Telford & Wrekin COUNCIL

Pollution Prevention Control Act 1999

Environmental Permitting (England and Wales) Regulations 2016

Operator	**Precision Colour Printing Limited**
Installation Address	Haldane Halesfield 1 Telford Shropshire TF7 4QQ
Permit Reference	4956/080425
Grid Reference	SJ71398 05373
Registered Office	Precision Colour Printing Ltd Haldane Halesfield 1 Telford Shropshire TF7 4QQ
Registered Number	00772047

Precision Colour Printing Ltd is hereby permitted by Telford & Wrekin Council to carry out the activity of printing using 5 or more tonnes of organic solvents per annum, as defined under Schedule 1, Part 2, Section 6.4, Part b(a)(iv) of The Environmental Permitting (England and Wales) Regulations 2016 ("The Regulations") and other activities as listed and described below within the installation boundary marked in red on the attached plan in Appendix 1 and in accordance with the conditions within this permit.

Signed:

Name: Clair Travis **Date: 8 April 2025**

Environmental Health Officer

Authorised by the Borough of Telford and Wrekin to sign in that behalf

Status Log

Description	Relevant Dates
Part B permit issued	08/04/2025

Contact details

Address:
Public Protection,
Telford & Wrekin Council,
Darby House
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Telford, TF3 4JA

Telephone: 01952 381818

Email: environmentalprotectionteam@telford.gov.uk

Introductory Note

Determination of application

Conditions have been inserted as representing the authority's judgement of what constitutes BAT, having regard to the statutory guidance issued by the Secretary of State and to all site-specific considerations.

The site activities have been assessed, and it has been determined that the activities fall out of the scope of Schedule 1, Part 2, Section 6.4 A2(a).

The site carries out 2 activities as described in the Industrial Emissions Directive:

1) heatset web offset printing
2) sheetfed cold set printing

Under the legislation the annual solvent consumption required for a permit for sheetfed cold set printing is 25 tonnes per annum. This site falls below this annual consumption and therefore this activity is beyond the scope of this permit.

The annual solvent consumption is also less than 200 tonnes per annum required for an A2 permit.

The installation has surrendered the A2 permit on 28/02/2025 as it is likely they will not exceed the 200 tonnes. The amount of solvent consumption will be monitored by the operator and assessed by the regulator.

Exceeding thresholds

The annual solvent consumption for the heatset web offset printing has been assessed as being over 10 tonnes per annum, but below 15 tonnes and therefore the requirements of the Industrial Emission Directive have not been applied. Should the annual consumption exceed 15 tonnes, the operator must apply for a variation to the permit.

End of introductory note

Description of the Installation

The installation produces printed paper materials. The site has four presses, and carried out in two locations on the site, Site 1 and Site 2.

Raw material storage

Bulk paper is stored in dedicated areas at Site 1 and Site 2. These locations are marked on the site plan in Appendix 2. In addition, secondary storage areas for smaller quantities of paper are located in each process area, in close proximity to each printing press in preparation for printing.

Aluminium plates are delivered directly to the plate rooms, located as shown in Appendix 2.

The principal ink storage areas within the installation are listed below and are shown in Appendix 2.

- Area 1 is designed to store 28 steel IBC portable silos of 1,000 kg each; this ink is exclusively for use in the Komori printing presses.
- The IBCs are transported to the dedicated supply area, known as Area 2, as required, where they are mounted above 4 colour-specific mother tanks and fed by gravity. Ink is then transferred directly to the presses from the mother tanks via above ground pipework.
- Area 3 contains three fixed silos of 10,000 kg capacity and one silo of 12,000 kg capacity, supplying the MAN-Roland Rotoman printing presses. Ink is pumped directly from these containers to the presses via above ground pipework. Ink is delivered by tanker and the connection points are located at Site 2. These have alarms fitted to prevent overfilling.

Smaller quantities of ink in containers of less than 10 litres are stored on racking adjacent to Area 2.

The inks used within the Komori and MAN-Roland Rotoman presses contain negligible quantities (0.1%) of solvent. Given the low solvent content of inks used on site, and its storage within enclosed vessels, potential for fugitive emissions is considered to be very low

Other solvent based raw materials are stored as follows:

- Lacquer and finishing solutions - 1,000 litre IBCs at Komori and MAN-Roland Rotoman presses.
- Solvent-based wash solutions - IBCs or smaller intermediate contains (20 - 25 litres), which are stored in external flammable units in Yard 1.

Solvent is used principally within cleaning chemicals, including liquid cleaning solutions and pre-impregnated cleaning cloths (80 – 100% solvent). Solvents are also contained in smaller quantities in fount solution (up to 12% solvent) and in plate gum (up to 1.6% solvent).

The potential for fugitive release of solvents during storage is considered negligible due to the use of enclosed storage containers.

Pre-press/ plate making

Electronic page images are the basis for each printing job. These are laid out in the correct sequence and imaged onto aluminium printing plates. The plates are imaged by a combination of UV light and lasers within a wholly contained and automated unit.

There are two plate rooms at PCP, as indicated on Appendix 2; Plate Room 1 supplies the Komori presses and Plate Room 2 supplies the MAN-Roland Rotoman presses. The computer-to-plate (CTP) process utilises the following chemicals:

- Developer solution
- Replenisher solution
- Finishing solution (gum)

All solutions are applied to the plates within the printing unit, pumped from 20 litre containers. Waste solutions are expelled from the unit and collected in a 20 litre container which is decanted into an IBC.

Waste IBCs are located adjacent to each plate room, as illustrated in Appendix 2. Fugitive VOC emissions from this activity are possible although this will be very limited due to the relatively small quantities of chemicals used and the solvent free or low solvent content.

Printed plates are mounted onto the presses for each print run. Used plates are collected at each press and stored centrally prior to collection for recycling (location shown in Appendix 2).

Printing

There are 4 printing presses, all of which are heat set web offset printers:

- Site 1: Three Komori presses;
- Site 2: One MAN-Roland Rotoman press, comprising two print lines (upper and lower)

Each press utilises the printed plates, applying a thin film of ink and fount solution to the plate, to create an inked image. The inks and some fount types used on the Kamori presses contain only trace quantities (0.1%) of solvents. Fount used on the MAN-Roland presses contains 12% solvent. The inked image is transferred onto a rubberised blanket, mounted on a cylinder and then in turn on to the paper to create printed sections. Order specific sealant finishing or lacquer solutions (with solvent content 0.1% or less) may also be applied before curing. Isopropanol is not used within any part of the process covered by this permit application.

The Komori presses are fitted with gas dryers, each of which have an inbuilt afterburner to burn off any VOC content. The afterburner temperature may vary according to the job specification but operate within a range sufficient to achieve a suitable reduction in emissions.

Each press has a separate exhaust stack; these are referred to as emission points A1, A2 and A3 and are shown in Appendix 2.

The MAN-Roland Rotoman Presses (upper and lower) are each equipped with a gas dryer with inbuilt afterburner. The upper and lower presses each have their own flue which join to form a single flue prior to its exit from the building. The upper and lower presses have separate emissions monitoring ports referred to as A4 and A5. The location of the stack from which A4 and A5 are exhausted is shown in Appendix 2.

All press ovens and afterburners are powered by natural gas.

Press and roller cleaning

Press rollers and printing blankets are cleaned using solvent-based cleaning solutions, specific to the roller and component type. Cleaning activities are the largest user of solvent on site; the solvent content of the cleaning fluids ranges from 80 to 100%.

All presses are cleaned between projects or at more regular intervals as required. Pre-impregnated wash pads are inserted into the presses and run on an automated cleaning cycle. In addition, rollers, blankets and other press components are manually cleaned either in situ at the press or at dedicated cleaning stations located adjacent to each press. Each cleaning station comprises a flammable cabinet and worktable on which are enclosed dispensing vessels containing cleaning fluids and cleaning cloths. Cleaning cloths are wetted with cleaning solution and printing equipment is manually wiped down. All washcloths are disposed of in adjacent collection bins, fitted with lids to minimise fugitive solvent release.

Some limited localised fugitive emissions of VOCs are likely to arise from cleaning activities due to the solvent content of cleaning materials.

Waste storage and disposal

Waste is stored in dedicated areas prior to removal by registered waste carriers. Solvent waste is stored within the hazardous storage area identified in Appendix 2.

Hazardous wastes, including waste chemicals and used rags and cloths are stored within lidded containers pending collection in order to minimise potential for fugitive emissions to air.

Permit conditions amendments

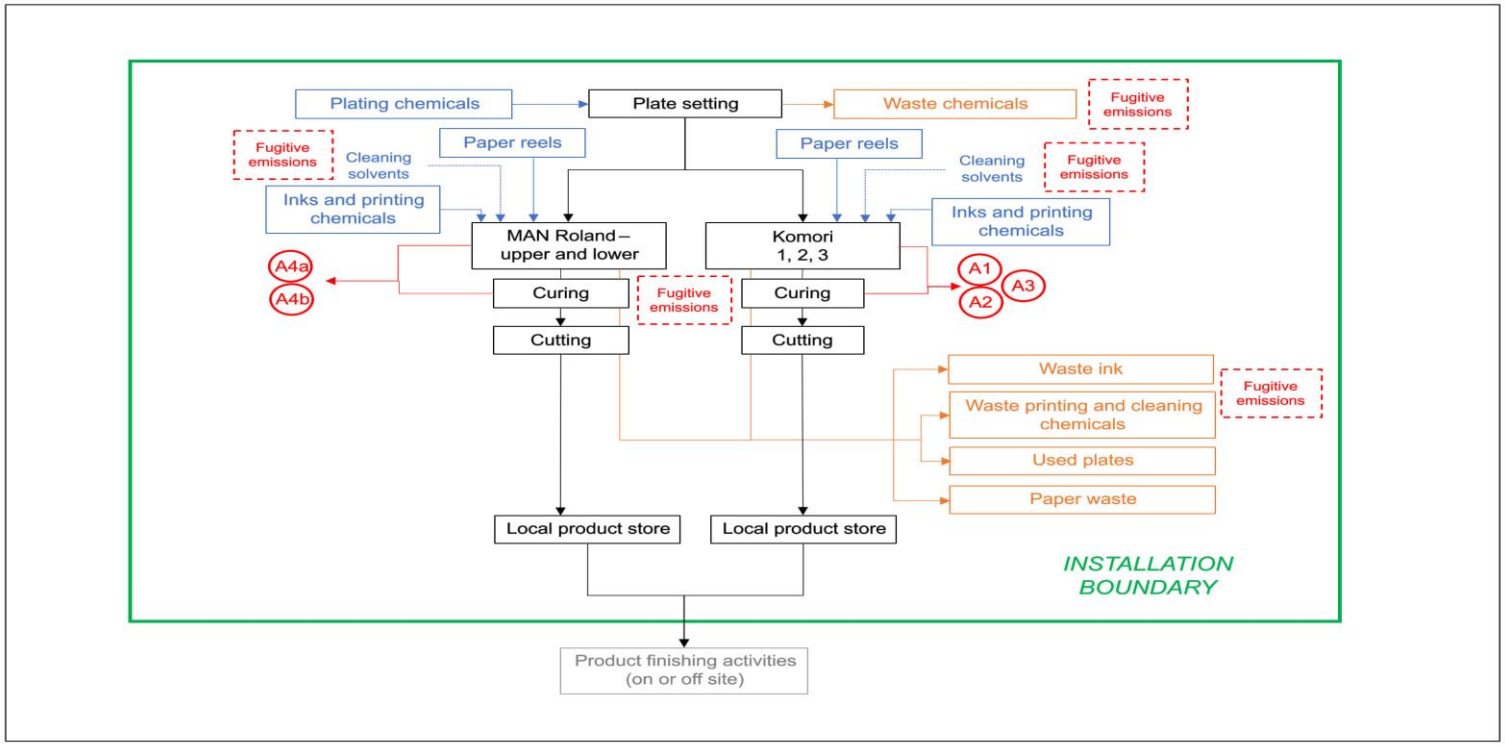
The Operator has chosen to not use the reduction scheme as a method of compliance with the permit, they have chosen the waste gas emission limit option.

The requirement to monitor for isocyanates has been removed from this permit as the Operator has declared that raw materials do not contain isocyanates. A surrogate condition has been included to ensure that the raw materials will be reviewed regularly.

The requirement for continual monitoring of VOCs has been removed from the permit. The Operator continually monitors the after-burner temperature and this is interlocked to prevent operations continuing if the temperature falls below the permitted temperature. The site will continually record the temperature. This is an acceptable surrogate measurement.

The requirement to monitor for particulate matter has been removed from the permit as under The BAT guidance document section 11.3.2.5 indicates that heat set printing typically has a low risk of high levels of particulate matter.

Process flow chart



End of process description

Permit Conditions

General

1. The best available techniques shall be used to prevent, or where that is not practicable, reduce the emissions from the installation in relation to any aspect of the activity which is not specifically regulated by any condition of this permit.

2. An appropriate person (and deputy) shall be appointed as the primary point of contact with the regulator. The regulator shall be informed in writing of the appointed person (and deputy). In the event of a different person being appointed, the regulator shall be informed without delay.

3. A copy of this permit shall be kept at the installation. All relevant staff shall be made aware of its content and shall be told where it is kept.

4. If the operator proposes to make a change in the operation of the installation, they must, at least 14 days before making the change, notify the regulator on the appropriate form. The notification must contain a description of the proposed change in operation. A 'change in operation' means a change in the nature or functioning, or an extension, of the installation, which may have consequences for the environment.

5. All records required to demonstrate compliance with any conditions of this Permit shall be kept in an organised manner. The records shall be kept electronically or in paper form. Records:
   a. Must be legible and any amendment entered into a record shall be made in such a way as to leave the original clear and legible.
   b. Records shall be kept for a period of 2 years, unless otherwise stated.
   c. Records shall be kept on-site for a minimum of 12 months. Records kept off-site, must be made available within 7 days of any request by the regulator.

6. All documentation required to be submitted to the regulator to demonstrate compliance with relevant conditions, shall be submitted in an electronic format. Submissions shall be sent to: environmentalprotectionteam@telford.gov.uk

Permitted activities

7. The operator is only authorised to carry out the activities specified in Table 1 below.

Table 1- The activities		
Activity listed in Schedule 1 of the EP Regulations	**Description of specified activity**	**Limits of specified activity**
S.6.4, Part B (a)(iv)	Applying a substrate, or drying, curing after such application, printing ink or paint or any other coating material as, or in the course of, a manufacturing activity, where the process may result in the release into the air of particulate matter or of any volatile organic compound and is likely to involve the use in any 12-month period: 5 or more tonnes of organic solvents in respect of any activity	Receipt of raw materials to application of inks, coatings, lacquers and adhesives onto substrates to produce final composite product
Directly Associated Activities		
Plate making	Storage and use of materials containing solvents	Receipt and storage of raw materials, to the storage and handling of waste materials
Storage and handling of raw materials	Storage of solid and liquid materials in bulk storage tanks, drums, IBCs, bags and other containers	Receipt and storage of raw materials to transfer to process areas
Storage, handling and dispatch of intermediates, finished products, waste & other materials	Storage of intermediates and finished products. Process waste segregation and storage	Internal & external storage of finished products, storage of waste in designated areas and loading for transit off site
Control & abatement systems for emissions to air	Abatement of releases to air by thermal oxidisation (afterburners)	The operation and maintenance of afterburners for the incineration of waste gases.

Emission limits and monitoring

8. The Operator shall carry out the monitoring specified within Table 2 below.

Table 2 Emission limits				
Substance	**Source**	**Emission limit**	**Type of monitoring**	**Monitoring frequency**
Carbon monoxide	Stacks A1, A2, A3, A4 and A5	100mg/Nm^3 as a 15-minute mean.	Manual extractive testing	Annual
VOC	Stacks A1, A2, A3, A4 and A5	100mg/m^3 as a 15-minute mean.	Manual extractive testing	Annual
Temperature	Afterburners at Komori 38 S2 K1, K2 & K3 and Man Rotoman presses	Minimum 780^{o}C	Continuous recorded	Continuous recorded

9. No result from the monitoring shall exceed the emission limit concentrations specified in table 2.

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

11. For batch processes, then the extractive sampling shall take place over a complete cycle of the activity.

12. The following reference conditions for limits in table 2 are: 273.1K, 101.3kPa, without correction for water vapour content shall be used.

13. For periodic measurements of VOC at least three readings must be obtained during each measurement exercise.

Monitoring - Information required by the regulator

14. The operator shall notify the regulator 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.

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

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

a. identify the cause and take corrective action;

b. clearly record as much detail as possible regarding the cause and extent of the problem, and the remedial action taken;

c. re-test to demonstrate compliance as soon as possible; and

d. inform the regulator of the steps taken and the re-test results.

Continual monitoring

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

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

19. The afterburners for the Komori 38 S2 (K1-K2 & K3) and Man Rotoman presses shall operate at a temperature of 780^{o}C. They shall be interlocked so that if the temperature falls below the stated level, the presses automatically stop printing.

20. All continuous monitors shall be operated, maintained and calibrated (or referenced, in the case of indicative monitors) in accordance with the manufacturers' instructions, which shall be made available for inspection by the regulator.

21. The relevant maintenance and calibration (or referencing, in the case of indicative monitors) shall be recorded.

Solvent consumption and management

22. The annual solvent consumption shall be submitted to the regulator no later than 31 January of each year. The following calculation shall be used:

e. Solvent consumption (C) = I_1- O_8

23. Where the annual solvent consumption exceeds 15 tonnes, the operator must apply for a substantial variation to the permit within 30 days.

24. Raw materials containing solvents shall not contain isocyanates. The operator shall regularly review their raw materials for isocyanates and keep a record of the review for inspection.

Visible emissions

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

26. All emissions to air shall be free from droplets.

Abnormal emissions

27. In the case of abnormal emissions, malfunction or breakdown leading to abnormal emissions the operator shall:

a. investigate and undertake remedial action immediately;
b. adjust the process or activity to minimise those emissions; and
c. promptly record the events and actions taken.

28. The regulator shall be informed no later than 10am the next working day whether or not there is related monitoring showing an adverse result:

a. If there is an emission that is likely to have an effect on the local community; or
b. In the event of the failure of any of the afterburners used as abatement .

General operating techniques

29. The number of start-ups and shutdowns shall be kept to the minimum that is reasonably practicable**.**

30. A high standard of housekeeping shall be maintained.

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

VOC delivery and storage

32. Bulk storage tanks for organic solvents and organic solvent-containing liquids shall, wherever practicable, be back vented to the delivery tank during filling. Where this is impracticable, displaced air vents shall be sited in such a way as to prevent the arising of offensive odour beyond the site boundary.

33. All potentially odorous waste materials shall be stored in suitable closed containers.

34. Delivery connections to bulk storage tanks shall be located within a bunded area.

35. Connections to bulk storage tanks shall be fixed and locked when not in use.

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

37. Bunding shall:

a. completely surround the bulk liquid storage tanks;
b. be impervious and resistant to the liquids in storage; and
c. be capable of holding 110% of the capacity of the largest storage tank.

Offset Printing

38. Where organic compounds are present in dampening, the proportion of organic compounds in dampening solutions shall not exceed:

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

39. Cooling in order to reduce the evaporation of dampening solutions containing organic compounds shall be installed.

VOC handling

40. Inks/coatings containing VOC shall be stored in closed storage containers.

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

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

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

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

VOC cleaning

45. Cleaning operations involving organic solvents shall be periodically reviewed, normally at least once every two years, to identify opportunities for reducing VOC emissions (e.g. cleaning steps that can be eliminated or alternative cleaning methods). The regulator shall be provided with a report on the conclusions of the review. The report shall be submitted no later than 31 January of the relevant year.

46. Application of cleaning solvents shall be:

a. from a contained device or automatic system when applied directly on to machine rollers; and
b. dispensed by piston type dispenser or similar contained device, when used on wipes.
c. pre-impregnated wipes shall be held within an enclosed container prior to use.

47. Where equipment is cleaned off-line, cleaning shall be carried out using enclosed cleaning systems. Enclosed cleaning systems shall be sealed to prevent emissions whilst in operation, except during purging at the end of the cleaning cycle.

48. Residual ink / coating contained in parts of the application equipment shall be removed prior to cleaning.

VOC waste

49. All reasonably practicable efforts shall be made to minimise the amount of residual organic solvent bearing material left in drums and other containers after use.

50. All organic solvent contaminated waste shall be stored in closed containers.

51. Prior to disposal, empty drums and containers contaminated with organic solvent shall be closed to minimise emissions from residues during storage prior to disposal.

52. Waste drums and containers shall be labelled, so that all personnel who handle them are aware of their contents and hazardous properties.

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

Maintenance

54. The operator shall maintain a list of key arrestment plant and shall have a written procedure for dealing with its failure, in order to minimise any adverse effects.

55. The operator shall have the following available for inspection by the regulator:

a. a written maintenance programme for all pollution control equipment.
b. a record of maintenance that has been undertaken

Environmental management system

56. The operator shall manage and operate the activities;

a. in accordance with a written environmental management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and

b. using sufficient competent persons and resources.

57. Records demonstrating compliance with condition 56 shall be maintained and made available for inspection.

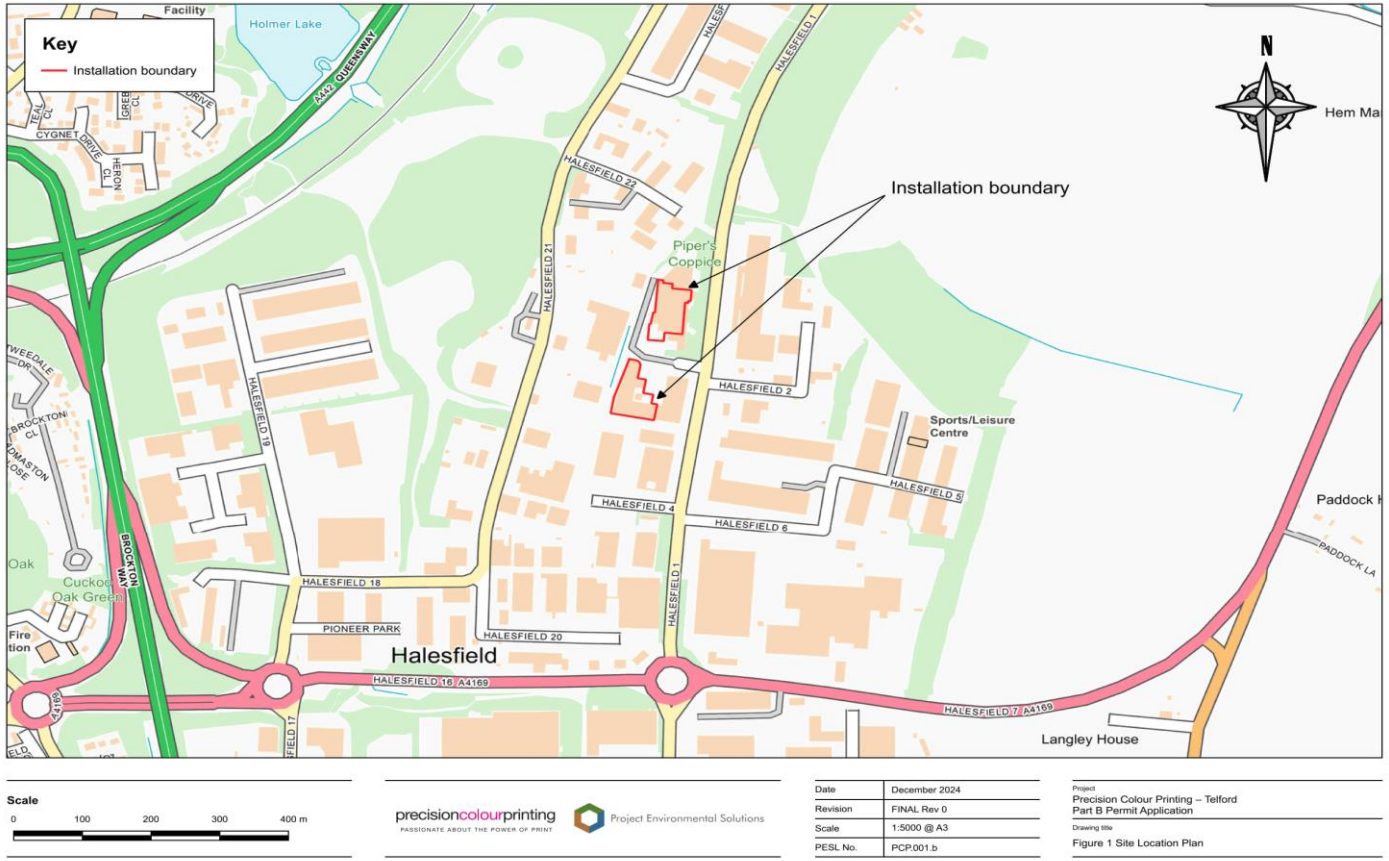
Training

58. All staff whose functions could impact on air emissions from the activity shall receive appropriate training on those functions. This should include:

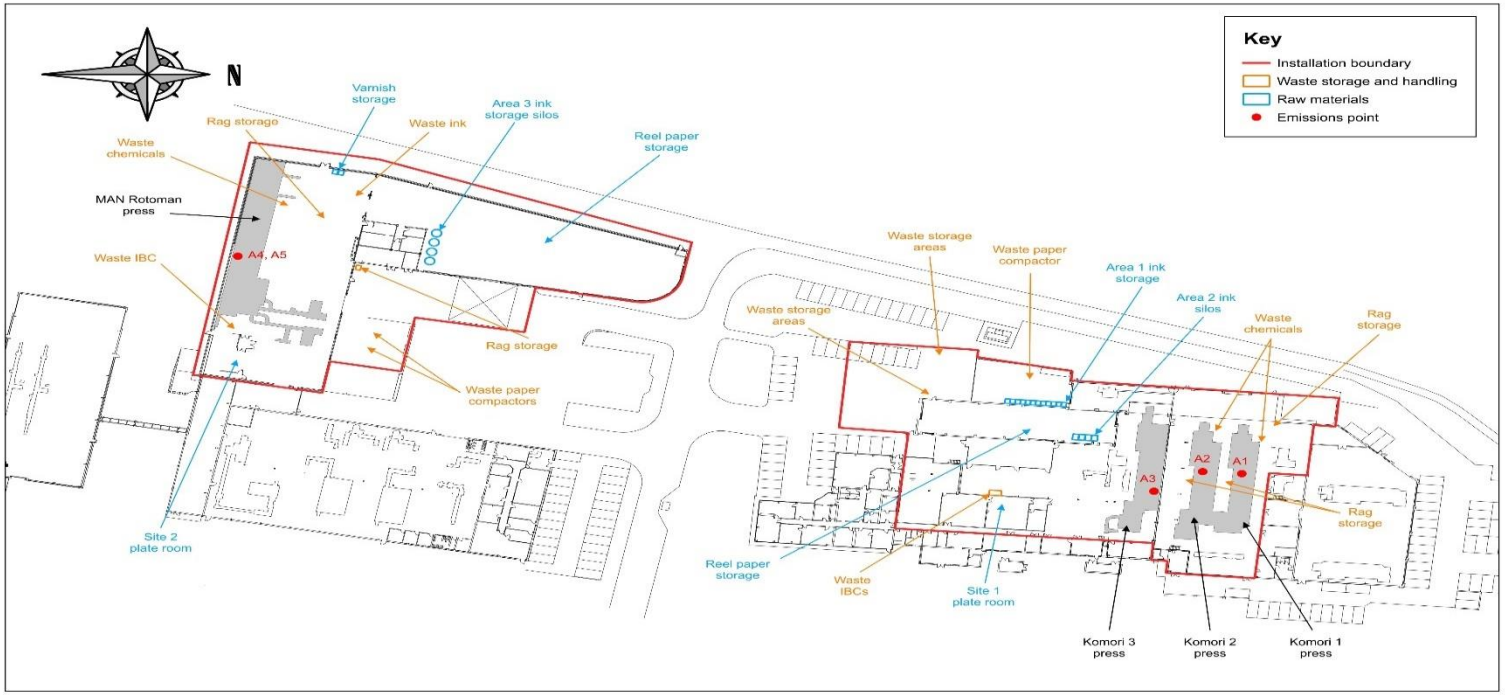
a. awareness of their responsibilities under the permit;
b. steps that are necessary to minimise emissions during start-up and shutdown;
c. actions to take when there are abnormal conditions, or accidents or spillages that could, if not controlled, result in emissions.

59. The operator shall maintain a statement of training requirements for each post with the above-mentioned functions and keep a record of the training received by each person. These documents shall be made available to the regulator on request.

Appendix 1. Location of Installation Plan



Appendix 2. Site layout plan



End of Permit Conditions

Definitions

I_1 The quantity of organic solvents or their quantity in mixtures purchased which are used as input into the process/activity (including organic solvents used in the cleaning of equipment, but not those used for the cleaning of the products).

I_2 The quantity of organic solvents or their quantity in mixtures recovered and reused as solvent input into the process/activity. (The recycled solvent is counted every time it is used to carry out the activity.)

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

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

End of Permit