment.

1.34 The frequency of testing shall be increased as specified by the Council, for example, as part of the commissioning of new or substantially changed processes, or where emission levels are near to or approach the emission concentration limits.

Sampling Provisions

1.35 The operator shall ensure that adequate, safe facilities for periodic manual extractive sampling surveys are provided on stacks or ducts.

1.36 Sampling points on new plant shall be designed to comply with the appropriate British or equivalent standards. e.g. BS ISO 12141:2002 or BS EN 13284:Part 1 for sampling particulate matter in stacks.

Information Required by the Council

1.37 In order to minimise adverse effects, the Operator shall provide a list of key arrestment plant and shall have a written procedure for dealing with its failure.

1.38 The operator shall notify the Council at least 7 days before any periodic monitoring exercise to determine compliance with emission limit values. A sampling protocol shall be submitted to the Council for approval at least two weeks prior to any such sampling exercise, stating at least the proposed time and date of monitoring, pollutants to be tested and the methods to be used.

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

1.40 A summary of continuous indicative continuous monitoring data shall be submitted to the Council regulator at least every six months, identifying the times, dates and duration of all alarm events.

1.41 Adverse results from any monitoring activity (both continuous and non-continuous) shall be investigated by the operator as soon as the monitoring data has been obtained/received. The operator shall:

- identify the cause and take corrective action;
- record as much detail as possible regarding the cause and extent of the problem, and the action taken by the operator to rectify the situation;
- re-test to demonstrate compliance as soon as possible; and
- notify the Council of the investigation, findings and action.

2. Control Techniques

Particulate Matter and Gases

2.1 All new plant shall be contained such that emissions are extracted and ducted to a single emission point that is designed so that monitoring can take place in accordance with Conditions 1.24 to 1.27.

2.2 Emissions shall be abated where necessary to meet the limits and provisions.

2.3 Where necessary to meet the emission limit for nitrogen oxides,

(a) the nitrogen content of the fuel and other material being burnt shall be controlled, and
(b) low NOx burners shall be installed

VOC Controls

2.4 An inventory of organic solvents usage quantified by mass of total VOCs shall be maintained and submitted to the Council regulator on an annual basis or as otherwise agreed in writing by the Council.

2.5 All potentially odorous waste materials shall be stored in suitable closed containers or bulk storage vessels, where appropriate vented to suitable abatement plant.

2.6 All new static bulk organic solvent storage tanks containing organic solvent with a composite vapour pressure that is likely to exceed 0.4kPa at 20^{o}C (293K) shall be fitted with 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 six months, but less frequent examination may be justified having regard for the tank contents and the potential emissions as a result of valve failure.

2.7 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

2.8 Raw materials containing VOC shall be stored in closed storage containers.

2.9 All measures shall be taken to minimise VOC emissions during mixing, i.e. the use of covered or closed mixing vessels.

2.10 Emissions from the emptying of mixing vessels and transfer of materials shall be adequately contained, preferably by the use of closed transfer systems. This may be achieved by the use of closed mobile containers, containers with close-fitting lids, or, preferably, closed containers with pipeline delivery.

2.11 Where organic compounds are present in dampening, the proportion of organic compounds in the dampening solutions shall not exceed

(i) 10% (by weight) in the case of existing presses, except where these are incapable of running at that level, and
(ii) 5% (by weight) in the case of new presses

2.12 In order to reduce the temperature of dampening solutions containing organic compounds, cooling shall be installed.

2.13 Cleaning operations involving organic solvents shall be periodically reviewed, normally at least once every two years, to identify opportunities for reducing VOC emissions (e.g. cleaning steps that can be eliminated or alternative cleaning methods). The Council Regulator shall be provided with a report on the conclusions of the review.

2.14 Application of cleaning solvents shall be:
- from a contained device or automatic system when applied directly onto machine rollers; and
- dispensed by piston type dispenser or similar contained device, when used on wipes.

2.15 When organic solvent is used on wipes:
- pre-impregnated wipes shall be held within an enclosed container prior to use
- where practicable no organic solvent cleaning fluids or low-solvent cleaning fluids shall be used.

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

2.17 Where equipment is cleaned off-line, cleaning shall be carried out using enclosed cleaning systems, wherever possible. 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 where necessary.

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

2.19 Programmable scales shall be used during the mixing and preparation of inks/coatings to reduce organic solvent usage.

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

2.21 All reasonably practicable 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 stored in closed containers.

2.22 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.

2.23 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.

2.24 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. [Note: from a health and safety point of view it is advised that bins shall be emptied at least daily, as they not only present a fire hazard, they may also undergo spontaneous combustion. For materials that may undergo spontaneous combustion special bins that allow air to circulate beneath and around them to aid cooling or other bins specifically designed for this purpose may be used].

Materials Handling

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

2.26 Internal transport of dusty materials shall be carried out so as to prevent or minimise airborne dust emissions.

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

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

2.29 A high standard of housekeeping shall be maintained.

Stacks, Vents and Process Exhausts

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

2.31 All discharges shall be vertically upwards, and stacks 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.

2.32 Flues and discharge stacks shall be adequately insulated to minimise the cooling of waste gases and prevent liquid condensation on internal surfaces.

2.33 Exhaust gases discharged through a stack or vent shall achieve an exit velocity which is normally greater than 15m/s during normal operating conditions to achieve adequate dispersion. A lower velocity shall be acceptable to the Council provided that it achieves adequate dispersion and dilution, that aerodynamic downwash does not occur, and that any provisions of the Council's statutory duties within any Air Quality Management Area are not compromised.

3. Management

3.1 Best available techniques shall be used to ensure effective control of emissions by the proper management, supervision and training for process operations, the proper use of equipment, and effective preventative maintenance on all plant and equipment concerned with the control of emissions to air.

3.2 Spares and consumables, in particular, those subject to continual wear, shall be held on site, or shall be available at short notice from guaranteed suppliers, so that plant breakdowns can be rectified rapidly.

4. Training

4.1 Training of all staff with responsibility for operating the process and associated activities within the installation shall include:

- awareness of their responsibilities under the permit, in particular how to deal with conditions likely to give rise to VOC emissions, such as in the event of spillages,
- minimising emissions on start up and shut down, and
- action to minimise emissions during abnormal conditions

4.2 The operator shall maintain a statement of training requirements for each operational post and keep a record of the training received by each person

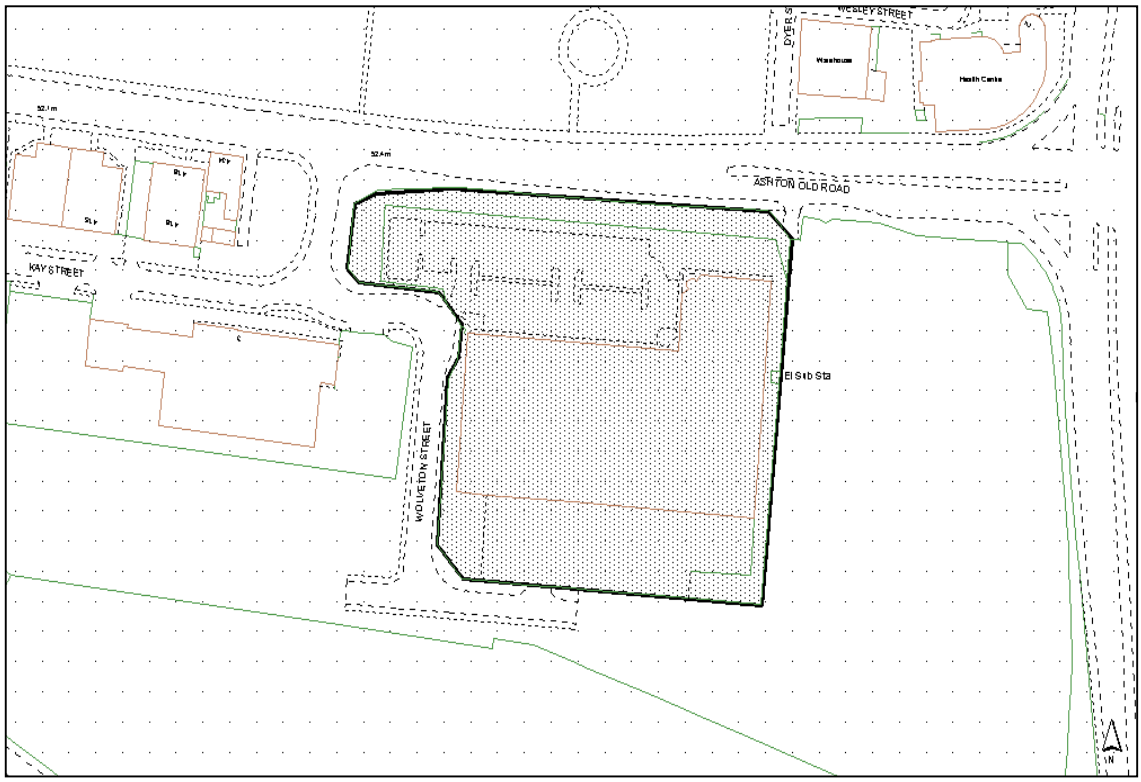
whose actions may have an impact on the environment. These documents shall be made available to the Council on request.

5. Maintenance and Cleaning

5.1 A written maintenance programme shall be implemented with respect to pollution control equipment, including all ducts and flues. A record of such maintenance and the cleaning schedule shall be made available for inspection by the Council regulator.

6. The Installation Boundary

6.1 The activities authorised within the Permit shall not extend beyond the Site, being the area shown highlighted on the plan below.



Map 1: Location of K2 Direct Limited, Manchester.

7. Interpretation

7.1 In this Permit, the following expressions shall have the following meanings:

"Daily"
means a 24 hour period commencing at 00.00 hours

"Designated risk phrase materials"
means a halogenated VOC assigned or which needs to carry the risk phrase R40 or substances or preparations* which because of their content of VOC are assigned or need to carry the risk phrases R45, R46, R49, R60, R61.

*Note: a preparation may contain substances which are assigned one of the risk phrases R45, R46, R49, R60 or R61, but the preparation itself would not be assigned that risk phrase, as the proportion of the risk phrase material is below the relevant classification threshold in the final preparation for the preparation as a whole to carry the risk phrase.

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

"Organic compound"
means any compound containing at least the element carbon and one or more of hydrogen, halogens, oxygen, sulphur, phosphorus, silicon or nitrogen, with the exception of carbon oxides and inorganic carbonates and bicarbonates

"Organic solvent"
means any VOC which is used alone or in combination with other agents, and without undergoing a chemical change, to dissolve raw materials, products or waste materials, or is used as a cleaning agent to dissolve contaminants, or as a dissolver, or as a dispersion medium, or as a viscosity adjuster, or as a surface tension adjuster, or a plasticiser, or as a preservative.

"Permitted Installation"
means the activities and the limits to those activities in printing using heat set web offset lithographic processes involving the use of more than 5 tonnes of organic solvent in any 12 month period, and any ancillary operations including all storage and handling activities.

"Permit"
means the written permission to operate an installation prescribed for LAPPC (the replacement for authorisation under LAPC)

"PPC Regulations"

means the Pollution Prevention and Control Regulations 2000 (S.I. 2000 No. 1973) and words and expressions defined in the PPC Regulations shall have the same meanings when used in this Permit

"Risk Phrase"

means the same as in Directive 67/548/EEC
R40 - limited evidence of a carcinogenic effect
R45 - may cause cancer
R46 - may cause heritable genetic damage
R49 - may cause cancer by inhalation
R60 - may impair fertility
R61 - may cause harm to the unborn child

"Staff"

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

"Volatile Organic Compound (VOC)"

means any organic compound having at 293,15 K a vapour pressure of 0.01 kPa or more, or having a corresponding volatility under the particular conditions of use. For the purpose of the Solvents Directive, the fraction of creosote which exceeds this value of vapour pressure at 293.15 K shall be considered as a VOC

"year"

means calendar year ending 31 December.

8. Written agreement to changes

8.1 When the qualification "or as otherwise agreed in writing" is used in a condition of this Permit, the Operator shall seek such agreement in the following manner:

a the Operator shall give the Council written notice of the details of the proposed change, indicating the relevant part(s) of this Permit; and

b such notice shall include an assessment of the possible effects of the proposed change (including waste production) on risks to the environment from the Permitted Installation.

8.2 Any change proposed and agreed in writing by the Council shall not be implemented until the Operator has given the Council prior written notice of the implementation date for the change. As from that date, the Operator shall operate the Permitted Installation in accordance with that change, and any relevant documentation referred to in this Permit shall be deemed as amended.

8.3 The address for writing to the Council shall be as follows,

Manchester City Council
Pollution Control Section
Environmental Health
PO Box 463
Manchester M60 3NY

Contact Officer:	Angela Whitehead
Telephone Number:	0161 234 4884
Fax Number:	0161 234 4871
email	*a.whitehead@manchester.gov.uk*

or as otherwise notified by the Council.

Schedule 1 SOLVENT MANAGEMENT PLAN

Definitions:

The following definitions provide a framework for the mass balance calculations used in determining compliance.

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

I_1 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).

I_2 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 the activity.)

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

O_1 Emissions in waste gases.

O_2 Organic solvents lost in water, if appropriate taking into account wastewater treatment when calculating **O_5**.

O_3 The quantity of organic solvents which remains as contamination or residue in products output from the process/activity.

O_4 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.

O_5 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 O_6, O_7 or O_8).

O_6 Organic solvents contained in collected waste.

O_7 Organic solvents, or organic solvents contained in preparations, which are sold or are intended to be sold as a commercially valuable product.

O_8 Organic solvents contained in preparations recovered for reuse but not as input into the process/activity, as long as not counted under O_7

O_9 Organic solvents released in other ways.

End of Permit

Appeal Against Permit Conditions

Anyone who is aggrieved by the conditions attached to a Permit can appeal to the Secretary of State for Environment, Food and Rural Affairs. Written appeals must be sent to the Secretary of State's delegate (the Planning Inspectorate) no later than six months from the date of issue of the Permit to the following address:

The Planning Inspectorate
Environment Appeals Administration
Room 4/19 – Eagle Wing
Temple Quay House
3 The Square
Temple Quay
Bristol BS1 6PN

The letter of appeal must include the following:

- A statement of the grounds of appeal;
- A statement indicating whether the appellant wishes the appeal to be dealt with by written representations or at a hearing;
- A copy of the relevant application;
- A copy of any relevant Permit;
- A copy of any relevant correspondence between the appellant and the and the regulator

At the same time, a copy of the appeal document including the first two items above must be sent to the Council at the following address

Manchester City Council
Pollution Control Section
Environmental Health
PO Box 463
Manchester M60 3NY

Contact Officer:	Angela Whitehead
Telephone Number:	0161 234 4884
Fax Number:	0161 234 4871
email	*a.whitehead@manchester.gov.uk*

Note:

An appeal will not suspend the conditions of the Permit from coming into effect.

In determining the appeal the Secretary of State, or the Planning Inspector, may direct the Local Authority to vary, remove or add conditions to the Permit and not solely make comment on those conditions that are the subject of the appeal itself.