PERMIT REFERENCE: PPC 165
Bowater Building Products Ltd
t/a The Prime Connection
Pollution Prevention and Control Act 1999
Pollution Prevention and Control (England and Wales)
Regulations 2000 as amended

Process Address	Courtalds House Courtalds Way Coventry CV6 5NH
Process Type	The use of 5 tonnes or more of di-phenyl-methane-di-isocyanate
Current Operator	Bowater Building Products Ltd t/a The Prime Connection 4 Hockley Court 2401 Stratford Road Hockley Soilhull B94 6NW
Previous Operator	n/a
Date of Application	28th September 2004
Date Permit Issued	10th February 2005

POLLUTION PREVENTION & CONTROL ACT 1999
POLLUTION PREVENTION & CONTROL (ENGLAND AND WALES) REGULATIONS 2000

DOCUMENT A : PERMIT

Bowater Building Products Ltd T/A The Prime Connection

Reference Number **PPC/165**

Coventry City Council ("the Council") in accordance with Section 10(2) of the Pollution Prevention & Control (England and Wales) Regulations 2000 ("The Regulations"), hereby permits:

Bowater Building Products Ltd
Trading as The Prime Connection

Whose registered office is:

4 Hockley Court
2401 Stratford Road
Hockley
Solihull
B94 6NW

to operate a Part B installation involving the use of 5 tonnes or more of di-phenyl-methane-di-isocyanate, as prescribed in Section 4.1 Part B a (i) of Schedule 1 to The Regulations, at:

The Prime Connection
Courtalds House
Courtalds Way
Coventry
CV6 5NH

The permit is subject to the conditions specified in this document consisting of 14 pages and comprising documents A, B and C, plans PPC/165/A, PPC/165/B and PPC/165/C and Appendix 1.

[redacted]

Signed.....
Alan Bennett, Head of Environmental Health
A person authorised to sign on behalf of the Council

Dated ……10/02/05…….

SCOPE

The installation comprises not just any relevant unit carrying out a Part B activity listed in Schedule 1 to the Regulations, but also directly associated activities which have a technical connection with that activity and which could have an effect on pollution.

All pollutant concentrations shall be expressed at reference conditions of 273K and 101.3kPa, without correction for water vapour content.

Technical Guidance documents used in the preparation of this document:

- Secretary of States Guidance Note PG6/29(04) – Di-Isocyanate Processes
- Secretary of State's Guidance – General Guidance Manual on Policy and Procedures for A2 and B installations. ISBN 0-85521-028-1

Date Annual Fee Required:	1st April of each financial year
Date For Full Compliance:	Date permit issued
Permit Prepared By:	Neil Wait
Permit Checked By:	Michelle Muller

LEGISLATION

1. Pollution Prevention and Control Act 1999.
2. Pollution Prevention and Control Regulations 2000 as amended, schedule 1 as amended

BRIEF DESCRIPTION OF THE INSTALLATION REGULATED BY THIS PERMIT

Definitions referred to in this permit

- An **Activity** is an industrial activity forming part of an installation. Different types of activity are listed within Schedule 1 of the PPC Regulations and are broadly broken down into industrial sectors. Other "associated" activities may also form part of an installation.
- An **Installation** comprises not just any relevant unit carrying out a B activity listed within Schedule 1 to the PPC Regulations, but also directly associated activities which have a technical connection with a schedule 1 activity and which could have an effect on pollution.
- An **Operator** is the person (e.g. a company or individual) who has control over the operation of an installation.
- **Stack** includes structures and openings of any kind from or through which substances may be emitted to air.
- **Duct** includes enclosed structures through which gaseous substances may be conveyed.
- **Process vent** includes open terminations of ducts.
- **Authorised Officer** shall mean an officer authorised to carry out duties under the Pollution Prevention and Control Act 1999 and subordinate regulations
- **Logbook** shall mean any electronic or paper means of storage of the required information as agreed by the regulator
- **Local Authority** shall mean Coventry City Council
- **"m"** means metres
- **"m/s"** means metres per second

The general location of the permitted installation is shown and the Installation boundary is marked in red on the attached plan PPC/165/A. The internal layout of the production area is shown on the attached plans PPC/165/B, and PPC/165/C.

Description of Installation

The Prime Connection manufacture composite doors – approx. 500 door slabs per week. The manufacture consists of several stages:

Cutting
The PVCu door profile is cut to size using a twin head saw

Lock Preparation
The locking side section of the door profile is routed.

Reinforcing
The pre-cut steel reinforcement is placed into the cavity of the PVCu door profile and fixed into place using screws.

Foam Preparation
A hole is drilled into the base of the door, to allow foam injection at a later stage. Pressure release holes are also drilled into the top of the door.

Welding
All 4 sides of the door profile are welded.

Corner Cleaning
Excess PVC weld spur created in the welding process is removed from both sides of the profile and machined at both corners.

Laminate Application
Door substrate is placed onto the laminate applicator table and cleaned both sides using a solvent impregnated wipe, or solvent primer dispensed onto a rag from a dispenser.

The door substrate is placed on the press table where it is centralised and adhesive applied to the flat side of the substrate. The door skin that comprises of glass reinforced plastic, PVC or polycarbonate is placed onto the vacuum arm that rests above the applicator press. The operator lowers the arm down onto the door substrate, forcing the substrate to meet the door skin. Once this is completed the door substrate id turned over and the door skin applied to the other side of the door, as above.

Once 6 to 18 doors have been treated they are placed onto a trolley and wheeled to the foam injection area.

Foam Filling
The polyurethane foam is mixed using a high pressure mixing and metering system.

6 door slabs are placed into the foam filling press and foam injected into the slab through the pre-drilled holes at the base of the slab. Following a 20-minute foam-setting period, the doors are removed and placed onto a trolley where they remain for approx. 1 hour before further processing.

Trimming and Cassette Routing
The door is placed onto 1 of 6 router tables where any excess door skin is removed and the relevant panels on the door are removed to make way for glazing.

Cassette Filling and Glazing
A cassette is used as edging on the door slab for where panels have been removed. The cassette is applied to the door slab-using adhesive and the double-glazed sealed unit is secured between the cassettes.

Packaging and Dispatch
A heat wrap is used to place polystyrene round the door slab, and here required polystyrene may be used to protect the corners of the door slab. Once wrapped the door is ready for dispatch.

Table 1

List of Process Areas within the Installation and Associated Emission Points, Pollutants of Concern and Abatement Plant Required

Row Number	Area/Machinery Identification	Pollutants Emitted	Emission Limit in Permit	Abatement Plant Required
1	1 Foam injection table	Di-isocyanate and Particulates	1.1, 1.2, 1.3	No – extracted directly to atmosphere
2	6 Cassette / routing tables	Particulates	1.5	Yes- bag filter and collection
3	Laminate application tables	V.O.C's from solvent primer wipes/rag	3.1	No

DOCUMENT B

CONDITIONS

All conditions shall have immediate effect unless stated otherwise.

1.0 EMISSION LIMITS AND CONTROLS

1.1 All emissions to air shall be free from offensive odour outside the installation boundary, as perceived by the local Authority Inspector.

1.2 There shall be no emissions of particulate matter noticeable beyond the installation boundary.

1.3 The following emissions to atmosphere shall not be exceeded

(a) Di-isocyanate as total NCO group from the stack serving the foam mixing and door press area 0.1 mg/m3 averaged over any 2 hour period whilst plant is in operation

1.4 The introduction of dilution air to achieve the emission concentration limits in this authorisation is not permitted. Exhaust flow rates should be consistent with the efficient capture of emissions.

1.5 Particulate emissions from the trimming and cassette routing of the PVCu door slabs shall not be extracted to atmosphere but shall be extracted into a bag filter system fitted with an explosion panel. This shall only take place whilst the bag filter system including explosion panel is in proper working order.

2.0 MONITORING, SAMPLING AND MEASUREMENT OF EMISSIONS

2.1 A visual assessment of particulate emissions from the stacks serving the cassette and routing tables shall be carried out at least once a day from a position where the stacks are clearly visible.

2.2 An olfactory assessment of emissions of volatile organic compounds and di-isocyanates shall be carried out at least once a day from the installation boundary.

2.3 Emissions from the stack serving the foam injection table shall be tested for di-isocyanates within 8 weeks of the commissioning of the plant and thereafter once every 12 months

2.4 The Authority shall be notified 7 days in advance of any periodic monitoring to demonstrate compliance with clause 2.3. This notification shall include the provisional date, and time of the monitoring, pollutants to be tested, and the method to be used

2.5 The results of the monitoring to demonstrate compliance with clause 2.3 shall be forwarded to this Local Authority within 8 weeks of the monitoring taking place.

2.6 The results of monitoring to comply with 2.1 and 2.2 shall be recorded in a log book. This shall include the date, time, wind strength and direction, the name of the observer and an assessment of the emissions. This log book shall be retained, on site, for a minimum of four years.

2.7 Any adverse results from the monitoring required in 2.1 and 2.2 shall be followed up immediately by the investigation of the cause of the emission and any corrective action taken, with this also being recorded in the log book.

2.8 A detailed record shall be kept of all organic solvents used in the prescribed processes. This shall include cleaning solvent usage, adhesive solvent usage and diluent solvent usage. This inventory shall be forwarded to the local Authority at least once every 12 months and shall include a determination for the total organic solvent usage for that period.

3.0 OPERATIONAL CONTROLS

3.1 The door substrate shall be cleaned using a solvent based primer that is applied using a pre-impregnated wipe or via a rag that has solvent dispensed onto it via a dispensing device. Used rags or wipes shall be stored in an enclosed contained whilst awaiting disposal.

3.2 Solvent-based adhesive shall be applied to the door substrate via applicator heads on the press table.

3.3 Polyurethane foam components (polyol and isocyanate) shall be stored in 1 tonne IBC units and whilst not in use on a bunded pallet that is capable of holding 110% of the material stored on it.

3.4 The IBC units shall be stored securely so that they are only accessible to authorised/trained personnel.

3.5 A spillage kit containing mobile bunds, drain covers, adsorbent, and isocyanate decontaminant solution shall be sited in the IBC storage area at all times. If any of the kit components are removed they shall be replaced as soon as is practicable.

3.6 The polyurethane components will be stored whilst in use in the mixing area on an IBC stand fitted with a motor/pump that will transfer the component materials to the relevant holding tank.

3.7 A silica gel unit containing moisture silica gel crystals shall be attached to the isocyanate IBC currently on stream on the mixing system.

3.8 There shall be 2 holding tanks – 1 each for polyol component and 1 for the isocyanate component. Each tank shall be capable of holding 200 litres.

3.9 The component materials shall be transferred from the tanks and throughout the mixing and injection system through sealed pipe work or feed lines using compressed air.

3.10 The tanks and feed lines for polyol and isocyanate shall be colour coded, and the couplings at the base of the IBCs shall have male and female couplings, to prevent cross contamination.

3.11 The mixed foam shall be manually injected into consecutive door slabs using a foam gun applicator, and the door slab left to set for 20 minutes before it is processed further.

3.12 The foam gun applicator head shall be cleaned by drilling out any foam that is set within the applicator.

3.13 Any waste component materials shall be mixed with isocyanate decontamination products, and stored in enclosed containers, in addition to waste foam from the "bag shot" quality control check/process.

4.0 STACKS, DUCTS AND PROCESS VENTS

4.1 The stack serving the mixing/injection area shall be 10.6m above ground floor level and shall not be fitted with a cap, cowl or other restrictive device. The extraction system shall achieve an efflux velocity of 18.7m/s.

5.0 GENERAL OPERATIONS

5.1 The operator shall undertake regular cleaning and preventative maintenance including inspection and repair/replacement on all plant and equipment concerned with the emission, capture, transport and control of emissions to atmosphere. Where necessary manufacturers guidelines shall be used to determine the regularity of maintenance. Records of preventative maintenance including inspections and any works undertaken shall be kept on site and made available to the local authority inspector on request.

5.2 Spares and consumables for plant and equipment used in the installation in particular that subject to continual use or wear shall be held on site or shall be available at short notice. Such plant or equipment shall not be used unless that plant or equipment is capable of working in accordance with the conditions of this permit.

5.3 Staff at all levels shall receive the necessary training and instruction in their duties relating to control of the activities and emissions to air. Records shall be kept which details all relevant training provided to staff, and these records shall be kept for a minimum of 2 years.

5.4 Any malfunction of plant or spillage of isocyanate or solvent-based materials shall be remedied as soon as possible and process operations altered whilst the necessary work is undertaken.

5.5 Any failure of key abatement plant such as the bag filters/explosion panels serving the cassette routing tables shall be notified to the local authority without delay.

5.6 Any incident likely to give rise to adverse atmospheric emissions or emissions that may have an impact on the local community shall be notified to the local authority immediately, and the details of incident including remedial action taken recorded in the process log book.

5.7 The operator shall make available on demand and without charge any of the records required to be kept by this permit.

5.8 If there is any intention to change any aspect of the prescribed installation from the description contained in the beginning of this permit, or any other aspect which may affect the substances or concentration or amount of substances being emitted to atmosphere, the operator shall notify the regulator of the proposed changes at least 4 weeks in advance before the changes take place.

DOCUMENT C

RESIDUAL DUTY

In relation to any aspect of the process not regulated by specific conditions in this permit, then Best Available Techniques shall be used:

For the purposes of the Pollution Prevention and Control (England and Wales) Regulations 2000, “best available techniques” means the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent and, where practicable, generally to reduce emissions and the impact on the environment as a whole; and for the purpose of this definition –

a) “available techniques” means those techniques which have been developed on a scale which allows implementation in the relevant industrial sector, in the economically and technically viable conditions, taking into consideration the cost and advantages, whether or not the techniques are used or produced inside the United Kingdom, as long as they are reasonably accessible to the operator;

b) “best” means, in relation to techniques, the most effective in achieving a high general level of protection of the environment as a whole;

c) “techniques” includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.

SUPPLEMENTARY NOTES

These notes do not comprise part of the Permit PPC/ 165 but contain guidance relevant to the Permit.

Inspections and Powers of Entry

Regular inspections will be carried out by officers of the Council (the Local Authority Inspectors)to check and ensure full compliance with the Permit conditions and residual duties. These inspections may be carried out without prior notice.

Under section 108(6) of the Environment Act 1995 authorised Local Authority Inspectors have been granted powers of entry into any premises for the purposes of discharging relevant duties.

Reviews

The Local Authority has a statutory duty to review the permit at least once every 6 years or in the following circumstances set out in regulation 15 of the Pollution Prevention and Control regulations 2000:

a) The pollution from the installation is of such significance that the existing emission limit values for the permit need to be revised or new emission limit values need to be included in the permit
b) Substantial changes in BAT make it possible to reduce emissions from he installation or mobile plant significantly without imposing excessive costs; or
c) Operational safety of the activities carried out in the installation or mobile plant requires other techniques to be used

Health and Safety

This Permit is given in relation to the requirements of the Pollution Prevention and Control (England and Wales) Regulations 2000. It must not be taken to replace any workplace responsibilities the operator has under Health & Safety legislation. Whenever emission limits quoted in this Permit conflict with occupational exposure limits set under the Health and Safety at Work Act 1974 to secure the health, safety or welfare of persons at work, the tighter limit should prevail.

Installation must be operated in order to protect persons at work as well as the environment. In achieving conditions in this Permit the operator must not adopt any course of action that would put at risk the health, safety or welfare of persons at work.

Other Statutory Requirements

This Permit does not detract from any other statutory requirement, such as the need to obtain planning permission, hazardous substances consent, discharge consent from the Environment Agency, building regulations approval, or a waste disposal licence.

This Permit does not authorise a contravention of any other enactment or any order made, granted or issued under any enactment, nor does it authorise a contravention of any rule or breach of any agreement.

The Operator is advised to consult the relevant Planning Department regarding changes that may be required as a result of this Permit (e.g. stack heights) as they may require planning permission.

Transfer of Permits

Where the operator of an installation wishes to transfer, in whole or in part, his permit to another person, the operator and the proposed transferee shall jointly make an application to the regulator to effect the transfer. Such an application shall be accompanied by the permit and any fee prescribed in respect of the transfer.

In the case of partial transfer, where the original operator retains part of the permit, the application must make clear who will retain control over the various parts of the installation. The application must include a plan identifying which parts of the site and which activities the operator proposes transferring.

The local authority will then determine whether to allow the transfer within a two-month period, unless the local authority and the applicants agree a longer period. Where the local authority approves the transfer, the transfer will take effect from the date requested by the operator or a date that may be agreed by the local authority and the applicants.

Variation to Permits

Variation to permits may be initiated either by the local authority or the operator, either in response to changes in the operation of an installation or if new conditions are needed to deal with new matters. Variations may be required in response to the following.

- Change of operation of the installation. (The operator shall notify the local authority under Section 16(1) of the Regulations.)
- In response to the findings of a periodic review of conditions.
- In response to the findings of an inspection.
- New or revised sector guidance notes

The operator should apply to the Local Authority in order to vary a permit under regulation 17 of the Regulations. The application must be in writing and, in accordance with Part 1 of Schedule 7 to the Regulations contain:

- The name, address and telephone number of the operator.
- The address of the installation.
- A correspondence address.
- A description of the proposed changes.
- An indication of the variations the operator would like to make.
- Any other information the operator wants the authority take account of.

Substantial Change

A substantial change means, in relation to an installation, a change in operation, which in the opinion of the local authority may have significant negative effects on human beings or the environment.

Where the local authority deems that a proposed variation constitutes a substantial change, the operator will be informed of the process to follow.

Noise

This Permit does not include reference to noise. Statutory noise nuisance is regulated separately under the provisions of Part III of the 1990 Act.

Appeals

An Appeal can be made against the conditions in, or variations to this Permit as per Part IV of the Regulations. Appeals are made to the Planning Inspectorate who acts on behalf of the Secretary of State. Appeals against conditions within a Permit must be submitted within 6 months of the date of issue of the permit. Appeals against variation notices must be submitted within 2 months of the date of issue of the notice. Appeals should be despatched on the day they are dated and sent to:

The Planning Inspectorate
Environmental Appeals Administration
Room 4/19 – Eagle Wing
Temple Quay House
2 The Square
Temple Quay
BRISTOL
BS1 6PN

HMSO Publications

All HMSO publications can be ordered by telephone on Tel: 0870 600 5522, Fax: 0870 600 5533 or e-mail: book.orders@tso.co.uk

Emission Monitoring Protocol

The documented procedure by which reliable and comparable results are obtained from measurements at source is known as a Protocol.

Protocols ensure that the sampling procedures are carried out correctly and that the results obtained accurately characterise the process.

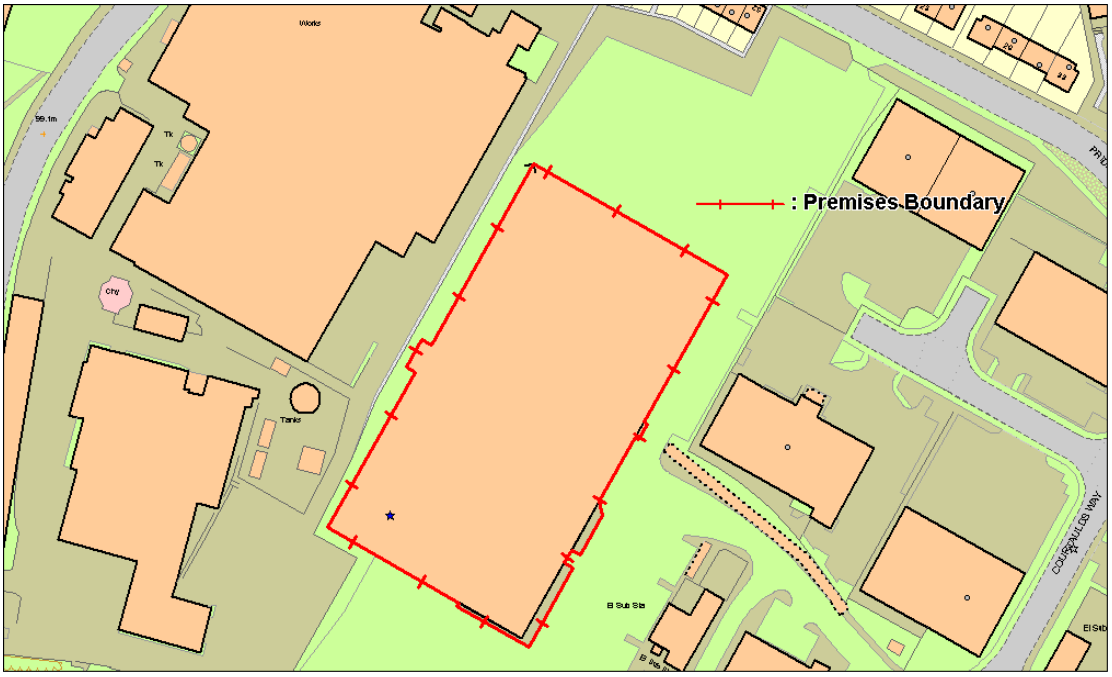
The main components of a Protocol are as follows:-

1. Calibre and quality of the sampling team.
2. A reference measurement method (standard methods may not always be available)
3. A standard methodology setting out:

- health and safety considerations
- pollutants of interest
- plant operating conditions required
- selection and location of sampling position
- sampling characteristics (e.g. isokinetic etc) and techniques
- sampling frequency
- sampling duration
- number of samples

- type (including make and model), condition and suitability of sampling equipment
- required accuracy
- variability of emissions
- analytical methods including laboratory competence and NAMAS accreditation certificate copy for each pollutant of interest
- analytical precision
- procedures to be adopted if standard methods unavailable
- calibration certificate(s) for sampling equipment
- Quality Control and Quality Assurance procedures
- Presentation of results and associated information.

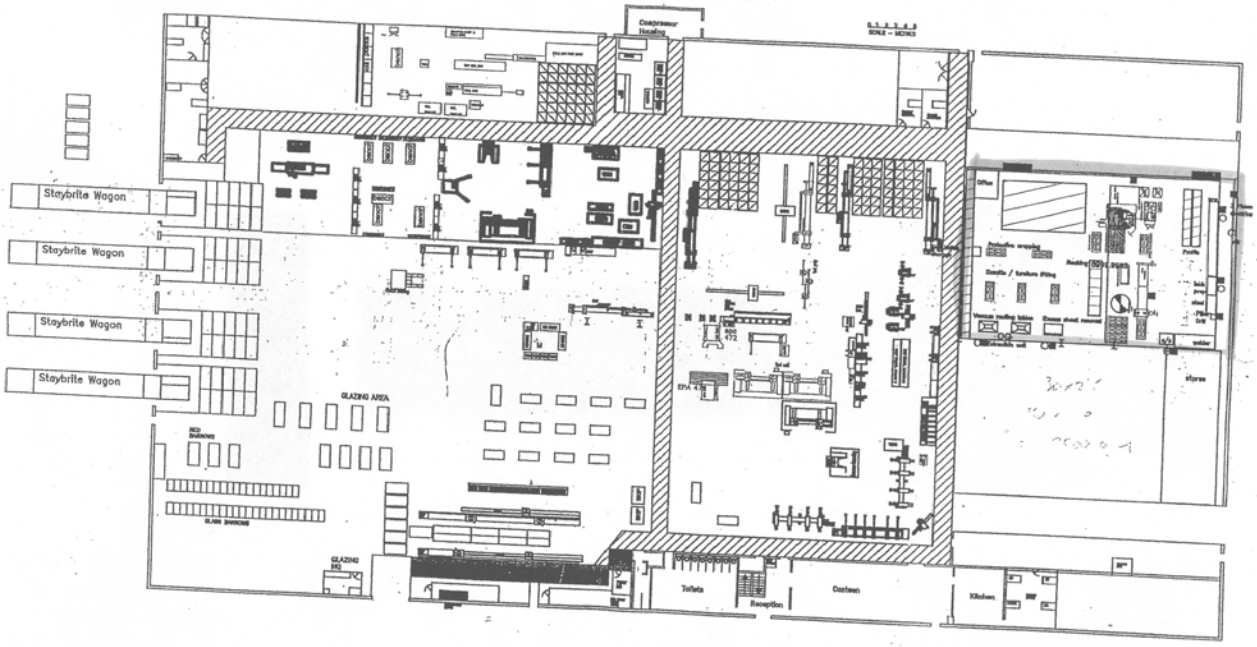
Plan PPC/165/A



City Services Directorate,
Environmental Health,
Environmental Protection,
Broadgate House, Broadgate
Coventry, CV1 1NH

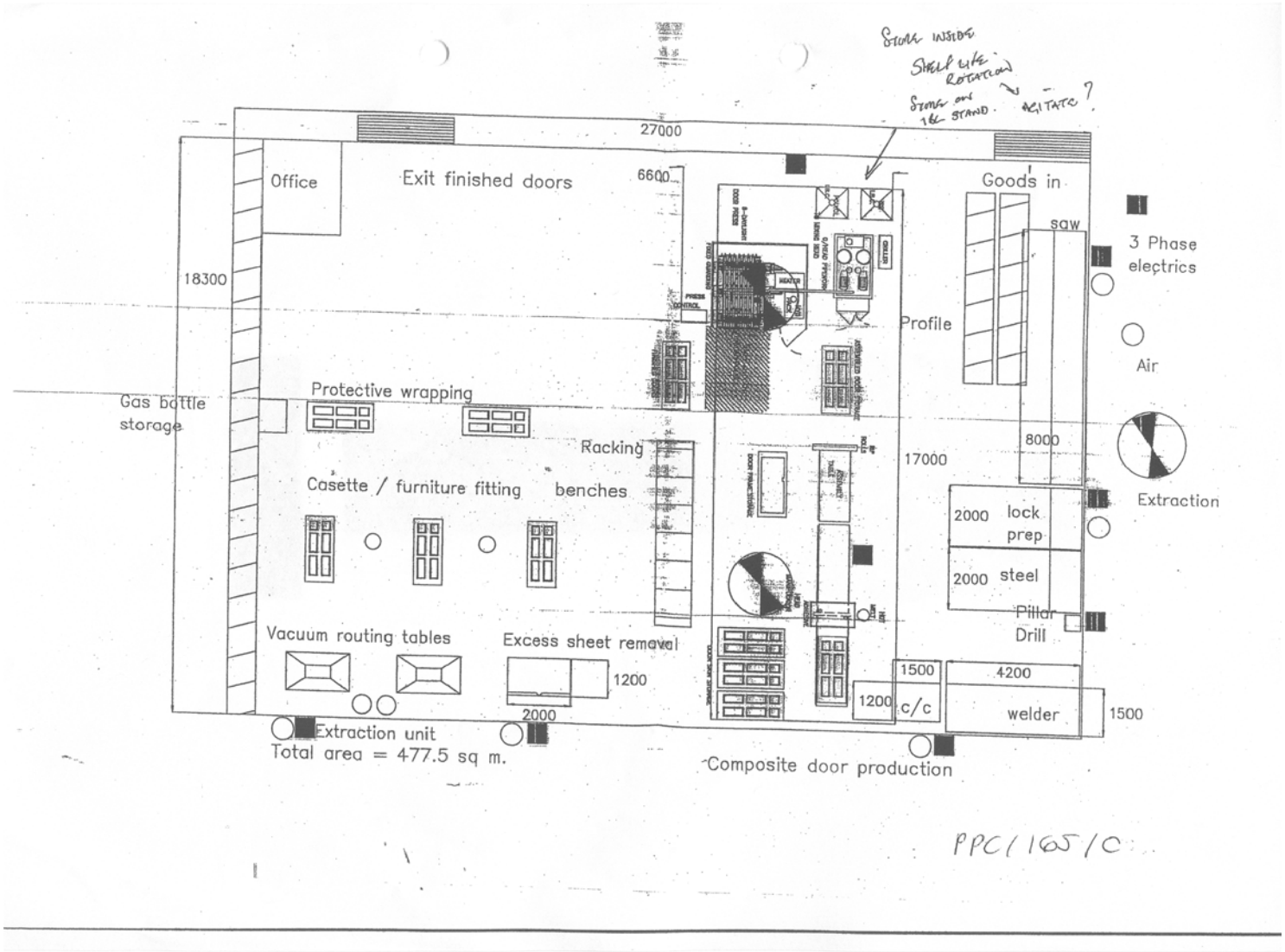
Tel: 024 7683 1832

8/



Composite door line

PPC/165/B


27000
6600
18300
Office
Exit finished doors
Goods in
saw
3 Phase electrics
Profile
Air
Gas bottle storage
Protective wrapping
Racking
17000
8000
Casette / furniture fitting
benches
Extraction
2000 lock prep
2000 steel
Pillar Drill
Vacuum routing tables
Excess sheet removal
1200
2000
1500
4200
1200 c/c
welder
1500
Extraction unit
Total area = 477.5 sq m.
Composite door production
PPC/165/C