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Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Muntons PLC

Cedar Maltings Stowmarket Suffolk IP14 2AG

Variation application number

EPR/FP3132PH/V005

Permit number

EPR/FP3132PH

Cedar Maltings Permit number EPR/FP3132PH

Introductory note

This introductory note does not form a part of the notice.

Under the Environmental Permitting (England & Wales) Regulations 2010 (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. All the conditions of the permit have been varied and are subject to the right of appeal.

Cedar Maltings produces malt and malted ingredients. This variation authorises the installation of an anaerobic digestion (AD) plant on the site to treat organic waste produced on site. This will replace the existing anaerobic treatment plant that has reached the end of its useful life. A full flow Upflow Anaerobic Sludge Blanket (UASB) AD system will be used. The new anaerobic digester will receive the following waste steams generated by the activities at the installation:

- Malted ingredient extracts produced from processes on site; and
- Surplus effluent sludge from the waste water treatment plant on site.

The total throughput of the anaerobic digestion process will be a maximum of 280 m³ per day.

Biogas produced from the anaerobic digestion process will be used to fuel an on-site combined heat and power (CHP) engine. The CHP engine will have a maximum thermal input of 0.499 megawatts. In the event of the CHP engine not operating (i.e. during maintenance) the biogas will be flared. The waste heat is used for hot water to the AD, pasteurisation plant and waste Malted Ingredient products for reprocessing.

The solid digestate recovered from the process is treated by pasteurisation to satisfy the requirements of PAS110:2010 standard and then passed through a decanting centrifuge.

The wastewater generated by the AD process then goes to the aerobic plant before being discharged into the River Gipping. There has been the addition of an additional sand filter and new dissolved air flotation (DAF) process step to lower the loading on the existing aerobic plant from the larger AD plant.

The variation also increases the area covered by the installation boundary to include all of the area owned by the company.

The variation and consolidation also implements the requirements of the European Union Directive on Industrial Emissions. This includes the amendment of the wording of several permit conditions.

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	Status log of the permit						
Description	Date	Comments					
Application received EPR/FP3132PH	Duly made 22/03/2005	Application for food and drink facility producing malt and malted ingredients					
Response to request for information dated 04/07/2005	Received 20/07/2005						
Response to request for information dated 14/09/2005	Received 14/09/2005						
Permit determined EPR/FP3132PH	09/11/2005	Permit issued to Muntons PLC					
Agency Initiated Variation HP3634UG determined EPR/FP3132PH/V002	22/05/2007	Agency initiated permit review. Variation issued					
Variation application EPR/FP3132PH/V003	Duly made 11/01/2008	Variation of air and water emission points as a result of improvement works on site					
Response to request for information dated 11/03/2008	Received 30/03/2008						
Variation determined EPR/FP3132PH/V003	26/09/2008	Varied permit issued					
Agency Initiated Variation determined EPR/FP3132PH/V004	28/08/2013	Agency initiated variation to implement the changes introduced by IED					
Application EPR/FP3132PH/V005 (variation and consolidation)	Duly made 08/12/2014	Application to vary permit to include new AD facility and update the permit to modern conditions					
Response to Schedule 5 request dated 27/01/2015	Received 02/03/2015	Revised Odour Management Plan and details of bunding, clay permeability and containment on site					
Response to request for information dated 06/03/2015	Received 12/03/2015	Revised Air Emissions Points Plan reference REF DRG No 40.101.001F 22/11/2011					
Variation determined EPR/FP3132PH/V005	25/03/2015	Varied and consolidated permit issued in modern condition format					

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies and consolidates

Permit number

EPR/FP3132PH

Issued to

Muntons PLC ("the operator")

whose registered office is

Cedar Maltings Stowmarket Suffolk IP14 2AG

company registration number 176992

to operate a regulated facility at

Cedar Maltings Stowmarket Suffolk IP14 2AG

to the extent set out in the schedules.

The notice shall take effect from 25/03/2015

Name	Date
Tom Swift	25/03/2015

Authorised on behalf of the Environment Agency

Schedule 1

All conditions have been varied by the consolidated permit as a result of the application made by the operator.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number

EPR/FP3132PH

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/FP3132PH/V005 authorising,

Muntons PLC ("the operator"),

whose registered office is

Cedar Maltings Stowmarket Suffolk IP14 2AG

company registration number 0176992

to operate an installation at

Cedar Maltings Stowmarket Suffolk IP14 2AG

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

Name	Date
Tom Swift	25/03/2015

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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 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.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme.

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 For the following activities referenced in schedule 1, table S1.1 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.

2.4 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 Total annual emissions from the emission point(s) set out in schedule 3 tables S3.1 and S3.2 of a substance listed in schedule 3 table S3.3 shall not exceed the relevant limit in table S3.3.
- 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.
- 3.3.2 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.

- (b) process monitoring specified in table S3.4.
- 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 3.3.1 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.

3.6 Pests

- 3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.
- 3.6.2 The operator shall:
 - (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution, hazard or annoyance from pests;
 - (b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

- 4.1.1 All records required to be made by this permit shall:
 - (a) be legible;
 - (b) be made as soon as reasonably practicable;
 - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
 - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and
 - (ii) matters which affect the condition of the land and groundwater.
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

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

- 4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:
 - (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
 - (b) the annual production /treatment data set out in schedule 4 table S4.2; and
 - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
 - (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
 - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.3 Notifications

- 4.3.1 In the event:
 - (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
 - (b) of a breach of any permit condition the operator must immediately—
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
 - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (c) any change in the operator's name or address; and
- (d) any steps taken with a view to the dissolution of the operator.

In any other case:

- (e) the death of any of the named operators (where the operator consists of more than one named individual);
- (f) any change in the operator's name(s) or address(es); and
- (g) 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	Limits of specified activity
Section 6.8A (1)(d)(ii) Treating and processing materials intended for the production of food products from vegetable raw materials	Malting of grains and production of malt extract and associated products	From receipt of raw materials to dispatch of finished product
Section 5.4A (1)(b)(i) Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 100 tonnes per day by biological treatment	A mix of recovery and disposal of non hazardous waste with a capacity exceeding 75 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving biological treatment Anaerobic digestion of permitted waste followed by burning of biogas produced by the process	From the receipt of permitted waste, the anaerobic digestion and recovery of by-products (digestate), through to dispatch of effluent wastewater to the effluent treatment plant and export of organic waste from the installation Anaerobic digestion of permitted waste including pasteurisation and chemical addition.
	Effluent Treatment Plant	Treatment of effluent wastewater and dispatch to River Gipping
		Waste types as produced at the installation.
Directly Associated Activity		
Operation of boilers	Operation of boilers for the generation of hot water and steam for use at the installation	From receipt of fuel to release of waste gases from chimney
Steam and electrical power supply	Combustion of biogas in a combined heat and power (CHP) engine with an thermal input of 0.499 MWth	From the receipt of biogas produced at the on-site anaerobic digestion process to combustion via a CHP engine with the release of combustion gases
Emergency flare operation	Use of an auxiliary flare required only for periods of breakdown or maintenance of the CHP engine	From the receipt of biogas produced on-site to combustion with the release of combustion gases
Heat treatment	Pasteurisation of permitted waste using heat	From the receipt of waste to recovery
Biogas storage	Storage of biogas produced from anaerobic digestion in stand alone tank	From the storage of biogas produced from anaerobic digestion to point of combustion
Sludge dewatering	Post-treatment of sludge to remove water content	From input of sludge to output of dewatered sludge and removed water
Digestate storage	Storage of solid digestate in storage tank	From the receipt of digestate produced from the on-site anaerobic digestion process to dispatch for off site use

Table S1.2 Operating techniques						
Description	Parts	Date Received				
Application EPR/FP3132PH	The response to questions 2.1 and 2.2 and 2.3 given in pages 10-67 of the application and section 4 of the application	22/03/2005				
Variation application EPR/FP3132PH/V003	All	30/03/2008				
Application EPR/FP3132PH/V005	Responses to Parts C2 and C3 section 3 of the application form and referenced supporting documentation	Duly made 08/12/2014				
Response to Schedule 5 Notice dated 27/01/2015	Revised Odour Management Plan reference: Odour Management Plan – Anaerobic Digestion Plant at Cedars Maltings, Stowmarket. ADAS. February 2015	02/03/2015				
Response to request for information dated 06/03/2015	Revised Air Emissions Points Plan Reference: REF DRG No 40.101.001F 22/11/2011	12/03/2015				

Table S1.3 I	Table S1.3 Improvement programme requirements					
Reference	Requirement	Date				
IC1	The Operator shall undertake an assessment of the drainage, sub-surface structures, surfacing and containment measures on site. The assessment will take into account, but no be limited to the requirements of section 2.2.5 of the Agency Guidance Note IPPC S6.10, the storage of fire water in the event of a fire at the installation, the installation of an oil interceptor for releases to the 'railway ditch' adjacent to the installation and the feasibility of directing all surface water currently disposed of to ground water via a soakaway to the engineered surface water drainage system. A written report summarising the findings shall be submitted to the Agency.	Complete 01/04/2006				
IC2	The Operator shall develop a programme of regular integrity testing, inspection and maintenance of all liquid storage systems, subsurface structures, secondary and tertiary containment in relation to the potential to cause fugitive emissions to surface water and ground water. The program shall take into account the requirements of section 2.2.5 of the Agency Guidance Note IPPC S6.10, August 2003. A written report summarising the program shall be submitted to the Agency.	Complete 01/04/2006				
IC3	The Operator shall undertake an assessment of ways in which the total phosphorous as P content of the effluent discharged from the on site effluent treatment plant can be reduced so that it can consistently meet the lower limit set within this permit (Ref. table 2.2.5). A written report summarising the findings of this assessment with a firm timetable for the implementation of any necessary improvements, shall be provided to the Agency.	Complete 01/06/2006				
IC4	The Operator shall undertake an assessment of the use of closed loop cooling systems, as a replacement for discharging cooling water to surface water release points W2 and W3. The assessment shall include, but not be limited to the installation of a cooling tower and redirecting the band dried cooling water into the evaporator 1 condenser cooling water duct. The assessment shall also include a risk based analysis of the potential for contaminants to enter the cooling water and the subsequent impacts. A written report shall be submitted to the Agency, including timescales for implementing the proposed improvements.	Complete 01/06/2006				

Table S1.3 I	mprovement programme requirements	
Reference	Requirement	Date
IC5	The operator shall provide a written report detailing the proposed timescales and procedure for the decommissioning and removal of the oil tanks referred to as 'Old gas oil tanks'. The procedures shall included, but not be limited to the removal method/s for the oil from both the tanks and pipeline/s, identification and removal of any contaminated soil and disposal methods.	Complete 01/07/2006
IC6	The Operator shall provide the Agency with written proposals for a programme of monitoring for particulate releases from emission points A3, A4, A5, A6, A7, A8, A9, A10, A12, A13, A15, A16, A17, A18, A21, A23, A28, A30, A31, A32 and A33. Monitoring shall be carried out to an appropriate recognised standard. The proposals shall include a justification for the frequency and method of monitoring and a justification for the exclusion of monitoring of any of the emission points.	Complete 15/01/2008
IC7	The operator shall provide to the Agency a report confirming the installation of the spinning discs humidification system within B Block maltings at the installation. The report shall include water usage savings from the installation of this system.	Completed 27/11/2006
IC8	The operator shall review their Environmental Management System against the requirements of section 2.3 of Agency Guidance Note S6.10, August 2003. The Operator shall submit a proposed timetable of improvements, for any deficiencies identified, to the Agency.	Completed 20/02/2007
IC9	The Operator shall develop a written Site Closure Plan with regard to the requirements set out in Section 2.11 of the Agency Guidance Note IPPC S6.10, August 2003. Upon completion of the plan a summary of the document shall be submitted to the Agency in writing.	Completed 23/03/2007
IC10	The operator shall submit a written plan to the Agency for approval that sets out the monitoring of emissions to be undertaken from air emission points A1, A26 and A34, A40 and A41. The plan shall take into account the requirements of Agency Guidance Note IPPC S6.10 and Technical Guidance note M2.	Completed 28/08/2008
IC11	The operator shall undertake the monitoring set out in the plan submitted as a requirement of IC10 following its approval by the Agency. The results of the monitoring shall be submitted to the Agency along with an assessment of the impact of the emissions and potential future emissions using the Agency's H1 methodology.	Completed 25/01/2013
IC12	On completion of IC11 the operator shall carry out air dispersion modelling for any emissions identified as being significant by the H1 screening tool and submit the results to the Agency along with a timetable for implementing any remedial action to be taken if necessary.	31/01/2009

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

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	Delta Boiler	No parameters set	No limit set			
A3 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	No3 grain intake	No parameters set	No limit set			
A4 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11- 2004, submitted with permit application EPR/FP3132PH	No1 pre- cleaner (intake)	No parameters set	No limit set			
A5 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	No2 pre- cleaner (intake)	No parameters set	No limit set			
A6 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	No1 drier exhaust	No parameters set	No limit set			
A7 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	No2 drier exhaust	No parameters set	No limit set			
A8 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	No1 cleaner (intake)	No parameters set	No limit set			
A9 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	No2 cleaner (intake)	No parameters set	No limit set			

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A10 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	No3 cleaner intake	No parameters set	No limit set			
A12 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	Malt dresser (Cedars)	No parameters set	No limit set			
A13 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	Malt cleaner (Cedars)	No parameters set	No limit set			
A15 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	Rotary malt dresser 1 (B. Block)	No parameters set	No limit set			
A16 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	Rotary malt dresser 2 (B. Block)	No parameters set	No limit set			
A17 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	Turner dresser 1 (B. Block)	No parameters set	No limit set			
A18 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	Turner dresser 2 (B. Block)	No parameters set	No limit set			
A21 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	Black grains to skip	No parameters set	No limit set			

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A23 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	Micronizer / cooler	No parameters set	No limit set			
A26 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11- 2004, submitted with permit application EPR/FP3132PH	3 steam boilers	No parameters set	No limit set			
A28 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	Spray drier plant product cyclone	No parameters set	No limit set			
A30 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11- 2004, submitted with permit application EPR/FP3132PH	Flour plant destoning	No parameters set	No limit set			
A31 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	Flour plant product cyclone (small mill)	No parameters set	No limit set			
A32 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	Flour plant grinder (large mill)	No parameters set	No limit set			
A33 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	Flour plant mixing / packing line	No parameters set	No limit set			
A34 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	Effluent treatment plant gas boiler	No parameters set	No limit set			

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A35 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	Effluent treatment plant waste gas burner	No parameters set	No limit set			
A40 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	Varinox heater	No parameters set	No limit set			
A41 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	Varinox heater	No parameters set	No limit set			
A42 on Drawing Reference 40.101.001 F dated 22/11/2011 submitted with application EPR/FP3132PH/V00	AD plant Emergency Flare Stack [note 2]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	150 mg/m ³	Hourly average	[note 3]	BS EN 14792
5		Carbon monoxide	50 mg/m ³			BS EN 15058
		Total VOCs	10 mg/m ³			BS EN 12619:2013
Reference C	AD plant CHP engine exhaust	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	500 mg/m ³	Hourly average	Annually	BS EN 14792
5		Carbon monoxide	1,400 mg/m ³			BS EN 15058
		Total VOCs	1,000 mg/m ³			BS EN 12619
		Sulphur dioxide	350 mg/m ³			BS EN 14791
A44 on Drawing Reference 40.101.001 F dated 22/11/2011 submitted with application EPR/FP3132PH/V00 5	AD plant Biodome Gas Holder	No parameters set	No limit set			

Table S3.1 Point sou	rce emissions	s to air – emis	sion limits an	d monitoring	requirements	
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A45 on Drawing Reference 40.101.001 F dated 22/11/2011 submitted with application EPR/FP3132PH/V00 5	AD plant Upflow Anaerobic Sludge Blanket (UASB)	No parameters set	No limit set			
A46 on Drawing Reference 40.101.001 F dated 22/11/2011 submitted with application EPR/FP3132PH/V00 5	AD plant 0.250 MW standby boiler	No parameters set	No limit set			

Note 1: certification to the MCERTS performance standards indicates compliance with BS EN 15267-3

Note 2 - These limits are based on normal operating conditions and load - temperature 0°C (273K); pressure: 101.3 kPa and oxygen: 3 per cent (dry gas). The measurement uncertainty specified in LFTGN05 v2 2010 shall apply.

Note 3 - Monitoring to be undertaken 12 months after commissioning of the emergency flare. Following commissioning, monitoring to be undertaken in the event the emergency flare has been operational for more than 10 per cent of a year (876 hours).

Table S3.2 Point monitoring requ	Source emission irements	ons to water (other than s	sewer) and land	d – emission li	mits and
Emission point ref. & location	Parameter	Source	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W1 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH	Maximum discharge volume	Effluent Treatment Plant	1500 m ³	In any 24 hour period	Continuous	MCERTS self- monitoring of effluent flow scheme. Continuous flow meter
emission to River Gipping	Mercury		0.001mg/l	24-hour flow proportional sample	Annual	BS EN ISO 17852
	Cadmium		0.005mg/l	24-hour flow proportional sample	Annual	BS EN ISO 17294 BS EN ISO 5961 BS EN ISO 1185
	Biochemical Oxygen Demand (BOD)		20 mg/l	Spot sample	Monthly	BS EN 1899- 1 (1998)
	Suspended Solids (SS)		30 mg/l	Spot sample	Monthly	BS EN 872

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements Reference **Emission point Parameter** Source Limit **Monitoring** Monitoring frequency standard or ref. & location (incl. Period unit) method рΗ PH 5 to 9 In any 24hr Monthly BS ISO period 10523 Ammonia 5 mg/l Spot sample Monthly BS EN ISO (total) as N 11732:1997 Total iron as 5mg/l Spot sample Weekly BS EN ISO Fe 11885:1998 Total 2mg/l Spot sample Weekly BS EN from phosphorous ISO15681 as P 02/06/06 1,363 m³ W2 on Drawing Flow Indirect In any 24 Continuous **MCERTS** reference DIAcoolina hour period self-PPC-001, dated water monitoring of effluent flow 18-11-2004. submitted with scheme. permit Continuous application flow meter EPR/FP3132PH emission to River Gipping W2T on **Temperature** Composite 25°C Weekdays Daily sample of effluent Monday -Drawing Note 1 reference DIA-Friday plant PPC-001, dated discharge inclusive. 18-11-2004, and cooling submitted with water permit application EPR/FP3132PH emission to River Gipping W3 on Drawing Surface No limit No parameter reference DIAset water set PPC-001, dated discharge 18-11-2004, roof water submitted with and yard permit drainage application EPR/FP3132PH emission to River Gipping W4 on Drawing No parameter Surface No limit reference DIAset water set PPC-001, dated runoff 18-11-2004. submitted with permit application EPR/FP3132PH emission to

railway ditch adjacent to River Gipping

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

Emission point ref. & location	Parameter	Source	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W5 on Drawing reference <i>DIA-PPC-001</i> , dated 18-11-2004, submitted with permit application EPR/FP3132PH emission to railway ditch	No parameter set	Surface water / yard drainage	No limit set	-	-	-
WL1 on Drawing reference DIA- PPC-001, dated 18-11-2004, submitted with permit application EPR/FP3132PH emission to railway ditch	No parameter set	'Squirrels Yard' run- off	No limit set	-	-	-
WL2 on Drawing reference DIA- PPC-001, dated 18-11-2004, submitted with permit application EPR/FP3132PH emission to railway ditch	No parameter set	Warehouse yard run-off	No limit set	-	-	-

Note 1 - The limit of 25°C applies except where the ambient temperature of the receiving water exceeds 25°C. Under these circumstances the temperature of the discharge will not exceed the ambient temperature of the receiving waters by more than 3°C.

Table S3.3 Ann	ual limits		
Substance	Medium	Limit (including unit)	
Mercury	Water	0.312 kg in a year	
Cadmium	Water	1.56 kg in a year	

Table S3.4 Process monit	oring requireme	nts		
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Biogas from digesting tanks; Biogas storage tank(s)	Flow	Continuous		
Biogas from digesting tanks; Biogas storage tank(s)	Methane	Continuous		Gas monitors to be calibrated every 6 months to manufacturer's recommendations
Biogas from digesting tanks; Biogas storage tank(s)	Hydrogen sulphide	Continuous		
Biogas from digesting tanks; Biogas and digestate from the digestate storage tank; waste reception areas and external storage areas	Odour	Daily	Olfactory monitoring	Odour detection at the site boundary

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 monitor	ing data		
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air Parameters as required by condition 3.5.1.	A42, A43	Every 12 months	1 January
Emissions to water Parameters as required by condition 3.5.1.	W1	Every 3 months	1 January, 1 April, 1 July, 1 October
Emissions to water Cadmium Mercury	W1	Every 12 months	1 January
Emissions to water Flow m ³ /d	W1, W2	Every 3 months	1 January, 1 April, 1 July, 1 October
Emissions to water Temperature	W2T	Every 3 months	1 January, 1 April, 1 July, 1 October

Table S4.2: Annual production/treatment	
Parameter	Units
Production of Malt	tonnes
Production of Malt extract	tonnes
Production of wet grains	tonnes
Electricity generated	MWh
Biomethane generated	tonnes or m ³
Liquid digestate	Tonnes or m ³
Solid digestate	tonnes

Table S4.3 Performance paramete	rs	
Parameter	Frequency of assessment	Units
Water usage	Annually	M ³
Waste disposal and/or recovery	Annually	tonnes
CHP gas engine usage	Annually	hours
Flare operation	Annually	hours

Table S4.4 Reporting f	forms	
Media/parameter	Reporting format	Date of form
Air	Form air 1 or other form as agreed in writing by the Environment Agency	25/03/2015
Water and Land	Form water 1 or other form as agreed in writing by the Environment Agency	25/03/2015
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	25/03/2015
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	25/03/2015
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	25/03/2015

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	
	ny malfunction, breakdown or failure of equipment or techniques, nce not controlled by an emission limit which has caused, is pollution
To be notified within 24 hours of o	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 t	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	

Parameter	Notification period
(c) Notification requirements for the detection of any sig	nificant 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
Part B – to be submitted as soon as Any more accurate information on the matters for notification under Part A.	practicable
Any more accurate information on the matters for	practicable
Any more accurate information on the matters for notification under Part A. Measures taken, or intended to be taken, to prevent	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	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	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	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.	practicable
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.	practicable

^{*} 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.

"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.

"emissions to land" includes emissions to groundwater.

"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

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

"Pests" means Birds, Vermin and Insects.

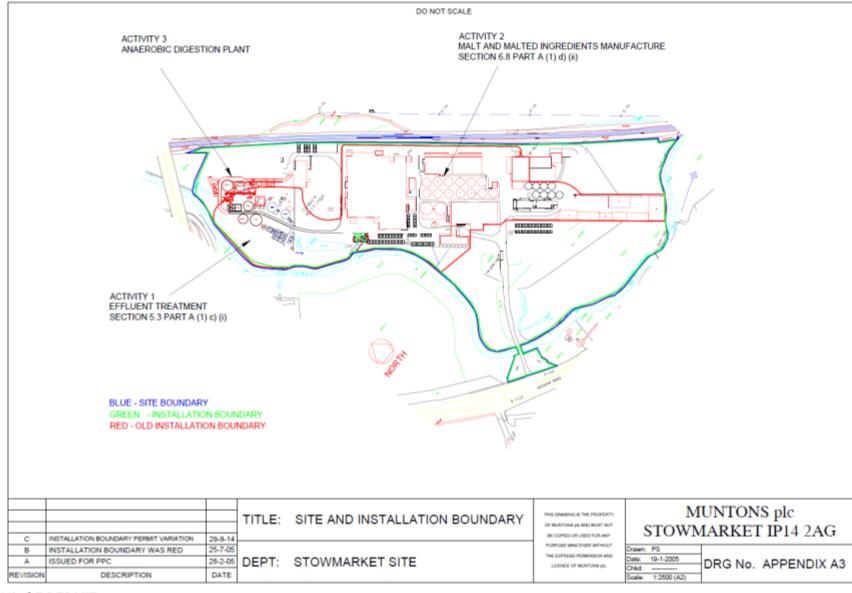
"year" means calendar year ending 31 December.

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



END OF PERMIT