

**~~Operating~~ Permit with introductory note**  
**Pollution Prevention and Control ~~Regulations 2000~~**

**Wyndeham Heron Ltd**

**The Bentall Complex**

**Colchester Road**

**Heybridge**

**Maldon**

**Essex**

**CM9 4NW**

**Permit Number:**

**MLD/IPPC/1/1/04**

Contents	Section	Page
Introductory note (including overview of the process)		1 of 6
<b>Permit</b>		1 of 38
<b>Conditions</b>		2 of 38
The permitted installation	1.0	2 of 38
Emission Limits	2.0	4 of 38
Emissions Limits to Air	2.1	4 of 38
Emission Limits to Land	2.2	4 of 38
Emissions Limits to Water (other than Sewer)	2.3	5 of 38
Emissions Limits to Sewer	2.4	5 of 38
Emission Limits to Groundwater	2.5	5 of 38
Fugitive emission of substances to Air	2.6	5 of 38
Fugitive emission of substances to water and Sewer	2.7	5 of 38
Odour	2.8	6 of 38
Techniques for Pollution Control	3.0	6 of 38
Delivery, storage and handling input (raw) materials	3.1	6 of 38
Emission Control	3.2	8 of 38
Emissions to Water and Sewer)	3.3	9 of 38
Fugitive Emissions to Air	3.4	9 of 38
Odour	3.5	11 of 38
Operations and Maintenance	3.6	12 of 38
Management	4.0	13 of 38
Management techniques and control	4.2	13 of 38
Audit	4.3	13 of 38
Competence and training	4.4	13 of 38
Raw Materials	4.5	14 of 38
Waste Minimisation	4.6	14 of 38
Water Use	4.7	14 of 38
Operating Techniques	4.8	15 of 38
Waste Management	4.9	15 of 38
Waste recovery and disposal	4.10	16 of 38
Energy Efficiency	4.11	17 of 38
Energy efficiency techniques	4.12	17 of 38
Accident prevention and control	4.13	17 of 38
Accident/incidents/non conformance	4.14	18 of 38
Noise and Vibration	4.15	19 of 38
Monitoring and Reporting	4.16	21 of 38
Monitoring and Reporting of emissions to air	4.17	23 of 38
Monitoring and Reporting of emissions to water and sewer	4.18	25 of 38
Monitoring and Reporting of waste	4.19	25 of 38
Monitoring of VOC	4.20	25 of 38
Decommissioning	5.0	25 of 38
Records	6.0	26 of 38
Reporting	7.0	26 of 38
Notifications	8.0	27 of 38
Improvement programme	9.0	28 of 38

	Page
Interpretation	29 of 38
Written agreement to changes	31 of 38
Schedule 1 Notification of abnormal emissions	32 of 38
Schedule 2 Reporting of monitoring data.	33 of 38
Schedule 3 Plans of installation	34 of 38
Appendix 1 Solvent Management Plan	35 of 38
END OF PERMIT	

## **Introductory note**

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

The following Permit is issued under Regulation 10~~6~~ of the Pollution Prevention and Control Regulations 2000 (S.I.2000 No.1973) (“the PPC Regulations”) to operate an installation carrying out activities covered by the description in Section 6.4 in Part 1 to Schedule 1 of those Regulations, to the extent authorised by the Permit.

Section 6.4 Surface treating substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating, in plant with a consumption capacity of more than 150 kg per hour or more than 200 tonnes per year

It should be noted that aspects of the operation of the installation which are not regulated by 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**

The application and drying of printing ink to paper and subsequent finishing operations involving the following operations :-

The storage of reels of paper for printing

The storage of organic solvents in IBC's of 1tonne capacity

The storage of heat set web offset ink in three sets of 4 tanks each of 6m<sup>3</sup> capacity

The making of the printing plates using computer to plate (CTP) technology

The heat set web-printing using

- One Man Roland Lithoman 64 page press with a gas fired hot air oven that discharges to an integral MegtecDDIII TNV thermal oxidiser to control organic solvents emissions.
- Three Man Roland Rotoman 32 page press with a gas fired hot air oven which discharges to an integral Megtec Summit II thermal oxidiser to control organic solvents emissions.

- One Baker Perkins G16 32 page press with a gas fired hot air oven operating at 200-250°C which discharges to the Katec thermal oxidiser.
- One Baker Perkins G14 16 page press with a gas fired hot air oven operating at 200-250°C which discharges to the Katec thermal oxidiser.
- The Katec TVA2012/70 thermal oxidiser controls the organic solvent emissions from the drying ovens on the Baker Perkins G16 and G14 presses before they are discharged to atmosphere.
- One Man Roland Lithoman 72 page press with a gas fired hot air oven that discharges to an integral thermal oxidiser to control organic solvents emissions.

The cleaning of the heat set web offset blanket using Oxidry automatic washing systems.

Finishing operations comprising continuous lines that gather the complete magazine sets together for binding by either stitching or perfect binding using hot melt glue.

Paper trimmings from the finishing lines are extracted to the extraction system that separates the large trimmings from the dust. The large trimmings are blown into containers and the dust is compacted into small cylindrical blocks.

Superseded Licenses/Consents/Authorisations relating to this installation		
Holder	Reference Number	Date of Original Issue
E T Heron and Co Ltd	MLD/7/1/93	January 1993

### Public Registers

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

### Confidentiality

The Permit requires the operator to provide information to Maldon District Council. This information will be placed on the public registers in accordance with the requirements of the Pollution Prevention and Control Regulations 2000. 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 Pollution Prevention and Control 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

The Council may vary this permit, in the future, by serving a Variation Notice on the Operator. If the operator itself wants any of the conditions of the permit changed it must submit a formal application. The status log within the Introductory Note to any such variation ~~which~~ will include summary details of this permit, variations issued up to that point in time and state whether a consolidated version of the permit has been issued.

#### Surrender of the permit

Before this permit can be wholly or partially surrendered, an application to surrender the permit must be made. For the application to be successful, the operator must be able to demonstrate to the Council, that in accordance with regulation 19 Pollution Prevention and Control Regulations 2000, that no additional pollution of the site has occurred since the issue of the permit, and that no further steps are required to return the site to a satisfactory state.

#### Transfer of the permit or part of the permit

Before the permit can be wholly or partially transferred to another person, a joint application to transfer the permit has to be made by both the existing and proposed holders, in accordance with regulation 18 Pollution Prevention and Control Regulations 2000. A transfer will be allowed unless the Council considers that the proposed holder will not be the person who will have control over the operation of the installation or will not ensure compliance with the conditions of the transferred permit. ~~In addition, if~~ the permit authorises the carrying out of a specified waste management activity, then there is a further requirement that the transferee ~~is~~ must be considered to be a "fit and proper person" to carry out that activity.

#### Appeals against the Permit conditions

Operators of LA-IPPC may appeal to the Secretary of State under regulation 27 against certain decisions made by the local authority. Schedule 8 of the PPC Regulations sets out the detailed procedures.

It is to be hoped, however that by paying close attention to the relevant sector guidance note(s) and by good communication at all stages between local authorities and operators, the number of time-consuming and potentially costly appeals can be kept to a minimum. Further information on appeals can be found within the 'General Guidance Manual on Policy and Procedures for A2 and B installations'.

Anyone who is aggrieved by the Conditions attached to this Permit can appeal to the Secretary of State for the Department for Environment, Food and Rural Affairs no later than 6 months from the date of the Permit.

Any such appeal should be addressed to

The Secretary of State for the Department for Environment, Food and Rural Affairs,  
The Planning Inspectorate,  
Environmental Pollution Appeals,  
Room 14/13 Tollgate House,  
Houlton Street,  
Bristol  
BS2 9DJ.

The appeal procedure is contained in Schedule 8 of the Pollution Prevention and Control (England and Wales) Regulations 2000.

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 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 authorisation;
- d) a copy of any relevant correspondence between the person making the appeal ('the appellant') and the LRA;
- e) a copy of any decision on notice which is the subject matter of the appeal; and
- f) 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 on one another's statements).

At the same time, the notice of appeal and documents (a) and (e) must be sent to Maldon District Council, and the person making the appeal should inform the Secretary of State for the Department for Environment, Food and Rural Affairs that this has been done.

**Please Note:**

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 Regulations allow the Secretary of State in addition to quash any of the other Conditions not subject to the appeal and to direct the Council either to vary any of these other Conditions or to add new Conditions.

Contacting to Maldon District Council

If you contact the Maldon District Council about this Permit please quote the Permit Reference Number.

The contact telephone numbers are

**Maldon District Council**

Main Switchboard: (01621) 875819 Fax 01621 852575

Environment Protection Team:

E-mail [pauline.wright@maldon.gov.uk](mailto:pauline.wright@maldon.gov.uk)

Status Log

Detail	Date	Comment
Application received	Received 20 <sup>th</sup> May 2005	Duly Made
Response to request for information	Request dated:	Response dated:
Request to extend determination	Request dated:	Request accepted:
Permit	Determined:	
Application for variation	Received:	
Variation Ref. No.	Determined:	
Application for Transfer	Received:	
Transfer Ref. No	Determined:	

**Permit**

**Pollution Prevention and Control ~~Act 1999~~ Regulations 2000**

**Permit number**

**MLD/IPPC/1/1/04**

Maldon District Council in exercise of its powers under Regulation 10 of the Pollution Prevention and Control Regulations 2000 (S.I. 2000 No. 1973), hereby authorises

Wyndeham Heron Ltd ("the Operator"),

Whose Registered Office is Audley House, Hove Street, Hove, East Sussex, BN3 2DE

Holding company's registration number: 2586277

To operate an installation at The Bentall Complex, Colchester Road, Heybridge, Maldon, Essex, CM9 4NW

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

Signed

Dated: 5<sup>th</sup> April 2006

Stephen Browne Environmental Health Officer

Authorised to sign on behalf of the Maldon District Council

**Conditions****1. General**

1.1 The operator is authorised to carry out the activities and associated activities specified in Table 1.

Permitted Installation Table 1		
Activity under Schedule 1 of the Regulations/ Associated Activity	Description of specified activity	Limits of specified activity
Section 6.4 Coating Activities, Printing and Textile Treatments (Part A(2))	Surface treating substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating, in plant with a consumption capacity of more than 150 kg per hour or more than 200 tonnes per year	Within the boundary marked red on figure schedule 4
The storage of reels of paper for printing		Within factory building
The storage of organic solvents	in IBC's of 1 tonne capacity	Within factory building
The storage of heat set web offset ink	Three sets of 4 tanks each of 6m <sup>3</sup> capacity	Within factory building
The making of the printing plates	using computer to plate (CTP) technology	Within factory building
The heat set offset printing using	One Man Roland Lithoman 64 page press.	Within enclosures in factory building
	Three Man Roland Rotoman 32 page press	Within enclosures in factory building
	One Baker Perkins G14 16 page press.	Within enclosures in factory building
	One Baker Perkins G16 32 page press	Within enclosures in factory building
	One Man Roland Lithoman 72 page press.	Within enclosures in factory building
The abatement of organic solvent emissions using integral thermal oxidisers on	One Man Roland Lithoman 64 page press. Three Man Roland Rotoman 32 page press One Man Roland Lithoman 72 page press	Within enclosures in factory building

The abatement of organic solvent emissions from the drying ovens using a Katec TVA 2012/70 Thermal Oxidiser	on the Baker Perkins G16 and G14 presses	Within factory building
The cleaning of the heat set web offset blanket using Oxidry automatic washing systems .		On each press
Finishing operations using Muller Martini continuous lines that gather magazine sets together for binding by either stitching or perfect binding using hot melt glue.	Corona 1, Corona 2, Norm 80, Norm 79, Tempo 1, Tempo 2, Prima 60, Prima 61, Prima 67 and Muller 335 (68)	Within finishing section of the factory
Paper trimmings from the finishing lines are extracted to the extraction system that separates the large trimmings from the dust.		Outside factory building
The large trimmings are blown into containers and the dust is compacted into briquettes.		Outside factory building

- 1.2 The activities authorised under condition 1.1 above shall not extend beyond the installation, being the land edged red on the drawing number 2478-00, 2478 Rep B Issue D6/5/05 referenced figure 2 schedule 3 to this permit.
- 1.3 Subject to the operating conditions of this permit, the operator shall maintain the Environmental Management System sufficient to achieve compliance with the limits and conditions of this permit.
- 1.4 The operator shall complete the improvements specified in Table 11 by the dates specified in that table and send written notification of the date of completion of each requirement.
- 1.5 The permitted installation shall, subject to the conditions of this permit, be operated using the techniques and in the manner in the application document or as otherwise approved in writing by the Council.
- 1.6 There are no off-site conditions.

## 2 Emission Limits

### 2.1 Emissions Limits into air

2.1.1 This Part of this permit shall not apply to releases of odour, noise or vibration. Emissions to air from the emission points specified in Table 2 shall only arise from the sources specified in that Table.

Table 2 Emission points into air		
Emission point reference/	Source	Location of emission point
A lower	MAN 1	On roof of main factory
A upper	MAN1	On roof of main factory
B lower	MAN 2	On roof of main factory
B upper	MAN 2	On roof of main factory
C lower	MAN 3	On roof of main factory
C upper	MAN 3	On roof of main factory
D	Lithoman 64	On roof of main factory
E	G14, G16,	On roof of main factory
F	Lithoman 72	On roof of main factory
G	Dust Extraction Plant	Side of factory

2.1.2 The limits for emissions into air of the parameters and from emission points set out in Table 3 shall not be exceeded.

Table 3 Emissions limits into air			
Substance	Concentration/limits	Monitoring Frequency	Source
Volatile organic Compounds	20mg/m <sup>3</sup>	At least once annually	A, B, C, D, E and F
Volatile organic Compounds	30% of the annual solvent input	At least once annually	Whole installation
Carbon Monoxide from abatement plant	100mg/m <sup>3</sup>	At least once annually	A, B, C, D, E and F
Nitrogen Dioxide	100mg/m <sup>3</sup>	At least once annually	A, B, C, D, E and F
Particulate Matter from abatement plant	100mg/m <sup>3</sup>	At least once annually	A, B, C, D, E and F
Particulate Matter from dust plant	50mg/m <sup>3</sup>	At least once annually	G

2.1.3 The Operator shall carry out monitoring of the parameters listed in Table 3, from the emission points and at the frequencies specified.

### 2.2 Emissions Limits to land

2.2.1 There shall be no emissions to land from the Permitted installation.

2.2.2 The Operator shall notify the Council, as soon as practicable, of any information concerning the state of the Site which affects or updates that provided to the Council as part of the Site Report submitted with the application for this Permit.

## **2.3 Emissions to water (other than emissions to sewer)**

2.3.1 There shall be no emission to water from the permitted installation

## **2.4 Emissions to sewer**

2.4.1 There shall be no emissions to the foul or storm water sewer of any substance described in List 1 and List II Groundwater Regulations 1998(S.I.1998 No.2746)).

2.4.2 Waste fount solution discharged to the sewer in Colchester Road shall not exceed 0.25m<sup>3</sup>/hour with a maximum of 0.25m<sup>3</sup> in any 24 hour period as specified in Anglian Water Services consent ACH239(CO9-18)

## **2.5 Emissions to groundwater**

2.5.1 No emission from the permitted installation shall give rise to the introduction into groundwater of any substance in List I and List II, so as to cause pollution as defined in the Groundwater Regulations 1998 (S.I.1998 No.2746)).

2.5.2 There shall be no direct emission to groundwater from the permitted installation.

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

2.6.1 The operator shall use the Best Available Techniques (BAT) as defined in regulation 3 of the Pollution Prevention and Control Regulations 2000, so as to prevent or where that is not practicable to reduce fugitive emissions of substances to air from the permitted installation in particular from:

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

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

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

2.7.1 The operator shall use Best Available Techniques (BAT) as defined in regulation 3 of the Pollution Prevention and Control Regulations 2000, so as to prevent or where that is not practicable to reduce fugitive emissions of substances to water and the sewer from the permitted installation in particular from:

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

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

## 2.8 Odour

2.8.1 The operator shall use Best Available Techniques (BAT) as defined in regulation 3 of the Pollution Prevention and Control Regulations 2000, so as to prevent or where not practicable to reduce odorous emissions from the permitted installation, in particular by:

- limiting the use of odorous materials
- restricting odorous activities
- controlling the storage conditions of odorous materials
- controlling processing parameters to minimise the generation of odour
- optimising the performance of abatement systems
- timely monitoring, inspection and maintenance
- provided always that the techniques used by the operator shall be no less effective than those described in the application, where relevant.

## 3 Techniques for Pollution Control

3.1 Delivery, storage and handling of input (raw) materials

3.1.1 The Operator shall, subject to the conditions of this Permit, use raw materials (including water) as described in the documentation specified in Table 4, or as otherwise agreed in writing by the Council.

**Table 4 Raw materials (including water)**

<u>Description</u>	<u>Parts</u>	<u>Date Received</u>
<u>Application</u>	The response to question B 2.4 given in document 2478 Rep A Issue E Section 4 of the application.	20 <sup>th</sup> May 2005

- 3.1.2 The company shall follow the quality procedures identified in the Environmental Management Plan to control the specification of raw materials used with regard to minimising any environmental impact.
- 3.1.3 A programme of monitoring shall be undertaken to record the consumption of inks and organic solvent against products produced to optimise the amount of organic solvent and ink used and the results reported annually to Maldon District Council.
- 3.1.4 The operator shall ensure that all deliveries of raw materials are carried out in such a way so as to minimise noise, spillage, leaks and dusty emissions.
- 3.1.5 Storage areas shall be under cover and protected from the elements to avoid or minimise environmental impact, except where stored materials are in suitable weather-proof containers.
- 3.1.6 Storage areas shall be hard surfaced.
- 3.1.7 New static bulk solvent storage tanks containing solvent with a composite vapour pressure that is likely to exceed 0.4kPa at 20°C (293K) shall be fitted with pressure vacuum relief valves. The pressure vacuum relief valves shall be examined at a minimum of at least once every six months for signs of contamination, incorrect seating and should be cleaned and corrected as required.
- 3.1.8 Ink deliveries into the bulk storage tanks shall be supervised by the appropriately trained delivery driver, who will be responsible for avoiding potential accidents and spillage.
- 3.1.9 Solvent containing materials shall be stored in closed storage containers.
- 3.1.10 The storage, handling and use of flammable materials shall be undertaken so as to prevent accidents and limit their consequences.
- 3.1.11 The press manufacturer's cleaning processes shall be followed if these processes change the cleaning operations shall be reviewed and the results reported to Maldon District Council, to identify cleaning steps that can be eliminated. Application of cleaning organic solvents shall be from a contained device or automatic system when applied directly on to machine rollers and dispensed by piston type dispenser or similar contained device, when used on wipes
- 3.1.12 Pre-impregnated organic solvent wipes shall be held within an enclosed container prior to use.

## 3.2 Emissions Control

All releases to air

### 3.2.1 Vents and chimneys

3.2.2 The operator shall ensure that all operations that generate emissions to air are contained and adequately extracted to suitable abatement plant, where this is necessary to meet specified emission limits.

3.2.3 The output of the temperature monitors on the Katec Thermal Oxidation System and thermal oxidisers serving all other presses shall be continuously monitored and recorded. The monitors shall be fitted with audible and visual alarms, which shall activate if the temperature falls below 1020K (750°C). Emission events that lead to the alarms being activated shall be recorded as required by condition 6.2.

3.2.4 The chimneys reference A, B, C, D, E and F shall discharge at least 15 metres above ground level.

3.2.5 All emissions into the air from

a) the chimney stacks A, B, C, D, E and F on the attached figure 2 of Schedule 3,

b) all building openings

shall be colourless and free from persistent mist, (other than steam or water vapour), free from droplets and free from persistent fume.

3.2.6 Dilution air shall not be admitted into the waste gases or process gases for the purpose of achieving an emission limit.

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

3.2.8 All emissions from the seven printing presses shall pass through the integral thermal oxidisers on the presses or the Katec thermal oxidiser, prior to being exhausted to atmosphere through chimney stacks A, B, C D, E and F.

**3.2.9 In the event of the failure of the integral thermal oxidisers on the presses or the Katec thermal oxidiser the presses shall not be operated.**

3.2.10 The Katec thermal oxidiser and the integral thermal oxidisers on the presses shall be brought to the correct oxidation temperature of 750°C before presses are started up. The operator shall ensure that all reasonably

practicable steps are taken during start-up and shut down, and changes in combustion load in order to minimise emissions.

3.2.11 The operator shall investigate the cause and nature of any persistent visible emissions and provide a report to the Council.

3.2.12 Ensure that flues and ductwork are cleaned as part of the routine maintenance programme to prevent accumulation of materials.

3.2.13 The exhaust gases discharged through any stack shall have an exit velocity greater than 15m/sec during normal operating conditions to achieve adequate dispersion.

3.2.14 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 that may be necessary to increase the exit velocity of the emissions.

### **3.3 Emissions to surface water and sewers**

3.3.1 The operator shall ensure that

- All emissions are controlled, to avoid a breach of water quality standards.
- Run-off from the installation should be controlled and managed and where necessary treated before discharge in a suitable effluent treatment plant,
- All interceptors are impermeable, subject to visual inspection and any contamination removed at a frequency agreed with the regulator and have an annual maintenance inspection; prior to inspection all contents should be removed.
- Procedures for dealing with the discharges from bunds shall be in place.

### **3.4 Fugitive emissions to air**

3.4.1 By the 31<sup>st</sup> October 2007 the annual fugitive VOC emissions shall be determined in accordance with the Solvent Management Plan using the method set out in the Secretary of States Guidance For A2 Surface Treatment Using Organic Solvents Sector SG6 (See Appendix 1 of this permit).

3.4.2 When transferring volatile liquids, the following techniques shall be employed

- subsurface filling via filling pipes extended to the bottom of the container, the use of vapour balance lines that transfer the vapour from the container being filled to the one being emptied,

or

- an enclosed system with extraction to suitable abatement plant where abatement is necessary to meet the emission limits.
- 3.4.3 Pre impregnated organic solvent wipes shall be held within a closed container prior to use.
- 3.4.4 Used wipes organic solvent wipes and other items contaminated with organic solvent shall be placed in a suitably labelled metal bin fitted with a self-closing lid.
- 3.4.5 The application of cleaning organic solvents shall be from a contained device or automatic system when applied directly.
- 3.4.6 Closed cleaning systems shall be used wherever possible.
- 3.4.7 Ductwork should be gastight to prevent fugitive loss of VOC.
- 3.4.8 The integrity of storage tanks shall be inspected, recorded and documented.
- 3.4.9 The following inspections shall be included in the maintenance schedule, recorded and documented.
- The operator shall maintain a record of the routing of all installation drains and subsurface pipework.
  - identify all subsurface sumps and storage vessels
  - engineer systems to minimise leakages from pipes and ensure swift detection if they do occur, particularly where hazardous (i.e. listed) substances are involved
  - provide, in particular, secondary containment and/or leakage detection for such subsurface pipework, sumps and storage vessels
  - establish an inspection and maintenance programme for all subsurface structures, e.g. pressure tests, leak tests, material thickness checks or CCTV
- 3.4.10 The operator shall ensure that all operational areas have an impervious surface, spill containment kerbs, sealed construction joints, and connection to a sealed drainage system unless the operator justifies that this is not necessary to the satisfaction of the Maldon District Council.
- keep records of the design and condition of the surfacing of all operational areas – relevant information may include, as appropriate, capacities, thicknesses, falls, material, permeability, strength/reinforcement, and resistance to chemical attack.

- have an inspection and maintenance programme of impervious surfaces and containment kerbs.
- justify where operational areas have not been equipped with an impervious surface, spill containment kerbs, sealed construction joint, connection to a sealed drainage system.

3.4.11 The operator shall ensure that all tanks containing liquids whose spillage could be harmful to the environment are stored in bunded areas or otherwise stored to contain any spillage.

3.4.12 The operator shall ensure that all bunds:

- are impermeable and resistant to the stored materials
- have no outlet (that is, no drains or taps) and drain to a blind collection point
- have pipework routed within bunded areas with no penetration of contained surfaces
- are designed to catch leaks from tanks or fittings
- should be at least 110% of the largest tank
- are visually inspected weekly and any contents pumped out or otherwise removed under manual control after checking for contamination
- where not frequently inspected, are fitted with a high-level probe and an alarm as appropriate have an annual maintenance inspection (normally visual but extending to water testing where structural integrity is in doubt)

3.4.13 All sumps shall:

- be impermeable and resistant to stored materials
- be subject to regular visual inspection agreed with the Council and any contents pumped out or otherwise removed after checking for contamination

### **3.5 Odour**

3.5.1 All storage tanks shall:

- be fitted with high-level alarms or volume indicators to warn of overfilling. The filling system shall be interlocked to the alarm system of prevent overfilling.
- have delivery connections located within a bunded area, fixed and locked when not in use

- have their integrity inspected, recorded and documented. These inspections shall be included in the maintenance schedule.

3.5.2 Storage areas and containers shall be designed and operated to minimise the risk of fugitive releases to surface water, sewer and groundwater, in particular:

- storage areas shall be located away from watercourses and should be protected against vandalism
- the maximum storage capacity of storage areas shall be stated and not exceeded
- the maximum storage period for containers shall be specified
- storage areas shall be inspected at least once a week to check for signs of leakage or potential leakage

### **3.6 Operations and maintenance**

3.6.1 Effective operational and maintenance systems shall be employed on all aspects of the installation whose failure could impact on the environment, in particular there shall be:

- documented operational control procedures
- a documented preventative maintenance schedule, covering all plant whose failure could lead to impact on the environment, including major 'non productive' items such as tanks, pipework, retaining walls, bunds, ducts and filters; this shall be reviewed and updated annually.
- documented procedures for monitoring emissions.

3.6.2 The key process equipment and abatement equipment shall be provided with alarms or other warning systems that indicate equipment malfunction or breakdown. Such warning systems shall be maintained and checked to ensure continued correct operation, in accordance with the manufacturer's recommendations.

3.6.3 Essential spares and consumables shall be held on site or be available at short notice from suppliers, so that plant breakdown can be rectified rapidly.

3.6.4 Records of breakdowns shall be kept and analysed by the operator in order to eliminate common failure modes.

3.6.5 A competent person shall be appointed to liaise with the Council and the public with regard to complaints. The Council shall be informed of the designated individual within 3 months of the issue of this permit.

## 4 Management

- 4.1 The Permitted Installation shall, subject to the conditions of this Permit, be operated using the techniques and in the manner described in the documentation specified in Table 5, or as otherwise agreed in writing by the Council.

Table 5 Operating techniques		
Description	Parts	Date Received
Application	The responses to question B 2.3 given in document 2478 Rep A issue E section 3.3 of the application.	20 <sup>th</sup> May 2005

### 4.2 Management techniques and control

- 4.2.1 The Permitted Installation shall, subject to the conditions of this Permit, be managed and controlled as described in the documentation specified in Table 6, or as otherwise agreed in writing by the Council.

Table 6 Management and control		
Description	Parts	Date Received
Application	The response to question 2.1 given in Document 2478 Rep A issue E section 3.1 and 3.2 of the application	20 <sup>th</sup> May 2005

### 4.3 Audit

- 4.3.1 All audit records of raw materials usage, water usage, energy usage and waste production shall be referenced to annual production.

### 4.4 Competence and training

- 4.4.1 Training systems, covering the following items, shall be in place for all relevant staff:
- awareness of the regulatory implications of the permit
  - awareness of all potential environmental impacts under normal and abnormal circumstances
  - awareness of the procedures for dealing with a breach of the permit conditions
  - prevention of accidental emissions and action to be taken when accidental emissions occur
  - awareness of all operating procedures, a working knowledge of the legal requirements and consequences of failing to comply with it and the conditions in the permit.

4.4.2 The skills and competencies necessary for key posts (which may include contractors and those purchasing equipment and materials) shall be documented and records of training needs and training received for these posts maintained and be available when requested by an authorised officer of Maldon District Council.

4.4.3 The potential environmental risks posed by the work of contractors shall be assessed and instructions provided to contractors about protecting the environment while working on site.

#### **4.5 Raw Materials**

4.5.1 The operator shall:

- maintain an inventory covering the principal types of raw materials used.
- review alternatives for the principal types of raw materials used with regard to their environmental impact.
- have quality procedures to control the specification of raw materials used, in order to minimise any potential environmental impact.
- complete any long term studies needed into the less polluting options and make any material substitutions identified within the review period.

#### **4.6 Waste Minimisation**

4.6.1 The operator shall carry out a waste minimisation audit at least as frequently as the review period of the permit. The methodology using process mapping, raw materials mass balance and an action plan for optimising the use of raw materials shall be submitted to the Council within 2 months of completion of the audit.

4.6.2 Where an audit has not been carried out in the 2 years prior to submission of the application then the first audit shall take place within 18 months of the issue of the permit.

4.6.3 Specific improvements resulting from the recommendations of audits shall be carried out within a timescale approved by the Council.

#### **4.7 Water Use**

4.7.1 The operator shall carry out a water efficiency audit. Where one has not been carried out recently, an initial comprehensive audit should be carried out at the earliest opportunity, but at the latest within 2 years. Audits should be at least as frequent as the permit reviews.

- 4.7.2 Using this information, opportunities for reduction in water use shall be assessed and, where appropriate, shall be carried out in accordance with a timescale approved by the regulator.
- 4.7.3 The volume of mains and abstracted water used in the activities shall be directly measured normally once a day, or at a frequency agreed with the regulator, when the installation is operating all measurements shall be recorded and the records held on site and be available to an authorised officer of Maldon District Council when requested.

#### 4.8 Operating Techniques

- 4.8.1 The Permitted Installation shall, subject to the conditions of this Permit, be operated using the techniques and in the manner described in the documentation specified in Table 7, or as otherwise agreed in writing by the Council.

Table 7 Operating techniques		
Description	Parts	Date Received
Application	The responses to question B 2.3 given in document 2478 Rep A issue E section 3.3 of the application5.	20 <sup>th</sup> May 2005

**Table 2.4.1 : Monitoring, sampling and evaluation**

Description	Parts	Date Received
Application	The response to question 5.9 given in pages/section ??? of the application {excluding sections???	DD/MM/YY
Response to Schedule 4 Part1 Notice Response	Response to questions ???	DD/MM/YY
Application for variation	Part 5.9 {excluding section abc on page ??}	DD/MM/YY

Application can uncommon and the condition is that poor are required, should be

~~2.4.2The Agency shall be notified, at least 14 days in advance, of undertaking monitoring/spot sampling, where such notification has been requested in writing by the Agency.~~

~~2.4.3There shall be provided: a safe and permanent means of access to enable sampling/monitoring to be carried out in relation to the emission points specified in Schedule 2, unless otherwise specified in that Schedule and b safe means of access to other sampling/monitoring points when required by the Agency.~~

~~2.4.4Other specific conditions relating to monitoring, sampling and evaluation can be set here.~~

#### 4.9 Waste Management

4.9.1 The Operator shall, subject to the conditions of this Permit, handle and store waste as described in the documentation specified in Table 8, or as otherwise agreed in writing by the LA.

4.9.2 Waste materials specified in Table 8 shall only be stored on the site in the location and manner specified in that Table.

Table 8 Waste materials stored on site			
Description of Material Waste	Location of Storage on Site	Manner of Storage	Storage Conditions
Used plates	Non ferrous metal skip	In skip	
Spent developer and fixer	Tank IBC 1	Piped to IBC	
Scrap paper from printing	Recycled paper skip	In skip	
Scrap paper from finishing	Recycled paper skip	In skip	
Cores	Recycled paper skip	In skip	
Waste fount solution	To sewer		
Waste blanket wash	Tank (IBC) 2	Sealed container	
Solvent soaked wipes	Wipes Bin	Sealed Container	
Paper trimmings	Compactor	Sealed container	
Perfect binder dust	Compactor and compacted dust skip		
Waste plastic wrap	General waste skip	In skip	

4.9.3 The operator shall:

- record the quantity, nature, origin and where relevant, the destination, frequency of collection, mode of transport and treatment method of any waste which is disposed of or recovered
- ensure that waste storage areas are clearly marked and signed, and that containers are clearly labelled
- ensure that appropriate storage facilities are provided for substances that are flammable, sensitive to heat or light etc, and that incompatible waste types are kept separate
- ensure that containers are stored with lids, caps and valves secured and in place (this also applies to emptied containers)
- ensure that procedures are in place to deal with damaged or leaking containers.
- segregate waste wherever practicable

- identify the disposal route for all waste, which should be as close to the point of production as possible
- 4.9.4 All organic solvent contaminated waste shall be stored within closed containers.
- 4.9.5 Prior to removal from site, used wipes and other items contaminated with organic solvent shall be placed in a suitably labelled bin fitted with a closing lid.
- 4.9.6 Dusty wastes shall be stored in closed containers and handled in a manner that avoids emissions or otherwise treated so that dust is suppressed and handled in a manner that avoids emissions.
- 4.9.7 The operator shall carry out an annual review to demonstrate that the best environmental options are being used for dealing with all waste from the installation.
- 4.9.8 Records shall be maintained of any waste sent off site, and these records shall be made available to the Council at all times.

#### **4.10 Waste recovery and disposal**

4.10.1 The operator shall subject to the conditions of this permit, recover and dispose of waste as described in Table 8 or as otherwise agreed in writing with Maldon District Council.

#### **~~2.6.24.11 Energy Efficiency~~**

~~The Operator shall have and shall operate in accordance with a written management procedure [which] ensures that all materials on site arising from or used within the Permitted Installation (including relevant waste matter) are handled, treated and, where relevant, disposed of in the manner most appropriate to avoid pollution of the environment; specifies the means of control of any accumulation and storage of relevant waste matter; and specifies the routes and timetable for the disposal of relevant waste matter.~~

~~2.6.3 The Operator shall review the procedure mentioned in condition 1.6.2 and record the results of the review in writing: whenever changes are proposed to the procedure which might have environmental significance; and in any case, not less frequently than once in every period of two years.~~

- 4.11.1 The operator shall produce a report annually on the energy consumption of the installation and submit it to Maldon District Council
- 4.11.2 In order to optimise combustion, the operator shall, where monitor carbon monoxide and oxygen in waste gases.

4.11.3 The operator shall ensure that all plant is operated and maintained to optimise the use of energy and to minimise the loss of energy.

4.11.4 The operator shall ensure that all appropriate containment methods, (e.g. seals and self-closing doors) are employed and maintained to minimise energy loss.

#### 4.12 Energy efficiency techniques

4.12.1 The following techniques shall be considered:

- heat recovery from different parts of the processes
- minimisation of water use and closed circulating water systems
- good insulation
- plant layout to reduce pumping distances
- phase optimisation of electronic control motors
- optimised efficiency measures for combustion plant e.g. air/feed-water preheating, excess air etc.

#### 4.13 Accident prevention and control

4.13.1 The Operator shall, subject to the conditions of this Permit, prevent and limit the consequences of accidents that may have an adverse effect on the environment as described in the documentation specified in Table 9, or as otherwise agreed in writing by the Council.

<b>Table 9 Accident prevention and control</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Application	The response to question B 2.8 given in document 2478 Rep A issue E section section 7 of the application.	20 <sup>th</sup> May 2005

#### 4.14 Accidents/incidents/non conformance affecting the Environment

4.14.1 There shall be written procedures for investigating incidents and near misses that may have an adverse effect on the environment, including identifying suitable corrective action and following up. This shall be in place within 3 months of the issue of this permit.

4.14.2 The operator shall maintain an environmental accident management plan that identifies the hazards, assesses the risks and identifies the measures required to reduce the risk of potential events or failures that might lead to an environmental impact. The plan shall identify:

- the actions to be taken to minimise these potential occurrences;

and

- the actions to deal with such occurrences so as to limit their consequences

4.14.3 In the case of abnormal emissions arising from an accident, such as a spillage for example, the operator shall:

- investigate immediately and undertake remedial action as soon as practicable
- promptly record the events and actions taken
- ensure the regulator is made aware, as soon as practicable

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

4.14.5 Adequate provision to contain potential liquid and solid spillage shall be provided.

4.14.6 Appropriate precautions shall be taken to prevent ignition of flammable materials.

4.14.7 All spillages shall be cleared as soon as possible; dry sweeping of dusty spillages shall not be permitted. The operator shall notify Maldon District Council of the methods to be used to clean up spillages within 3 months of the issue of this permit.

4.14.8 The handling and use of flammable and explosive materials shall be carried out in accordance with the requirements of the Dangerous Substances and Explosive Atmosphere Regulations SI2776 2002.

4.14.9 Areas where flammable organic solvents and organic solvent containing materials are handled or used shall be suitably contained to minimise the potential spread for fire.

4.14.10 Operations working at above 25% of the organic solvent Lower Explosive Limit (LEL) must be controlled using suitable monitoring and control devices.

4.14.11 The auto-ignition temperature shall not be exceeded in any organic solvent containing section of the process, with the exception of the combustion chamber of the Thermal Oxidiser abatement plant.

4.14.12 Controlled shutdown procedures shall be in place for dealing with emergency such as organic solvent levels entering the combustion plant at greater than 25% Lower Explosive Limit (LEL).

4.14.13 The storage, handling and use of flammable materials shall be undertaken so as to prevent accidents that may have an adverse impact on the environment and limit their consequences.

**4.15 Noise and vibration**

4.15.1 A Noise Management Plan shall be drawn up by the Operator and agreed with Maldon District Council within 3 months of the issue of this permit. The plan shall be reviewed regularly and updated as necessary.

4.15.2 The rating level of noise from the installation shall not exceed the levels set out below. The levels to be measured at the nearest boundary of the listed noise sensitive premises. The measurements shall be made in accordance with the provisions of BS4142:1997. This condition shall apply immediately.

Location Site Boundary	Noise level LA <sub>eq</sub> (1 hour) dB 07:00 to 22:00	Noise level LA <sub>eq</sub> (5 minute) dB 22:00 to 07:00	Compliance Date
Springfield Cottage	50	30	Immediately
The Roothings	50	33	Immediately
Hilary Close	57	41	Immediately
Boulton Cottages	53	41	Immediately

4.15.3 The rating level of noise from the installation shall not exceed the noise levels set out below. The levels to be measured at the nearest boundary of the listed noise sensitive premises. The measurements shall be made in accordance with the provisions of BS4142:1997. These limits shall be subject to annual review on the basis of the monitoring carried out as required by condition 4.15.7 and improvements realised by implementation of the Noise Management plan as required by condition 4.15.5. The condition shall commence within one year from the date on which the permit is signed.

Location Site Boundary	Noise level LA <sub>eq</sub> (1 hour) dB 07:00 to 22:00	Noise level LA <sub>eq</sub> (5 minute) dB 22:00 to 07:00	Compliance Date
Springfield Cottage	50	30	12 months from the signing of the permit
The Roothings	50	30	as above
Hilary Close	50	41	as above
Boulton Cottages	50	41	as above

4.15.4 Any single noise event noise shall not exceed 58 LA<sub>max(fast)</sub> between 22.00 and 07.00 hours Monday to Friday, Saturday after 13:00 hours and on Sundays and Public Holidays The levels to be measured at the nearest boundary of any noise sensitive premises. This condition shall apply immediately. The limit shall be subject to annual review on the basis of the monitoring carried out as

required by condition 4.15.7 and improvements realised by implementation of the Noise Management plan as required by condition 4.16.1.

4.15.5 Noise from the installation shall be controlled in accordance with the Noise Management Plan.

4.15.6 The noise levels from all chimneys, ventilation openings, fans, pumps, compressors, electric motors, ventilation openings, front-end loaders and fork lift trucks and any other plant and equipment shall be monitored and where necessary controls shall be put in place to reduce noise levels to those agreed with Maldon District Council.

4.15.7 Noise levels from the installation shall be subjectively monitored at specified locations around the installation boundary whilst the installation is in operation to ensure compliance with the Noise Management Plan and the results recorded as required by condition 4.16. This shall be carried out once a week in the period 07:00 to 22:00 and once during the period 22:00 to 07:00

4.15.8 Noise levels from the installation shall be quantitatively monitored at the locations listed in 4.15.2 and 4.15.3 on two occasions during each year demonstrate compliance with conditions 4.15.2, 4.15.3 and 4.15.4 and a report sent to the Council within 8 weeks of the completion of the monitoring.

4.15.9 The operator shall employ basic good practice measures for the control of noise, in particular:

- identification of key plant and equipment with the potential to give rise to noise nuisance
- documented maintenance systems for the identified key plant and equipment
- to restrict lorry movements and prevent manoeuvring of vehicles further up the site near the Roothings and to ensure that there is proper management of the one way system.

4.15.10 No vehicle shall have its engine running or idling for more than five minutes in any part of the open area of the installation between 22:00 hours and 07:00 hours, or before 09:00 hours on Sunday mornings, except in the agreed area shown marked red on the attached figure in appendix 4.

4.15.11 There shall be no skip changing or movement between 21:00 hours and 08:00 hours and not before 09:00 hours on Sundays unless carried out in the sound proof building.

4.15.12 Until the completion of the new warehouse, there shall be no noise audible at noise sensitive premises between the hours of 21:00 and 07:00 from:

- the loading/unloading of paper, paper reels & skips

- the external transfer of paper, paper reels, goods and skips around the installation
- the sounding of warning alarms from the reversing of vehicles
- noise from inside the premises shall only be emitted be through attenuated ducting and materials and access/egress to the site.

4.15.13 After the completion of the new warehouse, there shall be no noise audible at noise sensitive premises at any time from:

- the loading/unloading of paper, paper reels & skips
- the external transfer of paper, paper reels, goods and skips around the installation
- the external sounding of warning alarms from the reversing of vehicles around the installation
- noise from inside the premises shall only be emitted through attenuated ducting and materials and access/egress to the site.

#### **4.16 Monitoring and Reporting**

**4.16.1** The Operator shall carry out, evaluate and assess monitoring subject to the conditions of this Permit, or otherwise agreed in writing by the Council.

~~4.16.14.~~**16.2** The operator shall monitor emissions, make tests and inspections of the process and keep records, in particular the operator shall keep records of audits, inspections, tests and monitoring, including all non-continuous monitoring, inspections and visual assessments. Monitoring may include process variables and operating conditions where relevant to emissions.

~~4.16.24.~~**16.3** The current records shall be kept on site and be made available for inspection by an authorised inspector of the Maldon District Council. The records shall be kept by the operator for at least two years

~~4.16.34.~~**16.4** The Council shall be informed of monitoring to be carried out and the results. The results shall include process conditions at the time of monitoring.

~~4.16.44.~~**16.5** The operator shall notify the 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

~~4.16.54.~~**16.6** The results of non-continuous emission testing shall be forwarded to the regulator within 8 weeks of the completion of the sampling.

~~4.16.6~~4.16.7 Adverse results from both continuous and non-continuous monitoring shall be investigated immediately.

~~4.16.7~~4.16.8 The operator shall ensure that:

- the cause of adverse results has been identified and corrective action taken
- as much detail as possible is recorded regarding the cause and extent of the problem and the action taken to rectify the situation
- re-testing to demonstrate compliance is carried out as soon as possible,

and

- the Council is notified

~~4.16.8~~4.16.9 In the case of abnormal emissions, malfunction or breakdown leading to abnormal emissions:

- investigation and remedial action shall be undertaken immediately
- the process or activity shall be adjusted to minimise those emissions;

and

- the events and actions taken shall be promptly recorded
- in the case of non-compliance causing immediate danger to human health, operation of the activity shall be suspended

~~4.16.9~~4.16.10 The Council shall be informed without delay:

- if there is an emission that is likely to have an effect on the local community
- in the event of the failure of key abatement plant
- if continuous monitoring shows an emission concentration exceeding double the limit value

~~4.16.10~~4.16.11 The design and location of sampling systems shall be designed and located in order to obtain representative samples for all release points.

- sampling points on new plant shall be designed to comply with the British or equivalent standards. E.g. BS ISO 9096: 2003, BS EN 13284-1 or BS ISO 12141:2002 for sampling particulate matter in stacks

- the operator shall ensure that adequate facilities for sampling are provided on stacks or ducts
- where monitoring is not in accordance with the main procedural requirements of the relevant standard, deviations shall be reported as well as an estimation of any error invoked

4.16.114.16.12 The continuous monitoring required by conditions in this permit it shall be carried out as follows:

- all continuous monitoring readings shall be on display to appropriately trained operating staff
- instruments shall be fitted with audible and visual alarms, situated appropriately to warn the operator of arrestment plant failure or malfunction
- the activation of alarms shall be automatically recorded
- all continuous monitors shall be operated, maintained and calibrated (or referenced) in accordance with the manufacturers' instructions, which should be made available for inspection by the regulator. The relevant maintenance and calibration (or referencing) should be recorded.
- all new continuous monitoring equipment shall be designed for less than 5% downtime over any 3-month period

#### **4.17 Monitoring and reporting of emissions to air**

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

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

4.17.3 Calibration and compliance monitoring shall meet the following provisions as appropriate. 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 15 minutes or less; or
- (b) at least 20 results are obtained where sampling time increments of more than 15 minute are involved; and in the case of (a) or (b)
- (c) no daily mean of all 15-minute mean emission concentrations should exceed the specified emission concentration limits during normal operation (excluding start-up and shut-down);

and

(d) no 15-minute mean emission concentration should exceed twice the specified emission concentration limits during normal operation (excluding start-up and shut-down).

4.17.4 The oxidisation temperature of the Katec Thermal Oxidation System and the thermal oxidisers serving the Lithoman 64, Lithoman 72, Rotoman 1, 2, 3, Baker Perkins G16 and G14 presses shall be continuously monitored and recorded.

4.17.5 Emissions of VOC, carbon monoxide and nitrogen oxides (expressed as nitrogen dioxide) from the stacks serving the Katec Thermal Oxidation System and the thermal oxidisers serving the Lithoman 64, Lithoman 72, Rotoman 1, 2, 3, Baker Perkins G16 and G14 presses shall be quantitatively monitored, at least once in a 12 month period.

4.17.6 Emissions from the particulate matter arrestment plant referenced G on the attached figure 2 in Schedule 3 shall be quantitatively monitored, at least once in a 12 month period.

4.17.7 Emissions from the particulate matter arrestment plant shall be continuously indicatively monitored and recorded so as to demonstrate that its performance is satisfactory.

4.17.8 There shall be provided:

- Safe and adequate means of access to enable sampling/monitoring to be carried out in relation to the emission points specified in Schedule 2.

and

- Safe and adequate means of access to other sampling/monitoring points when required by the Council.

4.17.9 Daily visual and olfactory assessments of releases shall be undertaken to ensure that all final releases to air shall be essentially colourless, free from persistent trailing mist or fume, free from droplets and free from offensive odour. A record of any abnormal emission shall be kept as required by condition 4.17.2.

#### **4.18 Monitoring and reporting emissions to water and sewer**

4.18.1 Copies of any monitoring reports required by Anglian Water shall be sent to the Maldon District Council.

#### **4.19 Monitoring and reporting of waste**

4.19.1 The following shall be continuously monitored and recorded:

- the physical and chemical composition of the waste
- its hazard characteristics
- handling precautions
- and
- substances with which it cannot be mixed

#### 4.20 Monitoring of VOC

4.20.1 By the 31<sup>st</sup> October 2007 the annual solvent consumption shall be determined in accordance with the Solvent Management Plan using the method set out in Appendix 2 of the Secretary of States Guidance For A2 Surface Treatment Using Organic Solvents Sector SG6 (See Appendix 1 of this permit).

4.20.2 The Solvent Management Plan shall be used for determining the fugitive emissions. Once completed, it need not be repeated until the equipment is modified.

4.20.3 The Solvent Management Plan shall be used to demonstrate compliance with the VOC emission limits in condition 2.1.2 annually.

### 5 Decommissioning

5.1 The Operator shall, subject to the conditions of this Permit, make provision for decommissioning the installation as described in the documentation specified in Table 10, or as otherwise agreed in writing by the Council.

<b>Table 10 Decommissioning</b>		
<u>Description</u>	<u>Parts</u>	<u>Date Received</u>
<u>Application</u>	<u>The response to question</u> B 2.11 in document 2478 Rep A issue E section 12 of the application.	20 <sup>th</sup> May 2005

5.2 A site closure plan, setting out the steps to be taken on cessation of installation activities shall be submitted to and approved by the Council within 6 months of the issue of this permit. The plan should be reviewed and updated annually.

### 6 Records

6.1 All records or other documents required by this permit and any other records made by the Operator in relation to the operation of the Permitted Installation shall:-

- be made available for inspection by the Council at any reasonable time
- be supplied to the Council on demand and without charge

- be legible
- be made as soon as reasonably practicable
- indicate any amendments which have been made and shall include the original record wherever possible; and
- be retained for a minimum period of 2 years from the date when the records were made.

6.2 A record shall be made of:-

- Any malfunction, breakdown or failure of plant, equipment or techniques (including down time and any short term and long term remedial measures) that may have, has had or might have had a significant effect on the environmental performance of the Permitted Installation. These records shall be kept in a log maintained for that purpose;
- all monitoring and sampling taken or carried out and any assessment or evaluation made on the basis of such data;
- complaints concerning the Installation's effect or alleged effect on the environment. The record shall give the date of complaint, time of complaint, a summary of any investigation and the results of such investigation.

## 7 Reporting

7.1 All reports shall be sent to the Council at the address notified in writing to the Operator by not later than 31 January in each year or the date agreed in writing with Maldon District Council.

7.2 The results obtained under conditions 3.1, 4.3, 4.7, 4.1, 4.17, 4.18, 4.19, 4.20 and 4.21 and any assessments made of such data shall be reported to Maldon District Council

7.3 Reports mentioned under condition 7.2 shall include:

- the data in respect of the parameters and emission points specified in Table 16 in Schedule 2.
- be made for the reporting periods specified in conditions 4.7, 4.1, 4.17, 4.18, 4.19, 4.20 and 4.21;
- Not later than 31 January in each year, the Operator shall provide a summary report of the previous year's progress against the annual improvement targets in their Environmental Management System.
- be sent to the Local Regulatory Authority within 28 days of the end of the reporting period.

7.4 The Operator, shall:

- Maintain a record of the calculations, estimations and assumptions made in determining the annual emissions reported in condition 7.3. This record shall be retained for a period not less than 4 years.

## 8 Notifications

8.1 The Operator shall notify the Council without delay of: -

- the detection of an emission of any substance which exceeds any limit or criteria in this permit specified in relation to the substance;
- the detection of any fugitive emission that has caused or may cause significant ~~environmental~~ pollution unless the quantity emitted is so trivial that it would be incapable of causing pollution.
- the detection of any malfunction, breakdown or failure of plant or techniques which has caused or may have the potential to cause significant pollution;
- ~~any accident~~ any accident which has caused or may have the potential to cause significant pollution that may have consequences for the environment.

8.2 The Operator shall submit written confirmation to the Council of any notification under condition 8 in accordance with Schedule 1 to this Permit, by sending the information listed in Part A of Schedule 1 to this Permit within 24 hours of such notification. The Operator shall send the more detailed information listed in Part B of that Schedule as soon as practicable thereafter;

8.3 The Operator shall give written notification as soon as practicable, of any of the following

- permanent cessation of the operation of any part of or all of the Permitted Installation;
- cessation of the operation of any part of or all of the Permitted Installation for a period, ~~or~~ likely to exceed 1 year; and
- Resumption of the operation of any part of or all of the Permitted Installation after a cessation notified under 8.3.

8.4 The Operator shall notify the following matters to the Council, in writing, within 14 days of their occurrence:

- any change in the Operator's trading name, registered name or registered office address;

- a change to any particulars of the Operator’s ultimate holding company (including details of an ultimate holding company where the Operator has become a subsidiary);
- any steps taken with a view to the Operator going into administration, entering into a company voluntary arrangement or being wound up.
- Where the Operator has entered into a Climate Change Agreement with the Government, the Operator shall notify the Council within one month of:
  - a decision by the Secretary of State not to re-certify that Agreement
  - a decision by either the Operator or the Secretary of State to terminate that agreement
  - any subsequent decision by the Secretary of State to re-certify such an Agreement

## 9 Improvement programme

9.1 The Operator shall complete the requirements specified in Table 11 by the dates specified in that Table, and shall send written notification of the date of completion of each requirement to the Council, at the Reporting Address, within 14 days of the completion of each such requirement.

<b>Table 11 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
IP1	The operator shall produce an Environmental Management System and submit it to Maldon District Council for approval.	12 months from permit issue
IP2	The operator shall produce a solvent management plan in line with the method outlined in the Sector Guidance Note IPPC SG6 – Guidance for the A2 Surface Treatment Using Organic Solvents Sector (see Appendix 1 of this permit) and submit it to the Maldon District Council for approval	31 October 2007
IP3	The operator shall fully implement the Solvent Management Plan.	31 October 2007

IP4	The Operator shall produce a noise management plan and submit it to Maldon District Council for approval:	3 months from permit issue
IP5	The operator shall as part of producing the noise management plan survey the noise levels emitted from all vents and discharge points with a view to carrying out any necessary noise control works to prevent disturbance at noise sensitive premises.	6 months from permit issue
IP6	The Operator shall produce a site closure plan and submit it to Maldon District Council for approval.	6 months from permit issue
IP7	The operator shall carry out a waste minimisation audit and submit it to Maldon District Council for approval.	18 months from permit issue
IP8	The operator shall carry out a water minimisation audit and submit it to Maldon District Council for approval.	24 months from permit issue
IP9	The operator shall carry out a risk assessment on the containment/bunding of all internal and external storage areas for the coating materials, raw materials and waste storage. The report shall be submitted to the Council.	6 months from permit issue
IP10	The operator shall re-calculate all the stack heights using HMIP Technical Guidance Note D1 and submit the results to Maldon District Council for approval.	12 months from the issue of the permit
IP11	Stack heights shall be increased to the recalculated heights where required by IP11.	12 months from the issue of the permit

### **Interpretation**

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

“Authorised Officer” means any person authorised by the Council under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, powers specified in Section 108(4) of that Act.

“Background concentration” means the same as “background quantity” as defined in paragraph 11 to Part 2 to Schedule1 of the PPC Regulations.

“Fugitive emission” means an emission from any point other than those specified in the Tables in Part 6 of this Permit.

“LAeq” means the A-weighted equivalent continuous equal energy level (dBA)

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

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

“PPC Regulations” means the Pollution Prevention and Control 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.

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

“substances prescribed for water” means those substances mentioned in paragraph 13 of Part 2 of Schedule 1 to the PPC Regulations.

“year” means year ending 31 March.

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

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

in relation to gases from combustion processes, the pressure of 101.3 kPa and an oxygen content of 18% with no correction for water vapour for liquid and gaseous fuels, 6% dry for solid fuels; and/or

in relation to gases from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa and 18% oxygen, with no correction for water vapour content.

Written agreement to changes

### **Written agreement to changes**

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

Any change proposed according to condition 10.1.1 and agreed in writing by the Council, shall not be implemented until the Operator has given the Local Regulatory Authority 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 to be amended.

## **Schedule 1**

### **Confirmation of condition 8.1 notifications, in accordance with condition 8.2**

This Schedule outlines the information that the Operator must provide to the Local Regulatory Authority to satisfy condition 8.2 of this Permit.

Units of measurement used in information supplied under Part A and B requirements must be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the Pollution Prevention and Control Regulations.

Returns should contain

Part A

- Name of Operator.
- Permit Number
- Location of Installation.
- Date information provided.
- Time, date and location of the emission.
- Identity and details of the substance[s] emitted to include:-
- Best estimate of the quantity or the rate of emission, and the time during which the emission took place.
- Environmental medium into which the emission took place.
- Measures taken, or intended to be taken, to stop the emission.

Part B

- Any more accurate information on the matters notified under Part A.
  - Measures taken, or intended to be taken, to prevent a recurrence of the incident.
  - Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment or harm which has been or may be caused by the emission.
  - The dates of any Part A notifications within in the previous 24 months.
- Name                       Post.....
- Signature                       Date
- Statement that signatory is authorised to sign on behalf of [*OPERATOR NAME*]

**Schedule 2**

**Reporting of monitoring data**

Parameters for which reports shall be made, in accordance with conditions 7.1 of this Permit, are listed below.

**Table 12**

Parameter	Emission point	Reporting period	Period begins
Volatile Organic Compounds	A, B, C, D,E and F	Annually	Date of the signing of the permit
Nitrogen dioxide	A, B, C, D,E and F	Annually	Date of the signing of the permit
Carbon monoxide	A, B, C, D, E and F	Annually	Date of the signing of the permit
Particulate Matter	A, B, C, D, E and F	Annually	Date of the signing of the

			permit
Particulate Matter	G	Annually	Date of the signing of the permit

**Schedule 3**

**Plans of Installation**

<b>Wyndeham Heron Location</b>	<b>Figure 1</b>		
<b>Wyndeham Heron Layout</b>	<b>Figure 2</b>	<b>Drawing number</b>	<b>2478-001</b>
<b>Wyndeham Heron Drains</b>	<b>Figure 3</b>	<b>Drawing number</b>	<b>2478-002</b>
<b>Wyndeham Heron Machinery Layout</b>	<b>Figure 3</b>	<b>Drawing number</b>	<b>2478-003</b>

## Appendix 1

### **Solvent Management Plan Definitions:**

The following definitions provide a framework for the mass balance calculations used in determining compliance with the requirements of the Solvent Management Plan and the Reduction Scheme.

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

**I1** The quantity of organic solvents, or their quantity in preparations purchased which are used as input into the process/activity (including cleaning solvents).

**I2** 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**)

**O1** Emissions in waste gases

**O2** Organic solvents lost in water, if appropriate taking into account waste water treatment when calculating **O5**

**O3** The quantity of organic solvents which remains as contamination or residue in products output from the process/activity.

**O4** Uncaptured emissions of organic solvents to air. This includes the general ventilation of rooms, where air is released to the outside environment via windows, doors, vents and similar openings.

**O5** Organic solvents and/or organic compounds lost due to chemical or physical reactions. (including for example those which are destroyed, e.g. by thermal oxidation or other waste gas or waste water treatments, or captured, e.g. by adsorption, as long as they are not counted under **O6**, **O7** or **O8**).

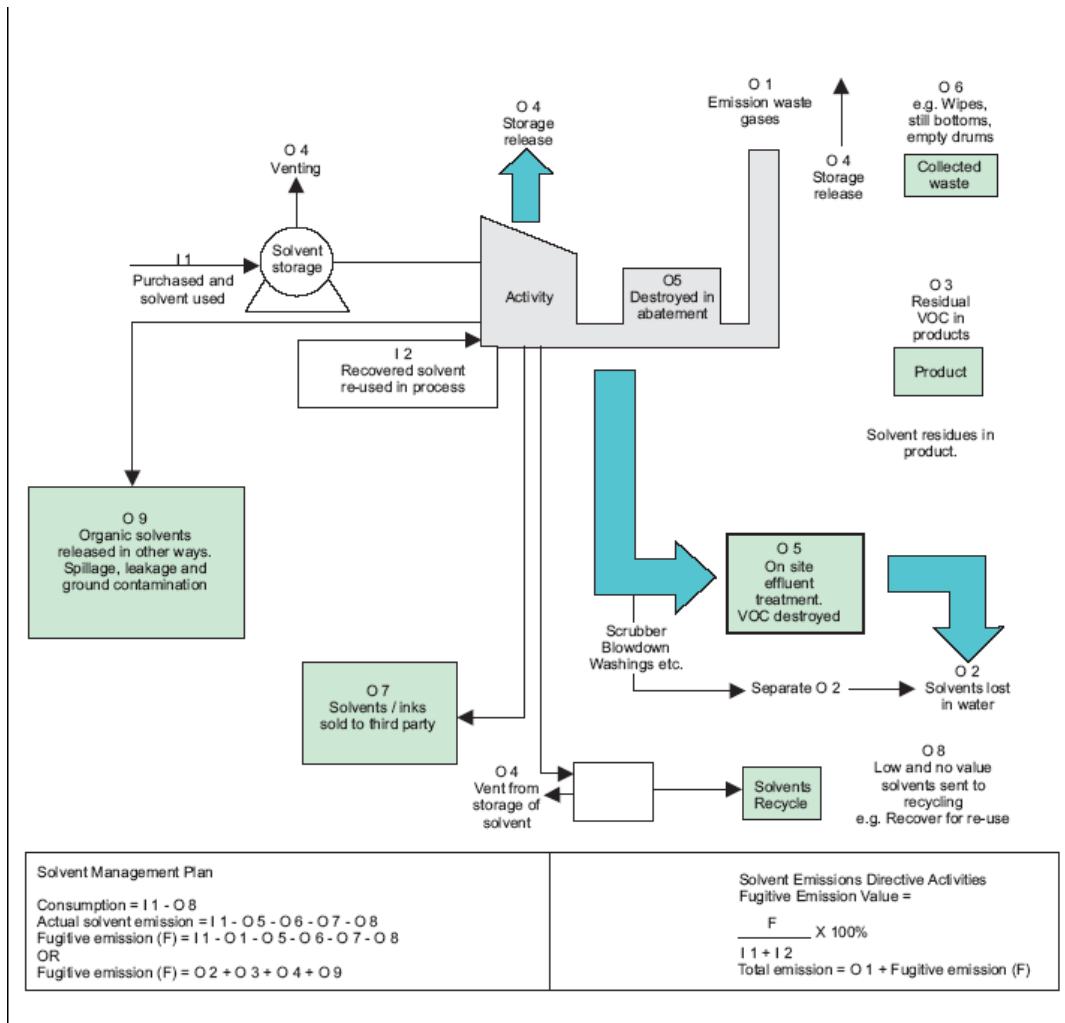
**O6** Organic solvents contained in collected waste.

**O7** Organic solvents, or organic solvents contained in preparations, which are sold or are intended to be sold as a commercially valuable product.

**O8** Organic solvents contained in preparations 'recovered for reuse but not as input into the process/activity, as long as not counted under **O7**.

**O9** Organic solvents released in other ways.

### **Figure 3.4 Solvent Management Plan**



### **Determination of Consumption**

Consumption(**C**): means the total input of organic solvents into an installation in the last calendar year, or previous 12-month period (**I1**), less any VOC that are recovered for reuse (**O8**).

The total mass of Solvent Inputs and Outputs must be determined and submitted to the regulator annually, preferably to coincide with the operators stocktaking requirements, in the form of a mass balance in order to determine the annual actual consumption of solvent

**Where: C= I1- O8**

**I1** Total quantity of organic solvents, or their quantity in preparations purchased which are used as input into the process/activity

A calculation of the purchased Solvent Input (**I1**) to the process/activity, is carried out by recording:

The mass of solvent contained in inks, coatings, diluents and cleaners in the initial stock (**IS**) at the start of the accounting period, plus

The mass of solvent contained in inks, coatings, diluents and cleaners in the purchased stock (**PS**) during the accounting period.

Minus The mass of solvent contained in inks, coatings, diluents and cleaners in the final stock (**FS**) at the end of the accounting period.

**Total Solvent Input (I1) = IS + PS – FS**

### **Determination fugitive VOC emissions**

To demonstrate compliance with fugitive emission values in Section 2 the operator must determine the fugitive emissions (F) from the installation using the following:

**F = I1 -O1 -O5 -O6 -O7 -O8**

Or

**F=O2+O3+O4+O9**

This quantity can be determined by direct measurement of the quantities.

Alternatively, an equivalent calculation can be made by other means, for instance by using the capture efficiency of the process.

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)

Fugitive emission values must be determined for each installation, once completed, it need not be repeated until the equipment is modified.

**a Determination of compliance with the Reduction Scheme**

Compliance with Reduction Scheme is achieved if the annual actual solvent emission is less than or equal to the Target Emission.

Where the annual actual solvent emission is:

**annual actual solvent emission = I1-O8-O7-O6 (-O5 if abatement has been used)**

(see Definitions above)

Where a coating activity includes both food and non-food contact coating, compliance with the reduction scheme should be determined for each operation separately. Compliance is achieved if the annual actual solvent emission for both the food contact and the non-food contact coating is less than or equal to the sum of the individual target emissions for food contact and non-food contact coating.

The solids content of coating inks etc. should be determined in accordance with ISO method ISO-3251:1993(E)

**Determination of compliance with the Total Emission Limit Values**

Compliance is achieved if the Total Emission from the activity expressed in solvent emissions per unit of product, or otherwise as stated is equal to or less than the Total Emission Limit Value,

Where Total Emission Is equal to the mass of solvent released in waste gases Plus the fugitive emissions determined above

**Total Emission = O1 + Fugitive (See above)**