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Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Element Six Technologies Limited Element Six Technologies Limited Kings Ride Park Ascot Berkshire SL5 8BP

Permit number

EPR/RP3609BU

Element Six Technologies Limited Permit number EPR/RP3609BU

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

Element Six Technologies operate an installation where synthetic diamonds are manufactured for various industries, including military, drilling and automotive; total production capacity is currently 17,500 domes per year. They have been in operation at Kings Ride Park since 2001. The National Grid Reference of the site is SU 90379 67945; it is located just east of Bracknell, to the south-west of London. There residential properties 150 m from the site; two SSSIs within 1 km of the site; and two SACs and a SPA 2.5 km - 5.5 km from the site

At the installation, diamonds are produced on a silicon former using Chemical Vapour Deposition (CVD) Diamond synthesis technology. The CVD process uses high purity speciality gases; most of these are purchased in cylinders, while hydrogen is generated on site through the electrolysis of deionized water. Once the diamonds have been produced, laser etching is performed to produce a stiffening structure in the product and the products are cleaned on-site using sulphuric acid. Once cleaned, the products are coated with platinum off-site, by an external coating supplier. With the coating applied, the silicon is then dissolved on-site using a hydrofluoric acid and nitric acid solution to produce the final product.

The Schedule 1 activities undertaken at the installation include:

- Section 4.2 Part A(1)(b) manufacturing activity that is likely to result in the release into air of any hydrogen halide;
 - The hydrofluoric acid and nitric acid cleaning process results in the release of hydrogen fluoride to air. This process is carried out in a 'wet bench' unit attached to a wet scrubber extraction system.
- Section 4.2 Part A(1)(a)(i) producing inorganic chemicals such as gases (hydrogen).
 - The hydrogen generators typically produce 200 SLM of hydrogen that supplies the site and are used at 80-90% capacity.

There are two emission points to air, A1 from the hydrofluoric acid/nitric acid cleaning process and A2 vents from the sulphuric acid cleaning process and hydrogen production process. The emissions from the hydrofluoric acid/nitric acid cleaning process are monitored annually by MCERTS accredited contractors.

There is one emission point to sewer, from the hydrogen generators; wastewater drains release a maximum of 25 Litres of deionised wastewater per generator, per restart (4-6 times/year). All water used in the CVD cleaning processes is stored as waste in an acid intermediate bulk container (pumped directly from the process to avoid handling). The wet scrubber used to treat emissions from the hydrofluoric acid and nitric acid cleaning process has a recirculating system to reduce water consumption and, when required, water is bled to a plastic container within bunding for disposal by a specialist waste contractor. There are no emissions to land from the installation.

The site is largely laid to concrete, tarmac or paving. All activities occur within the building on-site. Chemicals and waste chemicals are stored in a dedicated locked and bunded room with leak detection, which is located inside the building. All chemical handling within the building is undertaken using a purpose built bunded chemical handling trolley. There is no history of leaks or spills at the site.

Element Six operate an environmental management system that meets the requirements of ISO 14001:2015.

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/RP3609BU/A001	Duly made 18/03/2021	Application for inorganic chemicals production plant.	
Additional information received	23/07/2021	Updated site plan	
Additional information received	23/07/2021	Confirmation of raw materials held on site	
Permit determined EPR/RP3609BU (PAS Billing ref. RP3609BU)	22/10/2021	Permit issued to Element Six Technologies Limited.	

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/RP3609BU

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

Element Six Technologies Limited ("the operator"),

whose registered office is

Global Innovation Centre Fermi Avenue Harwell Oxford Didcot Oxfordshire OX11 0QR

company registration number 08206603

to operate an installation at

Element Six Technologies Limited Kings Ride Park Ascot Berkshire SL5 8BP

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

Name	Date
Samantha Haddock	22/10/2021

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 Climate change

1.5.1 The operator shall review and if appropriate update, at least every 4 years, the climate change adaptation risk assessment submitted with the permit application, and shall update the written management system as appropriate.

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 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.

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 Environment Agency.

2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1 and S3.2.
- 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.

3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
 - (a) point source emissions specified in tables S3.1 and S3.2;
- 3.5.2 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.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 table S3.1 unless otherwise agreed in writing by the 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) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
 - (b) the annual production /treatment data set out in schedule 4 table S4.2; and
 - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
 - (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
 - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 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 Where the Environment Agency 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 Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 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.
- 4.3.5 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 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.
- 4.3.6 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 listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity	
Section 4.2 A(1)(b) Unless falling within any other Section, any manufacturing activity which is likely to result in the release into the air of any hydrogen halide	Dissolution of silicon domes using hydrofluoric acid and nitric acid solution to leave synthetic diamonds as final product.	From receipt of raw materials to production of finished product. Includes emissions to air via the wet scrubber extraction system.	
Section 4.2 A(1)(a)(i)	Production of hydrogen via	From generation of hydrogen to	
Producing inorganic chemicals such as -	electrolysis of deionized water within three Proton H Series	use in CVD diamond synthesis process.	
gases (hydrogen)	Hydrogen Generators, for use in the Chemical Vapour Deposition (CVD) diamond synthesis process.	To be operated in accordance with the operating techniques submitted 03/03/2021, which confirmed hydrogen production process met the relevant low impact installation criteria.	
Directly Associated Activity			
Material storage and handling	Receipt, storage and handling of materials, chemicals and compressed gases for use in the production of synthetic diamonds.	Receipt, storage and handling of raw materials, chemicals and compressed gases used in the production process.	
Seeding, CVD process, laser etching and sulphuric acid clean	Coating of silicon domes with diamond particles; CVD deposition process to create diamond layers; laser etching to produce stiffening structure; and sulphuric acid clean in preparation for off-site coating.	Receipt of silicon domes and diamond particles to finished shape of diamond product cleaned and ready for coating offsite.	
Packing	Packaging of synthetic diamonds following dissolution of silicon domes.	Production of final product to shipping off-site.	
Storage and handling of waste	Storage and handling of waste generated from the production of synthetic diamonds	From waste generation, storage and monitoring through to dispatch off-site.	

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	Application forms B2 and B3 and all referenced supporting information, including low impact assessment of hydrogen generation process.	Duly Made 18/03/2021

Table S1.3 li	Table S1.3 Improvement programme requirements		
Reference	Requirement	Date	
IC 1	The Operator shall undertake an assessment of the feasibility of installing real-time emissions monitoring.	01/02/2022	
	A written report summarising the findings shall be submitted to the Environment Agency along with a timetable for any improvements identified.		

Schedule 2 – Waste types, raw materials and fuels

Schedule 3 – Emissions and monitoring

Table S3.1 Point	Table S3.1 Point source emissions to air – emission limits and monitoring requirements					
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on site plan in Schedule 7]	Wet bench unit via wet scrubber (HF and NO ₃ cleaning	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	10 mg/m ³	Periodic	Annually	BS EN 14792
	process)	Hydrogen fluoride	15 mg/m ³	Periodic	Annually	BS ISO 15713 Note 1
A2 [Point A2 on site plan in schedule 7]	Vent from sulphuric acid cleaning process and hydrogen production process	Sulphur dioxide	No limit set	-	-	-

Note 1: Can use this standard under MCERTS accreditation until it is replaced by CEN TS 17340 on 1st March 2022

Table S3.2 Point source emissions to sewer, effluent treatment plant or other transfers off-site-emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
Rainwater drains on site plan in schedule 7	Uncontaminated surface water and deionised water from the hydrogen generators	No parameter set	No limit set	-	-	-

Schedule 4 – Reporting

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

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1.	A1	Every 12 months	1 January

Table S4.2: Annual production/treatment	
Parameter	Units
Synthetic diamond domes	Number produced

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Energy usage	Annually	MWh

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Air	Form air 1 or other form as agreed in writing by the Environment Agency	08/03/2021
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	08/03/2021
Annual production	Form other performance parameters 1 or other form as agreed in writing by the Environment Agency	08/03/2021

Schedule 5 - Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	
	any malfunction, breakdown or failure of equipment or techniques, ance not controlled by an emission limit which has caused, is a 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

(b) Notification requirements for the breach of a limit				
To be notified within 24 hours of detection unless otherwise specified below				
Measures taken, or intended to be taken, to stop the emission				
Time periods for notification following detection of a breach of a limit				
Parameter			Notification period	
(c) Notification requirements for t	he breach of per	mit conditions not relate	d to limits	
To be notified within 24 hours of det	ection			
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 submit		n 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.

"emissions to land" includes emissions to groundwater.

"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.

"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 property" has the meaning in Annex III of the Waste Framework Directive as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016 as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

"Hazardous waste" has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005.

"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.

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

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 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

Site location



Site boundary and emission points

Rainwater drain receptor

A1 – Emission point to air (HF)

A2 – Emission point to air (H2SO4)

Element Six Site Perimeter

Dry air cooler

Hydrogen Generator ventilation outlet

Hydrogen Generators H2 vent line

Hydrogen Generators

CVD process emission points

Gas Compound

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END OF PERMIT