Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

A.B. Produce PLC

AD Enterprise House Measham
Westminster Industrial Estate
Repton Road
Measham
Swadlincote
DE12 7DT

Permit number

EPR/JP3532DH

AD Enterprise House Measham
Permit number EPR/JP3532DH

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows:

The Installation is located approximately 1.5 km south of Measham, Derbyshire at National Grid reference SK 31662 12026. The site is bordered to the north and west by the A42 with agricultural land beyond; to the south by the River Mease and agricultural land and to the east by an adjacent vegetable processing plant and Westminster Industrial Estate beyond.

The permit implements primarily the relevant requirements of the EU Directives on Industrial Emissions and Waste.

The Installation is designed to process up to 40,000 tonnes of wastes produced from the preparation of vegetables in an adjacent vegetable processing plant. The AD facility will comprise the following operations:

- Anaerobic digestion plant (one digester);
- Storage tanks (two feedstock tanks and one digestate storage tank)
- Combustion plant consisting of two combined heat and power (CHP) engines and two emergency flares; and
- Other ancillary plant (pasteurisers, condensers, pipework etc.)

Deliveries of vegetable wastes will be undertaken by pipeline from the adjacent vegetable processing plant. Vegetable wastes will be stored in two enclosed tanks temporarily and transferred to the digester by pipe. The final feedstock will undergo anaerobic digestion at temperatures between 35°C and 40°C for up to 35 days.

Biogas drawn from the digester will be used to generate electricity and heat from the two CHP engines with an aggregated thermal input of 2.38 MW. A small proportion of the electricity produced will be used to power the AD facility and the adjacent vegetable processing plant, with the remainder fed to the National Grid.

The by-product from the AD process (whole digestate) will be transferred to the pasteurisers for treatment to achieve the PAS 110 criteria. Following treatment, the whole digestate will be stored in an enclosed tank prior to transfer off-site for use as a soil conditioner. This environmental permit does not authorise the storage of digestate on site (other than in an enclosed tank) and the spreading of digestate on any land.

Main releases to the environment are to air via the processing of feedstock and combustion of biogas (CHP engines and emergency flares). Biogas will be burnt in the emergency flares in the event it cannot be utilised by the CHP engines. Only one emergency flare will operate at any one time.

Site surfaces will meet an appropriate standard taking into account the proposed plant and equipment to be used. All liquid tanks, whose emissions to water or land could cause pollution, will be contained in adequate secondary containment constructed in line with industry best practice standards and sized to contain 110% of the contents of the largest tank or 25% of the total tankage within a bund, whichever is the greater. An Environmental Management System (EMS) will be in place prior to the commencement of site commissioning using waste.

The River Mease SAC & SSSI is located 50 metres from the Installation. There are about thirty non-statutory sites within 2 km of the Installation. Assessment by the Environment Agency shows that emissions from the operations at the Installation are unlikely to have a significant impact on the habitat sites.

The status log of the permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	**Date**	**Comments**
Application EPR/JP3532DH/A001	Duly made 07/11/16	Application for an anaerobic digestion facility with combustion of biogas.
Additional information received	16/01/17	Confirmation of storage of digestate using above-ground tank option.
Additional information received	03/02/17	Air quality modelling report and input files.
Additional information received	10/02/17	Further confirmation regarding long term storage of digestate using above-ground tank option.
Additional information received	15/03/17	Response to Schedule 5 notice dated 15/02/17.
Additional information received	06/04/17	Information regarding odour and bund water management, removal of centrifuge from use and use of pasteurisers for treatment of whole digestate only.
Additional information received	07/04/17	Revised site plan.
Additional information received	08/04/17	Further information regarding bund water management.
Additional information received	11/04/17	Site drainage plan.
Additional information received	14/04/17	Confirmation of “zero contamination” status beneath the site.
Additional information received	15/05/17	Revised flow diagram (Figures 1 and 2)
Draft permit made available for public consultation	19/06/17	
Permit determined (Billing Reference: JP3532DH)	19/07/17	Permit issued to A.B. Produce PLC.

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/JP3532DH

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

A.B. **Produce PLC** ("the operator"),

whose registered office is

Enterprise House
Westminster Industrial Estate
Repton Road
Measham
Swadlincote
Derbyshire
DE12 7DT

company registration number 02240234

to operate an installation at

AD Enterprise House Measham
Westminster Industrial Estate
Repton Road
Measham
Swadlincote
DE12 7DT

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

Name	Date
Mike Jenkins	**19/07/2017**

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.

1.1.4 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 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 Waste shall only be accepted if:

(a) it is of a type and quantity listed in schedule 2 table S2.2; and

(b) it conforms to the description in the documentation supplied by the producer and holder.

2.3.5 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.

2.3.6 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.

2.5.2 The operations specified in schedule 1 table S1.4B shall not commence until the measures specified in that table 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;

(b) process monitoring specified in table S3.3

3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 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 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.

4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

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.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made “immediately”, in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity and WFD Annex I and II operations**	**Limits of specified activity and waste types**
AR1	S5.4 A(1) (b) (i) Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 100 tonnes per day involving biological treatment.	**R3**: Recycling/reclamation of organic substances which are not used as solvents	From receipt of waste through to digestion and recovery of by-products (digestate). Anaerobic digestion of waste in one tank followed by burning of biogas produced from the process. Waste types suitable for acceptance are limited to those specified in Table S2.2.
Directly Associated Activity			
AR2	Storage of waste pending recovery	**R13**: Storage of waste pending the operations numbered R1 and R3 (excluding temporary storage, pending collection, on the site where it is produced)	Undertaken in relation to Activity AR1. From the receipt of permitted waste from the adjacent vegetable processing factory via pipeline to despatch for anaerobic digestion on site. Storage of waste in two enclosed tanks on an impermeable surface with a sealed drainage system. Waste types suitable for acceptance are limited to those specified in Table S2.2.
AR3	Physical treatment for the purpose of recycling	**R3**: Recycling/reclamation of organic substances which are not used as solvents	Undertaken in relation to Activity AR1. From the receipt of waste, treatment by anaerobic digestion to despatch off-site. Post-treatment of digestate on an impermeable surface with a sealed drainage system, including

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity and WFD Annex I and II operations**	**Limits of specified activity and waste types**
			pasteurisation in four tanks for the purpose of recovery. Gas cleaning by biological or chemical scrubbing. Waste types suitable for acceptance are limited to those specified in Table S2.2.
AR4	Steam and electrical power supply	**R1**:Use principally as a fuel to generate energy	Undertaken in relation to Activity AR1. From the receipt of biogas produced at the on-site anaerobic digestion process to combustion with the release of combustion gases. Combustion of biogas in two combined heat and power (CHP) engines with an aggregated thermal input of 2.38 MW.
AR5	Emergency flare operation	**D10**: Incineration on land	Undertaken in relation to Activity AR1. From the receipt of biogas produced at the on-site anaerobic digestion process to incineration with the release of combustion gases. Use of two emergency flares required only during periods of breakdown or maintenance of the CHP engines. **Only one emergency flare will be operational at any one time.**
AR6	Raw material storage	Storage of raw materials including foam depressant, iron salts, cleaning materials, lubrication oil, antifreeze, diesel.	Undertaken in relation to Activity AR1.

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity and WFD Annex I and II operations**	**Limits of specified activity and waste types**
			From the receipt of raw materials to despatch for use within the facility.
AR7	Gas storage	Storage of biogas produced from on-site anaerobic digestion of permitted waste in the roof space of digester. **R13**: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	Undertaken in relation to Activity AR1. From the receipt of biogas produced at the on-site anaerobic digestion process to despatch for use within the facility.
AR8	Digestate storage	Storage of whole digestate in one storage tank. **R13**: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	Undertaken in relation to Activity AR1. From the receipt of digestate produced from the on-site anaerobic digestion process to despatch for use off-site. **Storage of digestate in the nearby lagoons is not permitted at any time.**
AR9	Surface water collection and storage	Collection and storage of uncontaminated rainwater from digester and digestate storage tank roofs in two storage tanks.	Undertaken in relation to Activity AR1. From the collection of uncontaminated roof and site surface water from non-operational areas only to re-use within the facility or discharge off-site via reed bed.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application	Technical description of Anaerobic Digester Plant (except figures 1 and 2); Calculation of bund capacity; Environmental risk assessment; Raw materials input; Basic measures for improving efficiency; Constituents of AD plant feedstock; monitoring of AD plant; site drainage arrangements; Rainwater storage for digester /digestate tank (including addendum); Attenuation tank diagrams; Waste production and disposal. The following references are excluded: • storage of adjacent factory effluent and digestate in the existing lagoons; • Pre-treatment of waste feedstock using pasteurisers prior to anaerobic digestion; and • use of centrifuge on site	07/11/16
Response to Schedule 5 Notice dated 15/02/17	Response to questions 1 (interim and long term solution for digestate), question 2 (environmental risk assessment), questions 3 to 18 (site infrastructure) and question 24 (volume of digestate produced).	15/03/17
Additional information	Management of bund water.	06/04/17 & 08/04/17
Additional information	Site drainage plan.	11/04/17
Additional information	Revised flow diagram – Figure 2	15/05/17

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
1	The operator shall submit a written report to the Environment Agency on the progress made towards the construction and installation of the storage tank proposed as a long-term solution for the storage of digestate at the facility. The report shall include expected timescales for the completion of construction of the digestate storage tank.	31/12/17 or otherwise agreed in writing by the Environment Agency

Table S1.4A Pre-operational measures	
Reference	**Pre-operational measures**
1	At least 2 weeks (or any other date as agreed with the Environment Agency) prior to commissioning of the installation using waste feedstock, the operator shall submit a written copy of the site Environmental Management System (EMS) and make available for inspection all documents and procedures which form part of the site EMS. The EMS shall cover all activities at the Installation and shall be in accordance with the Environment Agency Guidance – How to develop a management system: environmental permits and section 8.2.1 of the Environment Agency Draft Technical Guidance for Anaerobic Digestion (Reference LIT 8737, November 2013). The EMS shall include the techniques the operator relies upon to manage the operation, accidents (including flooding), closure and decommissioning of the site. The documents and procedures set out in the EMS shall form the written management system referenced in condition 1.1.1 (a) of the permit. No waste shall be accepted at the Installation unless the Environment Agency has given prior written permission under this condition.

Table S1.4A Pre-operational measures	
Reference	**Pre-operational measures**
2	At least 2 weeks (or any other date as agreed with the Environment Agency) prior to the commencement of commissioning of the Installation using waste feedstock, the operator shall submit a revised odour management plan to the Environment Agency and obtain the Environment Agency's written approval to it. The plan shall incorporate all the required detailed information as specified in the Environment Agency's review of the odour management plan dated 10 April 2017. The plan shall take into account the appropriate measures for odour control specified in section 7.6.5 of the Environment Agency Draft Technical Guidance for Anaerobic Digestion (Reference LIT 8737, November 2013) and the Horizontal Guidance H4 – Odour Management. No waste shall be accepted at the Installation unless the Environment Agency has given prior written permission under this condition.
3	At least 8 weeks (or any other date as agreed with the Environment Agency) prior to the commencement of commissioning of the Installation using waste feedstock, the operator shall provide a written commissioning plan (including timescales for completion) to the Environment Agency and obtain the Environment Agency's written approval to it. The commissioning plan shall include the expected emissions to the environment during the different stages of commissioning, the expected durations of commissioning activities and the measures to be taken to protect the environment and report to the Environment Agency in the event that actual emissions exceed expected emissions. No waste shall be accepted at the facility unless the Environment Agency has given prior written permission under this condition.
4	At least 4 weeks (or any other date as agreed with the Environment Agency) prior to the commencement of commissioning of the installation using waste feedstock, the operator shall provide written evidence to the Environment Agency of the Technically Competent Manager (TCM) at the proposed installation. The report shall confirm that the person(s) hold the relevant qualifications under the CIWM/WAMITAB scheme or other equivalent for the operation of the anaerobic digestion plant. No waste shall be accepted at the facility unless the Environment Agency has given prior written permission under this condition.

Table S1.4B Pre-operational measures for future development		
Reference	**Operation**	**Pre-operational measures**
1	Digestate storage tank (proposed)	The operator shall ensure that a review of the design, method of construction and integrity of the secondary containment for the proposed digestate storage tank is carried out by a qualified civil or structural engineer. The review shall compare the secondary containment against the standards set out in section 7.9.1 of the Environment Agency Draft Technical Guidance for Anaerobic Digestion (Reference LIT 8737, November 2013) and CIRIA C736 - Containment Systems for the Prevention of Pollution - secondary, tertiary and other measures for industrial and commercial premises or other relevant industry standard. The review shall include: • the physical condition of the secondary containment • the suitability for providing containment when subjected to the dynamic and static loads caused by catastrophic tank failure; • any work required to ensure compliance with the standards set out in CIRIA C736 or other relevant industry standard; and

Table S1.4B Pre-operational measures for future development		
Reference	**Operation**	**Pre-operational measures**
		• a preventative maintenance and inspection regime A written report of the review shall be submitted to the Environment Agency detailing the review's findings and recommendations. Remedial action shall be taken to ensure that the secondary containment meets the standards set out in the technical guidance documents and implement the maintenance and inspection regime. The digestate storage tank shall not be used for storage unless the Environment Agency has given prior written permission under this condition.

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	**Specification**
Maize silage	Substantially free of non-vegetable matter
Fuel oil	Sulphur content not exceeding 0.1 per cent by mass

Table S2.2 Permitted waste types and quantities for anaerobic digestion	
Maximum quantity	**Annual throughput shall not exceed 40,000 tonnes.** **Wastes having any of the following characteristics shall not be accepted at the facility:** • **consisting solely or mainly of dusts, powders or loose fibres** • **hazardous wastes**
Waste code	**Description**
02	**Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing**
02 03	**wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation**
02 03 01[1]	sludges from washing, cleaning, peeling, centrifuging and separation
Note 1 – Only wastes from the adjacent vegetable processing facility shall be accepted for biological treatment at the anaerobic digestion facility. No other waste shall be received for treatment at the anaerobic digestion facility.	

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
A1 [Point A1 on site plan in Schedule 7]	CHP engine 1 stack [note 1]	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	500 mg/m^3	Hourly average	Annual	BS EN 14792
		Sulphur dioxide	350 mg/m^3			BS EN 14791
		Carbon monoxide	1400 mg/m^3			BS EN 15058
		Total VOCs	1000 mg/m^3			BS EN 12619:2013
A2 [Point A2 on site plan in schedule 7]	CHP engine 2 stack [note 1]	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	500 mg/m^3	Hourly average	Annual	BS EN 14792
		Sulphur dioxide	350 mg/m^3			BS EN 14791
		Carbon monoxide	1400 mg/m^3			BS EN 15058
		Total VOCs	1000 mg/m^3			BS EN 12619:2013
A3 [Point A3 on site plan in schedule 7]	Emergency flare stack 1 [note 2]	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	150 mg/m^3	Hourly average	[note 3]	BS EN 14792
		Carbon monoxide	50 mg/m^3			BS EN 15058
		Total VOCs	10 mg/m^3			BS EN 12619:2013
A4 [Point A4 on site plan in schedule 7]	Emergency flare stack 2 [note 2]	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	150 mg/m^3	Hourly average	[note 3]	BS EN 14792
		Carbon monoxide	50 mg/m^3			BS EN 15058
		Total VOCs	10 mg/m^3			BS EN 12619:2013
Pressure relief valves	Digester/Digestate storage tank	No parameter set	No limit set	--	Record of operating hours	--

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
Vents from tank(s)	Oil/Fuel Storage tank(s)	No parameter set	No limit set	--	--	--
Note 1 – These limits are based on normal operating conditions and load - temperature 0°C (273K); pressure: 101.3 kPa and oxygen: 5 per cent (dry gas). The measurement uncertainty specified in section 4.5.1 of LFTGN08 v2 2010 shall apply. 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 section 5.3.1 of LFTGN05 v2 2010 shall apply. Note 3 – Monitoring to be undertaken 12 months after commissioning of the emergency flares. 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). Record of operating hours to be submitted annually to the Environment Agency.						

Table S3.2 Point source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter**	**Limit (incl. unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method**
SW1 on site plan in schedule 7 – emission to River Mease	Uncontaminated site surface water from roofs and non-operational areas	Oil or grease	No visible oil or grease	None specified	Weekly	Visual assessment
		Ammoniacal Nitrogen	No limit set	None specified	Annually	In accordance with Environment Agency's Technical Guidance Note – M18 Monitoring of discharges to water and sewer
		Biochemical oxygen demand				
		Total phosphates				
		Suspended solids				

Table S3.3 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Biogas from Digester	Flow	Continuous	In accordance with EU weights and measures Regulations	--
Biogas from Digester	Methane	Continuous	None specified	Gas monitors to be calibrated every 6 months or in accordance with the manufacturer's recommendations.
	Hydrogen sulphide	Daily	None specified	--
Pasteurisation building; Digester, storage tanks and digestate storage tank	Odour	Daily	Olfactory monitoring	Odour detection at the site boundary.
Digester and all storage tanks	Integrity checks	Weekly	Visual assessment	--
Representative sample of digester's contents	Key parameters to include temperature, ammonia, hydraulic loading rate, alkalinity and pH	As described in Application	As described in Application	--

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, A2, A3, A4	Every 12 months	1 January

Table S4.2 Annual production/treatment	
Parameter	**Units**
Electricity generated	MWh
Whole digestate	tonnes or m^3

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Water usage	Annually	tonnes or m^3
Energy usage	Annually	MWh
Raw material usage	Annually	tonnes or m^3
Emergency flare operation	Annually	hours
Electricity exported	Annually	MWh
CHP engine usage	Annually	hours
CHP engine efficiency	Annually	%

Table S4.4 Reporting forms		
Media/parameter	**Reporting format**	**Date of form**
Air	Form air 1 or other form as agreed in writing by the Environment Agency	19/07/17
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	19/07/17
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	19/07/17
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	19/07/17
Waste returns	E-waste Return Form or other form as agreed with the Environment Agency in writing.	--

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.

“ADQP” means Anaerobic Digestion Quality Protocol

“anaerobic digestion” means a process of controlled decomposition of biodegradable materials under managed conditions where free oxygen is absent, at temperatures suitable for naturally occurring mesophilic or thermophilic anaerobes and facultative anaerobe bacteria species, which convert the inputs to a methane-rich biogas and whole digestate.

“animal waste” means any waste consisting of animal matter that has not been processed into food for human consumption.

“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.

“building” means a construction that has the objective of providing sheltering cover and minimising emissions of noise, particulate matter, odour and litter.

“digestate” means material resulting from an anaerobic digestion process.

“disposal”. Means any of the operations provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“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.

“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.

“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.

“impermeable surface” means a surface or pavement constructed and maintained to a standard sufficient to prevent the transmission of liquids beyond the pavement surface.

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

“Industry Standard Protocol” means “A standardised protocol for the monitoring of bioaerosols at open composting facilities” published by the Association for Organics Recycling and developed in conjunction with the Environment Agency.

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

“pests” means Birds, Vermin and Insects.

“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.

“sealed drainage system” in relation to an impermeable surface, means a drainage system with impermeable components which does not leak and which will ensure that:

- no liquids will run off the surface otherwise than via the system
- all liquids entering the system are collected in a sealed sump, except where liquids may be lawfully discharged to foul sewer.

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes (England)Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, 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.

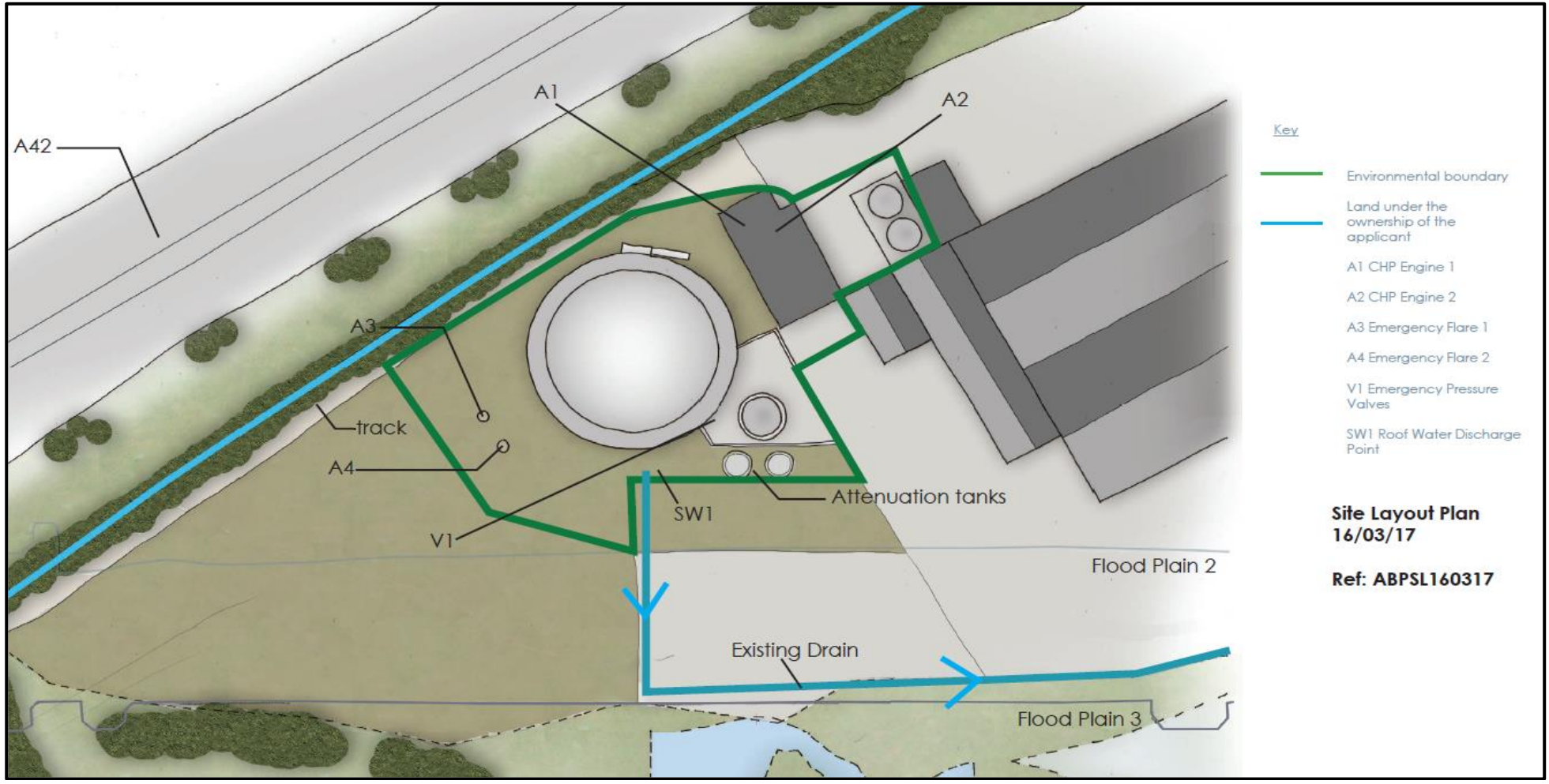
“year” means calendar year ending 31 December.

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, 3% or 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



END OF PERMIT

Permit Number:	**EPR/JP3532DH**	**Operator:**	**A.B. Produce PLC**
Facility:	**AD Enterprise House Measham**	**Form Number:**	**Air1 / 19/07/17**

Reporting of emissions to air for the period from DD/MM/YYYY to DD/MM/YYYY

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
A1	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	500 mg/m^3	1 hour period		BS EN 14792		
A1	Sulphur dioxide	350 mg/m^3	1 hour period		BS EN 14791		
A1	Carbon monoxide	1400 mg/m^3	1 hour period		BS EN 15058		
A1	Total VOCs	1000 mg/m^3	1 hour period		BS EN 12619:2013		
A2	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	500 mg/m^3	1 hour period		BS EN 14792		
A2	Sulphur dioxide	350 mg/m^3	1 hour period		BS EN 14791		
A2	Carbon monoxide	1400 mg/m^3	1 hour period		BS EN 15058		
A2	Total VOCs	1000 mg/m^3	1 hour period		BS EN 12619:2013		
A3	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	150 mg/m^3	1 hour period		BS EN 14792		
A3	Carbon monoxide	50 mg/m^3	1 hour period		BS EN 15058		

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
A3	Total VOCs	10 mg/m^3	1 hour period		BS EN 12619:2013		
A4	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	150 mg/m^3	1 hour period		BS EN 14792		
A4	Carbon monoxide	50 mg/m^3	1 hour period		BS EN 15058		
A4	Total VOCs	10 mg/m^3	1 hour period		BS EN 12619:2013		

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.

[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed ……. Date……..

(Authorised to sign as representative of Operator)

Permit Number:	**EPR/JP3532DH**	**Operator:**	**A.B. Produce PLC**
Facility:	**AD Enterprise House Measham**	**Form Number:**	**WaterUsage1 / 19/07/17**

Reporting of Water Usage for the year

Water Source	**Usage (m^3/year)**	**Specific Usage (m^3/unit output)**
Mains water		
Site borehole		
River abstraction		
TOTAL WATER USAGE		

Operator's comments:

Signed ……. Date……..

(authorised to sign as representative of Operator)

Permit Number:	**EPR/JP3532DH**	**Operator:**	**A.B. Produce PLC**
Facility:	**AD Enterprise House Measham**	**Form Number:**	**Energy1 / 19/07/17**

Reporting of Energy Usage for the year

Energy Source	**Energy Usage**		**Specific Usage (MWh/unit output)**
	Quantity	**Primary Energy (MWh)**	
Electricity *	MWh		
Natural Gas	MWh		
Gas Oil	tonnes		
Recovered Fuel Oil	tonnes		
Biogas	tonnes		
TOTAL	-		

* Conversion factor for delivered electricity to primary energy = 2.4

Operator's comments:

Signed ……. Date……...

(Authorised to sign as representative of Operator)

Permit Number:	**EPR/JP3532DH**	**Operator:**	**A.B. Produce PLC**
Facility:	**AD Enterprise House Measham**	**Form Number:**	**Performance1 / 19/07/17**

Reporting of other performance indicators for the period DD/MM/YYYY to DD/MM/YYYY

Parameter	**Units**
Total raw material used	tonnes
CHP engine usage	hours
CHP engine efficiency	%
Emergency flare operation	hours
Electricity exported	MWh

Operator's comments:

Signed ……. Date……..

(Authorised to sign as representative of Operator)