



**Pollution Prevention and Control Act 1999
The Environmental Permitting (England and
Wales) Regulations 2016**

**Clays Ltd
Printing Works
Popson Street
Bungay
Suffolk
NR35 1EB**

Permit Reference No. 07/00016/B/V1

Section One Introductory Note & Description of Permitted Installation

07/00016/B/V1

Permit Holder:	Clays Ltd (A)
Installation Address:	Clays Ltd (B) Printing Works Popson Street Bungay Suffolk NR35 1EB
Registered Address of Company:	Clays Ltd Printing Works Popson Street Bungay Suffolk NR35 1ED

Provenance	Date
Application for Permit	13 August 2007
Permit Issued	2 November 2007
Permit Reviewed	12 December 2016
Permit Varied	25 June 2021
Permit Varied	17 July 2023

Clays Ltd is hereby permitted by East Suffolk Council to carry on the process of Printing, as prescribed in Sections 6.4(B)(a)(iv) of Schedule 1 of the Environmental Permitting (England and Wales) Regulations 2016 at the above named installation as indicated on the attached map at reference 633377E,289987N and in accordance with the conditions detailed in Section 2 of this Permit.

Introductory Note

[This introductory note does not form a part of the Permit]

The following Permit is issued under the Environmental Permitting (England and Wales) Regulations to operate an installation carrying out activities covered by the descriptions contained in the Regulations, to the extent authorised by the Permit:

Aspects of the operation of the installation which are not regulated by conditions of the Permit are subject to the Operator using 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.

The Permit Conditions require the Operator to use Best Available Techniques (BAT), in each of the aspects of the management of the installation, to prevent and where that is not practicable to reduce emissions. The Conditions do not provide a definitive explanation of 'BAT'; In determining 'BAT', the Operator should pay particular attention to relevant sections of the Process Guidance Note PG6/16, and other relevant guidance.

Process Description

The process covered by this permit is *digital printing using more than five tonnes of organic solvents in a 12 month period*. The installation falls within Sections 6.4(B)(a)(iv) of Schedule 1 of the Environmental Permitting (England and Wales) Regulations 2016.

Offset/lithographic coldset printing is also undertaken and is treated as a Directly Associated Activity as product is made using both types of printing.

This is not an IED activity.

Whilst not required under the IED, Clays uses a solvent management plan as a management tool to identify how much solvent is used.

The reduction scheme is the preferred method of preventing and minimising emissions of organic solvents using non-abatement techniques such as:-

- Water borne coatings (low organic solvent content)
- Higher solids content coatings

This printing process operates on a 24-hour day over a 7-day week. The complete printing process includes the printing of book sections, jackets, covers and the production of cases for 'hard back' books. The books are shrink-wrapped, palletized and despatched to selected distribution points.

The inks used for the digital printing process are all water based, however they do contain a very small (1-3%) of organic solvent. The quantities of inks used during a year together with other solvents which are used for cleaning purposes puts the installation over the 5 tonnes threshold requiring a Permit under Schedule 1 Section 6.4 Part B Any other coating or printing activity 5 tonnes or more in any 12 month period.

Pre- press

Lithographic Printing plates have first to be made for the printing process. This is carried out by specialist machines called Computer to Plate (CTP) plate makers. Digital data is sent to the Plate making equipment. A laser then images the aluminium plates, which then pass into a plate processor.

The plates are passed through a tank of plate developer. Each time an aluminium plate is processed, a measured amount of developer is pumped into the tank to replenish it. This causes a corresponding amount of developer to drain to a holding tank situated next to the processor. The

holding tank is equipped with a submerged pump that periodically empties the contents into a large external tank, which is located outside the Plate-room.

When the aluminium plate emerges from the developer it is squeezed dry between two rollers and then passed through the washing stage. Two spray bars located above and below the aluminium plate and a rotating brush ensure that both sides of the aluminium plate are thoroughly clean. The wastewater from the wash unit is sent to the drain. The aluminium plate is squeezed dry between two rollers. They then enter the gum unit.

The plates are washed in the gum unit and then squeezed dry. The front sides of the plates are then covered in a layer of gum. The gum is circulated around the system in a closed loop from the reservoir container. The waste water is sent to the drain. The plates exit the gum unit and are then dried and stacked. The plates are then checked, punched and bent by a press operative using the appropriate punch and bender according to which press they are intended for.

Printing and Finishing

Digital

Digital printing - There are two HP & one Fuji sheet fed colour digital printing presses, three HP digital web presses, one Kodak digital web press & two sheet fed Ricoh Pro 8120 machines. The sheet fed HP colour presses produce covers utilizing a technology based on HP ElectroInk, which uses small colour particles suspended in Imaging Oil (Isopar) that can be attracted or repelled by means of a voltage differential. The ink forms a very thin and smooth plastic layer on the paper surface. The three HP digital web presses utilise thermal ink technology to print black text & illustrations using a bonding agent & water based HP pigment ink. The ink is dried using IR and forced air floatation dryers. The Kodak continuous inkjet printing units produce black text pages, printed on different width webs. The ink is water based and applied through a jetting module which is stimulated by electronic pulses allowing the ink to be dropped through an air film and on to the web. Infra red lamps are used to dry the ink. Ricoh Pro 8120 (Print on Demand) machines produce black text pages using a toner based black ink (powder); the toner is supplied in a sealed plastic container that slots into the press.

Two Laminating & Spot UV varnish lines are used to selectively varnish colour printed cover sheets.

Lithographic

There are 12 cold set, Lithographic offset presses. Paper is fed via a roller system through the presses. Printing ink, fount and water are fed automatically from separate sealed silos / units directly into the presses. These substances are then fed on to the printing plates via individual roller systems. The ink attaches to the images/text on the plate, whilst the fount/water is transferred onto the plate and keeps the (non-image) clear. The image is transferred from the plate to a printing blanket and then on to the paper (web). The web is then continuously fed into a folder / chopper to create a 'section'. Sections are automatically stacked and palletised. From there they are stored, awaiting binding. There is one UV ten colour perfecter printing press, one five colour H-UV colour printing press and one infra-red five colour printing press. These printing presses use individual sheets of paper which are fed through the machine via the in-feed unit. The sheets pass through printing units which print an image onto the sheet. Each printing unit has a printing plate which is attached to a cylinder, the image areas of the plate are inked with the non image areas being kept ink free by a fount solution, both these are added to the plate via a series of rollers, the image is then transferred from the printing plate to a rubber blanket also attached to a cylinder, which in turn prints the image on the sheets. The printed sheets are then varnished,

laminated, foiled or/and embossed (depending on customer specifications) prior to being despatched to the bindery.

Binding and dust extraction

Dust and paper trimmings from the bindery processes are collected via extraction systems. From the bindery, the trimmings and dust are extracted and separated prior to reaching the dust plant. The trimmings go into Balers while the dust goes direct to a briquette press or is stored in one of two dust silos. The briquetter is the primary dust abatement system for the site, with the dust briquettes being sent to landfill. During periods of system maintenance or in the event of a briquetter failure dust is sent from silos to two incinerators to be burnt off. Baled or compacted trimmings and other waste paper is removed from site by contractors for re-cycling.

Incineration

Occasionally, paper dust is incinerated in Two Talbotts TMA furnaces (T3225 and T3001) each producing 300kw and each one connected to its own chimney. The incinerators are below the 0.4MW threshold for requiring a permit, however this Permit includes conditions that control the emission of dark smoke generated by the furnaces and ensure that they are regularly maintained. The waste ashes are sealed in 50 gallon drums and a registered 'hazardous waste' contractor removes and disposes of the ashes.

Section Two

Permit Conditions

Pollution Prevention and Control Act 1999
The Environmental Permitting Regulations 2016

Permit Reference No. 07/00016/B/V1

The conditions contained within this Permit are based upon Guidance Note/s: **PG6_16 - Printing**

Emission Limits and Controls

1. All emissions to air, other than steam or water vapour shall be colourless, free from visible mist and free from visible fume and droplets.
2. Paper dust shall be primarily treated by the formulation of briquettes which are then disposed of off site. The incinerators shall be used as a secondary form of disposal in case where the briquette press is at full capacity or undergoing maintenance.
3. Emissions from any combustion processes including the paper dust incinerators shall, in normal operation be free from smoke and in any case shall not exceed the equivalent of Ringelmann Shade 1 as described in British Standard BS 2741: 1969.
4. Emissions of particulate matter from any point of discharge to atmosphere from the process shall not exceed 50 mg/Nm³. Manual extractive testing shall be undertaken every 2 years. The results of which shall be recorded and forwarded to the Environmental Protection Team at East Suffolk Council.
5. Any adverse monitoring result from manual extractive testing shall be investigated to identify the cause and corrective action shall be taken. Details shall be recorded, and a re-test shall be undertaken to demonstrate that corrective action has been successful.
6. If offensive odour emissions are detected, immediate action shall be taken to determine the cause of the emission and to resolve the malfunction responsible for the emission. The Environmental Protection Team at East Suffolk Council shall be notified of any such occurrence as soon as practicable.
7. In the event of any malfunction or accident which leads to the escape to atmosphere of volatile organic compounds in such quantities as to affect the occupiers of other premises in the neighbourhood, the process operator shall immediately notify the Environmental Protection Team at East Suffolk Council, with details of the nature of the problem, the action taken so far, and the proposed action to deal with the situation.

Materials Handling and Controls

8. Mixing of inks with solvents must be carried out a contained area where Local Exhaust Ventilation extraction is present.

9. Application of cleaning solvents shall be from a:
 - Contained device or automatic system when applied directly on to machine rollers, or
 - Piston type dispenser or similar contained device, when used on wipes, or
 - Pre-impregnated wipe which shall be held within an enclosed container prior to use.
10. Solvent Wipes and other items contaminated with solvent shall be placed in a suitably labelled bin fitted with a self-closing lid.
11. Where cleaning solvents are decanted into other containers, they shall be contained in self-closing containers.
12. A continued review programme shall be undertaken to determine whether organic solvent free cleaning fluids or significantly less volatile organic solvent cleaning fluids can be used to replace the traditional solvent-based cleaners currently in use. Records shall be retained for at least two years and shall be made available for inspection by an Officer of the Environmental Protection Team at East Suffolk Council on request.
13. A record shall be kept of all emissions checks and plant maintenance. The records shall be retained for at least two years and shall be made available for inspection by an Officer of the Environmental Protection Team at East Suffolk Council on request.
14. All spillages shall be contained and cleaned up using appropriate techniques that prevents dust becoming airborne or odour escaping offsite. A record of all spillages and actions shall be retained for at least two years and shall be made available for inspection by an Officer of the Environmental Protection Team at East Suffolk Council on request.

General Operations

15. Regular cleaning and effective preventative maintenance in accordance with the manufacturer's instructions shall be employed on all plant and equipment concerned with the emission, capture, transport and control of organic solvent, dust and particulate matter. Cleaning and maintenance schedules for plant and equipment shall be recorded. The records shall be retained for at least two years and shall be made available for inspection by an Officer of the Environmental Protection Team at East Suffolk Council on request.
16. Spares and consumables, in particular, those subject to continual wear, shall be held on site, or shall be available at short notice so that plant breakdowns can be rectified rapidly.
17. Any malfunction or breakdown leading to abnormal emissions shall be dealt with promptly and process operations adjusted until normal operations can be restored. All such malfunctions shall be recorded. The records shall be retained for at least two years and shall be made available for inspection by an Officer of the Environmental Protection Team at East Suffolk Council on request.
18. Staff at all levels shall receive the necessary formal training and instruction in their duties relating to control of the process and emissions to air. A record of each person's training and instruction shall be kept for the duration of their employment connected with the equipment described within this Permit.

19. A responsible person shall be nominated to act on behalf of the company, who will be responsible for ensuring that; tests, emission monitoring and maintenance measures that are required under this Permit are carried out.
20. Where possible the process shall operate and adhere to the provisions of an appropriate Environmental Management System (e.g ISO 14001).
21. The operator shall notify the Environmental Protection Team at East Suffolk Council at least 28 days in advance of any intention to cease the operation of all or part of the installation.
22. A copy of this permit shall be located on site such that all operatives involved in the process have unrestricted access to it.

Section Three

Location of Permitted Installation

Location of Permitted Installation



Clays Ltd
Popson Street
Bungay
Suffolk
NR35 1EB

Section Four

Explanatory Notes

And

Appeals Procedure

EXPLANATORY NOTE

These notes are provided for the operator of an installation or mobile plant to assist in the interpretation of their duties under the provisions of the Environmental Permitting (England and Wales) Regulations 2016. These notes do not form part of the Permit or conditions attached to it.

1. FEES

An application fee has been paid for this permit. In accordance with Environmental Permitting Regulations, the holder of a permit is required to pay an annual subsistence charge, which is subject to variation by Central Government. This charge is payable to this Council to ensure this Permit remains in force. An invoice will be sent for the appropriate subsistence charge each year.

2. TRANSFER OF PERMITS

Where you wish to transfer the Permit to another person (the proposed transferee) then the operator and the proposed transferee shall jointly make an application to the Council. The council will determine the transfer application providing it considers that the proposed holder will be the person who will have control over the operation of the installation and will ensure compliance with the conditions of the transferred Permit. A fee is also available. For further details on this please contact the Council.

3. PROCESS CHANGES

This Permit may be varied by the Council in future to take in changes recommended within updated Process Guidance notes. If at any time the process or any aspect of the activity regulated by this permit changes such that the conditions no longer reflect the activity and require alteration. You must notify the Environmental Protection Team at The Council. A summary log of all permit variation will be included.

If the change could result in a breach of the existing permit conditions or is likely to require a SUBSTANTIAL CHANGE to the installation you will be required to submit an application and pay the relevant fee. You should notify the Council 14 days before undertaking any such changes in the installation operation. If you have any doubt as to the changes being substantial you should seek the opinion of the Council before you proceed with application.

4. SURRENDER OF THE PERMIT

Where an Operator intends to cease the operation of an installation (in whole or in part) the Environmental Protection Team at East Suffolk Council should be informed in writing, such notification must include the information specified in the Environmental Permitting (England and Wales) Regulations.

5. APPEALS

Anyone who is aggrieved by the conditions attached to a Permit can appeal to the Secretary of State for the Environment. Appeals must be made in accordance with the requirements of Regulation the Environmental Permitting (England and Wales) Regulations. The right to appeal does not apply in circumstances where a notice implements a Direction of the Secretary of State.

Appeals must be received by the Appeal Body at the following address no later than 2 months from the date of the Notice being appealed against.

The Planning Inspectorate
Environmental Team, Major and Specialist Casework
Room 4/04 Kite Wing
Temple Quay House
2 The Square
Temple Quay
BRISTOL
BS1 6PN

Tel: 0117 372 8812
Fax: 0117 372 6093

If an appeal is made, the main parties will be kept informed about the next steps, and will also normally be provided with additional copies of each other's representations.

To withdraw an appeal, which may be done at any time, the appellant must notify the Planning Inspectorate in writing and copy the notification to the local authority who must in turn notify anyone with an interest in the appeal.

The appeal must be in the form of a written notice or letter stating that the person wishes to appeal against the conditions of the Permit. The following items must be included:-

- a written notice;
- a statement of the grounds of appeal;
- a statement indicating whether the appellant wishes the appeal to be dealt with by written representations procedure or hearing;
- a copy of the relevant permit;
- a copy of any relevant correspondence between the appellant and the regulator; and
- a copy of any decision or notice, which is the subject matter of the appeal.
- a statement indicating whether the appellant wishes the appeal to be in the form of hearing or dealt with by way of written representations.

Appellants should state whether any of the information enclosed with the appeal has been the subject of a successful application for commercial confidentiality the Environmental Permitting (England and Wales) Regulations, and provide relevant details, see below. Unless such information is provided, all documents submitted will be open to inspection.

**An appeal will not suspend the effect of the Permit
The Permit must still be complied with.**

Apportioning Costs

Guidance from the Planning Inspectorate states that operator and regulator would be normally expected to pay their own expenses during an appeal. Where a hearing or enquiry is held as part of the appeal process, by virtue of the Environmental Permitting (England and Wales) Regulations, either the appellant or the local authority can apply for costs. Applications for costs are normally heard towards the end of the proceedings and will only be allowed if the party claiming them can show that the other side behaved unreasonably and put them to unnecessary expense. There is no provision for costs to be awarded where appeals are dealt with by written representatives.

6. COMPLIANCE

You will be liable for prosecution if you fail to comply with the conditions of this permit.

If found guilty, the maximum penalty for each offence if prosecuted in a Magistrates Court is £50,000 and/or 6 months imprisonment. In a Crown Court it is an unlimited fine and/or 5 years imprisonment.
