Telford & Wrekin Co-operative Council | Protect, care and invest to create a better borough

Variation reference number: 921/26

Schedule 2

Operator	**WZ Packaging Limited**
Installation Address	Halesfield 18 Telford Shropshire TF7 4JS
Permit Reference	108/150921
Grid Reference	SJ70943 04979
Registered Office	WZ Packaging Ltd Halesfield 18 Telford Shropshire TF7 4JS
Registered Number	08541340

WZ Packaging Ltd ("The Operator") is hereby permitted by Telford & Wrekin Council ("The Regulator") to carry out the following activities:

Surface treating substances, objects or products using organic solvents, in plant with a consumption capacity of more than 150kg or more per hour than 200 tonnes per year as defined under Schedule 1, Part 2, Section 6.4(A2)(a), of The Environmental Permitting (England and Wales) Regulations 2016 ("the Regulations").

The solvent emission activity known as printing as described under the Industrial Emissions Directive Annex VII, Part 1, 9(a) and Schedule 14 of the Regulations.

To the extent authorised by and subject to the conditions of this permit and within the installation boundary outlined in red within Schedule 6 of this permit.

Signed:

Name: Clair Travis **Date: 15 September 2021**

Environmental Health Consultant

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

Telford & Wrekin Co-operative Council

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Contact Details

The contact address, telephone number and email address for all correspondence in terms of the permit is as follows:

Public Protection
Telford and Wrekin Council
Addenbrooke House
Telford
TF3 4NT

Telephone: 01952 381818

Email: environmentalprotectionteam@telford.gov.uk

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Introductory Note

This Introductory provides relevant information related to this Permit

The 'surface treatment using organic solvents, including wood and wood products preservation with chemicals' BAT reference document (BREF) and BAT conclusions has been reviewed and published on 9 December 2020 as required by Article 13 of the Industrial Emissions Directive (IED).

Article 21 of the IED requires the Regulator to periodically reconsider permit conditions and update them where necessary to ensure compliance with best available techniques described in applicable BAT conclusions.

Telford and Wrekin Council (The Regulator) have reviewed this permit against the revised BAT Conclusions. 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:

- Inclusion of improvement programme in table S1.3, this requires 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;

- Revised emission limits and monitoring requirements for emissions to air applicable from 9th December 2024 in table S2.1;

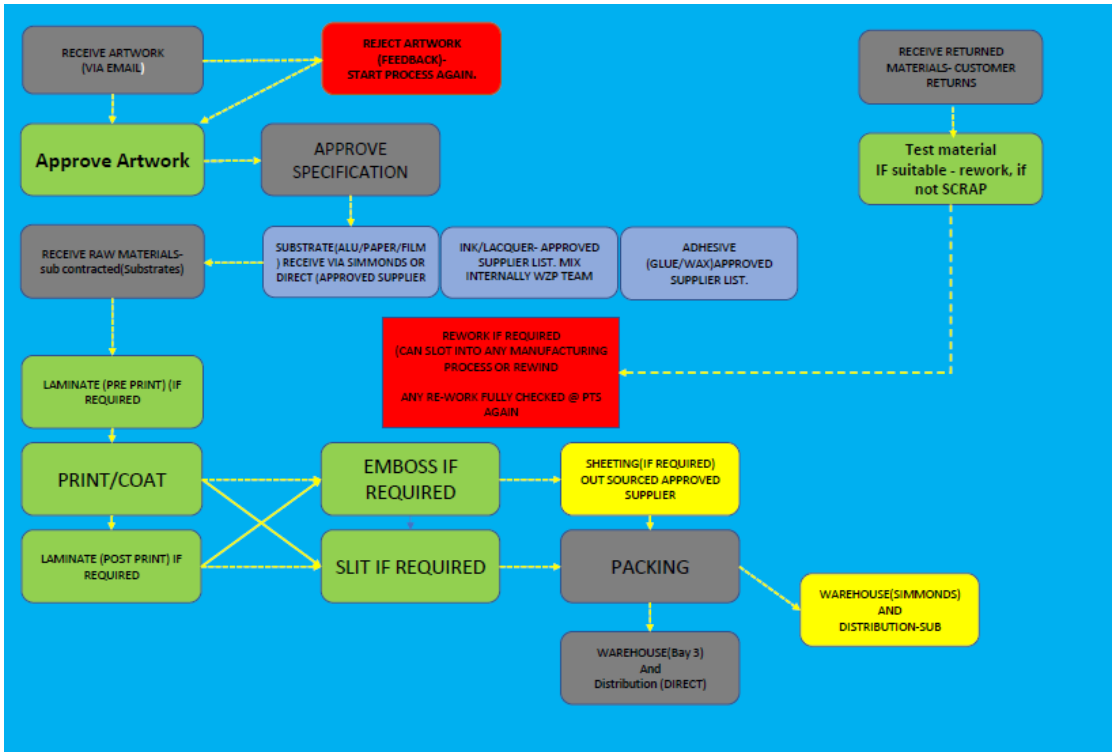
- Revised conditions, structure and layout of the permit to align with the template provided by the LAU to facilitate compliance via the implementation of appropriate management plans prepared by the operator to demonstrate compliance with BAT.

Status Log

Detail	Dates
Date Permit First Issued	21 January 2020
Date of Variation reference number 20/21 And permit reference change from 16/00016/PPCA2/210120 to 108/150921	15 September 2021
Date of Latest Variation permit reviewed against BAT conclusions dated 22/6/2020 Variation reference number 921/26	20 April 2026

Process description

The installation manufacturers printed and coated flexible packaging for the commercial industry using non-publication rotogravure printing methods and solvent borne inks. It produces approximately 1000-2000 tonnes of converted aluminium and/or aluminium/paper-based packaging materials. Below is a process flow diagram of the activity.



Raw materials

Solvent raw materials are stored in various sized containers within the ink room and within the external bunded area located outside. All raw materials are dispensed by hand from the ink room and transferred manually to the printing/coating and laminating units.

There is an overground solvent storage tank outside, but this is not in operation.

Printing and coating

There are 3 solvent printing machines and 2 coating machines that are attached to the Regenerative Thermal Oxidiser (RTO) before emitting to atmosphere.

Ink and solvent are mixed to a specific ink formulation and pumped into the machine via the ink tray. The transfer of these materials is done by hand from the ink room to the machine.

Once coated/ printed, the material is passed through the drying hoods to cure off the solvents. Finished packaging is held on a large reel until it is sent to the cutting/ slitting part of the site for further processing before being shipped to the customer.

Lamination

There are 2 lamination units. One utilises a wax-based laminate and the other uses di-isocyanates. There are 2 unabated stacks attached to the di-isocyanate unit. One

emits to atmosphere and the other is classed as an emergency bypass stack. There is an emergency bypass stack attached to the wax laminator, however these emissions are not solvent laden emissions.

Solvent recovery
The Renzmann solvent recovery unit is housed in the ink room. It is manually filled with waste solvent from the activity. The unit utilises heat to separate the vapour from waste and this is transferred to the Renzmann wash plant which is adjacent to the unit. The waste material from the process is collected in drums and stored in the external bund awaiting collection.

Other
There is dust filter unit outside for the collection of particulate matter from the cutting plant on site. The filter unit does not have a stack attached so emissions are not monitored. The plant is subject to regular inspection.

Abated and unabated emissions
The site operates a gas fired Regenerative Thermal Oxidiser (RTO), which is located outside. Gas is used to heat the unit to the required temperature, then the solvent laden waste emissions from the printer/coating ovens, fuel the RTO. Waste emissions from the RTO are then extracted to atmosphere via the stack.

Unabated emissions are extracted direct to atmosphere. There is one on each of the 3 printers, 1 on the laminator and an unabated bypass stack on the RTO. The stacks on the printers will emit direct to atmosphere until the RTO is up to temperature and every time the printer drops below the required temperature to 'switch' it back to the RTO. A list of stacks and their location is provided in the table below and on the site plan in Schedule 7.

Stack number	Location	Description
1	RTO	Abated stack
2	coating machine - 364	Unabated stack
3	Ink room/ Renzmann unit	Unabated stack
4	Laminator 339	Unabated stack
5	Coating machine - 365	Unabated stack
6	Coating machine - 365	Unabated stack
a1	coating machine - 364	Unabated bypass stack
a2	Printer machine -337	Unabated bypass stack
a3	Ink room/ Renzmann unit	Unabated bypass stack
a4	Laminator 339	Unabated bypass stack
a5	Laminator 339/laminator 341	Unabated bypass stack
a6	Printer machine - 338	Unabated bypass stack
a7	Printer machine - 354	Unabated bypass stack
a8	Coating machine 365	Unabated bypass stack

Waste
All solvent waste material is held within the bund outside. It is kept within sealed waste containers. They are removed from site by licensed waste removal companies. Solid waste such as packaging is kept within skips in the dry waste area.

End of Introductory Note

Permit Conditions

1 Management

1.1 General management

1.1.1 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.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 The environmental management system shall be subject to regular independent external auditing.

1.1.4 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.

1.1.5 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.

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 are used efficiently in the activities;

b. maintain records of raw materials 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 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.

d. 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 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, the waste 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.

2.3.5 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 2 table S2.1.

3.1.2 The limits given in schedule 2 shall not be exceeded.

3.1.3 The fugitive annual emissions from the emission point(s) set out in schedule 2 table S2.1, of a substance listed in schedule 2 table S2.2 shall not exceed the relevant limit in table S2.2.

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 operating conditions (OTNOC), 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 fugitive VOC emissions by compiling, at least on an annual basis, a solvent mass balance (SMB) of the solvent inputs and outputs of the plant, as defined in Part 7(2) of Annex VII to Directive 2010/75/EU.

3.3.2 The solvent mass balance shall include:

a. identification and documentation of solvent inputs and outputs, (e.g. emissions in each waste gases source, emissions from each fugitive emission source, solvent output in waste);

b. 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);

c. identification of the main sources of uncertainty of the aforementioned quantification, and implementation of corrective actions to reduce the uncertainty;

d. regular update of solvent input and output data.

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

3.3.4 The operator shall, unless otherwise agreed in writing by the Regulator, undertake the monitoring specified in the following tables in schedule 2 to this permit:

a. point source emissions specified in tables S2.1,

b. process monitoring specified in table S2.3.

3.3.5 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.

3.3.6 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.3.4, shall have either MCERTS certification or MCERTS accreditation (as appropriate), unless otherwise agreed in writing by the Regulator.

3.3.7 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 2 table S2.1, 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 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 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 environmental 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 3 table S3.1;

b. for the reporting periods specified in schedule 3 table S3.1 and using the forms specified in schedule 3 table S3.4; 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 3 table S3.2; and

c. the performance parameters set out in schedule 3 table S3.3 using the forms specified in table S3.4 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 (SMP) 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 4 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:

a. Where the operator is a registered company:
   i. any change in the operator's trading name, registered name or registered office address; and
   ii. any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

b. Where the operator is a corporate body other than a registered company:
   i. any change in the operator's name or address; and
   ii. any steps taken with a view to the dissolution of the operator.

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

4.4.7 In this permit the expressions listed in schedule 5 shall have the meaning given in that schedule.

4.4.8 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 - The activities		
Activity listed in Schedule 1 of the EP Regulations	**Description of specified activity**	**Limits of specified activity**
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, coatings, lacquers and adhesives onto substrates to produce final composite product
Directly Associated Activities		
Lamination	the use in any 12-month period of 5 or more tonnes of any di-isocyanate or of any partly polymerised di-isocyanate or, in aggregate, of both.	Receipt of raw materials to application onto substrate.
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	Extraction and collection of waste gases and treatment in condensers, recovery units, carbon beds and thermal oxidisers

Table S1. 2 - Operating techniques

Description	Parts	Date Received
Review of Environmental Management System (EMS)	EMS controlled document register EM 01 EMS Manual EP 01 Identification of Environmental Aspects and Significance Evaluation EP 03 Emergency RTO Bypass EP 04 Environmental management system document and record control EP 05 Environmental incident response plan EP 06 Environmental performance appraisal EP 07 Environmental response, environmental incident, RTO bypass recording and spill procedure EP 08 Environmental control of records (relating to monitoring) EP 09 Cleaning review EP 10 Environmental objectives and targets EP 11 Hazardous waste disposal procedure EP 12 Environmental aspects procedure (cross reference with the review in EP01) EP 13 Environmental non-conformance and complaints procedure EP 14 Environmental Response and Spill Procedure EP 15 Rainwater Drain off Procedure EP 16 Environmental Monitoring and Evaluation of Compliance EP 17 Site closure plan for the final cessation of activities EP 19 R.A of equipment critical to the protection of the environment	29/07/2025

Table S1. 2 - Operating techniques

Description	Parts	Date Received
(cont): Review of Environmental Management System (EMS)	EP 20 Environmental risk analysis EI 01 Environmental policy EI 02 Environmental objectives, targets and programmes using BAT EI 03 Air pollution control RTO maintenance schedule EI 04 Environmental internal audit check list for significant aspects EI 05 Environmental objectives and targets database EI 06 Handling and storage of chemicals EI 07 Internal audit plan	29/07/2025
	Summary of BAT 2 review	29/07/2025
	Summary of BAT 13 review	29/07/2025
BAT Reviews	Summary of BAT 4 review	14/08/2025
	Summary of BAT 5 review	29/07/2025
	Summary of BAT 6, BAT 7, BAT 8 and BAT 9 review	16/08/2025
	Summary of BAT 14 to 17 review	29/07/2025
Energy Efficiency	Review of BAT 19	29/07/2025

Table S1. 2 - Operating techniques

Description	Parts	Date Received
Waste management	Review of BAT 22	14/08/2025
Site closure plan	EP 17 - Site Closure Plan for the Final Cessation of Activities	29/07/2025

Table S1. 3 - Improvement Conditions

Reference	Requirement	Compliance Date
IC1	The operator shall review and update the Environmental Management System (EMS) to include clear and sufficient evidence demonstrating compliance with BAT 1 requirements iv), vii), ix), xvi) and xx), together with ii(a), ii(b), iii(e), iii(f), iii(g) and iii(h), specified in the section of BAT 1 titled *"Specifically for surface treatment using organic solvents"*. All supporting evidence shall be submitted to the Regulator in writing, with each document clearly cross-referenced to the relevant BAT requirement.	9 December 2024
IC2	Document EI 02 (Environmental objectives, targets and programmes using BAT) does not adequately demonstrate compliance with BAT 2. It does not sufficiently address energy consumption objectives, annual review requirements, actionable improvement measures, or current non-compliances relating to VOC and fugitive emissions. The operator shall review and revise EI 02 to fully align with BAT 2 and submit the updated document to the Regulator for approval.	
IC3	The evidence provided is insufficient to demonstrate compliance with BAT 3(b).	

Table S1. 3 - Improvement Conditions

Reference	Requirement	Compliance Date
	The operator shall submit additional written evidence to the Regulator clearly demonstrating how BAT 3(b) is met.	9 December 2024
IC4	In relation to BAT 5(a), the operator has not demonstrated that staff are adequately trained and environmentally aware in respect of spill prevention and response. The operator shall submit evidence to the Regulator confirming staff training, including training records and the procedures used as the basis for that training.	
IC7	Document IE 09 has been submitted as evidence of compliance with BAT 7; however, it does not clearly identify which BAT 7 techniques are implemented at the site. The operator shall amend IE 09 to specify the BAT 7 techniques in use and submit the revised document to the Regulator for review.	
IC8	Document IE 09 has been submitted as evidence of compliance with BAT 8; however, it does not adequately demonstrate that the relevant techniques have been assessed or justify where techniques are not applicable. The operator shall provide written evidence demonstrating compliance with BAT 8, including justification for applicability or non-applicability of techniques.	
IC9	The operator has not provided sufficient evidence to demonstrate compliance with BAT 14.	

Table S1. 3 - Improvement Conditions

Reference	Requirement	Compliance Date
	The operator shall comply with BAT 14 and submit supporting evidence to the Regulator confirming compliance.	9 December 2024
IC10	The operator has not provided sufficient evidence to demonstrate compliance with BAT 15. The operator shall comply with BAT 15 and submit supporting evidence to the Regulator confirming compliance.	
IC11	Document EP 06 does not meet the requirements of BAT 19, as it does not include a detailed documented energy efficiency plan or an energy balance as specified in BAT 19. The operator shall submit written evidence, including an energy efficiency plan and energy balance, in accordance with BAT 19, to the Regulator for review.	
IC12	The evidence provided does not fully demonstrate compliance with BAT 22 waste management. The operator shall submit written evidence to the Regulator demonstrating fully demonstrating techniques a) to d) as described in BAT 22.	

Schedule 2 – Emissions and monitoring

Table S2.1- Point source emissions to air – emission limits and monitoring requirements

Schedule 7, site plan emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
Stack 1	Thermal Oxidiser	Oxides of Nitrogen (NO and NO_2 expressed as NO^2)	100 mg/Nm^3	Average over the sampling period	Minimum of once per year	BS EN 14792
Stack 1	Thermal Oxidiser	Carbon monoxide	100 mg/Nm^3	Average over the sampling period	Minimum of once per year	BS EN 14792
Stack 1	Thermal Oxidiser	TVOC	20 mg/Nm^3	Average over the sampling period	Minimum of once per year	BS EN 12619
Stacks 2, 3, and 5	Unabated stacks	TVOC	20mg/Nm^3	Average over the sampling period	Minimum of once per year	BS EN 12619
Stack 4 and 6	Unabated stacks	TVOC	20mg/Nm^3	Average over the sampling period	Once every 3 years	BS EN 12619
Stacks a1, a2, a3, a4, a5, a6, a7 and a8	Unabated stacks	TVOC	To determine Kg C/h from each stack.	Average over the sampling period	Minimum of once per year	BS EN 12619

Table S2.2- Annual limits for fugitive emissions		
Substance	**Medium**	**Limit (including unit)**
TVOC	Fugitive emissions	< 12% of the solvent input

Table S2. 3- 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 thermal Oxidiser design	With alarm if temperature drops below 760 ˚C

Schedule 3 - Reporting

Table S3. 1- Reporting of monitoring data			
Parameter	**Emission or monitoring point/reference**	**Reporting period**	**Period begins**
Emissions to air Parameters as required by condition 3.3.4.	Stacks 1, 2, 3, 4, 5, and 6	Every 12 months	1 January 2025
Emissions to air Parameters as required by condition 3.3.4.	Stacks a1, a2, a3, a4, a5, a6, a7 and a8	Every 3 years	1 January 2025
Groundwater monitoring parameters as required by 3.1.5	Within L1 detailed in Schedule 7	Every 5 years	1 January 2025
Groundwater monitoring parameters as required by 3.1.5	Within GW 1 detailed in Schedule 7	Every 10 years	1 January 2025

Table S3. 2- Annual production/treatment	
Parameter	**Units**
Solvent Consumption	tonnes
Solvent Mass Balance (SMB) as required by condition 3.3.1	As required in SMB
Solvent management plan (SMP) as required by condition 4.2.5	As required in SMP

Table S3. 3- Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Specific energy consumption	Annually from 1 January 2025	50- 350 Wh/m^2 of printed area
Energy review as described in condition 1.2.1 (b)	Every four years from 1 January 2025	As described within the condition
Raw material review as described in condition 1.3.1 (c)	Every four years from 1 January 2025	As described within the condition
Waste review as described in condition 1.4.1 (d)	Every four years from 1 January 2025	As described within the condition
Environmental performance as described in condition 2.3.3 and BAT 2	Annually from 1 January 2025	As described within the condition

Table S3. 4 - Reporting forms		
Media/parameter	**Reporting format**	**Form Version Number and date**
Air	Emissions to Air Reporting Form	V1. 01/01/2025
Energy	Energy usage reporting form located in schedule 3	V1. 01/01/2025
Performance parameters	Performance parameters reporting form in Schedule 3	V1. 01/01/2025

Schedule 3 - Emissions to Air Reporting Form

version 1, 01/01/2025

Permit number: [permit number] **Operator:** [e.g Smith and Jones Ltd] **Address:** [site address]

Reporting of emissions to air for the period from **[DD/MM/YY]** to **[DD/MM/YY]**

Emission point	Substance / parameter	Emission Limit Value	Reference period	Test method[1]	Result [2]	Sample dates and times [3]	Uncertainty [4]
[e.g. Stack 1]	[e.g. carbon monoxide]	[e.g. 100 mg/m^3]	[e.g. daily average]	[e.g. BS EN 14792]	[State result]	[State relevant dates and time periods]	[State uncertainty if not 95% confidence interval]

Signed: [signature] **Print Name:** [Name] **Date:** [DD/MM/YY]
(Authorised to sign as representative of the operator)

Guidance for use of Air Reporting Form: Use this form to report your monitoring results.

Example text is shown in brackets. Replace the example text by entering your own site specific information. Complete columns 1 to 5 using the information from schedule 2 of your permit. Complete columns 6 to 8 with your monitoring data. Add additional rows as necessary.

[1] Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Regulator, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.

[2] Give the result as the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, give the result as the 'minimum to maximum' of the measured values.

[3] For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.

[4] Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

Schedule 3 - Energy Usage Reporting Form

version 1, 01/01/2025

Permit number: [permit number] **Operator:** [e.g Smith and Jones Ltd] **Address:** [site address]

Reporting of energy usage for the year **[YYYY]**

Energy source	Energy consumption / production (MWh)	Specific energy consumption (MWh/unit) [2]
Electricity imported as delivered - source [specify source, e.g. supplied from the national grid]	[insert annual consumption in MWh where electricity is imported]	[insert annual consumption in MWh/unit where electricity is imported]
Electricity imported as primary energy 1 – conversion factor of [specify conversion factor used to convert electricity delivered to primary energy]	[insert annual consumption in MWh where electricity is imported]	[insert annual consumption in MWh/unit where electricity is imported]
Natural gas	[insert annual consumption in MWh where natural gas is used]	[insert annual consumption in MWh/unit where natural gas is used]
Gas oil – conversion factor of [specify conversion factor used to convert tonnes to MWh]	[insert annual consumption in MWh where gas oil is used]	[insert annual consumption in MWh/unit where gas oil is used]
Imported heat	[insert annual consumption in MWh where heat is imported]	[insert annual consumption in MWh/unit where heat is imported]
Other – [specify other energy source and conversion factors where applicable, e.g. renewable fuel. Add extra rows where needed]	[insert annual consumption in MWh where applicable]	[insert annual consumption in MWh/unit where applicable]
Electricity exported	[insert annual production in MWh where electricity is exported]	Not applicable
Heat exported	[insert annual production in MWh where heat is exported]	Not applicable

Operator's comments

Signed: [Signature] **Name**: [Print Name] **Date:** [DD/MM/YY]
(Authorised to sign as representative of the operator)

Guidance for use of Energy Usage Reporting Form: Use this form to report your annual energy usage.

Example text is shown in brackets. Replace the example text by entering your own site-specific information. Add additional rows as necessary or remove rows not relevant to your energy use.

[1] Multiply delivered electricity by 2.4 to convert to primary energy where the electricity is supplied from the national grid. If the electricity is supplied from another source, specify the conversion factor used. Add additional rows as needed if electricity is imported from multiple sources.

[2] Divide energy consumption by an appropriate unit of raw material processed or product output.

Schedule 3 - Other Performance Parameters Reporting Form
version 1, 01/01/2025

Permit number: @@@ **Operator:** @@@
Address: @@@

Reporting of other performance parameters for the period from **[DD/MM/YY]** to **[DD/MM/YY]**

Parameter	Units
[e.g. Total raw material usage]	[e.g. tonnes per production unit]

Operator's comments

Signed: [signature] **Name:** [print name] **Date:** [DD/MM/YY]
(Authorised to sign as representative of the operator)

Guidance for use of Other Performance Parameters Reporting Form:

Use this form to report the performance parameters (other than energy) required by your permit.

Example text is shown in brackets. Replace the example text by entering your own site-specific information. The parameters to report and units to be used can be found in the 'Performance parameters' table in schedule 3 of your permit. Add additional rows as necessary.

Schedule 4 - 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 significant 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

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection	
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	
Measures taken, or intended to be taken, to stop the emission	

(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 (authorised to sign on behalf of the operator)	
Position in company	
Signature	
Date	

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Schedule 5 - 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 4 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.

"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 2 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.

"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.

"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.

"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.

"**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.

"STS BAT Conclusions" BAT Conclusions for surface treatment using organic solvents including preservation of wood and wood products with chemicals published on 9th 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.

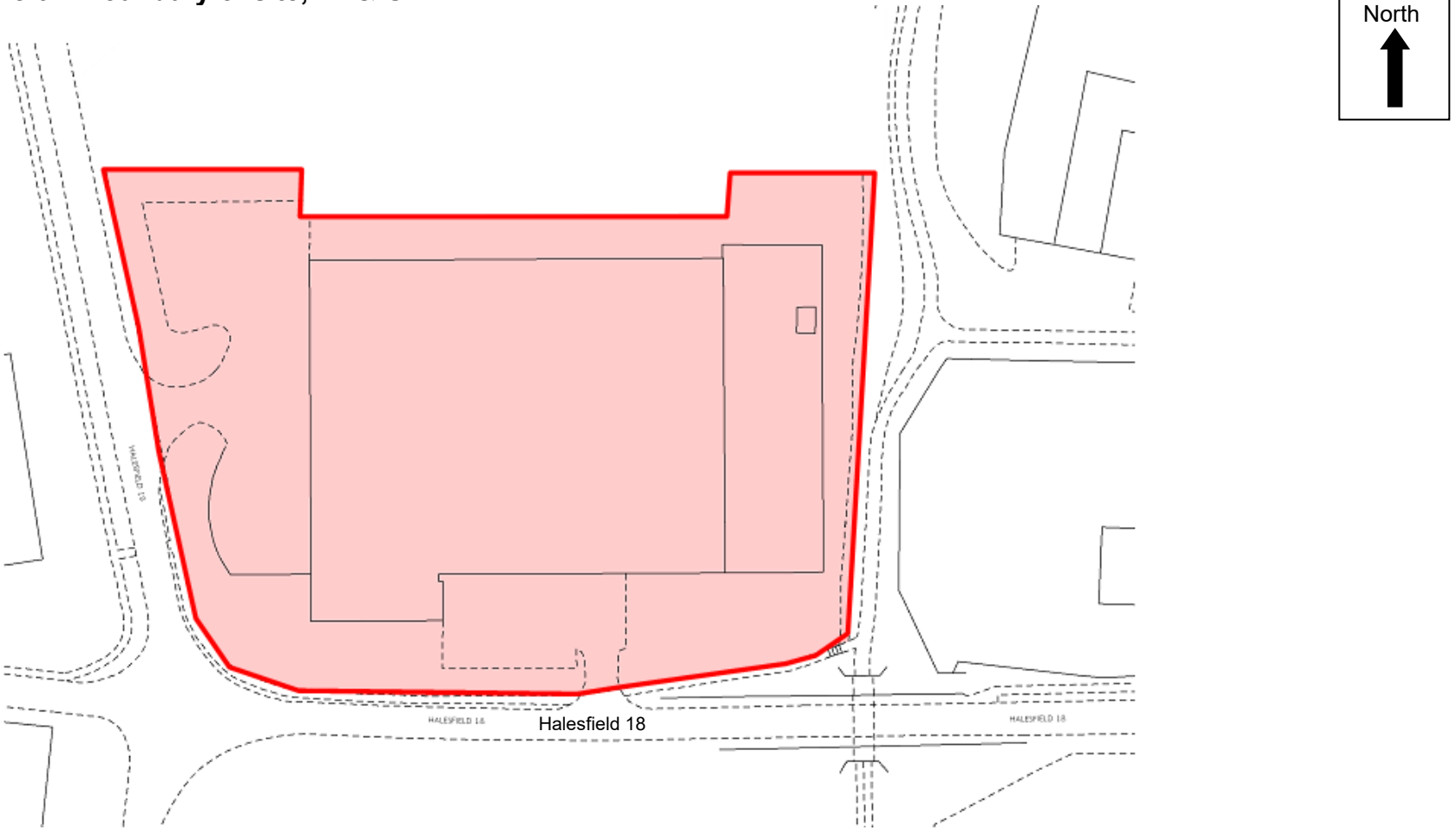
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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

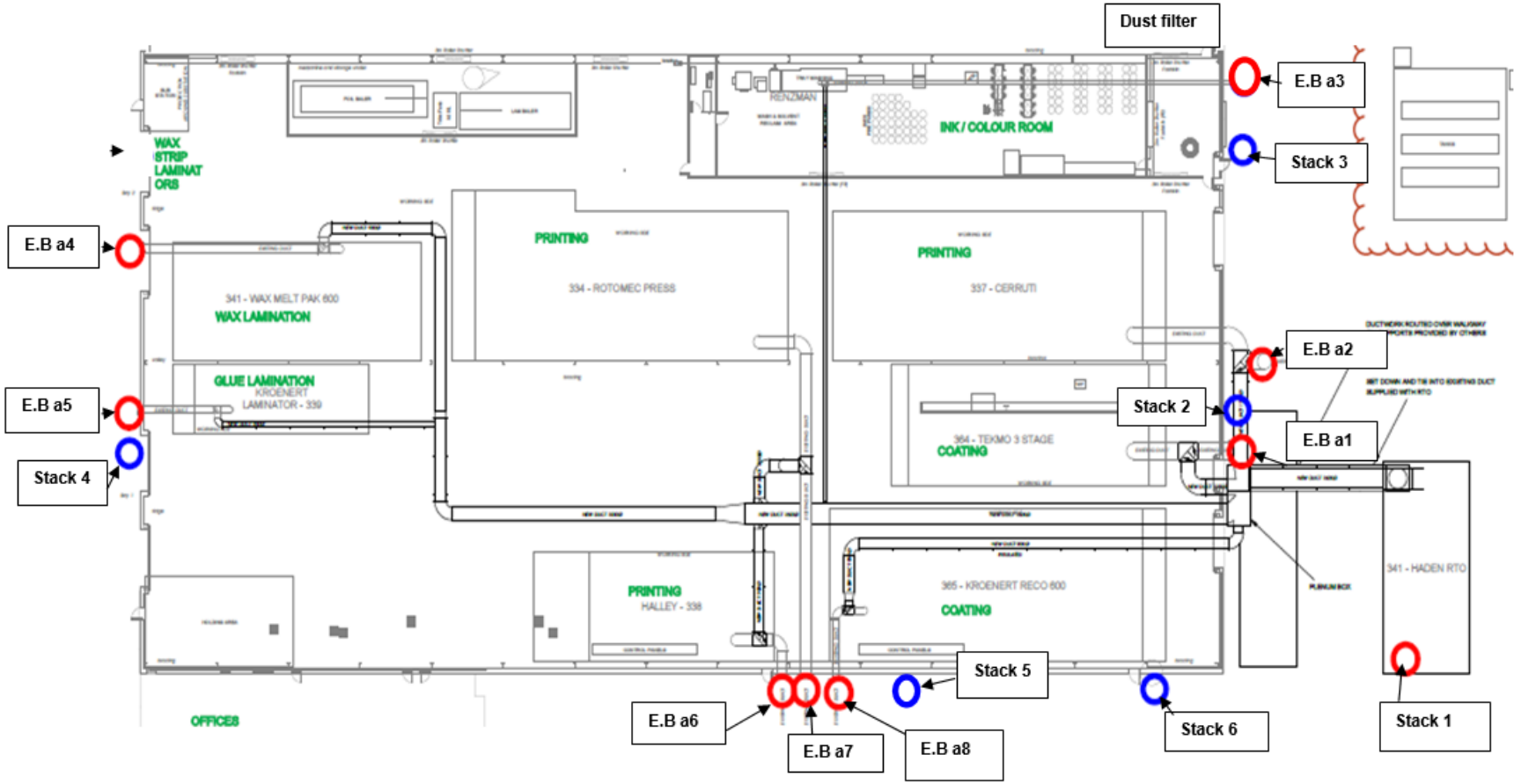
(a) in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or

(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.

Schedule 6 – Boundary of site, L1 & GW 1



Schedule 6 continued – Site layout plan



End of Permit