Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Avery Dennison Materials UK Ltd
Nelson Park East
Cramlington
Northumberland
NE23 1JR

Notice Reference

NOU003247

Permit number

EPSE24/009

Avery Dennison Materials UK Ltd
Permit number EPSE24/009

Introductory note

This introductory note does not form a part of the notice

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 9th 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 9th December 2024 in table S3.1a (BREF Limits);
- Inclusion of improvement conditions , this requests the operator to provide specified reports within specific timescales.

Brief description of the process

Avery Dennison Materials (UK) Limited, Cramlington (hereafter referred to as 'the Operator'), is a manufacturer of self adhesive paper and films for the print and packaging industry. The operator manufactures adhesive from raw materials, and then applies the adhesive to various substrates to create adhesive paper and films.

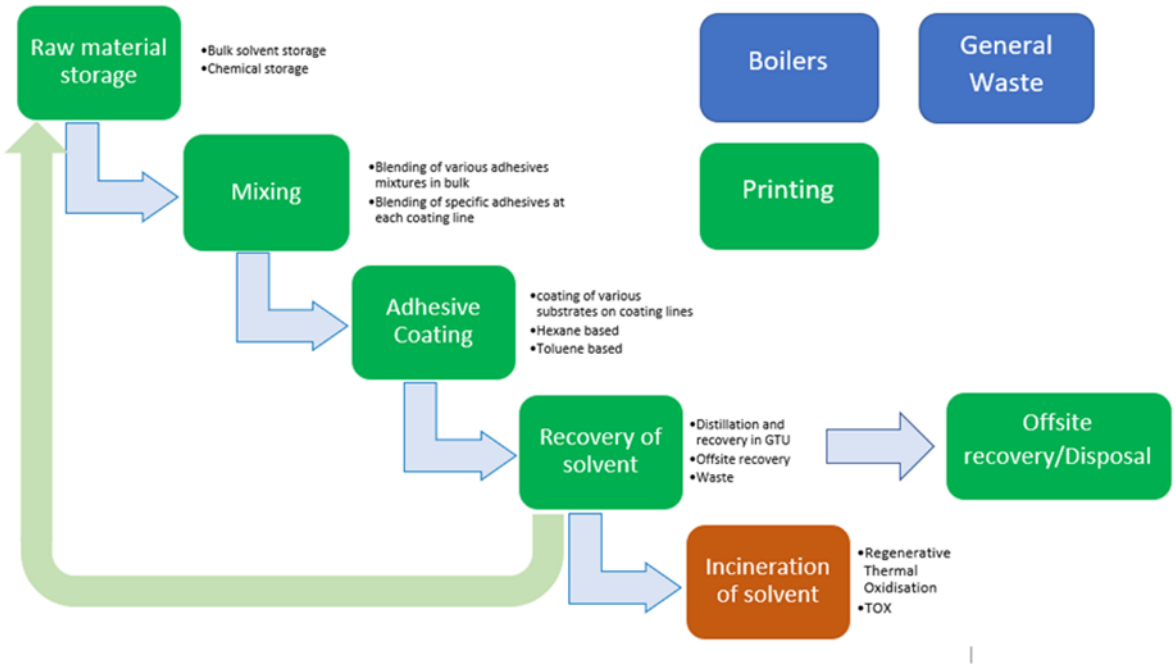
The main activity of the installation is the manufacture of adhesive and coating of substrates with adhesive to produce label stock as required. Some products are printed (with small brand logo's) to the backing paper as part of the customer specification.

The activities listed above together comprise the entire installation that is subject to IED general BAT requirements. The solvent activities listed, whether activities identified in Schedule 1 or directly associated activities, together comprise the solvent emissions activity.

The simplified process flow diagram below provides an overview of the installation.

The process flow in green describes the solvent emissions activity. The elements in blue are ancillary activities directly connected to the scheduled activities directly associated with the main solvent process, the incineration of solvent is associated with both the solvent activities (as abatement for solvent emissions), and the combustion activities.

Fig.1 Process flow diagram



Installation activities

The process involves the manufacture of adhesive that is applied to a backing material before being laminated with a face material for the production of adhesive label stock to be used by the customer. The laminate is slit to precise length and width then packaged and shipped to customers.

The process comprises the following main phases:

Raw material delivery storage and handling

Raw materials are delivered to the installation in the form of bulk tankers for solvents and some other primary chemicals, and IBC's and drums for other materials. Bulk liquid deliveries supply to the tanks in the tank farm areas. Other deliveries are directed to the undercover Dutch barn storage. Materials are transported on demand to the mixing areas, bulk liquids are transferred by pipework, all other materials by forklift truck.

Mixing Operations

The mixing plant comprises 13 mixers, 5 of which are currently out of service, the sizes ranging from 2,000 litres to 20,000 litres. Raw materials are introduced into the mixer either via pipework or as a result of delivery by forklift truck. The composition of each mix is carefully controlled to meet the desired 'recipe'. Additives are normally introduced by hand. All excess mixed product not used indirectly in coating is recycled in the next batch.

Coating

Coaters apply adhesive to rolls of backing material that have a release coating, either pre-applied or applied by roller within the Coating Line. The backing and face materials will have undergone some drying processes before lamination and storage of the finished masteroll. There are 2 separate Coating Lines currently operating.

Coater 2

This Coater is comprised of a number of separate components. The main components of CR2 are: 2 metre Coater 200 metres per minute maximum speed; Primer Drier - 16000m^3/hr Exhaust, Coating Die LEV 3800m^3/hr, GTU Inert Gas Drier 100m^3/hr (Normal Running).

This Coater operates as described above but under a nitrogen blanket to allow high concentrations of VOC's to be adsorbed into the nitrogen laden air. The VOC's produced are extracted under the nitrogen blanket from the inert Gas Dryer for processing and solvent recovery. Coater 2 is capable of 'normal' operation with a percentage of extraction to the TOX Unit.

ES3 Coater

The main components of ES3 Coater are: 1 Meter Coater 250 metres per minute maximum speed. Adhesive and Primer Drier 63000 m^3/hr Exhaust. Com. No. S11174 (Eurotherm Drives), Com No.12035060 Kronert.

Solvent Recovery Unit

Effluent gas from Coater 2 that is suitable for recovery is ducted under nitrogen from the inert Gas Dryer (GTU Hamburg Project No 953700) to the Solvent Recovery Plant. Solvents are recovered (either Toluene or Hexane) from the GTU on Coater 2 using thermal recovery techniques to condense and separate the solvent from the nitrogen. The recovered solvent is returned to bulk storage, some of which is used as a cleaning agent, some is returned to mixing and some is recycled offsite.

Thermal Oxidation Plant (TOX)

The TOX VOC abatement is achieved with a Megtech Enterprise II thermal oxidation plant with 90,000 m^3/hr capacity thermal oxidisation unit (TOX). It is a 1st generation regenerative oxidiser, with minimal opportunity for heat recovery in the current configuration. The TOX is rated to handle solvent laden waste gas air streams from one or both of the coating, drying and inline cleaning lines (ES3 and Coater 2). The TOX unit is designed to combust effluent waste solvent laden air without the need for additional fuel (autothermal operation), however fuel may be added to ensure compliance with emissions and complete oxidation of pollutant compounds.

The TOX unit net rated thermal input is below the thresholds stated in Schedule 1 EPR 2016 for regulation as a stand alone activity. It is currently exempt from regulation as large thermal abatement plant (without heat recovery).

Boiler

The Babcock Wanson (Duty) - 2.4MW and Robey (Standby) 3.6 MW boilers are natural gas-fuelled and provide primary heat and steam raising for the facility.

Steam is used in various process heating requirements (Adhesive Dryers), e.g. curing of web and is produced by the 2.4 MW Duty boiler, with the Standby boiler only used as and when required.

Energy

Electricity is the principal energy source used throughout the plant for powering pumps, motors, lighting etc. Heat is applied at various parts of the process and provided in the form of steam raised by a natural gas-fire boiler. Natural gas is also used to fire the thermal oxidation plant.

Waste Arisings

The main waste arisings from the process are:

Waste packaging (card, plastic, pallets, drums)

- Emulsion wastes

- Solvent wastes
- Sludge's and gels
- Cores and roll ends
- Maintenance wastes

All wastes are stored in designated waste storage areas for collection. Liquid wastes are stored within bunded areas. Solvent wastes are, as far as possible subjected to specialised recovery.

Avery Dennison Materials UK Ltd (the Installation) is located in Cramlington, Northumberland, 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	Application Reference: BV101PG6/18
Permit Reviewed and Issued	01/09/2014	Application Reference: EPSE14/009
Variation determined	24/10/2024	Statutory review of permit – surface treatment using organic solvents BAT Conclusions published on 9/12/2020: Surface Treatment Using Organic Solvents including Wood and Wood Products Preservation with Chemicals | EU-BRITE Varied and consolidated permit issued. Effective from 24/10/2024

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

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

EPSE14/009

Issued to

Avery Dennison Materials U.K. LTD ("the operator")

whose registered office is

Nelson Park East

Cramlington

Northumberland

NE23 1JR

company registration number **00947962**

to operate a regulated facility at

Avery Dennison Materials U.K. Ltd

Nelson Park East

Cramlington

Northumberland

NE23 1JR

to the extent set out in the schedules.

The notice shall take effect from 24/10/2024

Name	**Date**
Wendy Stephenson, Principal Environmental Protection Officer	**24th October 2024**
Signature : W. Stephenson	

Authorised on behalf of Northumberland County Council

Schedule 1

All conditions have been varied by the consolidated permit as a result of a Regulator initiated variation

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Northumberland
County Council

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPSE24/009

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

Avery Dennison Materials U.K. Ltd

("the operator"),

of/whose registered office is/whose principal office is

Nelson Park East

Cramlington

Northumberland

NE23 1JR

company registration number **00947962**

to operate an installation at

Avery Dennison Materials U.K. Ltd

Nelson Park East
Cramlington
Northumberland
NE23 1JR

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

Name	Date
Wendy Stephenson Principal Environmental Protection Officer	**24th October 2024**
Signature W. Stephenson	

Authorised on behalf of Northumberland County Council "the Regulator"

Conditions

1 Management

1.1 General management

1. The Operator shall manage and operate the activities in accordance with a written 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 using sufficient competent persons and resources.
2. Records demonstrating compliance with this Condition shall be maintained.
3. 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. The operator shall take appropriate measures to ensure that energy is used efficiently in the activities;

- review and record at least **every four years** whether there are suitable opportunities to improve the energy efficiency of the activities; and
- take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

1. The operator shall:

- take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
- maintain records of raw materials and water used in the activities;
- review and record at least **every 12 months** whether there are suitable alternative materials that could reduce environmental impacts or opportunities to improve the efficiency of raw material and water use; and
- take any further appropriate measures identified by a review.

2 The regulated Activity shall be reviewed annually by the Operator to identify any steps that can be eliminated or substances which can be substituted to minimize emission of VOC from the installation.

2. The Operator will review the need for continued use of Toluene and Hexane and the feasibility of replacement by a less harmful solvent.

   The review shall include consideration of the technical and economic feasibility of change. A record shall be made of the review and provided to the Regulator on request.

2.1 Avoidance, recovery and disposal of wastes produced by the activities

1. The operator shall take appropriate measures to ensure that:

- the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and

- 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
- where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

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.

3 Operations

3.1 Permitted activities

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

3.2 The site

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.

3.3 Operating techniques

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. 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.
3. The operator shall

- 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;
- identify and implement actions to minimise VOC emissions and energy consumption;
- review progress and update actions on an **annual basis.**

4. Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
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:
    - the nature of the process producing the waste;
    - the composition of the waste;
    - the handling requirements of the waste;
    - the hazardous property associated with the waste, if applicable; and
    - the waste code of the waste.
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.

3.4 Improvement programme

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. 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.

4 Emissions and monitoring

4.1 Emissions to water, air or land

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
2. The limits given in schedule 3 shall not be exceeded.
3. 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.
4. Periodic monitoring shall be carried out **at least once every 5 years** for groundwater and **every 10 years** for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.
5. The operator shall:
    - maximise the availability and performance of equipment critical to the protection of the environment;
    - record all periods of other than normal operation, their cause and duration and where possible their effect on emissions.

4.2 Emissions of substances not controlled by emission limits

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.
2. 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.

4.3 Monitoring

1. The operator shall, unless otherwise agreed in writing by the Regulator, monitor total and fugitive VOC emissions by compiling, 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.
2. 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. 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:
    - point source emissions specified in table S3.1
    - process monitoring specified in table S3.6;
    - land specified in table S3.7
4. 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.
5. 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.
6. 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 unless otherwise agreed in writing by the Regulator.

4.4 Odour

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.
2. The operator shall:

- 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;
- implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Regulator.

4.5 Noise and vibration

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.

5 Information

5.1 Records

1. All records required to be made by this permit shall:

- be legible;
- be made as soon as reasonably practicable;

- if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- 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:
  - off-site environmental effects; and
  - matters which affect the condition of the land and groundwater.

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.

5.2 Reporting

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.
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:

- in respect of the parameters and emission points specified in schedule 4 table S4.1;
- for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4 ; and
- giving the information from such results and assessments as may be required by the forms specified in those tables.

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 review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
- the annual production/treatment data set out in schedule 4 table S4.2; and
- the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

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.
5. The operator shall submit an annual Solvent Mass Balance in order to demonstrate compliance with the requirements of the Industrial Emissions Directive, by **31 January each year** in respect of the previous year.

5.3 Notifications

1. In the event:

- 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—
- inform the Regulator,
- take the measures necessary to limit the environmental consequences of such an incident or accident, and
- take the measures necessary to prevent further possible incidents or accidents;

- of a breach of any permit condition the operator must immediately—
- inform the Regulator, and
- take the measures necessary to ensure that compliance is restored within the shortest possible time;
- 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.

2. Any information provided under condition 4.3. shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
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. 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:
5. Where the operator is a registered company:

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

6. Where the operator is a corporate body other than a registered company:

- any change in the operator's name or address; and
- any steps taken with a view to the dissolution of the operator.
- In any other case:
- the death of any of the named operators (where the operator consists of more than one named individual);
- any change in the operator's name(s) or address(es); and
- any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

7. 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:

- the Regulator shall be notified **at least 14 days** before making the change; and
- the notification shall contain a description of the proposed change in operation.

8. The Regulator shall be given **at least 14 days'** notice before implementation of any part of the site closure plan.
9. Where the operator has entered into a climate change agreement with the Government, the Regulator shall be notified within one month of:

- a decision by the Secretary of State not to re-certify the agreement;
- a decision by either the operator or the Secretary of State to terminate the agreement; and
- any subsequent decision by the Secretary of State to re-certify such an agreement.

5.4 Interpretation

In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

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 (unless stated)	**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 lacquers and adhesives onto substrates to produce final composite product
S6.5 B (a)(i)	Manufacture of finished coatings containing or involving the use of 100 or more tonnes of organic solvents in any 12-month period.	From receipt and storage of raw materials through formulation stages to production and despatch/use of finished coatings, including the handling, storage and disposal of wastes.
Schedule 25A	Combustion of natural gas > 1MW (2 X Boilers)	Schedule 25A MCPD
Directly Associated Activities		
Storage of solvent	*Recovery of solvent within a Solvent Recovery Unit (distillation)*	*Storage of solvent waste*
Storage of waste	*Storage of chemicals*	*Printing <5 tonnes/annum*
Schedule 25 A	Medium Combustion Plant	
Medium Combustion Plant (TOX)	*Thermal Oxidisers are exempt from the requirements of the Medium Combustion Plant Directive (MCPD)*	

Table S1.2 Operating techniques		
Description	Parts	Document Dated
Environmental Management System (EMS)	Environmental Management Systems Manual	24th November 2022
	An odour management plan (see BAT 23).	January 2024
BAT Reviews	Summary of BAT review (BAT Conclusions 2, 8, 14, 15, 16 & 19) – Olive Compliance Ltd	19th January 2024
Plant Closure Plan	All	Annual Review Version 4 dated 01/12/2018
Site Protection Management Plan (SPMP)	All	Annual Review Version 4 dated 01/12/2018
Adhesive Review	Review of the use of all adhesives which are carcinogenic, mutagenic and/or reprotoxic	2024
Emergency Response Plan	All	Version 13 dated 23/03/2024

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Deadline Date**
IP1	The operator shall review their Environmental Management System (EMS) against the requirements of BAT 1 of the STS BAT Conclusions. The operator shall produce and implement an action plan to address those improvements required as a result of the review.	31/03/2025
IP2	The operator shall carry out a review of the avoidance, recovery and disposal of wastes (as described in condition 1.4.2), taking account of BAT 22 of the STS BAT conclusions.	09/07/2025

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description (Non-Exhaustive)	**Specification**
Toluene	To be confirmed in writing by the Regulator
Hexane	To be confirmed in writing by the Regulator
Ethyl Acetate	To be confirmed in writing by the Regulator
Heptane	To be confirmed in writing by the Regulator
Acetyl Acetone	To be confirmed in writing by the Regulator
Mains Gas – Used as a fuel to supply the Thermal Oxidiser (TOX)	
Mains Electricity – Used to supply installation processes	
Mains Water – Used within the closed loop system for steam generation	
Rubber – For use within the Granulator and for specific recipes	
Paper Rolls with Cardboard Cores – Used to provide a surface for adhesive labelling.	
Inks – For use to create the label design	

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**
1, 2 & 3 [Point 1, 2 & 3 on Indicative Point Sources Plan in Schedule 8]	Thermal Oxidiser (TOX)	Oxides of Nitrogen (NO and NO_2 expressed as NO^2)	100 mg/Nm^3 from any individual source	Average over the sampling period	Minimum of once per year	BS EN 14792 or otherwise to be agreed in writing with the Regulator
1, 2 & 3 [Point 1, 2 & 3 on Indicative Point Sources Plan in Schedule 8]	Thermal Oxidiser (TOX)	Carbon monoxide	100 mg/Nm^3 from any individual source	Average over the sampling period	Minimum of once per year	BS EN 15058 or otherwise to be agreed in writing with the Regulator
1, 2, 3 & 5 [Points 1, 2, 3 & 5 on Indicative Point Sources Plan in Schedule 8]	Thermal Oxidiser (TOX), Mixer Vents, Boilers	VOC Waste gases	20 mg/m^3 from any individual source	Average over the sampling period	Continuously recorded indicative monitoring & Annual extractive	To be agreed in writing with the Regulator
	Whole Installation	VOC Total Emission BAT AEL	5.91% of solvent input		Calculated within the Solvent Mass Balance (SMB)	
2 & 3 [Points 2 & 3 on Indicative Point Sources Plan in Schedule 8]	Combustion Plant	Sulphur dioxide (SO_2) Sulphur content of fuel	1%wt/wt sulphur in fuel		Depending on fuel source.	To be agreed in writing with the Regulator
	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		At least daily when	To be agreed in writing with

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**
			Ringlemann shade 1 or droplets		in normal operation	the Regulator
	Stack, vents, flues, Thermal Oxidiser (TOX)	Isocyanate from contained sources, where used.	0.1mg/Nm^3 (averaged over a 2 hour period as total NCO group)		Annual extractive	To be agreed in writing with the Regulator
	Stack, vents, flues, Thermal Oxidiser (TOX)	HCL	10mg/m^3		Annual extractive	To be agreed in writing with the Regulator
1, 4, 6, 7 [Points 1, 4, 6 & 7 on Indicative Point Sources Plan in Schedule 8]	Thermal Oxidiser (TOX) & All qualifying non-combustion contained sources	Total Particulate Matter (TPM)	50 mg/m3		Annual extractive	

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 S3.2a Point Source emissions to water – emission limits and monitoring requirements shall apply from 9 December 2024

The installation utilizes water within a closed loop system; steam is generated and condensed as part of the coating process – there are no direct emissions to water

Table S3.3 Point source emissions to sewer

There are no process emissions direct to sewer – the Installation operates under a Trade Effluent Consent granted by Northumbrian Water Ref: N0494

Table S3.4 Annual limits for total and fugitive emissions		
Substance	**Medium**	**Limit (including unit)**
TVOC	Fugitive	5% of Solvent Input (as calculated by the Solvent Mass Balance)

Table S3.5 Groundwater monitoring requirements				
Location or description of point of measurement	**Parameters**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Boreholes onsite adjacent to the Tank Farm	To be agreed in writing with the Regulator	Once every 5 Years or at the request of the Regulator	To be agreed in writing with the Regulator	N/A

Table S3.6 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 (TOX)	Combustion Temperature	Continuous	As per TOX manufacturers guidance	With alarm or other notification if temperature is outwith the following temperature range: 810 – 1060 ^{O}C
Whole Installation	Odour	Daily	Olfactory monitoring	Odour detection at the site boundary.

Table S3.7 Land monitoring requirements				
Location or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
To be agreed in writing with the Regulator	To be agreed in writing with the Regulator	Once every 10 Years at the request of the Regulator	To be agreed in writing with the Regulator	N/A

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	As stated in Table S3.1	Every 12 months	1 January
Land monitoring	As stated in Table S3.7	Once every 10 Years or at the request of the Regulator	From the Date that this Permit is granted
Groundwater monitoring	As stated in Table S3.5	Once every 5 Years or at the request of the Regulator	From the Date that this Permit is granted

Table S4.2: Annual production/treatment	
Parameter	**Units**
Solvent Consumption	Tonnes OR Kg's
Solvent Mass Balance (SMB) as required by condition 3.3	As required in SMB

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Specific energy consumption	Annually	MWh or kWh / unit of production

Table S4.4 Reporting forms		
Media/parameter	**Reporting format**	**Date of form**
All	On a form as agreed in writing by the Regulator	

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 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 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	

(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.

“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.

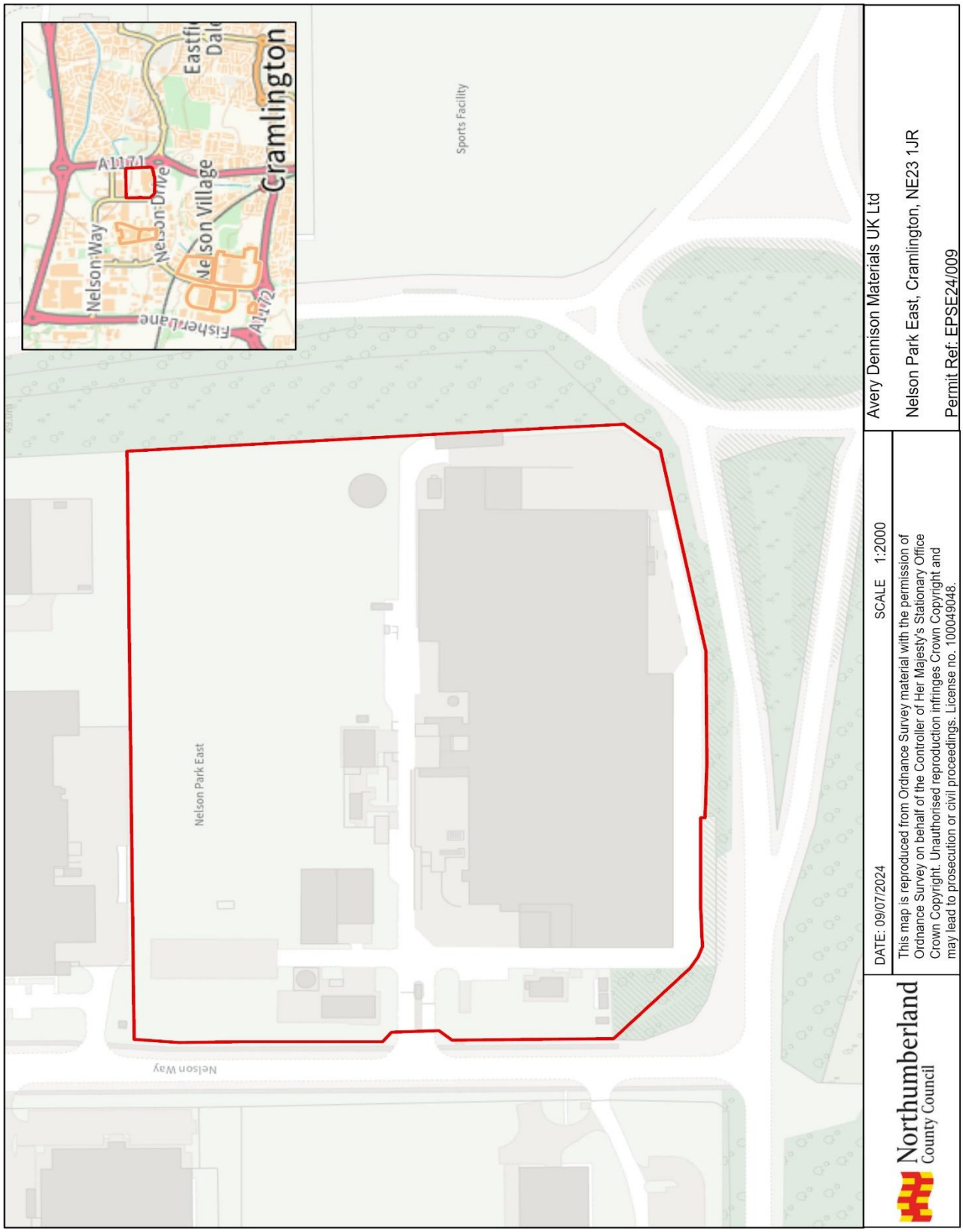
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

(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

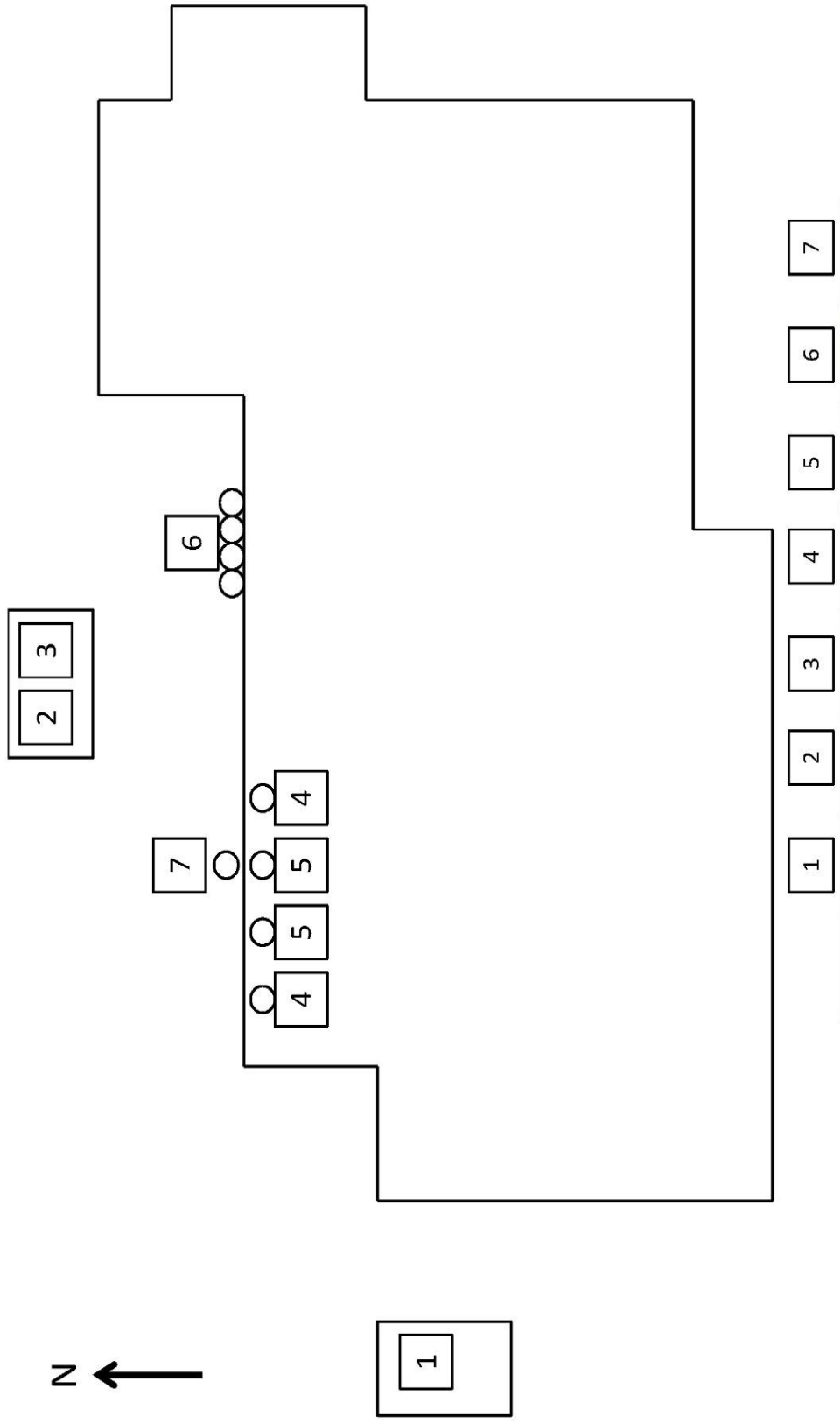
(b) in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

(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



Parameter	1 Thermal Oxidiser Exhaust	2 Robey Boiler Exhaust	3 New Boiler Exhaust	4 Powder Vent Pit's 1 & 2	5 Mixer 6 & 5 Exhaust	6 Finishing Vents 1, 2, 3 & 4	7 Granulator
Particulate	✓	-	-	✓	-	✓	✓
Total VOC (as Carbon)	✓	✓	✓	-	✓	-	-
Carbon Monoxide	✓	✓	✓	-	-	-	-
Oxides of Nitrogen	✓	✓	✓	-	-	-	-
Gas Temperature & Velocity	✓	✓	✓	✓	-	-	-

Point Source 5 “Mixer 6 & 5 Exhaust” refers to Mixers 2, 3, 4, 5, 6, 7, 8 & 13 Exhausts

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.