

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Universal Matter GBR Limited

Universal Matter WIC

Office 2

Innovation Centre

Wilton Centre

Redcar

TS10 4RF

Variation application number

EPR/EP3731CX/V002

Permit number

EPR/EP3731CX

Universal Matter WIC

Permit number EPR/EP3731CX

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 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. Only the variations specified in schedule 1 are subject to a right of appeal.

This variation is to:

- Expand the permitted site boundary to incorporate an internal area for a new dispersion pilot plant, with associated air emission point A7.
- Update Operator name from “Applied Graphene Materials (UK) Limited” to “Universal Matter GBR Limited” (with no change to the legal entity).

Dispersion activities will be carried out in a new pilot plant. Carbon powders are added to a liquid media (water, solvent or resins) and processed such that carbon particle size and dispersion viscosity are within customer specifications. The plant is designed only for dispersion, with no chemical reactions taking place. The plant has a process vent (air emission point A7), which emits low levels of solvent vapours, due to a nitrogen purge. The nitrogen purge is designed to prevent a flammable atmosphere within the dispersion vessels.

Secondary containment is provided around the process area, with bunding capacity exceeding both 110% of the volume of the largest tank and 25% of the total volume of all tanks within the bund.

The main features of the installation are as follows:

The installation is located within the Wilton Centre, Redcar, TS10 4RF (National Grid Reference: NZ 58287 20693). The Wilton Centre comprises a development accommodating office, laboratory, research, development and pilot plant operations undertaken by a range of organisations.

The Wilton Centre is located within an area of industrial and commercial development, located approximately 9.5km east of Middlesbrough. The River Tees is approximately 5km northwest of the facility.

The Wilton Centre Site is bounded on:

- Southern boundary by A174 highway beyond which is a golf club and small reservoirs
- Northern, eastern and western boundaries by roads servicing the local area beyond which is agricultural land giving way to further industrial land.

There are two Special Protection Areas within 10km of the facility – Teesmouth and Cleveland Coast (also a Ramsar Site) and North York Moors. There is one Site of Special Specific Interest within 2km of the facility – Lovell Hill Pools.

The facility operated by Universal Matter GBR Limited is permitted to carry out an activity listed under Section 6.2 Part A(1) (a) of the Environmental Permitting Regulations for the production of carbon, and meets the criteria for a low impact installation.

The facility produces graphene by spray pyrolysis undertaken in reactors within two manufacturing units, SP1 & SP2. Raw material is fed into reactors and furnaces heated to approximately 800 – 900°C. Decomposition of the raw material causes the formation of graphene which is separated, dewatered and washed. Graphene powders are then dispersed within a liquid media and processed to meet customer specifications.

Waste off-gases from manufacturing units SP1 & SP2, and the dispersion pilot plant are discharged to atmosphere. A flare is used for treatment of gases from SP1 and SP2, however the application for a low impact installation bespoke permit demonstrated that the emissions to air are insignificant without the use of the flare.

Aqueous discharge from the facility is directed to the Wilton Centre site drainage system managed by Sembcorp Utilities Limited which combines with other site drains before being discharged to Dabholm Gut – a manmade channel connecting into the River Tees.

There are a limited number of hazardous and non-hazardous solid and liquid wastes generated by the facility, but their quantities meet the criteria for a low impact installation facility. Assessment of potential sources of noise and odour from the facility show these will not cause pollution outside the site boundary and meet the criteria for a low impact installation facility.

The schedules specify the changes made to the permit.

We consider that in reaching our decision to vary the permit we have taken into account all relevant considerations and legal requirements. We are satisfied that the permit will ensure that a high level of protection is provided for the environment and human health and that the activities will not give rise to any significant pollution of the environment or harm to human health.

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
Application received EPR/EP3731CX/A001	Received 18/04/2017	Application for low impact installation standard rules permit.
Additional information received	08/08/2017	Additional information supplied to confirm that the application meets the criteria for a low impact installation on: <ul style="list-style-type: none"> - Chemical composition and risk assessment screening of effluent streams; - Procedure for pH control of effluent streams; - Containment for effluent handling vessels; - Estimates of waste production from facility.
Additional information received	06/09/2017	Additional information supplied to confirm that the application meets the criteria for a low impact installation on: <ul style="list-style-type: none"> - Liquid inventory and containment; - Fugitive emissions containment; - Air quality low impact installation justification; - Impact of aqueous emissions from facility; - Environmental policy and management plan.
Application EPR/EP3731CX/A001	Duly Made 06/09/2017	Application for low impact installation bespoke permit.
Additional information received	03/10/2017 & 11/10/2017	Additional information supplied to justify commercial confidentiality request.
Additional information received	20/02/2018	Additional information supplied on whether the specific conclusions for carbon and/or graphite production in the BAT Reference Document for non-ferrous metal industries apply to the Applied Graphene Materials (UK) Limited facility.

Status log of the permit		
Description	Date	Comments
Additional information received	25/04/2018	Additional information provided on the scope of the environmental management system.
Additional information received	23/05/2018	Additional information supplied on how Applied Graphene Materials (UK) Limited comply with the generic BAT requirements of the BAT Reference Document for non-ferrous metal industries.
Application determined EPR/EP3731CX	27/09/2018	Permit issued to Applied Graphene Materials (UK) Limited.
Application received EPR/EP3731CX/V002	Duly Made 28/04/2024	Application to add a dispersion pilot plant
Additional information received	10/05/2024, 29/05/2024, 01/07/2024, 03/07/2024 & 19/08/2024	Information provided regarding containment, air emissions, raw materials and site condition report.
Permit determined and issued	03/10/2024	Variation issued for low impact installation.

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies

Permit number

EPR/EP3731CX

Issued to

Universal Matter GBR Limited (“the operator”)

whose registered office is

Office 2

Innovation Centre

Wilton Centre

Redcar

TS10 4RF

company registration number 07330136

to operate a regulated facility at

Universal Matter WIC

Office 2

Innovation Centre

Wilton Centre

Redcar

TS10 4RF

to the extent set out in the schedules.

The notice shall take effect from 03/10/2024

Name	Date
Eleanor Blackeby	03/10/2024

Authorised on behalf of the Environment Agency

Schedule 1

The following conditions were varied as a result of the application made by the operator:

- Condition 2.3.1 – amended to align with the current permit template and add reference to operating techniques table (S1.2)
- Condition 2.4.1 – amended reference to the improvements programme table (S1.3)
- Condition 4.2.2 – amended to align with the current permit template
- Condition 4.2.3 – added to align with the current permit template
- Condition 4.3.1 – amended to align with the current permit template
- Condition 4.3.3 – amended to align with the current permit template
- Table S1.1, as referenced by condition 2.1.1 – amended description of A4
- Table S1.2, as referenced by condition 2.3.1 – amended to add additional operating techniques
- Table S1.3, as referenced by condition 2.4.1 – amended to add improvement condition IC7
- Table S3.1, as referenced by condition 3.1.1, 3.5.1 and 3.5.4 – amended to include emission point A7
- Schedule 5, as referenced by condition 4.3.2 – amended to add part (c) for reporting
- Schedule 7, as referenced by condition 2.2.1 – amended to show new site boundary

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/EP3731CX

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/EP3731CX/V002 authorising,

Universal Matter GBR Limited (“the operator”),

whose registered office is

Office 2

Innovation Centre

Wilton Centre

Redcar

TS10 4RF

company registration number 07330136

to operate an installation at

Universal Matter WIC

Office 2

Innovation Centre

Wilton Centre

Redcar

TS10 4RF

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

Name	Date
Eleanor Blackeby	03/10/2024

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.

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 in accordance with the Low Impact Installation criteria specified in the Environment Agency’s Environmental Permitting application form guidance notes at the time the permit application was duly made and 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.

2.4 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 and the environmental or other monitoring specified 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 tables 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 on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date as agreed in writing by the Environment Agency) each year. The report shall include as a minimum:

- (a) a review of the results of the actual and anticipated operation of the installation against the low impact criteria issued by the Environment Agency at the time of the review;
- (b) the performance parameters set out in schedule 4 table S4.2 using the forms specified in table S4.3 of that schedule;
- (c) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data.

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 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 "without delay", 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
A1	Section 6.2 Part A (1) (a) – carbon activities	Production of graphene undertaken in multiple reactors within the SP1 & SP2 units.	From receipt of raw material to despatch of finished product.
Directly Associated Activity			
A2	Directly Associated Activity	Operation of flare.	From receipt of off-gases to discharge to atmosphere.
A3	Directly Associated Activity	Storage and handling of raw materials, product and waste materials.	From receipt of all raw materials to use within the facility including all pipework, handling, transfer and storage systems. From manufacture of product to despatch off-site including on-site handling and storage systems. From generation of waste to despatch off-site including on-site handling and storage.
A4	Directly Associated Activity	Operation of the dispersion pilot plant. Dispersion of dry graphene final product into liquid media and processing to ensure particle size and viscosity meet customer specifications.	From generation of product to despatch off-site to customer including handling, dispersion and storage systems.
A5	Directly Associated Activity	Management and discharge of site aqueous discharge to shared, combined Sembcorp Utilities UK Limited drainage system.	From generation of aqueous effluent to discharge into Sembcorp Utilities UK Limited drainage system.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	Sections on operating techniques included in Report, 17013i2, of the application documents provided in response to section 3a (technical standards) of Part B3 of the application form: <ul style="list-style-type: none"> - Section 2 (Site Description – Overview); - Section 4 (Site Operations); - Section 5 (Site and Process Management); - Section 6.4 (Noise and Vibration); - Section 6.5 (Odour). 	Duly Made 06/09/2017

Table S1.2 Operating techniques		
Description	Parts	Date Received
Additional information	Operating techniques described in responses on: <ul style="list-style-type: none"> - pH control and operation of containment systems for aqueous effluents. 	08/08/2017
Additional information	Operating techniques described in responses on: <ul style="list-style-type: none"> - summary of measures to prevent fugitive emissions to surface water, sewer or land; - control of containment for liquid inventories. 	06/09/2017
Additional information	Operating techniques described in “Response to Environment Agency e-mail dated 7 th February 2018 regarding the applicability of Best Available Techniques (BAT) Reference Document for the non-ferrous metals industries.”	22/02/2018
Additional information	Operating techniques described in the assessment of the applicability of generic BAT requirements for nonferrous metals industries to the operation carried out by Applied Graphene UK Limited.	23/05/2018
Additional information	Operating techniques described in updated “Variation Report” (amended June 2024): <ul style="list-style-type: none"> - Section 4 (Operations) - Section 5 (Site and process management) - Section 6.1 (Emissions to air) 	03/07/2024

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	The operator shall submit to the Environment Agency for approval, a programme of sampling and analysis of the liquid effluent from the installation prior to discharge to the combined Sembcorp waste water management system. This programme shall ensure sufficient representative samples are obtained and analysed to confirm the facility continues to comply with the criteria for low impact installations.	Closed
IC2	The operator shall submit a written report to the Environment Agency for approval that details the results and conclusions of the programme of sampling and analysis of the site liquid effluent discharge as agreed with the Environment Agency in IC1. Should the sampling and analysis regime indicate that the liquid effluent discharge no longer meets the criteria for a low impact installation, the operator shall, in the report, outline for approval by the Environment Agency a programme of work to address this. The operator shall implement any proposals in the report agreed by the Environment Agency to the proposed timescales from the date of approval.	Closed

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC3	The operator shall submit to the Environment Agency for approval, a programme of sampling and analysis of the gaseous emissions to air from the installation. This programme shall ensure sufficient representative samples are obtained and analysed in accordance with MCERTS standards to confirm the facility continues to comply with the criteria for low impact installations.	Closed
IC4	The operator shall submit a written report to the Environment Agency for approval that details the results and conclusions of the programme of sampling and analysis of the gaseous emissions to air as agreed with the Environment Agency in IC3. Should the sampling and analysis regime indicate that the gaseous emissions no longer meet the criteria for a low impact installation, the operator shall, in the report, outline for approval by the Environment Agency a programme of work to address this. The operator shall implement any proposals in the report agreed by the Environment Agency to the proposed timescales from the date of approval.	Closed
IC5	The Operator shall undertake a noise assessment during normal operations in accordance with the procedures given in BS4142: 2014 (Rating industrial noise affecting mixed residential and industrial areas) in order to verify the assessment of low impact status provided in the application. The assessment shall include, but not be limited to: A review of the noise sources from the facility. Where any noise sources are identified as exhibiting tonal contributions, they shall be quantified by means of frequency analysis. A review of noise mitigation measures. A report shall be provided to the Environment Agency for approval detailing the methodology, results and conclusions of the assessment and a review of whether any improvements (additional noise control or abatement measures) are required together with proposals and timescales for their implementation. The operator shall implement any proposals in the report agreed by the Environment Agency to the proposed timescales from the date of approval.	Closed
IC6	The operator shall submit to the Environment Agency for approval a written report detailing a programme for collecting sufficient evidence both prior to and during (at regular intervals) the operation of the permit to demonstrate protection of soil and groundwater at the installation. Such evidence should include (but not be limited to) baseline and on-going soil and groundwater investigation data, maintenance/inspection records of primary/secondary containment measures, photographic records and records of incidents. Once approved and from the date stipulated by the Environment Agency, the programme shall be implemented in accordance with the agreed timescales and design.	Closed

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC7	<p>The operator shall submit an updated standalone Site Condition Report (for the new area of land incorporated into the permit by variation EPR/EP3731CX/V002), prepared by a suitably qualified party, to the Environment Agency for assessment and written approval.</p> <p>The Site Condition Report must be completed in accordance with the Environment Agency's H5 Site Condition Report guidance, and contain:</p> <ul style="list-style-type: none"> • IED Baseline Report Stages 1 – 3 (as a minimum). • Confirmation of contaminants for concern associated with all permitted and non-permitted activities on site, site operations (including ancillary activities such as wheel washes etc), those associated with previous land uses and those associated with offsite land uses which could have potentially impacted the site. • Plans clearly showing receptors, sources of emissions/releases and soil/water monitoring points. • Details of proposed monitoring of soils, groundwaters, surface waters during the permit's operational phase. 	<p>Within 6 months of the issue of variation EPR/EP3731CX/V002</p>

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
-	-

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 (incl. unit)	Reference period [Note 1]	Monitoring frequency [Note 1]	Monitoring standard or method [Note 1]
A1 on site plan in schedule 7 of the permit.	SP1 Reactor combined off-gas vent.	Particulate matter	No limit set	Periodic	Annual	BS EN 13284-1
		Carbon monoxide (CO)	No limit set	Periodic	Annual	BS EN 15058
		Sulphur dioxide (SO ₂)	No limit set	Periodic	Annual	BS EN 14791
		Oxides of nitrogen as NO ₂	No limit set	Periodic	Annual	SB EN 14792
		Total VOC's (as C)	No limit set	Periodic	Annual	BS EN 12619
A2 on site plan in schedule 7 of the permit.	Laboratory common local exhaust ventilation system.	No parameter set.	No limit set.	-	-	-
A3 on site plan in schedule 7 of the permit.	Vent from feed system.	No parameter set.	No limit set.	-	-	-
A4 on site plan in schedule 7 of the permit.	Drier vent.	No parameter set.	No limit set.	-	-	-
A5 on site plan in schedule 7 of the permit.	Off-gas vent.	No parameter set.	No limit set.	-	-	-
A6 on site plan in schedule 7 of the permit.	SP2 Process exhaust.	Particulate matter	No limit set	Periodic	Annual	BS EN 13284-1
		Carbon monoxide (CO)	No limit set	Periodic	Annual	BS EN 15058

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference period [Note 1]	Monitoring frequency [Note 1]	Monitoring standard or method [Note 1]
		Sulphur dioxide (SO ₂)	No limit set	Periodic	Annual	BS EN 14791
		Oxides of nitrogen as NO ₂	No limit set	Periodic	Annual	SB EN 14792
		Total VOCs (as C)	No limit set	Periodic	Annual	BS EN 12619
A7 on site plan in schedule 7 of the permit.	Dispersion plant and local exhaust ventilation system	Total VOCs (as C)	No limit set	-	-	-

Note 1: Unless agreed in writing by the Environment Agency.

Table S3.2 Point source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
S1 on site plan in schedule 7 of the permit (emission via existing Wilton Centre drainage system and subsequently released by Sembcorp Utilities UK Limited to Dabholm Gut)	Non-hazardous effluent from SP1 and SP2.	Daily flowrate	50m ³	Daily	Daily	To be agreed in writing with the Environment Agency

Schedule 4 – Reporting

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1.	A1, A6	Annual	1 January
Emissions to water Parameters as required by condition 3.5.1	S1	Annual	1 January

Parameter	Frequency of assessment	Units
Water usage	Annually	m ³
Energy usage	Annually	MWh
Total solid hazardous waste	Annually	tonnes
Total liquid hazardous waste	Annually	m ³
Total solid non-hazardous waste	Annually	tonnes
Total liquid non-hazardous waste	Annually	m ³
Maximum daily solid hazardous waste generated	Annually	tonnes
Maximum daily solid non-hazardous waste generated	Annually	tonnes
Maximum daily liquid hazardous waste generated	Annually	m ³
Maximum daily liquid non-hazardous waste generated	Annually	m ³

Media/parameter	Reporting format	Date of form
Air	Form air 1 or other form as agreed in writing by the Environment Agency	27/09/18
Water and land	Form water 1 or other form as agreed in writing by the Environment Agency	27/09/18
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	27/09/18
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	27/09/18
Other performance indicators (waste generation)	Form performance 1 or other form as agreed in writing by the Environment Agency	27/09/18

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	

(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	

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

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

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

Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

“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 2010 No.675 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

“low impact installation” means a Part A(1) installation which, in the opinion of the Environment Agency, cannot result in emissions or there is no likelihood that it will result in emissions except in a quantity which is so trivial that it is incapable of causing pollution or its capacity to cause pollution is insignificant. The low impact installation criteria are those specified in the Environment Agency’s environmental permit application form at the time the permit application was duly made.

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

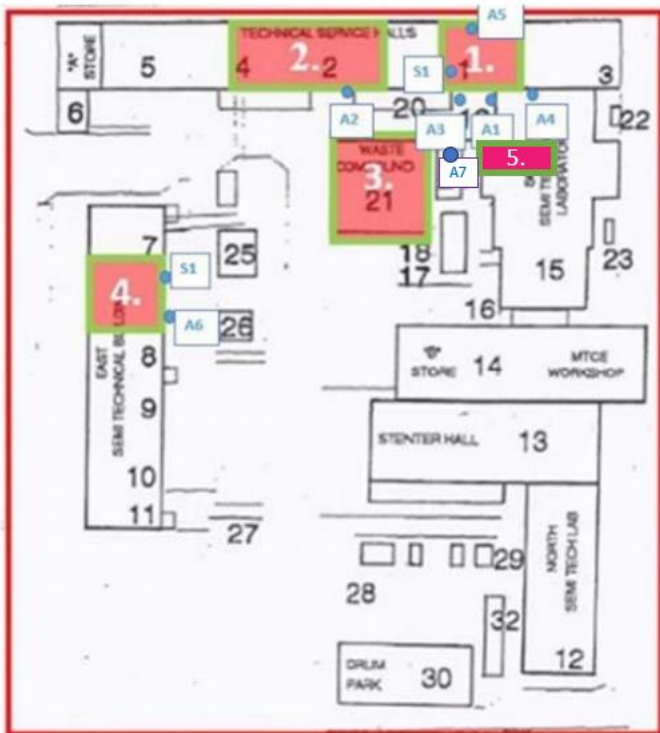
“year” means calendar year ending 31 December.

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

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

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

Schedule 7 – Site plan



Applied Graphene Materials UK Limited activities within the Wilton Centre:

- 1 = SP1 Production Asset
- 2 = Laboratories and Offices
- 3 = Flammable and Waste Storage Areas
- 4 = SP2 Production Asset
- 5 = Dispersion Production Asset

END OF PERMIT