

# Permit with introductory note

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

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Johnson Matthey Plc

Unit 28  
Cambridge Science Park  
Milton Road  
Cambridge  
CB4 0FP

### **Permit number**

EPR/JP3739JH

# Cambridge Science Park Chemical Site

## Permit number EPR/JP3739JH

### Introductory note

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

The main features of the permit are as follows.

The installation is located at National Grid Reference TL 46468 61463. The installation is approximately 3 km to the North East of Cambridge.

The installation is a chemical manufacturing site with three specific scheduled 4.1 A (1) (ii) activities :

The main process operations are contained within a single building comprising Unit 28 of the Cambridge Science Park. The principal small scale operations are as follows:

- Bio-catalysis - commercial production using biological fermentation and separation processes and R&D work.
- Chemo Catalysis - small scale production of chemicals and R&D work.
- Pharma Services - small scale R&D work alone, not commercial production, for external companies. This can include sending out samples.

In addition there are two directly associated activities.

Equipment in use at the installation includes:

- Fermentation equipment
- Small-scale chemical reactors ( 100 litre nominal maximum capacity)
- Heating and cooling equipment
- Separation equipment – filters, centrifuges.
- Purification equipment, including distillation equipment.

The installation includes fifteen atmospheric emission points A1-A15, one discharge to surface water (W1) and one discharge to effluent (S1).

The installation is to operate under a Multi-Product Protocol.

This permit implements the requirements of the European Union Directive on Industrial Emissions.

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

Status log of the permit		
Description	Date	Comments
Application EPR/JP3739JH/A001	Duly made 20/03/18	Application for new chemical site under a Multi-Product Protocol.
Schedule 5 response	20/04/18	Confirmation of drainage emissions and atmospheric abatement controls.
Additional information request	10/05/18 and 14/05/18	Final directly associated activities and H1 atmospheric emission assessment. Final Multi-Product Protocol.
Permit determined EPR/JP3739JH (PAS Billing ref. JP3739JH)	11/06/18	Permit issued to Johnson Matthey Ltd.

End of introductory note

# Permit

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

### Permit number

**EPR/JP3739JH**

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

**Johnson Matthey Plc** ("the operator"),

whose registered office is

**5<sup>th</sup> Floor**

**25 Farrington Street**

**London**

**EC4 4AB**

company registration number **33774**

to operate at

**Cambridge Science Park Chemical Site**

**Unit 28**

**Cambridge Science Park**

**Milton Road**

**Cambridge**

**CB4 0FP**

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

Name	Date
Anne Nightingale	11/06/2018

Authorised on behalf of the Environment Agency

# Conditions

## 1 Management

### 1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, 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 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.

### 1.2 Energy efficiency

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

### 1.3 Efficient use of raw materials

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

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

- 1.4.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
  - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
  - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

## **1.5 Multi product protocol**

- 1.5.1 Where the operator proposes to make a change under a multi-product protocol that is not otherwise the subject of an application for approval under the Regulations or this permit:
- (a) the Environment Agency shall be notified of the proposed change;
  - (b) the notification shall contain a description of the change including: an assessment of its environmental impact; any relevant supporting assessments and drawings; and the proposed implementation date;
  - (c) the change shall not be implemented unless approved in writing by the Environment Agency;
  - (d) as from any approved implementation date, the operator shall operate in accordance with the changed multi product protocol in place of the previously approved version.

## **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 green on the site plan at schedule 7 to this permit.

### **2.3 Operating techniques**

- 2.3.1 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 Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency 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 Environment Agency.
- 2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.4 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
  - (b) the composition of the waste;
  - (c) the handling requirements of the waste;
  - (d) the hazardous property associated with the waste, if applicable; and
  - (e) the waste code of the waste.

- 2.3.5 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.

### **3 Emissions and monitoring**

#### **3.1 Emissions to water, air or land**

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1, S3.2 and S3.3.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 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.

#### **3.2 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 Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency 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 Environment Agency.
- 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 Odour**

- 3.3.1 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 Environment Agency, 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.
- 3.3.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency 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 Environment Agency.

#### **3.4 Noise and vibration**

- 3.4.1 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 Environment Agency, 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.

3.4.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency 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 Environment Agency.

## **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 Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
  - (i) off-site environmental effects; and
  - (ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

### **4.2 Reporting**

4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

- (a) the performance parameters set out in schedule 4 table S4.1 using the forms specified in table S4.2 of that schedule.

4.2.3 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, 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.

### **4.3 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 Environment Agency,

- (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 Environment Agency, and
    - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
  - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- Where the operator is a registered company:
- (a) any change in the operator's trading name, registered name or registered office address; and
  - (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
- Where the operator is a corporate body other than a registered company:
- (a) any change in the operator's name or address; and
  - (b) any steps taken with a view to the dissolution of the operator.
- In any other case:
- (a) the death of any of the named operators (where the operator consists of more than one named individual);
  - (b) any change in the operator's name(s) or address(es); and
  - (c) 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.
- 4.3.4 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 Environment Agency 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.
- 4.3.5 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

## 4.4 Interpretation

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



# Schedule 1 – Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
AR1	S4.1 A1 (a) (ii)	Chemical production from Bio catalytic team	Receipt of raw materials to disposal without treatment of: mixed solvents, aqueous wash acids, aqueous base, neutral liquors, mixed glass and rags. Production maximum capacity of 4550 kg/annum.
AR2	S4.1 A1 (a) (ii)	Chemo catalytic team, producing chemical products	900kg product capacity per year with new kilo-scale lab. Receipt of raw materials to disposal without treatment of: mixed solvents, aqueous wash acids, aqueous base neutral liquors, mixed glass and rags.
AR3	S4.1 A1 (a) (ii)	Pharmaceutical services principally producing intermediates as samples and R&D for pre-clinical trials for pharmaceutical companies (does not meet the definition of commercial production due to the facility scale)	Less than 20kg per product per year, total capacity 150kg per year. Receipt of raw materials to disposal without treatment of : mixed solvents, aqueous wash acids, aqueous base neutral liquors, mixed glass and rags.
<b>Directly Associated Activity</b>			
AR4	Steam power supply	Two gas fired boilers A11 and A12 with total aggregated thermal input capacity of 0.8 MW	From receipt of natural gas to emission of combustion gases.
AR5	Surface water storage and disposal	Discharge of clean roof water and surface water direct to surface water drain.	From receipt of water to discharge via surface water drain

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Application EPR/JP3739JH/A001	Section 3a technical standards Part B3 of the application form plus all supporting documents and all duly making responses including : <ul style="list-style-type: none"> <li>Updated site condition report P162-R03-F1</li> </ul>	Duly Made 20/03/18
Response to Schedule 5 Notice dated 10/04/18	All : including updated site drainage plan and atmospheric abatement facility details	20/04/18
Additional information	All ; final clarity on directly associated activities, final H1 assessment and final multi-product protocol document P162-R08-D5.	10/05/18 and 14/05/18

## Schedule 2 – Waste types, raw materials and fuels

<b>Table S2.1 Raw materials and fuels</b>	
<b>Raw materials and fuel description</b>	<b>Specification</b>

## Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on site plan dated 20/03/18 in application EPR/JP3739JH/A001]	Walk in fume cabinet pharma services.	No parameters set	No limits set	-	-	-
A2 [Point A2 on site plan dated 20/03/18 in application EPR/JP3739JH/A001]	Walk in fume cabinet pharma services.			-	-	-
A3 [Point A3 on site plan dated 20/03/18 in application EPR/JP3739JH/A001]	Bio catalysis standard cabinet fume			-	-	-
A4 [Point A4 on site plan dated 20/03/18 in application EPR/JP3739JH/A001]	Bio catalysis/pharma services standard fume cabinet			-	-	-
A5 [Point A5 on site plan dated 20/03/18 in application EPR/JP3739JH/A001]	Bio catalysis standard fume cabinet			-	-	-
A6 [Point A6 on site plan dated 20/03/18 in application EPR/JP3739JH/A001]	Bio catalysis standard fume cabinet			-	-	-
A7 [Point A7 on site plan dated 20/03/18 in application EPR/JP3739JH/A001]	Bio catalysis standard fume cabinet			-	-	-
A8 [Point A8 on site plan dated 20/03/18 in application EPR/JP3739JH/A001]	Chemo Catalysis standard fume cabinet			-	-	-
A9 [Point A9 on site plan dated 20/03/18 in application EPR/JP3739JH/A001]	Chemo Catalysis standard fume cabinet			-	-	-
A10 [Point A10 on site plan in dated 20/03/18 in application EPR/JP3739JH/A001]	Chemo Catalysis standard fume cabinet			-	-	-
A11 [Point A11 on site plan in dated 20/03/18 in application EPR/JP3739JH/A001]	Boiler 1 - 0.4 MW thermal input capacity			-	-	-
A12 [Point A12 on site plan dated 20/03/18 in application EPR/JP3739JH/A001]	Boiler 2 – 0.4 MW thermal input capacity.			-	-	-
A13 [Point A13 on site plan dated 20/03/18 in application EPR/JP3739JH/A001]	KL2 kilo lab fume cabinet			-	-	-
A14 [Point A14 on site plan dated 20/03/18 in application EPR/JP3739JH /A001]	KL2 kilo lab fume cabinet			-	-	-
A15 [Point A15 on site plan dated 20/03/18 in application EPR/JP3739JH/A001]	KL2 process vent			-	-	-

**Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements**

<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (incl. unit)</b>	<b>Reference Period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
W1 (marked as S1) on site plan dated 20/04/18 within application EPR/JP3739JH/A001. Final discharge to River Cam	Rain and External Yard Water	No parameters set	No limits set	-	-	-

**Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site– emission limits and monitoring requirements**

<b>Emission point ref. &amp; location</b>	<b>Source</b>	<b>Parameter</b>	<b>Limit (incl. Unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
S1 (marked as E1) on site plan dated 20/04/18 within application EPR/JP3739JH/A001. Final discharge to River Cam	Site process effluent	No parameters set	No limits set	-	-	-

## Schedule 4 – Reporting

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

Table S4.1 Performance parameters		
Parameter	Frequency of assessment	Units
Water usage	Annually	tonnes
Energy usage	Annually	MWh

Table S4.2 Reporting forms		
Media/parameter	Reporting format	Date of form
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	11/06/18
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	11/06/18

# 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	

<b>(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</b>	
<b>To be notified within 24 hours of detection</b>	
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>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

<b>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
Measures taken, or intended to be taken, to stop the emission	

<b>Time periods for notification following detection of a breach of a limit</b>	
<b>Parameter</b>	<b>Notification period</b>

<b>(c) Notification requirements for the detection of any significant adverse environmental effect</b>	
<b>To be notified within 24 hours of detection</b>	
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

“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 Environment Agency 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.

“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 limit.

“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.

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions

“Multi-Product Protocol” (MPP) - means a procedure written by an operator and approved by the Environment Agency, which is referenced in the operational techniques table of this permit. It describes the operators management process which can be used to request changes, within the limits in that document only, to the original permit without the need for a formal permit variation application.

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.

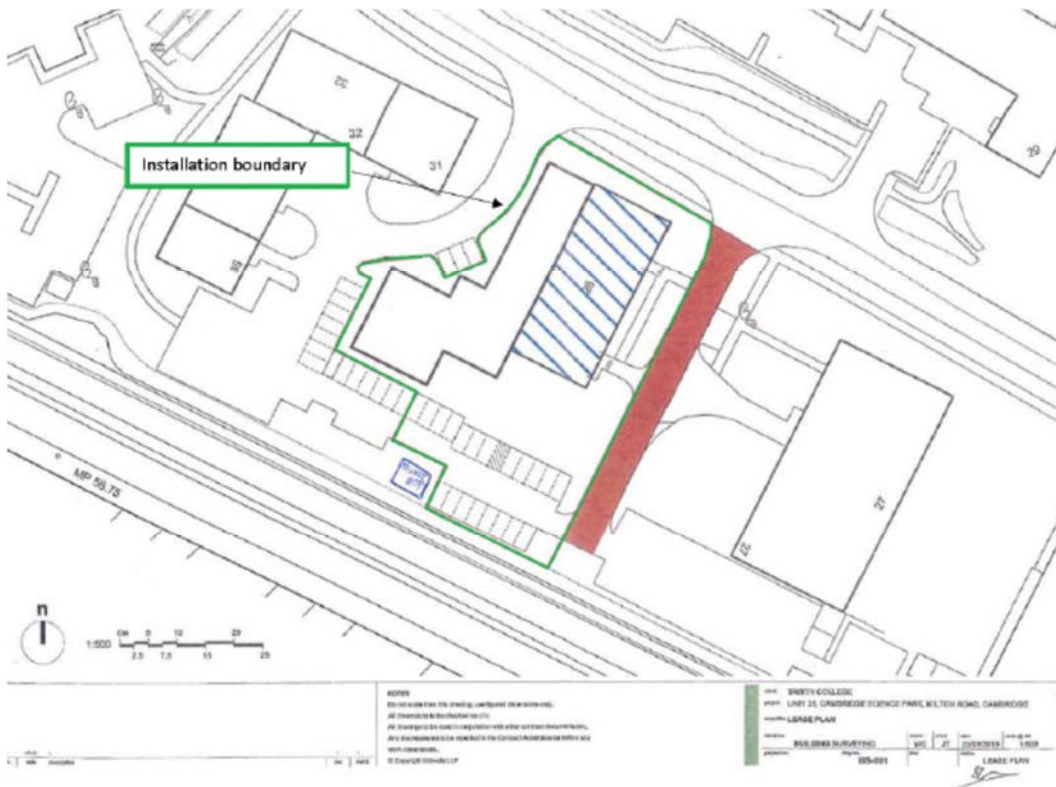
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- 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
- 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.

“year” means calendar year ending 31 December.



## Schedule 7 – Site plan



Installation centred on National Grid Reference TL 46468 61463.

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END OF PERMIT