

# Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

**RENOLIT UK Ltd** 

Station Road Cramlington Northumberland NE23 8AQ

Notice Ref: NOU003236

Permit number EPSE24/026

# **RENOLIT UK Limited**

## Permit number EPSE24/026

## Introductory note

## This introductory note does not form a part of the permit

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 2 of the notice comprises a consolidated permit which reflects the variations being made. All the conditions of the permit have been varied and are subject to the right of appeal.

Article 21(3) of the Industrial Emissions Directive (IED) requires the Regulator to review conditions in permits that it has issued and to ensure that the permit delivers compliance with relevant standards, within four years of the publication of updated decisions on Best Available Techniques (BAT) Conclusions. We have reviewed the permit for this installation against the revised BAT Conclusions for surface treatment using organic solvents including preservation of wood and wood products with chemicals published on 9<sup>th</sup> December 2020. Only activities covered by this BAT Reference Document have been reviewed and assessed.

# This variation makes the below changes following the review under Article 21(3) of the IED and the consolidation of the Environmental Permitting Regulations that came into force on the 4 January 2017:

- Revised emission limits and monitoring requirements for emissions to air applicable from 9<sup>th</sup> December 2024 in table S3.1a (BREF Limits);
- Inclusion of improvement conditions in Schedule S1.3, this requests the operator to provide reports to demonstrate compliance with the new BATC standards and submit information, or modify plant, procedures or controls to satisfy the new standards and for compliance by the due date:
  - IP5 this requests the operator to provide a report to demonstrate compliance with BAT 14 to 17. The operator will carry out a review of its operating techniques for the capture, recovery and treatment of VOCs, against the requirements of BAT 14 to 17. The operator will produce a report describing how the installation is BAT, in particular where techniques other than those described in BAT 14 to 17 are used, how these achieve an equivalent level of performance.
  - IP7 this requests the operator to provide a report to demonstrate compliance with BAT 19. The operator will carry out a review of energy efficiency (as described in condition 1.2.1 (b)), taking account of BAT 19 and Table 3of the STS BAT conclusions.
- Revised the structure and layout of the permit to align with the template provide by the LAU to facilitate compliance via the implementation of appropriate management plans prepared by the operator to demonstrate compliance with BAT.

The rest of the installation is unchanged and continues to be operated as follows:

#### Brief description of the process

RENOLIT UK Limited manufactures and prints decorative films for industrial lamination and technical films for speciality applications. The process involves rotogravure printing using solvent based inks.

The operator carries out a regulated process under Schedule 1, Section 6.4, part A (2) the Environmental Permitting (England & Wales) Regulations 2016, "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."

The site is located on a former greenfield site on Bassington Industrial Estate just off the A1172, 0.5 Km to the west of Cramlington town centre.

The process comprises the following activities:

#### Raw material delivery and handling

Hydrocarbon solvents (used in the manufacture of coatings) and plasticisers (used in the formulation of PVC) are delivered to site by road tanker and stored in external, bunded storage tanks. The new bulk storage tank has a total capacity of 41,000 litres (with two internal compartments of 17,000 and 27,000).

Liquid coatings and additives in 200 litre drums and 1000 litre intermediate bulk containers (IBCs) are stored in bunded compounds either internally or externally.

PVC resins and powdered processing aids are delivered by road tanker and stored in external silos. Powdered raw materials in smaller volumes are delivered in boxes or 25 Kg bags on pallets.

#### Calendaring Process – Base Production (Production of PVC film)

PVC resin and additives are weighed in mixing containers in the Premix area. Premix powder is then fed from feed hoppers into planetary extruders which gel the PVC. The gelled PVC is then fed by conveyor into the calendar machines where it is rolled flat between heated rollers and then cooled to form the PVC film. There are two calendar machines (calendar 4 and calendar 6). Each calendar has its own associated mixing plant.

This process does not use organic solvents other than Calender 4 which has the facility to add a solventbased coating (primer) to the back of the sheet. The VOC emissions from this process are captured and fed into the abatement plant.

#### **Printing and Priming**

Solvent based inks for the printing process are mixed from concentrates, ink medium and bulk solvent.

Drums containing ink concentrates and primer, and IBC's containing medium are automatically dispensed into a drum or dolly in an adjacent dispensing and mixing room. Isocyanate-cured lacquers are mixed in an adjacent storeroom and mixing area.

After mixing, the drums or dollies are wheeled to the gravure printing machines, or a priming unit at the Calendar or Embossers. Inks are continually circulated through trays in which engraved cylinders are turning. These transfer the printed design to the PVC film as it passes through the machine. In between printing stations, the film passes through a drying oven. The printed or primed PVC films are wound up into a roll and transferred to the next process.

At Printer 2 there is also an embossing facility, which removes the need for a separate embossing process for some products.

Bulk solvent for cleaning or viscositising is pumped in from the solvent tank farm. Drums, ink trays etc. are cleaned in a Renzmann solvent washing machine. This machine has its own distillation unit, which cleans the washing solvent for reuse, and launders waste used solvents, reducing the volume of bulk waste solvent.

The print cylinders may be cleaned in a cylinder washer. This is a water-based process, but the resulting effluent is disposed of as a waste rather than discharged to drain.

#### **Embossing and Finishing**

The Embossing units manufacture multi-ply products and can add texture to the printed PVC film. The films are pressed together using heat and pressure, and a textured cylinder is used to impress the required pattern into the film.

UV-curable coating may be added to the film at Emboss 2 and Emboss 5.

Solvent based primer may be applied at Emboss 4 and Emboss 5. The VOC emissions from these processes are captured and fed into the abatement plant.

Films may be packaged directly from the embossing line or sent to a slitting machine for trimming or slitting to the required width.

#### Figure 1: Process Flow Diagram



#### **Regenerative Thermal Oxidiser (RTO)**

VOC emissions from the printing machines, priming units and solvent washing machine are captured and abated by the SIRI regenerative thermal oxidiser (RTO). The RTO has one combustion chamber with three oxidation beds, the process switches automatically from one bed to the others at intervals to permit regeneration. The operating temperature is continuously monitored, and a warning system alerts machine operators if the abatement plant temperature falls below 900°C. Treated emissions from the abatement plant are emitted via a single 15 metre high stack. The plant runs at 30,000 m3/h.

#### **Boilers**

Two 2.3MW capacity boilers produce heat and steam for the calendaring process (only one operates at a time). Boiler 1 is dual fuel and burns natural gas but can burn fuel oil if required. Boiler 2 uses natural gas. Some machines, such as embossers, have their own local gas-powered boilers.

#### **Cooling Towers**

There are two cooling towers at the site.

#### Wastes and Recycling

The main waste streams generated by the activities are identified in the EWC code list.

There is an internal recycling plant. Two redundant PVC flakers have been converted to reprocess PVC production scrap, and associated rework storage areas. This system enables the re-use of PVC rather than disposing of it.

The waste solvent tank has a capacity of 18,000 litre and the capacity of the reclaimed solvent tank is 11,000 litre.

Water is used in the calendaring process in the form of super-heated steam and for cooling shelves. Water from the boiler house is discharged (following reduction of pH) to sewer for which there are two trade effluent discharge consents. Water is also used on site for domestic purposes and discharged to sewer. Surface water enters the surface water drains which lead directly to the Horton Burn.

#### Emissions

Emissions points are shown on the emission point plan.

Emissions from BASE PRODUCTION	Air	Surface water, groundwater and sewers	Land
Normal Operation	PVC processing fume.	Boiler house blow-down.	None identified
Other than normal operating conditions (OTNOC)	PVC/polymer dust (leak or extraction failure). Carbon monoxide.	Contaminated fire fighting water to drains. Oils to drain if interceptor	Seepage from leaking containers in storage areas.
	Carbon dioxide. Black smoke.	in service area is damaged	Fire-fighting run-off.
	Hydrogen chloride gas.		

Emissions from PRINTING AND PRIMING	Air	Surface water, groundwater and sewers	Land
Normal Operation	Fugitive VOC. Carbon dioxide.	None identified	None identified
OTNOC	VOC (e.g. if abatemen plant fails).	tSpill of solvent based ink during drum delivery.	Seepage from leaking containers in storage areas.
	Carbon dioxide. Carbon monoxide.	Leakage if there is a bund failure.	Fire-fighting run-off.
		Contaminated fire fighting water to drains	

Emissions from EMBOSSING AND FINISHING	Air	Surface water, groundwater and sewers	Land
Normal Operation	Possible VOC. Ozone from UV Curing.	Water treatment compounds in shell water	None identified
OTNOC	Smoke. Carbon dioxide. Carbon monoxide.	Contaminated fire fighting water to drains	Seepage from leaking containers in storage areas. Fire-fighting run-off.

#### **Environmental Management System**

There is an environmental management system in operation on the site which is certificated to ISO 14001. Energy management is certificated to ISO 50001.

RENOLIT UK Limited (the Installation) is operated by RENOLIT UK Ltd and is located in Cramlington, Northumberland, NE23 8AQ, England.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
Permit Review	01/04/2009	BV101PG6/18
Permit Review	30/06/2015	EPSE14/026
Variation Application	13/04/2017	Application to vary the permit to add a new Emboss 4 machine
Draft Permit Issued	06/10/2017	EPSE14/026
Variation determined	11/07/2018	EPSE18/026 Permit issued to RENOLIT Cramlington Ltd
Regulation 61 Notice sent to the Operator	16/11/2022	Issue of a Notice under Regulation 61(1) of the EPR. Regulator initiated review and variation to vary the permit under IED to implement Chapter II following the publication of the revised Best Available Techniques (BAT) Reference Document for surface treatment using organic solvents including preservation of wood and wood products with chemicals.
Regulation 61 Notice response.	06/04/2023	Response received from the Operator.
Variation determined	25/10/2024	Statutory review of permit – surface treatment using organic solvents including preservation of wood and wood products with chemicals BAT Conclusions published 9/12/2020 Varied and consolidated permit issued. Effective from 25/10/2024

End of introductory note

# Notice of variation and consolidation

## The Environmental Permitting (England and Wales) Regulations 2016

The Northumberland County Council (the Regulator) in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies

Permit number

#### EPSE18/026

Issued to

#### **RENOLIT Cramlington Limited ("the operator")**

whose registered office is

Station Road Cramlington Northumberland NE23 8AQ

Company registration number 00207104

to operate a regulated facility at

RENOLIT Cramlington Ltd Station Road Cramlington Northumberland NE23 8AQ

to the extent set out in the schedules.

The notice shall take effect from 25/10/2024

Name	Date
Wandy Stankanson	25/40/2024
wendy Stephenson	25/10/2024

Authorised on behalf of the Northumberland County Council.

#### Schedule 1

All conditions have been varied by the consolidated permit as a result of a Regulator initiated review of the permit to align with STS BAT Conclusions requirements. The existing permit EPSE18/026 is replaced by the consolidated permit outlined in Schedule 2.

#### Schedule 2 – consolidated permit

Consolidated permit issued as a separate document reference EPSE24/026.

## Permit

## The Environmental Permitting (England and Wales) Regulations 2016

#### Permit number

#### EPSE24/026

This is the consolidated permit referred to in the variation and consolidation notice for application NOU002938 authorising,

RENOLIT UK Limited ("the operator"),

whose registered office is

Station Road Cramlington Northumberland NE23 8AQ

company registration number 00207104

to operate an installation at

RENOLIT UK Limited Station Road Cramlington Northumberland NE23 8AQ

to the extent authorised by and subject to the conditions of this permit.

Name	Date
W. Stephenson	25/10/2024
Wendy Stephenson	

Authorised on behalf of the Northumberland County Council.

# Conditions

## 1 Management

## 1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
  - (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, nonconformances, closure and those drawn to the attention of the operator as a result of complaints; and
  - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.4 The best available techniques (BAT) shall be used to prevent or, where that is not practicable, reduce emissions from the installation in relation to any aspect of the operation of the installation, which is not regulated by any other condition of this Permit.

## 1.2 Energy efficiency

- 1.2.1 The operator shall:
  - (a) take appropriate measures to ensure that energy is used efficiently in the activities;
  - (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
  - (c) take any further appropriate measures identified by a review.

## 1.3 Efficient use of raw materials

- 1.3.1 The operator shall:
  - (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
  - (b) maintain records of raw materials and water used in the activities;
  - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
  - (d) take any further appropriate measures identified by a review.

# 1.4 Avoidance, recovery and disposal of wastes produced by the activities

- 1.4.1 The operator shall take appropriate measures to ensure that:
  - (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
  - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and

- (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

## 2 **Operations**

## 2.1 Permitted activities

2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").

## 2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in **RED** on the site plan at schedule 7 to this permit.

## 2.3 Operating techniques

- 2.3.1 For the activities referenced in schedule 1, table S1.1 the activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Regulator.
- 2.3.2 If notified by the Regulator that the activities are giving rise to pollution, the operator shall submit to the Regulator for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Regulator.
- 2.3.3 The operator shall
  - (a) identify the process areas, sections or steps that make the greatest contribution to VOC emissions and energy consumption, which have the greatest potential for improvement;
  - (b) identify and implement actions to minimise VOC emissions and energy consumption;
  - (c) review progress and update actions on an annual basis.
- 2.3.4 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
  - (a) the nature of the process producing the waste;
  - (b) the composition of the waste;
  - (c) the handling requirements of the waste;
  - (d) the hazardous property associated with the waste, if applicable; and
  - (e) the waste code of the waste.
- 2.3.6 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

## 2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Regulator.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Regulator, the operator shall notify the Regulator within 14 days of completion of each improvement.

## 3 Emissions and monitoring

### 3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 table S3.1 (emissions to air) and S3.2 (emissions to water). and S3.3 (emissions to sewer).
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Total and fugitive annual emissions from the emission point(s) set out in schedule 3 tables S3.1, of a substance listed in schedule 3 table S3.4 shall not exceed the relevant limit in table S3.4.
- 3.1.4 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.
- 3.1.5 The operator shall
  - (a) maximise the availability and performance of equipment critical to the protection of the environment;
  - (b) record all periods of other than normal operation, their cause and duration and where possible their effect on emissions.

## 3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
  - (a) if notified by the Regulator that the activities are giving rise to pollution, submit to the Regulator for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
  - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Regulator.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

## 3.3 Monitoring

3.3.1 The operator shall, unless otherwise agreed in writing by the Regulator, monitor total and fugitive VOC emissions by compiling, at least on an annual basis, a solvent mass balance of the

solvent inputs and outputs of the plant, as defined in Part 7(2) of Annex VII to Directive 2010/75/EU.

The solvent mass balance shall include:

- identification and documentation of solvent inputs and outputs, (e.g. emissions in waste gases, emissions from each fugitive emission source, solvent output in waste);
- substantiated quantification of each relevant solvent input and output and recording of the methodology used (e.g. measurement, calculation using emission factors, estimation based on operational parameters);
- identification of the main sources of uncertainty of the aforementioned quantification, and implementation of corrective actions to reduce the uncertainty;
- regular update of solvent input and output data.

The solvent mass balance calculation methodology shall be agreed in writing by the Regulator.

- 3.3.2 The operator shall, unless otherwise agreed in writing by the Regulator, undertake the monitoring specified in the following tables in schedule 3 to this permit:
  - a) point source emissions specified in tables S3.1;
  - b) process monitoring specified in table S3.5;
- 3.3.3 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.3.4 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.3.2 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Regulator.
- 3.3.5 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 table S3.1 unless otherwise agreed in writing by the Regulator.

## 3.4 Odour

- 3.4.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Regulator, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.4.2 The operator shall:
  - (a) if notified by the Regulator that the activities are giving rise to pollution outside the site due to odour, submit to the Regulator for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
  - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Regulator.

## 3.5 Noise and vibration

3.5.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Regulator, unless the operator has used appropriate measures, including, but not limited to, those specified in any

approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

- 3.5.2 The operator shall:
  - (a) if notified by the Regulator that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Regulator for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
  - (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Regulator.

## 4 Information

## 4.1 Records

- 4.1.1 All records required to be made by this permit shall:
  - (a) be legible;
  - (b) be made as soon as reasonably practicable;
  - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
  - (d) be retained, unless otherwise agreed in writing by the Regulator, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
    - (i) off-site environmental effects; and
    - (ii) matters which affect the condition of the land and groundwater.
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Regulator.

## 4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Regulator using the contact details supplied in writing by the Regulator.
- 4.2.2 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Regulator, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
  - (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
  - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
  - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.3 A report or reports on the performance of the activities over the previous year shall be submitted to the Regulator by 31 January (or other date agreed in writing by the Regulator) each year. The report(s) shall include as a minimum:
  - (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
  - (b) the annual production/treatment data set out in schedule 4 table S4.2; and

- (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Regulator, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.
- 4.2.5 The operator shall submit an annual solvent management plan in order to demonstrate compliance with the requirements of the Industrial Emissions Directive, by 31 January each year in respect of the previous year.

## 4.3 Notifications

- 4.3.1 In the event:
  - (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
    - (i) inform the Regulator,
    - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
    - (iii) take the measures necessary to prevent further possible incidents or accidents;
  - (b) of a breach of any permit condition the operator must immediately-
    - (i) inform the Regulator, and
    - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
  - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where the Regulator has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Regulator when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Regulator at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 The Regulator shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
- 4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
  - (a) the Regulator shall be notified at least 14 days before making the change; and
  - (b) the notification shall contain a description of the proposed change in operation.

- 4.3.6 The Regulator shall be given at least 14 days' notice before implementation of any part of the site closure plan.
- 4.3.7 Where the operator has entered into a climate change agreement with the Government, the Regulator shall be notified within one month of:
  - (a) a decision by the Secretary of State not to re-certify the agreement;
  - (b) a decision by either the operator or the Secretary of State to terminate the agreement; and
  - (c) any subsequent decision by the Secretary of State to re-certify such an agreement.

### 4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately" in which case it may be provided by telephone.

# Schedule 1 – Operations

Table S1.1 activities			
Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity and waste types	
S6.4 A(2) (a)	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 150kg or more per hour than 200 tonnes per year.	Receipt of raw materials to application of inks onto PVC films to produce final composite product	
Directly Associated Activit	es		
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	
Calendaring: Mixing and blending of raw materials to produce PVC film for laminating or embossing	Melted polymer is subject to heat and pressure in an extruder and formed into sheet or film by calendaring rolls.	Production of PVC film for laminating, embossing and printing.	
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	
Solvent washing and recovery	Solvent washing in Renzmann	Solvent washing	
Using waste to manufacture finished goods	PVC reprocessing	PVC reprocessing	
Medium Combustion Plant below 1 MWth	Operation of six boilers with a thermal rated input not exceeding 1 MWth for process heating .	From receipt of raw materials and fuels, to release of combustion products to air and associated wastes removed from site.	
Control & abatement systems for emissions to air	Abatement of releases to air	Extraction and collection of waste gases and treatment in regenerative thermal oxidiser	
Cooling water system	Use of cooling water	Receipt and use of cooling water, discharge into foul sewer under Discharge Consent	
Effluent discharge to foul sewer	Discharge of water from the boiler house (N1488) and water collected from the Calander pit (N1487). Wastewater treatment (pH correction).	From production of effluent to discharge to external foul sewer under discharge consent.	
Medium Combustion Plant with a capacity of 1.1 MWth	Operation of MCP with a capacity of 1.1 MWth	From receipt of raw materials and fuels, to release of combustion products to air and associated wastes removed from site.	

Table S1.2 Operating techniques			
Description	Parts	Date Received	
Review of Environmental Management System	Summary of review of BAT 1 Environmental Management Systems:- Notice reference NOU002938 Review Document 1 – BAT 1 requirements i-xx.	06/04/2023	
	Summary of review of BAT 13 Emissions during OTNOC:- Notice reference NOU002938 Review Document 3		
	BAT 20 Water Use and Waste Water Generation:- Notice reference NOU002938 Review Document 6		
	CP1.01 Management Commitment and Review		
	CP1.04 Business Continuity Risk Assessment		
	CP HS2.35 Evaluation and Registration of Environmenal and Enery Aspects		
	CP HS2.27 Maintenance of the Register of Legislation and Other Policy Requirements		
	Environmental Policy		
	CP HS2.25 Environmental Communications and reporting		
	CP HS2.32 Live Action Management		
	Company Organigram		
	E&E Induction Slides		
	CP 15.01 Training and Development		
	Company Manual		
	Environmental Report 2023		
	CP HS2.24 Environmental Emergency Preparedness Procedure		
	CP HS2.23 Emergency Response Procedure		
	CP 8.46 Maintenance of Plant Items		
	CP HS2.16 Gas Leak		
	CP HS2.17 Radiation Leak		
	CP 16.01 Internal Auditing		
	Audit Schedule		
	LRQA Certificate 10350873		
	LRQA Certificate 10476770		
	WI 1082-6 Cleaning Print Cylinders		
	WI 1082-55 Cylinder Washing		
	WI 1082-67 Renzmann Washer Operation		
	WI 1022-8 Lacquer Spillage		
	WI MDC-3ENV Solvent and Reclaim Tank Delivery and Waste		
	CP HS2.02 Control of Substances Hazardous to Health		
	Energy Policy		
	CP 14.16 Waste Management		
	CP HS2.07 Accident Reporting and Investigation		
	CP 8.46 Maintenance of Plant Items		
	Summony of rovious of DAT 5 for the provention and equated of		
BAT Reviews	leaks and spillages (BAT 5)	06/04/2023	
	Notice reference NOU002938 Plan Document 2		

Table S1.2 Operating techniques			
Description	Parts	Date Received	
	CP HS2.01 Housekeeping		
	CP HS2.23 Emergency Response Procedure		
	CP HS2.24 Environmental Emergency Preparedness Procedure		
	CP 14.16 Waste Management		
	WI MDC-4ENV External Bund Checklist		
	CP HS2.07 Accident Reporting and Investigation		
	Site Protection and Monitoring Plan		
	WI MDC-3ENV Solvent and Reclaim Trank Delivery and Waste		
	WI MDC-2ENV MDC Spillage		
	WI 1082-2ENV Cerutti Spill Liquid		
	Summary of the BAT review (BAT 3 and 4) Notice reference NOU002938 Review Document 3	06/04/2023	
	Summary of the BAT review (BAT 6 to 9) Notice reference NOU002938 Review Document 4	06/04/2023	
	Summary of the BAT review (BAT 14 to 17) and BAT 28 Section 1.12 BAT conclusions for flexography and non- publication rotogravure printing Table 28, 29 & 30. Notice reference NOU002938 Review Document 7	06/04/2023	
	Summary of the BAT review (BAT 18)	06/04/2023	
	Notice reference NOU002938 Review Document 8		
	Summary of the BAT review (BAT 21) Emissions to water Notice reference NOU002938 Review Document 10 Calendar Pit Trade Effluent Discharge Consent N1487 Boiler House Trade Effluent Discharge Consent N14878	06/04/2023	
Energy Efficiency	Summary of review of BAT 19 Energy Efficiency Plan	06/04/2023	
	Notice reference NOU002938 Review Document 9		
	LRQA Certificate of Approval ISO 50001:2018 10476770		
Waste management	Summary of BAT review (BAT 21)	06/04/2023	
gonon	Notice reference NOU002938 Review Document 11		
	CP 14.16 Waste Management		

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IP5	The operator will carry out a review of its operating techniques for the capture, recovery and treatment of VOCs, against the requirements of BAT 14 to 17. The operator will produce a report describing how the installation is BAT, in particular where techniques other than those described in BAT 14 to 17 are used, how these achieve an equivalent level of performance.	31/12/2024
IP7	The operator will carry out a review of energy efficiency (as described in condition 1.2.1 (b)), taking account of BAT 19 and Table 3of the STS BAT conclusions.	31/12/2024

# Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels		
Raw materials and fuel description	Specification	
Mains Gas	As specified	
Ink	See Solvent Management Plan	
Solvents	(solvents, solvent-based inks/ solvent based ink medium)	
	Methyl ethyl ketone (MEK)	
	Methyl Isobutyl ketone (MIBK)	
	N-propyl acetate	
PVC resin, Plasticisers, Pigments, Fillers, impact modifiers, PVC stabilisers, UV curable lacquers, Isocyanate based lacquer, Acrylic film		

Table S2.2 Wastes		
Waste description	EWC Code(s)	
Non hazardous		
Plastics	20 01 39	
Mixed municipal waste	20 03 01	
Inorganic wastes	16 03 04	
Wood	20 01 38	
Metals	20 01 40	
Paper and cardboard packaging	15 02 01	
Hazardous		
Engine, gear and lubricating oils	13 02 08	
Absorbents, filter materials	15 02 02	
Contaminated packaging	15 01 10	

# Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on site plan in Schedule 7]	Thermal Oxidiser	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sup>2</sup> )	100 mg/Nm <sup>3</sup>	Average over the sampling period	Minimum of once per year	BS EN 14792
A1 [Point A1 on site plan in Schedule 7]	Thermal Oxidiser	Carbon monoxide	100 mg/Nm <sup>3</sup>	Average over the sampling period	Minimum of once per year	BS EN 15058
A1 [Point A1 on site plan in Schedule 7]	Thermal Oxidiser	TVOC	20 mg/Nm <sup>3</sup> from 09/12/2024	Daily Average	Continuous if mass emission is ≥ 10 kg C/h	BS EN 15267-3 [Note 1]
A1 [Point A1 on site plan in Schedule 7]	Thermal Oxidiser	TVOC	20 mg/Nm <sup>3</sup> from 09/12/2024	Average over the sampling period	Minimum of once per year if mass emission is 0.1 to 10 kg C/h	BS EN 12619
A1 [Point A1 on site plan in Schedule 7]	Thermal Oxidiser	TVOC	20 mg/Nm <sup>3</sup> from 09/12/2024	Average over the sampling period	Once every 3 years if mass emission is < 0.1 kg C/h	BS EN 12619
	Whole Installation	Offensive Odour	Not detectable odour beyond site boundary		At least daily Operator observations	To be agreed in writing with the Regulator
	Stack, vents, flues	Visible Emissions,	No persistent visible emission exceeding Ringlemann shade 1 or droplets		At least daily when in normal operation	To be agreed in writing with the Regulator

Note 1: Certification to the MCERTS performance standards indicates compliance with BS EN 15267-3

Note 2: In the absence of an EN standard, the measurement includes the DMF contained in the condensed phase.

#### Table S3.2 Point Source emissions to water

There are no process discharges to surface water.

Spillage containment and control of raw material/waste storage identified in the BAT review are implemented in accordance with the operating techniques set out in Table S1.2 to prevent pollution of controlled waters..

#### Table S3.3 Point source emissions to sewer

There are two trade effluent consents in place for discharges of water to sewer. Water is discharged to sewer from the boiler house and from the Calander pit. Wastewater from the boiler house is treated to correct the pH prior to discharge to sewer. Monitoring is carried out annually.

Discharge of water from the boiler house (N1488) Calander pit (N1487)

Table S3.4 Annual limits for total and fugitive emissions			
Substance	Medium	Limit (including unit)	
TVOC	Fugitive	< 12% of the solvent input (as calculated by the Solvent Mass Balance)	
		See table 18.29 for flexography and non-publication rotogravure printing	

Table S3.5 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Thermal oxidiser	Combustion Temperature	Continuous	Set based on TO design	With alarm if temperature drops below 900 °C

# Schedule 4 – Reporting

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

Table S4.1 Reporting of monitoring data				
Parameter	Emission or monitoring point/reference	Reporting period	Period begins	
Emissions to air Parameters as required by condition 4.2.1	A1	Every 12 months	1 January	
Ground water monitoring Parameters as required by condition 4.2.1	GW1 and GW2	Every 5 Years	01/01/2025	
Land monitoring Parameters as required by condition	L1	Every 10 years	01/01/2025	

Table S4.2: Annual production/treatment			
Parameter	Units		
Solvent	Kg/hr or tonnes/year		

Table S4.3 Performance parameters			
Parameter	Frequency of assessment	Units	
Specific water consumption	Annually	Volume / unit of production	
Specific energy consumption	Annually	Wh/m <sup>2</sup> of printed area	

Table S4.4 Reporting forms			
Media/parameter	Reporting format	Date of form	
Air	Form air 1 or other form as agreed in writing by the Regulator	Version 1, 08/03/2021	
Performance parameters	Form performance 1 or other form as agreed in writing by the Regulator	Version 1, 08/03/2021	
Water	Form water 1 or other form as agreed in writing by the Regulator	Version 1, 08/03/2021	
Sewer	Form sewer 1 or other form as agreed in writing by the Regulator	Version 1, 08/03/2021	

# Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall 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 EP Regulations.

## Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques,
accident, or emission of a substance not controlled by an emission limit which has caused, is
causing or may cause pollution

To be notified within 24 hours of detection		
Date and time of the event		
Reference or description of the location of the event		
Description of where any release into the environment took place		
Substances(s) potentially released		
Best estimate of the quantity or rate of release of substances		
Measures taken, or intended to be taken, to stop any emission		
Description of the failure or accident.		

(b) Notification requirements for the breach of a limit			
To be notified within 24 hours of detection unless otherwise specified below			
Emission point reference/ source			
Parameter(s)			
Limit			
Measured value and uncertainty			
Date and time of monitoring			
Measures taken, or intended to be taken, to stop the emission			

Time periods for notification following detection of a breach of a limit		
Parameter	Notification period	

(c) Notification requirements for the breach of permit conditions not related to limits		
To be notified within 24 hours of detection		
Condition breached		
Date, time and duration of breach		
Details of the permit breach i.e. what happened including impacts observed.		
Measures taken, or intended to be taken, to restore permit compliance.		

(d) Notification requirements for the detection of any significant adverse environmental effect		
To be notified within 24 hours of detection		
Description of where the effect on the environment was detected		
Substances(s) detected		
Concentrations of substances detected		
Date of monitoring/sampling		

# Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification 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 which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

\* authorised to sign on behalf of the operator

## Schedule 6 – Interpretation

"abatement equipment" means that equipment dedicated to the removal of polluting substances from releases from the installation to air or water media.

"accident" means an accident that may result in pollution.

"application" means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

"authorised officer" means any person authorised by the Regulator under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

"background concentration" means such concentration of that substance as is present in:

- · for emissions to surface water, the surface water quality up-gradient of the site; or
- for emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.

"calendar monthly mean" means the value across a calendar month of all validated hourly means.

"CEM" Continuous emission monitor

"EP Regulations" means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

"emissions of substances not controlled by emission limits" means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit.

"emissions to land" includes emissions to groundwater.

"groundwater" means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

"groundwater protection zones 1 and 2" have the meaning given in the document titled "Groundwater Protection: Policy and Practice" published by the Environment Agency in 2006.

"hazardous waste" has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 No.894, the Hazardous Waste (Wales) Regulations 2005 No. 1806 (W.138), the List of Wastes (England) Regulations 2005 No.895 and the List of Wastes (Wales) Regulations 2005 No. 1820 (W.148).

"Industrial Emissions Directive" means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

"ISO" means International Standards Organisation.

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"Medium Combustion Plant" or "MCP" means a combustion plant with a rated thermal input equal to or greater than 1 MW but less than 50 MW.

"Medium Combustion Plant Directive" or "MCPD" means Directive 2015/2193/EU of the European Parliament and of the Council on the limitation of emissions of certain pollutants into the air from medium combustion plants, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

"pollution" means emissions as a result of human activity which may-

(a) be harmful to human health or the quality of the environment,

- (b) cause offence to a human sense,
- (c) result in damage to material property, or

(d) impair or interfere with amenities and other legitimate uses of the environment.

"quarter" means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

"quarterly" for reporting/sampling means after/during each 3 month period, January to March; April to June; July to September and October to December and, when sampling, with at least 2 months between each sampling date.

"sealed drainage system" in relation to an impermeable surface, means a drainage system with impermeable components which does not leak and which will ensure that:

- · no liquids will run off the surface otherwise than via the system
- all liquids entering the system are collected in a sealed sump, except where liquids may be lawfully discharged
- "SI" means site inspector.

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

"Solvent Emissions Directive" means Directive 1999/13/EC (as amended by Directive 2004/42/EC) on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain activities and installations.

"STS BAT Conclusions" BAT Conclusions for surface treatment using organic solvents including preservation of wood and wood products with chemicals published on 9<sup>th</sup> December 2020

"Volatile Organic Compound" (VOC) means any organic compound means any organic compound as well as the fraction of creosote, having at 293.15 K, a vapour pressure of 0.01 kPa or more, or having a corresponding volatility under the particular conditions of use.

"Waste code" means the six digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

"Waste Framework Directive" or "WFD" means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste.

"year" means calendar year ending 31 December.

Where a minimum limit is set for any emission parameter, for example pH, reference 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:

- (a) in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- (b) in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.
- (c) in relation to emissions from gas engines or gas turbines, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 15% dry for liquid and gaseous fuels ; and/or

# Schedule 7 – Site plan



# Schedule 8 – Indicative Point Sources Plan



END OF PERMIT

#### Explanatory Notes

#### Appeals Procedure

Under EP regulation 31 operators have the right of appeal against the enforcing authority if the operator disagrees with the conditions imposed by the authority as a result of a permit application or an application for a variation notice;

Under EP regulation 53(1) operators have the right of appeal against a decision that information will not be withheld from the public register for reasons of commercial confidentiality.

The rights to appeal do not apply where the decision or notice implements a direction given by the Secretary of State. There is also no right of appeal if a revocation notice has been served for non-payment of subsistence fees (EP regulation 31(3)).

Appeals against variation, enforcement and suspension notices do not stop the notices coming into effect. However, appeals against revocation notices suspend the operation of the notices coming into effect until the appeal is decided or withdrawn.

Notice of appeal must be given within six months of the date of the decision or deemed decision which is the subject matter of the appeal. The Secretary of State has the power to extend some of the limits but would only do so in the most exceptional circumstances.

Appeals against a variation notice (not requested by the operator), an enforcement notice, or a suspension notice, must be received by the Planning Inspectorate within two months of the date of the notice which is the subject of the appeal:

Appeals in relation to confidentiality must be received by the Planning Inspectorate within 15 working days after the local authority has given its determination:

#### How to appeal

There are no charges for appealing and there is no statutory requirement to submit an appeal form. However, an appeal form has been prepared and is available for use at

#### https://www.gov.uk/government/publications/environmental-permit-appeal-form

For an appeal to be valid, appellants (the person/operator making the appeal) are legally required to provide all of the following (see EP Regulations Schedule 6, paragraph 2(2)):

- written notice of the appeal
- 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 at a hearing a hearing must be held if either the appellant or local authority requests this, or an appointed person or the Secretary of State decides to hold one
- (appellants must copy the above three items to the local authority when the appeal is made)
- a copy of any relevant application
- a copy of any relevant permit
- a copy of any relevant correspondence between the appellant and the regulator
- a copy of any decision or notice, which is the subject matter of the appeal

Appellants should state whether any of the information enclosed with the appeal has been the subject of a successful application for commercial confidentiality under EP regulation 49 and provide relevant details. Unless such information is provided all documents submitted will be open to inspection.

#### Where to send your appeal documents

Appeals should be dispatched on the day they are dated, and addressed to the address found within the Appeal guidance document located at the following web-page:

#### https://www.gov.uk/government/publications/environmental-permit-appeal-form

#### Costs

The operator and local authority will normally be expected to pay their own expenses during an appeal. Where a hearing or inquiry is held as part of the appeal process, by virtue of paragraph 5(6) of Schedule 6, either the appellant or the authority can apply for costs. Applications for costs are normally heard towards the end of the proceedings and will only be considered 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 representations.