

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Procter & Gamble Product Supply (U.K.) Limited
Procter & Gamble Product Supply (U.K.) Limited - London Plant
Hedley Avenue
West Thurrock
Essex
RM20 4AL

Variation application number

EPR/BT8864IT/V005

Permit number

EPR/BT8864IT

Procter & Gamble Product Supply (U.K.) Limited - London Plant Permit number EPR/BT8864IT

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.

Changes introduced by this variation notice/statutory review

This variation has been issued to update some of the conditions following a statutory review of the permits in the industry sector for the production of large volume organic chemicals. The opportunity has also been taken to consolidate the original permit and subsequent variations.

The Industrial Emissions Directive (IED) came into force on 7th January 2014 with the requirement to implement all relevant Best Available Techniques (BAT) conclusions as described in the Commission Implementing Decision. The BAT conclusions for production of large volume organic chemicals were published on 07 December 2017 in the Official Journal of the European Union (L323) following a European Union wide review of BAT, implementing decision 2017/2117/EU of 21 November 2017.

Where appropriate, we also considered other relevant BAT Conclusions published prior to this date but not previously included in a permit review for the Installation:-

Common waste water and waste gas treatment/management systems in the chemical sector. Published 09 June 2016

The BAT Conclusions for this installation which apply from 7th December 2021 are:

Production of Large Volume Organic Chemicals:

BAT 1-6, BAT 8, BAT 10-11, BAT 14, BAT 17-19.

Common waste water and waste gas treatment/management systems in the chemical sector:

BAT 1 to 10, BAT 13, BAT 15, BAT 19-20, BAT 22-23.

The schedules specify the changes made to the 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. All the conditions of the permit have been varied and are subject to the right of appeal.

Brief Description of the process

The London Plant is an existing installation owned and operated by Procter & Gamble Product Supply (UK) Limited. The site covers an area of 14 hectares centred at National Grid Reference TQ5940 7730

The site is located on the north bank of the River Thames with areas of industrial / commercial land use to both the east and west. Beyond the railway to the North of the site are areas of housing bordering London Road the nearest of which is 120m from the site.

The site manufactures packages and distributes about 500,000 tonnes of fully formulated fabric and homecare products and hand dishwashing liquids as well as the export of surfactant paste.

The activities are organised into the following departments:

The Falling Film Reactor (FFR) department produces surfactant pastes. Sulphur trioxide vapour generated from sulphur burners is used to sulphonate a range of organic chemicals producing pastes. Exhaust gases pass through electrostatic precipitators followed by scrubbers before release to atmosphere via a 40m stack.

The Making Synthetic Granules (MSG) department: converts surfactant pastes into detergent powder products. Surfactant pastes are neutralised and dried in a gas fired hot air spray drying tower. Exhaust gases are passed through cyclones before being discharged to atmosphere via a 76m stack. The dried powder then undergoes a series of mixing operations where additives are incorporated.

The Packing Synthetic Granules (PSG) department receives powder from MSG department which is fed by conveyor and gravity through sieves to product packing lines and removed to a warehouse.

The Late Production Differentiation (LPD) department converts surfactant paste into hand dish washing liquids. Surfactant paste is blended with a range of liquid additives into a fully formulated finished product.

The Light Duty Liquid Finishing (LDLF) department comprises the packaging of liquid product generated from the LPD process, which is bottled and removed to a warehouse.

The Utilities department provides steam and compressed air to the on-site processes. Steam is raised in a natural gas packaged boiler with a thermal input rating of 18 MW. The burner fitted to the boiler is low NOx and the boiler can switch to standby gas oil if required. Products of combustion from the boiler are released to atmosphere via a 66m chimney. Air is compressed to 7bar and distributed across the site.

There are nine cooling water towers used to cool the process vessels and control process heating.

The site has an effluent surge tank to collect process wastewater and contaminated site surface waters. The outflow from the ETP is to public sewer and onwards to a sewage treatment works (STW) at Tilbury. The outfall of the Tilbury STW is to the tidal River Thames. The discharge to sewer is subject to a separate trade effluent discharge consent granted by Anglian Water. There are no consented releases to groundwater.

Waste water from the reverse osmosis and ion exchange plants and site run off from uncontaminated areas are released to the River Thames via discharge points via interceptors.

The main releases to air are particulate emissions which are abated by the use of electrostatic precipitators, high efficiency cyclones and bag filters. Emissions to air from the boiler and hot air furnace are minimised through process control.

Within 10km of the site there are a number of sensitive ecological receptors which 3 Sites of Special Scientific Interest, 1 National Nature Reserve, 1 Local wildlife site, numerous Ancient Woodlands, 1 Marine conservation zone, 8 Local Nature reserves and 1 Special Protection Area also listed as a site under the Ramsar Convention on Wetlands.

The site has an Environmental Management System aligned to BS EN ISO 14001: 2015 and is part of a Corporate Health, Safety and Environment Management System.

The site is a signatory to a Climate Change Agreement under the Chemical Industry Association Brokering and Trading Agency scheme.

The site is also designated as a top tier site under the Control of Major Accident Hazard Regulations (SI 1999 No.743) as some prescribed substances are held on site in quantities above their prescribed thresholds.

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 EPR/BT8864IT/A001	Duly made 26/03/06	
Additional information received	12/12/06	
Additional information received	18/01/07	
Additional information received	30/04/07	
Permit determined EPR/BT8864ITBT8864IT	27/06/07	

Status log of the permit		
Description	Date	Comments
Variation application EPR/BT8864IT/V002	Issued 01/02/08	Condition 4.2 - Reporting
Variation application EPR/BT8864IT/V003	Issued 10/03/09	Reporting requirement in Schedule 4
Part surrender application EPR/BT88641IT/S004	Duly made 18/09/17	Application to surrender an area of land within the permitted boundary.
Part surrender determined EPR/BT88641IT/S004	21/11/17	Part surrender complete.
Regulation 61 Notice dated 04/05/18 (Notice requiring information for statutory review of permit)	Response Received 10/08/18	Technical standards detailed in response to the information notice.
EPR/BT8864IT/V005 (variation and consolidation)	Environment Agency Initiated Variation	Statutory review of permit occasioned by LVOC BAT Conclusions published 07 December 2017
Variation determined EPR/BT8864IT/V005 (Billing Ref: CP3838QH)	24/12/2020	Varied and consolidated permit issued

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/BT8864IT

Issued to

Procter & Gamble Product Supply (U.K.) Limited (“the operator”)

whose registered office is

The Heights

Brooklands

Weybridge

Surrey

KT13 0XP

company registration number 03074536

to operate a regulated facility at

Procter & Gamble Product Supply (U.K.) Limited - London Plant

Hedley Avenue

West Thurrock

Essex

RM20 4AL

to the extent set out in the schedules.

The notice shall take effect from 24/12/2020

Name	Date
Philip Lamb	24/12/2020

Authorised on behalf of the Environment Agency

Schedule 1

All conditions have been varied by the consolidated permit as a result of an Environment Agency initiated variation.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/BT8864IT

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BT8864IT/V005 authorising,

Procter & Gamble Product Supply (U.K.) Limited (“the operator”),

whose registered office is

The Heights

Brooklands

Weybridge

Surrey

KT13 0XP

company registration number 03074536

to operate an installation at

Procter & Gamble Product Supply (U.K.) Limited - London Plant

Hedley Avenue

West Thurrock

Essex

RM20 4AL

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

Name	Date
Philip Lamb	24/12/2020

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 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, S3.2 and S3.3.

- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Total annual emissions from the emission point(s) set out in schedule 3 tables S3.1, S3.2 and S3.3 of a substance listed in schedule 3 table S3.4 shall not exceed the relevant limit in table S3.4.
- 3.1.4 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 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.

3.4 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, S3.2 and S3.3;

- 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, S3.2 and S3.3 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 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, 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.

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.

4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:

(a) a decision by the Secretary of State not to re-certify the agreement;

(b) a decision by either the operator or the Secretary of State to terminate the agreement; and

(c) any subsequent decision by the Secretary of State to re-certify such an agreement.

4.4 Interpretation

4.4.1 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	Section 4.1 Part A(1)(a)(iii) producing organic chemicals such as organic compounds containing sulphur	The manufacture of organo sulphonic acids. 4 Streams	From receipt of raw materials and sulphur trioxide to the discharge of exhaust gases, storage, use and despatch of intermediate products, recovery of sulphates and disposal of waste arising.
AR2	Section 4.1 Part A(1)(a)(xi) producing organic chemicals such as surface active agents	The manufacture of organo sulphonates. 6 Streams	From receipt of raw materials, fuels and intermediates to the discharge of exhaust gases, despatch of intermediate and finished products, disposal of waste arising and releases to sewer.
AR3	Section 4.2 Part A(1)(a) producing inorganic chemicals such as gases such as oxides of sulphur	The manufacture of sulphur trioxide. 4 Streams	From the receipt of sulphur to transfer to the sulphonation unit.
Directly Associated Activity			
AR4	Raw material handling and storage	Storage and handling of raw materials used	Includes receipt and handling of bulk raw materials.
AR5	Waste storage and handling	Storage of wastes produced	From waste generation, storage and monitoring to waste dispatch.
AR6	Steam production	18.5 MWth boiler producing steam	From receipt ,storage and handling of fuels and make up water to the discharge of exhaust gases, export and distribution of steam to the steam system and blowdown to sewer.
AR7	Provision of site utilities	Air compressors.	Compressed air used across site.
		Cooling water for process cooling. Distributed across the site. Blowdown to sewer	From receipt of water to final discharge to sewer system.
		Firewater tanks and diesel operated pumps	
		Surface water drainage	Handling and storage of water treatment blowdown and site drainage from rainwater collection system, interceptors, sumps and drains to discharge to the River Thames.
		Water treatment	Receipt of town's water and regeneration chemicals to supply of treated water and releases to surface water drainage and disposal of waste arising.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	The response to section 2.1 and 2.2 in the Application	25/08/06
Receipt of additional information to the application	Responses to request for information dated 4/12/06 regarding the application site report.	12/12/06
Receipt of additional information to the application	Responses to request for information dated 21/12/06 regarding the application site report.	18/01/07
Receipt of additional information to the application	Provision of revised specification for boiler.	30/04/07
Improvement Condition 3 submission	Site closure plan	05/08/2015
Completion of appropriate measures conditions	Air and water fugitive emission management plan	11/08/2015
	Updated Odour management plan	02/08/2017
	Accident management plan	16/11/2015
Regulation 61 notice response	P&G London Plant BAT Assessment – Appendix B - List of LVOC Channelled Emissions	10/08/2018

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	<p>A written procedure shall be submitted to the Agency detailing the methodology to be used to calculate the annual releases of substances to air listed in Table S4.4. The procedure shall have regard for the likely uncertainty values and limits of detection associated with the test methods to be used.</p> <p>The notification requirements of condition 2.4.2 (previous 2.5.2) shall be deemed to have been complied with on submission of the procedure.</p> <p>The procedure shall be implemented by the operator from the date of approval in writing by the Agency</p>	<p>30/09/07</p> <p>30/05/21</p>
IC2	<p>A written procedure shall be submitted to the Agency detailing the operational techniques used to ensure that releases to air from abatement equipment such as scrubbers and filters are minimised.</p> <p>The notification requirements of condition 2.4.2 (previous 2.5.2) shall be deemed to have been complied with on submission of the procedure.</p> <p>The procedure shall be implemented by the operator from the date of approval in writing by the Agency</p>	<p>31/12/07</p> <p>30/05/21</p>
IC14	<p>The operator shall submit, for approval by Environment Agency, a report setting out progress to achieving the 'Narrative' BAT where BAT is currently not achieved, but will be achieved before 07/12/21. The report shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • Methodology for achieving BAT • Associated targets / timelines for reaching compliance by 07/12/21 • Any alterations to the initial plan (in progress reports).. <p>The report shall address the following BAT Conclusion:</p>	<p>Progress reports by:</p> <p>07/03/20</p> <p>07/06/21</p> <p>07/12/21</p>

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	<ul style="list-style-type: none"> • Production of Large Volume Organic Chemicals BAT 10 (Reduce channelled emissions of organic compounds to air for relevant point source emissions, other than emission point A2) • Production of Large Volume Organic Chemicals BAT 14 (Reduce the waste water volume, pollutant, loads and emissions to water by assessing the potential to reuse Reverse Osmosis effluent water) • Common waste water and waste gas treatment/management systems in the chemical sector BAT 2 (Inventory of waste water and waste gas streams incorporating all the described features). • Common waste water and waste gas treatment/management systems in the chemical sector BAT 15 (Reduction of emissions to air by enclosing and treating waste gas sources) <p>Refer to BAT Conclusions for a full description of the BAT requirement.</p>	

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
Gas Oil	Sulphur 0.1% w/w maximum

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location as listed in P&G London Plant BAT Assessment – Appendix B - List of LVOC Channelled Emissions	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1	Sulphonation plant	VOC	50 mg/m ³	Periodic extractive sample	Annually	EN 12619
		Particulate matter	20 mg/m ³		Annually	EN 13284-1
		Oxides of sulphur (expressed as SO ₂)	35 mg/m ³		Annually	EN 14791
A2	MSG spray tower	VOC	250 mg/m ³		Monthly	EN 12619
		Particulate matter	50 mg/m ³		Monthly	EN 13284-1
		Oxides of sulphur (expressed as SO ₂) ^{note 1}	50 mg/m ³		Monthly	EN 14791
		Oxides of nitrogen	200 mg/m ³		Annually Quarterly ^{note 1}	EN 14792
		Carbon monoxide ^{note 1}	50 mg/m ³		Quarterly	EN 15058
A3	MSG crutcher	VOC	80 mg/m ³		Monthly	EN 12619
		Particulate matter ^{note 1}	50 mg/m ³	Monthly	EN 13284-1	
		Oxides of sulphur (expressed as SO ₂) ^{note 1}	50 mg/m ³	Monthly	EN 14791	

Table S3.1 Point source emissions to air – emission limits and monitoring requirements							
Emission point ref. & location as listed in P&G London Plant BAT Assessment – Appendix B - List of LVOC Channelled Emissions	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method	
A4	Multiple Vents on MSG Process Building ^{note 2}	No parameters set	No limits set	-	-	-	
A5							Ethanol storage tank
A6							SO3 oxidisers
A7							SO3 Air drying regenerators
A8	Sulphonation plant	VOC	50 mg/m ³	Periodic extractive sample	Annually	EN 12619	
		Particulate matter	20 mg/m ³		Annually	EN 13284-1	
		Oxides of sulphur (expressed as SO ₂)	35 mg/m ³		Annually	EN 14791	
A9	SO3 oxidisers	No parameters set	No limits set	-	-	-	
A10							SO3 Air drying regenerators
A11							Boiler stack
A12							De-packing department

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location as listed in P&G London Plant BAT Assessment – Appendix B - List of LVOC Channelled Emissions	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A13	Multiple Vents on PSG Process Building ^{note 3}					
A14	MSG Duct Burner Stack					
<p>Note 1 – Monitoring requirements apply from 07/12/21</p> <p>Note 2 – Multiple Vents on MSG Process Building includes all 44 vents as listed in the Regulation 61 response P&G London Plant BAT Assessment – Appendix B</p> <p>Note 3 – Multiple Vents on PSG Process Building includes all 12 vents as listed in the Regulation 61 response P&G London Plant BAT Assessment – Appendix B</p>						

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
Emission to River Thames						
W1 at TQ5946477119	Clean, uncontaminated surface water from roofs and non-operational areas of the site and the discharge from the reverse osmosis plant.	No parameters set	--	--	--	--
W3 at TQ5952777164						
W4 at TQ5960077200						

Table S3.3 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
Emission to Anglian Water Tilbury Sewage Treatment Works						
S1 at TQ594775	Site effluent surge tank	Oil or Grease	No visible oil	Spot	Daily	Visual check

Table S3.4 Annual limits		
Substance	Medium	Limit (including unit)
Oxides of Sulphur	Air	50 tonnes (as SO ₂) in a year
Oxides of nitrogen	Air	105 tonnes (as NO ₂) in a year
Particulate matter	Air	56 tonnes in a year
VOC	Air	120 tonnes in a year

Schedule 4 – Reporting

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

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1.	A1, A2, A3, A4, A8	Annually	1 January

Parameter	Units
-	-

Parameter	Frequency of assessment	Units
Towns water usage	Annually	m ³
Natural gas usage	Annually	MJ
Gas oil usage	Annually	MJ
Electricity usage	Annually	MJ
Total energy usage	Annually	MJ
Water to River Thames	Annually	m ³
Trade effluent to sewer	Annually	m ³
Mass emission data for oxides of sulphur	Annually	mg/m ³
Mass emission data for oxides of nitrogen	Annually	mg/m ³
Mass emission data for particulate matter	Annually	mg/m ³
Mass emission data for VOC	Annually	mg/m ³

Media/parameter	Reporting format	Date of form
Air	Form air 1 and air 3 or other forms as agreed in writing by the Agency	10/03/2009
Water usage	Form water usage1 or other form as agreed in writing by the Agency	
Energy usage	Form energy 1 or other form as agreed in writing by the Agency	
Other performance indicators	Form performance 1 or other form as agreed in writing by the Agency	

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	

(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 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.

“annually” means once every year.

“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.

“background concentration” means such concentration of that substance as is present in:

- for emissions to surface water, the surface water quality up-gradient of the site; or
- for emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.

“BAT-AELs” means BAT-associated emission levels, i.e. the emission levels associated with the best available techniques for emissions to air and/or water, as set out in

“Common waste water and waste gas treatment/management systems in the chemical sector BAT Conclusions or CWW” means Commission Implementing Decision (EU) 2016/902 of 30 May 2016 establishing Best Available Techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for Common Waste Water And Waste Gas Treatment/ Management Systems in the Chemical Sector

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit.

“emissions to land” includes emissions to groundwater.

“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.

“fugitive emissions” means diffuse VOC emissions from ‘point’ sources.

“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.

“Hazardous waste” has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 (as amended).

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

“Large Volume Organic Chemicals BAT Conclusions or LVOC” means The Commission Implementing Decision (EU) 2017/2117 of 21 November 2017 establishing Best Available Techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for the Production of Large Volume Organic Chemicals.

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

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“Total Organic Carbon” means Total Organic Carbon. In respect of releases to air this means the gaseous and vaporous organic substances, expressed as TOC.

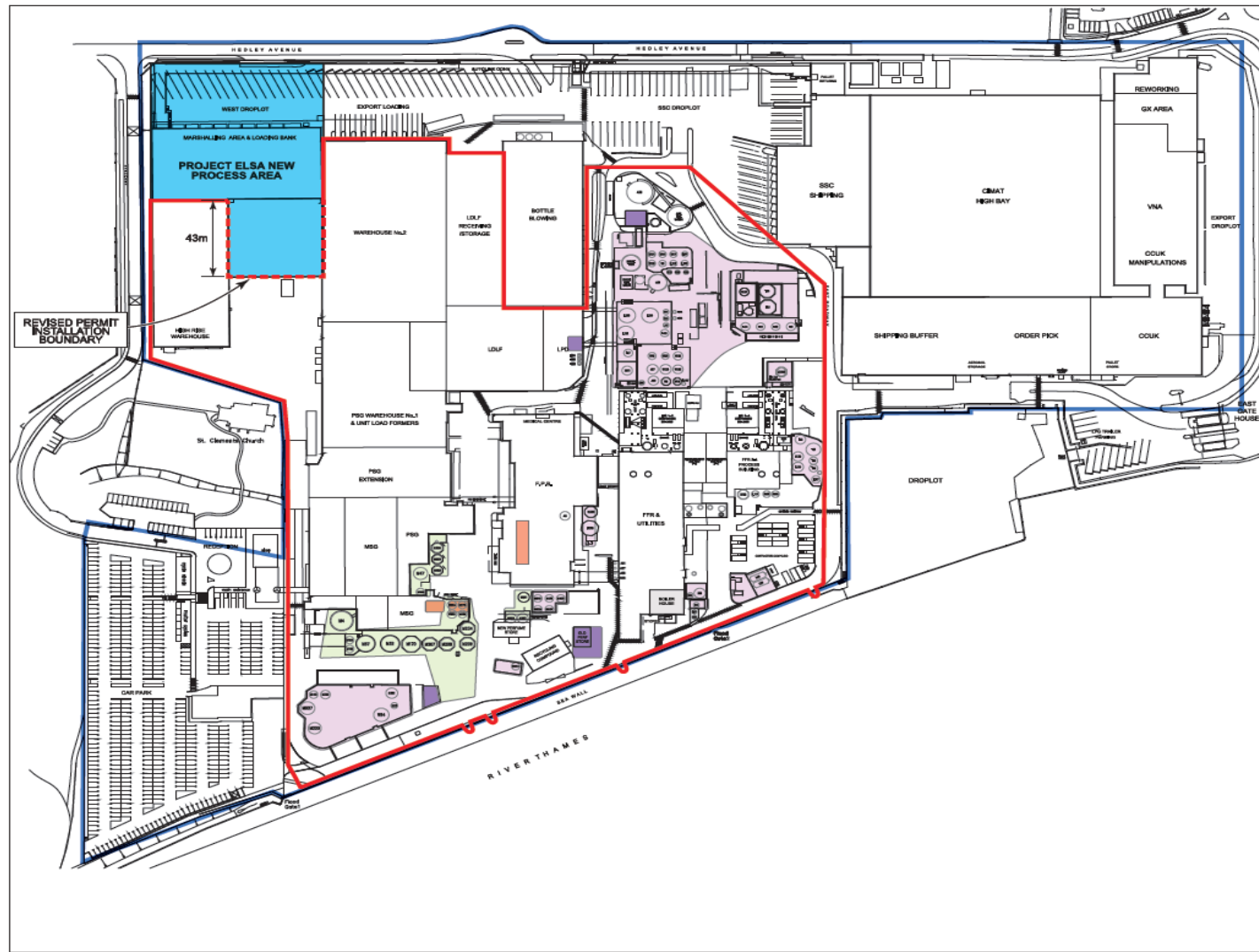
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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.

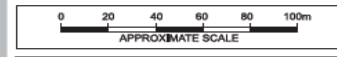
“year” means calendar year ending 31 December.

Schedule 7 – Site plan



KEY :

- SITE BOUNDARY
- EPR PERMIT INSTALLATION BOUNDARY
- BULK TANK STORAGE AREAS
- IBC STORAGE AREAS
- SILO STORAGE AREAS
- BAG STORES
- FFR FALLING FILM REACTOR PROCESS
- MSG MAKING SYNTHETIC GRANULES
- PSG PACKING SYNTHETIC GRANULES LATE
- LPD PRODUCT DIFFERENTIATION LIQUID
- LDLF PACKING
- PROPOSED PROJECT ELSA LOCATION



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Title	MATERIAL STORAGE AREAS, 2017		
Location	LONDON PLANT, WEST THURROCK		
Client	PROCTER & GAMBLE / PETER CREMER		
	App'd:	Drawn:	Date:
	LM	RH	JULY 2017
			Ref:
			LM/WIM/RHMCH
			Job No:
			60544576
			Scale:
			AS SHOWN
			Drw. Size:
			A3



FIGURE 6

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END OF PERMIT