

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Thor Specialities (UK) Limited

Wincham Organic Specialities

Wincham Avenue

Wincham

Northwich

Cheshire

CW9 6GB

Variation application number

EPR/BL6403IQ/V009

Permit number

EPR/BL6403IQ

Wincham Organic Specialities

Permit number EPR/BL6403IQ

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.

Variation

This variation authorises:

- the permanent use of the existing carbon adsorption unit as abatement for the V9/V12 process reactors. The existing carbon adsorption unit was used as a temporary abatement for the V9/V12 reactors following the failure of the caustic scrubber authorised under EPR/BL6403IQ/V008. The emission point A20 through which emissions will be vented from the V9/V12 reactors remains unchanged.
- the addition of a new emission point to air A21, for the loop reactor containment tank designed to be used during emergencies only.
- the removal of emission point S2 in Table S3.2 from the permit.

General description

The installation is located 700 metres east of Wincham and 800 metres to the south east of Marston. The nearest housing is approximately 600 metres to the south east of the site. The Ordnance Survey National Grid Reference of the approximate centre of the site is SJ 68140 74971. There are three European Sites within 10 km of the installation boundary, one Site of Special Scientific Interest and sixteen other conservation sites within 2 km of the installation boundary.

The installation manufactures three groups of speciality chemicals:

- Biocides & Preservatives - These products are to preserve products from the effects of microbiological spoilage such as paints, cosmetics, adhesives and other water-based products.
- Textile Treatment Products - These products are to protect or modify textiles. Such treatments include flame retardants, fabric softeners & conditioners.
- Paint and Cosmetic Additives - These products are a minor part of the range and include other paint & cosmetic additives

There are five different organic chemical sector scheduled activities and one inorganic chemical sector scheduled activity within this installation.

Directly associated activities at this installation include blending and adjusting, solvent removal, storage of raw materials, combustion activities, effluent treatment, waste handling and solvent recovery.

In total there are twenty-four emission points to atmosphere and one emission point to sewer from the installation.

The environmental management system for the installation is certified to ISO 14001.

The schedules specify the changes made to the permit.

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 BL6403IQ (under PPC 2000) (EPR/BL6403IQ/A001)	06/02/03	
Permit determined EPR/BL6403IQ	14/11/03	Permit issued.
Application HP3437SG (EPR/BL6403IQ/V002)	19/05/05	
Variation HP3437SG determined	25/10/05	Varied permit issued.
Application JP3938XS (EPR/BL6403IQ/V003)	01/02/08	
Variation JP3938XS determined	11/04/08	Varied permit issued.
Application received (under EPR 2010) EPR/BL6403IQ/V004	Duly made 01/11/11	
Variation determined EPR/BL6403IQ	09/11/11	Varied permit issued.
Application received EPR/BL6403IQ/V005	Duly made 08/11/12	
Variation determined EPR/BL6403IQ	20/12/12	Varied permit issued.
Application EPR/BL6403IQ/V006 (variation)	Duly made 21/08/14	Application for new production hall and warehouse facility including an extension to the installation boundary.
Schedule 5 response	15/09/14	Additional information relating to emissions to sewer.
Variation determined EPR/BL6403IQ	12/11/14	Varied permit issued.
Application EPR/BL6403IQ/V007 (variation and consolidation)	Duly made 18/01/16	Variation application for a new PBC front end process.
Request for information	19/05/16	Site plan updated.
Response to Schedule 5 dated 26/01/16	31/05/16	Accident Management Plan, Air Emissions Abatement, H1 Risk Assessment, Monitoring and Containment.
Request for information response	09/06/16	Confirmation of Accident Management Plan to be in place prior to commissioning.
Request for information	06/07/16	Revised final site plan as utilised in permit schedule 7.
Variation determined EPR/BL6403IQ	25/07/16	Varied permit issued.
Application EPR/BL6403IQ/V008 (variation)	Duly made 26/01/17	Application to add emission points A19 and A20 to table S3.1 and improvement condition.
Additional information received	13/03/17	Confirmation of management plan for carbon beds.
Variation determined EPR/BL6403IQ	04/05/17	Varied permit issued.
Application EPR/BL6403IQ/V009 (variation and consolidation)	Duly made 11/02/19	Application to vary the permit to incorporate the existing activated carbon drum as a permanent

Status log of the permit		
Description	Date	Comments
		abatement feature for V9/V12 process and addition of a new emission point A21.
Additional information received	18/02/19	Confirmation of management of the carbon adsorption unit, A20.
Additional information received	22/02/19	Additional information on emission point A21 – Loop Reactor Containment Tank.
Additional information received	25/02/19	Confirmation of abatement for emission points A16 and A21. Confirmation of source of emission point S2.
Additional information received	27/02/19	Confirmation of separate carbon abatement for V9/V12 process (A20) and Loop Reactor Containment Tank (A21).
Variation determined EPR/BL6403IQ (Billing ref: SP3437QV)	06/03/19	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 and consolidates

Permit number

EPR/BL6403IQ

Issued to

Thor Specialities (UK) Limited ("the operator")

whose registered office is

Wincham Avenue

Wincham

Northwich

Cheshire

CW9 6GB

company registration number 01761700

to operate a regulated facility at

Wincham Organic Specialities

Wincham Avenue

Wincham

Northwich

Cheshire

CW9 6GB

to the extent set out in the schedules.

The notice shall take effect from 06/03/2019.

Name	Date
Rebecca Warren	06/03/2019

Authorised on behalf of the Environment Agency

Schedule 1

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

Changes to schedules and tables	
Condition number	Description
Table S1.2, as referenced by conditions 2.3.1 and 2.3.2	Amended to include operating techniques relating to use of activated carbon as permanent abatement for the V9/V12 reactors (A20) and Loop Reactor Containment Tank (A21).
Table S3.1, as referenced by condition 3.1.1, 3.5.1, 3.5.4 and improvement condition 1.4.9	Amended to include abatement for emission point A20 and to include emission point A21.

The following conditions were varied as a result of an Environment Agency initiated variation:

Changes to schedules and tables	
Condition number	Description
Table S3.2, as referenced by condition 3.1.1, 3.5.1 and 3.5.4	Amended to remove emission point S2.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/BL6403IQ

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BL6403IQ/V009 authorising,

Thor Specialities (UK) Limited ("the operator"),

whose registered office is

Wincham Avenue

Wincham

Northwich

Cheshire

CW9 6GB

company registration number 01761700

to operate an installation at

Wincham Organic Specialities

Wincham Avenue

Wincham

Northwich

Cheshire

CW9 6GB

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

Name	Date
Rebecca Warren	06/03/2019

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.

2.5 Pre-operational conditions

- 2.5.1 The activities shall not be brought into operation until the measures specified in schedule 1 table S1.4A have been completed.

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 and S3.2 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; and
 - (b) the performance parameters set out in schedule 4 table S4.2 using the forms specified in table S4.3 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 S4.3; 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.

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.

4.3.7 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 listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity
Section 4.1A(1)(a) (ii) Producing organic compounds containing oxygen	Manufacture of organic compounds. Mixing and neutralising of an organic acid with a base. Includes the preparation of thickened/stabilised dispersions such as antifoams or coating compositions.	Receipt of raw materials to despatch of product and disposal of waste.
Section 4.1A(1)(a) (iii) Producing organic compounds containing sulphur	Manufacture of organic compounds. Mixing and neutralising of an organic acid with a base. Includes the preparation of thickened/stabilised dispersions such as antifoams or coating compositions.	Receipt of raw materials to despatch of product and disposal of waste.
Section 4.1A(1)(a) (iv) Producing organic compounds containing nitrogen	Manufacture of organic compounds. Quaternisation (addition reaction between a long chain amine and an organic aryl or alkyl halide to give a water soluble salt with a quaternary nitrogen).	Receipt of raw materials to despatch of product and disposal of waste.
Section 4.1A(1)(a) (v) Producing organic compounds containing phosphorus	Manufacture of organic compounds. Manufacture of a range of phosphorus-based flame retardants.	Receipt of raw materials to despatch of product and disposal of waste.
Section 4.1A(1)(a)(vi) Producing organic compounds containing halogens	Manufacture of organic compounds. Manufacture of 3-iodo-2-propynyl-butylcarbamate	Receipt of raw materials to despatch of product and disposal of waste

Table S1.1 activities		
Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity
Section 4.2A(1)(a)(iv) Producing inorganic chemicals such as salts	Manufacture of inorganic salts Mixing and neutralisation of an inorganic acid (including tetraphosphoric acid for flame retardants) with a base or salt of a base.	Receipt of raw materials to despatch of product and disposal of waste.
Directly Associated Activity		
Blending and adjusting	Mixing, blending and adjusting organic and inorganic compounds.	--
Solvent removal	Solvent removal by distillation at elevated temperature or under vacuum.	Receipt of raw materials to despatch of product and disposal of waste.
Storage of materials	Receipt, handling, storage and despatch of raw materials and finished products both packed and in bulk.	Storage of raw materials and finished products.
Combustion activities	Burning natural gas in a steam boiler (1.7 MW and 1.9 MW output) and hot oil furnace (0.24 MW output) plus 0.07 MW thermal output waste heat boiler.	Boiler combustion activities plus including oil receipt and storage
Effluent treatment	Handling, treatment and discharge to sewer of aqueous effluent.	--
Waste handling and storage	Handling and storage of various solid and liquid wastes from the process.	--
Recovering by distillation of an organic solvent	Recovery of solvent for re-use	Receipt and storage of fresh solvent to disposal of residue.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application BL6403IQ (EPR/BL6403IQ/A001)	The response to questions 2.1 and 2.2 given in sections B2.1.1, B2.1.2 and B2.2 of the application.	06/02/2003
Response to Schedule 4 Part 1 Notice	The response to questions 6 to 23 inclusive given in sections B2.1, B2.2, appendices 1 to 6 and plans 6 to 10.	21/07/2003
Application for variation HP3437SG (EPR/BL6403IQ/V002)	The response to questions C2.2 and C2.3 given in sections C1.0, C2.1.2, and C2.10 of the variation application.	07/10/2005
Application for variation JP3938XS (EPR/BL6403IQ/V003)	The response to questions C2.2 and C2.3 given in sections 2.2 and 2.3 of the variation application.	01/02/2008
Application for variation EPR/BL6403IQ/V004	Supporting information (revision 2) to the application for variation.	01/11/2011
Application for variation EPR/BL6403IQ/V005	Supporting information to the application for variation.	01/11/2012
Application for variation EPR/BL6403IQ/V006	The response to questions in section 3, form EPC – Part C3 and section PH3 of the application paperwork.	18/07/2014
Request for further information as part of Duly making process	Operating Techniques – additional information	21/08/2014
Response to Schedule 5 request	Point source emissions to sewer - additional information.	15/09/2014
Application for variation EPR/BL6403IQ/V007	The response to application form section 3, Part C3, referenced supporting information and duly making responses.	Duly made 18/01/2016
Response to Schedule 5 request dated 26/01/2016	All; including atmospheric abatement operating techniques, accident management plan and fugitive emission controls.	31/05/2016
Application for variation EPR/BL6403IQ/V009	The response to application form section 3, Part C3, referenced supporting information and duly making responses.	Duly made 11/02/2019
Additional information	Confirmation of management of the carbon adsorption unit – A20.	18/02/2019
Additional information	Supporting information on emission point A21 (Loop Reactor Containment Tank) including description, environmental risk assessment and BAT assessment.	22/02/2019
Additional information	Confirmation of abatement for emission points A16 and A21. Confirmation of source from emission point S2.	25/02/2019
Additional information	Confirmation of separate carbon abatement for V9/V12 process (A20) and Loop Reactor Containment Tank (A21).	27/02/2019

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
1.4.1	The Operator shall provide the Agency in writing a commissioning report. The report shall include as a minimum: • Confirmation that the limit values for releases as specified in the conditions of this permit can be met for all activities carried out. • Results of any monitoring carried out. • The results and conclusions of the noise survey carried out as proposed in section B2.9.3.3 of the application. • Details of any situations that arose that resulted in, or had the potential to cause, significant negative environmental impact.	Complete
1.4.2	The Operator shall provide the Agency with an update of the commissioning report (referenced in 1.4.1.1) which shall cover activities not previously reported on.	Complete
1.4.3	The Operator shall provide the Agency in writing a report detailing how the installation meets the indicative BAT requirements for further energy-efficiency requirements as outlined in section 2.7.3 of the Agency Sector Guidance Note IPPC S4.02, or alternatively provide evidence that the installation is a participant to a Climate Change Agreement.	Complete
1.4.4	The Operator shall determine the uncertainty values of the monitoring of the emissions to air for the parameters set out in table 2.2.2 and provide the Agency in writing a report detailing the results and the methodology used for determining them.	Complete
1.4.5	The Operator shall submit a commissioning report for the new reactor system within 3 months of commencing production. The report shall detail normal operating conditions and monitoring results for VOC's to the Methodologies given in Table 2.2.	Complete
1.4.6	The Operator shall review the Noise Management Plan implemented under condition 2.9 for the installation. The Noise Management Plan shall include a day and night boundary noise survey to BS4142:1997 within 3-month of start up.	Complete
1.4.7	The Operator shall provide the Environment Agency in writing a commissioning report for the IPBC process. The report shall include as a minimum : • Confirmation that the emission levels observed are as indicated in the variation application. • Results of any monitoring carried out. • The results and conclusions of any noise monitoring carried out. • Confirmation that the process operators and maintenance personnel, with duties related to the IPBC process , have received appropriate training and demonstrated competence. • Details of any situations that arose that resulted in or had the potential to cause, significant negative environmental impact.	Complete
1.4.8	The Operator shall submit a written report to the Environment Agency on the commissioning of the changes linked to variation EPR/BL6403IQ/V007 in line with pre-operational condition PO1 commissioning protocol.	3 months after completion of commissioning of variation EPR/BL6403IQ/V007 process changes.

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
1.4.9	The Operator shall provide the Environment Agency with a report to validate conclusions made in the EPR/BL6403IQ/V008 application supporting document Part C3, Q2 regarding Heptane and Methanol emissions from emission point A19 shown in table S3.1 after the introduction of two carbon beds.	Complete

Table S1.4A Pre-operational measures	
Reference	Pre-operational measures
PO1	At least one month before the start of the commissioning of changes linked to variation EPR/BL6403IQ/V007 with raw materials the Operator shall provide a written commissioning plan, including timelines for completion. The commissioning plan shall indicate the expected emissions to the environment during the different stages of commissioning. The plan should indicate the expected duration of commissioning activities and the actions to be taken to protect the environment and report to the Environment Agency in the event that actual emissions exceed expected emissions. The plan shall give particular attention to the schedule of monitoring emissions to provide evidence of benchmarking with emissions in the modelling report dated 27/05/16 within variation application EPR/BL6403IQ/V007. Emission monitoring shall have regard of Environment Agency technical guidance note M2 (monitoring of stack emissions to air).

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
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Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (incl. unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	Benzyl chloride	Production Hall 1 Stack	10 mg/m ³	Hourly	6 months	BS EN 13649
	Formaldehyde		1 mg/m ³	Hourly	6 months	BS EN 13649
	Amines (total Dimethylamine)		5 mg/m ³	Hourly	6 months	BS EN 13649
	Ammonia		15 mg/m ³	Hourly	6 months	BS EN 14791
	VOC total Class B (expressed as carbon)		75 mg/m ³	Hourly	6 months	BS EN 13649
A2A on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	No parameter set	Steam Boiler	No limit set	--	--	--
A2B on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	No parameter set	Steam Boiler	No limit set	--	--	--
A3 on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	No parameter set	Hot Oil Generator	No limit set	--	--	--
A4 on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	VOC total Class B (expressed as carbon)	Solvent Recovery Condenser Vent	No limit set	--	--	--
A5 on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	VOC total Class B (expressed as carbon)	Methanol Storage Carbon Bed	No limit set	--	--	--
A6 on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	VOC total Class B (expressed as carbon)	Centrifuge Carbon Bed	No limit set	--	--	--
A7 on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	VOC total Class B (expressed as carbon)	Heptane Recovery Distillation Unit	No limit set	--	--	--

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (incl. unit)	Reference period	Monitoring frequency	Monitoring standard or method
A8 on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	VOC total Class B (expressed as carbon)	Propargyl Alcohol Storage Vent	No limit set	--	--	--
A9A on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	VOC total Class B (expressed as carbon)	N-Butylamine Storage T-2001 Vent	No limit set	--	--	--
A9B on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	VOC total Class B (expressed as carbon)	N-Butylamine Storage T-2002 Vent	No limit set	--	--	--
A10A on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	VOC total Class B (expressed as carbon)	Heptane Recovery Vent	No limit set	--	--	--
A10B on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	VOC total Class B (expressed as carbon)	Heptane Recovery Vent	No limit set	--	--	--
A11 on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	No parameter set	Carbon Monoxide Generator Unit Flare	No limit set	--	--	--
A12 on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	No parameter set	Chlorine Building Emergency Scrubber Vent	No limit set	--	--	--
A13 on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	No parameter set	Chlorine Drum Local Exhaust Ventilation	No limit set	--	--	--
A14 on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	Carbonyl chloride	Process Absorption Scrubber / Carbonyl Chloride Generator	No limit set	--	--	--
A15 on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	Carbonyl chloride	Emergency PH4 Building Scrubber	No limit set	--	--	--

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (incl. unit)	Reference period	Monitoring frequency	Monitoring standard or method
A16 on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	Carbonyl chloride	Loop Reactor Scrubber	No limit set	--	--	--
A17 on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	No parameter set	HCl Storage Tank Vent	No limit set	--	--	--
A18 on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	No parameter set	Waste Heat Boiler	No limit set	--	--	--
A19 on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	VOC total Class B (expressed as carbon)	Centrifuge Carbon Bed	No limit set	--	--	--
A20 on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	VOC total Class B (expressed as carbon)	V9/V12 Abatement Carbon Bed	75 mg/m ³	Hourly	6 months	BS EN 13649
A21 on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	No parameter set	Loop Reactor Containment Tank Abatement Carbon Bed	No limit set	--	--	--

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
S1 on Drawing no PROL15-112-DWG-001 Rev G in EPR/BL6403IQ/V009 application	Process effluent	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, A20	Every 6 months	01/01/04

Table S4.2 Performance parameters		
Parameter	Frequency of assessment	Units
Water usage	Annually	tonnes
Energy usage	Annually	MWh
Waste disposal tonnage	Annually	tonnes

Table S4.3 Reporting forms		
Media/parameter	Reporting format	Date of form
Air	Form air 1 or other form as agreed in writing by the Environment Agency	25/07/16
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	31/10/03
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	31/10/03
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	25/07/16

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.

“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

“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.

“List of Wastes” means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as amended from time to time.

“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.

“recovery” means any of the operations provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes and in relation to hazardous waste, includes the asterisk.

“Waste Framework Directive” or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste.

“year” means calendar year ending 31 December.

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

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

- 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 fuels, 5% for 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.

Schedule 7 – Site plan

