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# Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

M F Bennion (Potatoes) Limited

Rose Hill Farm Dymock, Gloucestershire, GL18 2EF

#### Variation application number

EPR/HP3398CY/V004

#### Permit number

EPR/HP3398CY

# Rose Hill Farm Permit number EPR/HP3398CY

# 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.

The Industrial Emissions Directive (IED) was transposed in England and Wales by the Environmental Permitting (England and Wales)(Amendment) Regulations 2013 on 27 February 2013. This variation implements the changes brought about by the IED for "existing facilities operating newly prescribed activities" and completes the transition of this facility from a waste operation to an IED Installation.

This permit will allow the operator to operate an Anaerobic Digestion (AD), In-Vessel Composting (IVC) and maturation via open windrow composting facility taking mixed feedstocks including farm produced energy crops and by-products and other wastes suitable for processing through the relevant process. The IVC facility treats mixed green and food waste in fully enclosed facilities, combined with an external compost windrow maturation area which directly accepts green waste. The AD facility is located adjacent to the IVC and utilises energy crops and farm wastes for the generation of biogas through AD processes for electricity production via engines or use in auxiliary boilers. The site has the permitted combined capacity of 60,000 tonnes of waste per annum for all the processes, with waste reception buildings for waste and feedstock reception aiding odour abatement.

The site falls under the Regulations by virtue of Schedule 1, Part 2, Section 5.4, Part A(1), (b) (i): Recovery or 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. All three of the processes (the AD, the IVC and Windrow operations) are similarly listed activities due to the aggregation rule.

Status log of the permit			
Description	Date	Comments	
Application in the name of M F Bennion (Potatoes) Limited EPR/HP3398CY/A0001 (EAWML 48272)	Determined 16/072007	Composting facility. This permit replaced KP3098CA (EAWML 48245) which was deleted under Agency modification on 26/9/07.	
Variation determined EPR/HP3398CY/V002	09/11/2009		
Variation Application EPR/HP3398CY/V003	08/08/2012	Permit issued to M F Bennion (Potatoes) Limited – addition of AD	
Application EPR/HP3398CY/V004 (variation and consolidation)	Duly made 22/04/2015	Application to vary and update the permit to modern conditions.	
Variation determined EPR/HP3398CY Billing ref: LP3532AT	23/12/2015	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/HP3398CY

#### Issued to

M F Bennion (Potatoes) Limited ("the operator")

whose registered office is

Rose Hill Farm, Dymock, Gloucestershire GL18 2EF

company registration number 04223369

to operate a regulated facility at

Rose Hill Farm Dymock, Gloucestershire, GL18 2EF

to the extent set out in the schedules.

The notice shall take effect from 23/12/2015

Name	Date
Rebecca Warren	23/12/2015

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/HP3398CY

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/HP3398CY/V004 authorising,

M F Bennion (Potatoes) Limited ("the operator"),

whose registered office is

Rose Hill Farm, Dymock, Gloucestershire GL18 2EF

company registration number 04223369

to operate an installation at

Rose Hill Farm Dymock, Gloucestershire, GL18 2EF

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

Name	Date
Rebecca Warren	23/12/2015

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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, 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").
- 2.1.2 Waste authorised by this permit shall be clearly distinguished from any other waste on the site.

#### 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.

# 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 table S3.1.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.

# 3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
  - (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
  - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

#### 3.3 Odour

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

#### 3.4 Noise and vibration

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:
  - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
  - (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## 3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
  - (a) point source emissions specified in table S3.1; and
  - (b) process monitoring specified in table S3.2;
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 unless otherwise agreed in writing by the Environment Agency.

#### 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.

# 3.7 Fire prevention

- 3.7.1 The operator shall take all appropriate measures to prevent fires on site and minimise the risk of pollution from them including, but not limited to, those specified in any approved fire prevention plan.
- 3.7.2 The operator shall:
  - (a) if notified by the Environment Agency that the activities are giving rise to a risk of fire, submit to the Environment Agency for approval within the period specified, a fire prevention plan which prevents fires and minimises the risk of pollution from fires;
  - (b) implement the fire prevention 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:

- (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**

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
A1 (AD operations)	S5.4 A(1) (b) (i) Recovery or 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)	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 2 tanks followed by burning of biogas produced from the process.
	involving biological treatment.		Waste types suitable for acceptance are limited to those specified in Table S2.2, < 10 tonnes per day of animal carcasses or animal wastes or both in aggregate.
	Directly Associated Activity	<i>y</i>	
A2 (AD operations)	Storage of waste pending recovery or disposal	R13: Storage of waste pending the operations numbered R1 and R3 (excluding temporary storage, pending collection, on the site where it is	From the receipt of waste to despatch for anaerobic digestion or despatch off site for recovery and/or disposal.
		produced)	Storage of waste in an enclosed building fitted with appropriate odour abatement and on an impermeable surface with sealed drainage.
			Storage of waste within 2 storage tanks prior to treatment.
			Waste types suitable for acceptance are limited to those specified in Table S2.2
A3 (AD operations)	Physical treatment for the purpose of recycling	R3: Recycling/reclamation of organic substances which are not used as solvents	From the receipt of waste to despatch for anaerobic digestion or despatch off site for recovery.
			Pre-treatment of waste in enclosed building and on impermeable surface with sealed drainage system

			including shredding, sorting, screening, compaction, baling, mixing and maceration.  Post-treatment of digestate in an enclosed building and on an impermeable surface with sealed drainage system, including screening to remove contraries, centrifuge or pressing and addition of thickening agents (polymers) or drying.  Heat treatment (pasteurisation) of waste in 1 tank 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.
A4 (AD operations)	Steam and electrical power supply	R1:Use principally as a fuel to generate energy	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 2 combined heat and power (CHP) engine with an aggregated thermal input of less than 3 MWth.
			Combustion of biogas in auxiliary boiler with an aggregated thermal input of <1 MWth.
			Minimum stack exit velocity of 15 m/s to ensure effective plume breakaway
A5 (AD operations)	Raw material storage	Storage of raw materials including lubrication oil, antifreeze, ferric chloride, activated carbon.	From the receipt of raw materials to despatch for use within the facility
A6 (AD operations)	Gas storage	Storage of biogas produced from on-site anaerobic digestion of permitted waste in 1 stand-alone tank or roof space of digester.	From the receipt of biogas produced at the on-site anaerobic digestion process to despatch for use within the facility.

			Gas storage and drying.
A7 (AD operations)	Digestate storage	Storage of liquid digestate in 2 lagoons.	From the receipt of digestate produced from the on-site anaerobic digestion process to despatch for use off-site.
A8 (AD operations)	Surface water collection and storage	Collection and storage of uncontaminated roof water is directed towards sumps to be used within the process.	From the collection of uncontaminated roof and site surface water from non operational areas only to reuse within the facility or discharge off-site.
Table S1.1 Activ	vities in relation to In Vessel	Composting operation	
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
A9 (IVC Operations)	S5.4 A(1) (b) (i) Recovery or a mix of recovery and disposal of non hazardous waste with a	R3: Recycling/reclamation of organic substances which are not used as solvents	From receipt of waste through to composting and recovery of by-products.
	capacity exceeding 75 tonnes per day involving biological treatment.		Composting of waste under aerobic conditions in closed composting reactors or in closed vessels/buildings fitted with appropriate odour abatement.
			The storage, physical treatment, composting and maturation of wastes under anaerobic conditions shall be prevented, or where that is not practicable, minimised.
			Waste types suitable for acceptance are limited to those specified in Table S2.2.
	Directly Associated Activity	y for IVC operations	
A10 (IVC Operations)	Storage of waste pending recovery or disposal	R13: Storage of waste pending the R3 operation (excluding temporary storage, pending collection, on the site where it is produced)	From the receipt of waste to despatch for composting or despatch off site for recovery and/or disposal.
			Storage of waste in an enclosed building fitted with appropriate odour abatement and on an impermeable surface with sealed drainage.
			Waste types suitable for acceptance are limited to those specified in Table S2.2.

A11 (IVC Operations)	Physical treatment for the purposes of recycling	R3: Recycling/reclamation of organic substances which are not used as solvents	From the receipt of waste to despatch for composting or despatch off site for recovery.  Pre-treatment of waste prior to composting in an enclosed building and on an impermeable surface including shredding and screening.  Post-treatment of processed compost in an enclosed building and on an impermeable surface including screening to remove contraries.  Heat treatment (pasteurisation) for the purpose of recovery.  Waste types suitable for acceptance are limited to those specified in Table S2.2.
A12 (IVC Operations)	Raw material storage	Storage of raw materials.	From the receipt of raw materials to despatch for use within the facility.
A13 (IVC Operations)	Compost storage	Storage of processed compost in an enclosed building fitted with appropriate odour abatement and on an impermeable surface, prior to transfer off-site or to the windrow operations.	From the receipt of processed compost produced at the facility to despatch for use off-site.
A14 (IVC Operations)	Process water collection and storage	Collection and storage of compost liquor/leachate in 1 storage tank.	From the receipt of compost leachate produced at the facility to despatch for treatment at the facility or despatch off site for recovery or disposal.
A15 (IVC Operations)	Surface water collection and storage	Collection and storage of uncontaminated roof and site surface water from non-operational areas.	From the collection of uncontaminated roof and site surface water from non operational areas only to reuse within the facility or discharge off-site.
	rities – In relation to open win	ndrow composting	
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I	Limits of specified activity and waste types

		and II operations	
A16 (Windrow operations)	S5.4 A(1) (b) (i) Recovery or a mix of recovery and disposal of non hazardous waste with a capacity exceeding 75 tonnes per day involving biological treatment.	R3: Recycling/reclamation of organic substances which are not used as solvents	From receipt of waste through to composting and recovery of by-products.  Composting of waste, including pasteurised ABPR compliant output from the IVC process, under aerobic conditions in open systems such as outdoor turned windrows on impermeable surface with sealed drainage system.  Waste types suitable for acceptance are limited to those specified in Table S2.2.
	Directly Associated Activity	<u> </u> 	
A17 (Windrow operations)	Storage of waste pending recovery or disposal	R13: Storage of waste pending the R3 operation (excluding temporary storage, pending collection, on the site where it is produced)	From the receipt of waste to despatch for composting or despatch off site for recovery and/or disposal.  Storage of waste on an impermeable surface with sealed drainage.  Waste types suitable for acceptance are limited to those specified in Table S2.2.
A18 (Windrow operations)	Physical treatment for the purpose of recycling	R3: Recycling/reclamation of organic substances which are not used as solvents	From the receipt of waste to despatch for composting or despatch off site for recovery.  Pre-treatment of waste prior to composting on an impermeable surface including shredding and screening.  Post-treatment of processed compost on an impermeable surface including screening to remove contraries.  Waste types suitable for acceptance are limited to those specified in Table S2.2.

A19 (Windrow operations)	Raw material storage	Storage of raw materials including lubrication oil, antifreeze.	From the receipt of raw materials to despatch for use within the facility.
A20 (Windrow operations)	Compost storage	Storage of processed compost on an impermeable surface.	From the receipt of processed compost produced at the facility to despatch for use off-site.
A21 (Windrow operations)	Process water collection and storage	Collection and storage of	compost liquor/leachate in a sealed system From the receipt of compost
A22 (Windrow operations)	Surface water collection and storage	Collection and storage of uncontaminated roof and site surface water.	From the collection of uncontaminated roof and site surface water from non operational areas only to reuse within the facility or discharge off-site.

Table S1.2 Operating techniques			
Description	Parts	Date Received	
Application	Sections 3a and 3b, of the application document in response to section 3 – technical standards , Part B4 of the application form	23/08/11	
Email	Confirmation of non-technical summary	08/06/2012	
Odour Management Plan	For open windrow composting	January 2012	
Fire Management Plan	For the IVC operations	September 2012	
Accident Management Plan	For the IVC operations	23/05/2012	
Rosehill biogas - Accident Management Plan V1.1	For the AD and biogas operations	29/05/2013	
Rosehill Biogas – Fire Management Plan V1.1	For the AD and biogas operations	03/06/2013	
Rosehill Biogas – Odour Management Plan Rev 4	For the AD and biogas operations	11/07/2013	
Response to Schedule 5 Notice dated 24/09/15	Non-technical summary	09/10/2015	

Table S1.3 Improvement programme requirements			
Reference	Requirement	Date	
IC1	The operator shall submit a revised odour management plan for <i>the IVC</i> and Windrow <i>operations</i> to the Environment Agency for written approval. The plan shall take into account the appropriate measures for odour control specified in section 2.2.6 of Sector Guidance Note IPPC S5.06 – <i>Guidance for the Treatment of Hazardous and Non Hazardous Waste</i> . The plan shall also incorporate all the required detailed information as specified in the Environment Agency's Horizontal Guidance H4 – <i>Odour Management</i> . The plan must contain dates for implementation of individual measures.	23/06/16	

Table S1.3 I	Table S1.3 Improvement programme requirements			
Reference	Requirement	Date		
IC2	The operator shall develop and submit for the IVC and <i>Windrow composting operations</i> a fire prevention plan to the Environment Agency in writing. The plan shall take into account the required information as specified in the Environment Agency's technical guidance, Fire prevention plans (version 2, dated March 2015). The appropriate measures for fire prevention shall include:	23/06/16		
	the management of storage of feedstock, product and/or waste piles			
	measures to prevent, detect and contain fires; and			
	the management of firewaters.			
	The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission of the written proposals.			
	The operator shall implement the procedures and measures in accordance with the Environment Agency's written approval.			
IC3	The Operator shall produce, and submit for approval and subsequent implementation, an Accident Management Plan for the IVC and Windrow operations. The procedures must contain dates for implementation of individual measures.	23/06/16		

# Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels			
Raw materials and fuel description	Specification		
Vegetable matter (energy crops)	Substantially free of non vegetable matter.		
Maize silage	Substantially free of non vegetable matter.		
Fuel oil	Sulphur content not exceeding 0.1% by mass.		

#### Table S2.2 Permitted waste types and quantities

Wastes having any of the following characteristics shall not be accepted in;

#### Open systems:

Wastes containing untreated animal by products covered by Regulation EC 1069/2009 (the (EC) ABP Control Regulation) and Regulation EC 142/2011(the (EC) ABP Implementing Regulations) "The EU Regulation, Enforced by:- Animal By-Products (Enforcement) (England) Regulations 2011:

Wastes in liquid form.

Open or contained systems:

Wastes consisting solely or mainly of dusts (except sawdust), powders or loose fibres

Maximum quantity	Annual throughput shall not exceed 60,000 tonnes		
Waste code	Description		
02	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPERATION AND PROCESSING		
02 01	Primary food production wastes		
02 01 01	Sludges from washing and cleaning produced during food preparation and processing only; soils from washing & cleaning fruit & veg only		
02 01 02	Animal tissue waste – category 3 animal waste by-products (ABP) including blood, animal flesh, fish processing waste, fish carcasses, poultry waste – category 2 ABP consisting only of paunch contents.		
02 01 03	Plant tissue waste		
02 01 06	Animal faeces, urine, manure including spoiled straw, collected separately		
02 01 07	Wastes from forestry		
02 01 99	Residues from commercial mushroom cultivation; milk from agricultural premises only; slurry & manure & soiled bedding from any premises except abattoirs, soiled biodegradable bedding not made from plant tissue, soiled bedding desiccants only		
02.02	wastes from preparation and processing of meat, fish and other foods of animal origin		
02 02 01	Sludges from washing and cleaning		
02 02 02	Animal tissue waste		
02 02 03	Materials unsuitable for consumption or processing		
02 02 04	Sludges from on site effluent treatment		
02 02 99	Sludges from gelatine production – animal gut contents; wash waters & sludges from secondary food processing		
02.03	wastes from fruit, vegetables, cereals, edible oils, cocoa, tea and tobacco preparation and processing; conserve production, yeast and yeast extract production, molasses preparation and fermentation		
02 03 01	Sludges from washing, cleaning, peeling, centrifuging and separation		
02 03 02	Wastes from preserving agents		
02 03 03	Wastes from solvent extraction		
02 03 04	Materials unsuitable for consumption or processing		
02 03 05	Sludges from on-site effluent treatment		
02 04	Wastes from sugar processing		

000101	
02 04 01	Soil from cleaning and washing beet
02 04 02	Off-specification calcium carbonate
02 04 03	Sludges from on site effluent treatment
02 05	Wastes from dairy products industry
02 05 01	Materials unsuitable for consumption or processing
02 05 02	Sludges from on site effluent treatment
02 06	Wastes from the baking and confectionary industry
02 06 01	Biodegradable materials unsuitable for consumption or processing (other than those containing dangerous substances) – food condemned, food processing wastes, biscuits, chocolate, yeast, bread, bakery waste
02 06 02	Wastes from preserving agents
02 06 03	Sludges from on site effluent treatment
02 07	Wastes from production of alcoholic and non-alcoholic beverages (except tea, cocoa and coffee)
02 07 01	Wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	Wastes from spirits distillation
02 07 03	Wastes from chemical treatment
02 07 04	Materials unsuitable for consumption or processing
02 07 05	Sludges from on site effluent treatment
02 07 99	Spent grains, hops and whiskey filter sheets/cloths
03	WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS
	AND FURNITURE, PULP, PAPER AND CARDBOARD
03 01	wastes from wood processing and the production of panels and furniture
<b>03 01</b> 03 01 01	
	wastes from wood processing and the production of panels and furniture
03 01 01	wastes from wood processing and the production of panels and furniture waste bark and cork sawdust, shavings, cuttings, wood, particle board and veneer other than those
03 01 01 03 01 05	wastes from wood processing and the production of panels and furniture waste bark and cork sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 01 01 03 01 05 <b>03 03</b>	wastes from wood processing and the production of panels and furniture waste bark and cork sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04 wastes from pulp, paper and cardboard production and processing
03 01 01 03 01 05 <b>03 03</b> 03 03 01	wastes from wood processing and the production of panels and furniture waste bark and cork sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04 wastes from pulp, paper and cardboard production and processing waste bark and wood
03 01 01 03 01 05 <b>03 03</b> 03 03 01 03 03 02	wastes from wood processing and the production of panels and furniture waste bark and cork sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04 wastes from pulp, paper and cardboard production and processing waste bark and wood green liquor sludge (from recovery of cooking liquor)
03 01 01 03 01 05 03 03 03 03 01 03 03 02 03 03 05	wastes from wood processing and the production of panels and furniture waste bark and cork sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04  wastes from pulp, paper and cardboard production and processing waste bark and wood green liquor sludge (from recovery of cooking liquor) de-inking sludges from paper recycling
03 01 01 03 01 05 03 03 03 03 01 03 03 02 03 03 05 03 03 08	wastes from wood processing and the production of panels and furniture  waste bark and cork  sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04  wastes from pulp, paper and cardboard production and processing  waste bark and wood  green liquor sludge (from recovery of cooking liquor)  de-inking sludges from paper recycling  wastes from sorting of paper and cardboard destined for recycling
03 01 01 03 01 05 03 03 03 03 01 03 03 02 03 03 05 03 03 08 03 03 09	wastes from wood processing and the production of panels and furniture  waste bark and cork  sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04  wastes from pulp, paper and cardboard production and processing  waste bark and wood  green liquor sludge (from recovery of cooking liquor)  de-inking sludges from paper recycling  wastes from sorting of paper and cardboard destined for recycling  lime mud waste
03 01 01 03 01 05 03 03 03 03 01 03 03 02 03 03 05 03 03 08 03 03 09 03 03 10	wastes from wood processing and the production of panels and furniture waste bark and cork sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04  wastes from pulp, paper and cardboard production and processing waste bark and wood green liquor sludge (from recovery of cooking liquor) de-inking sludges from paper recycling wastes from sorting of paper and cardboard destined for recycling lime mud waste fibre rejects, fibre-, filler- and coating-sludges from mechanical separation
03 01 01 03 01 05 03 03 03 03 01 03 03 02 03 03 05 03 03 08 03 03 09 03 03 10 03 03 11	wastes from wood processing and the production of panels and furniture waste bark and cork sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04  wastes from pulp, paper and cardboard production and processing waste bark and wood green liquor sludge (from recovery of cooking liquor) de-inking sludges from paper recycling wastes from sorting of paper and cardboard destined for recycling lime mud waste fibre rejects, fibre-, filler- and coating-sludges from mechanical separation sludges from on-site effluent treatment other than those mentioned in 03 03 10
03 01 01 03 01 05 03 03 03 03 01 03 03 02 03 03 05 03 03 08 03 03 09 03 03 10 03 03 11	wastes from wood processing and the production of panels and furniture waste bark and cork sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04  wastes from pulp, paper and cardboard production and processing waste bark and wood green liquor sludge (from recovery of cooking liquor) de-inking sludges from paper recycling wastes from sorting of paper and cardboard destined for recycling lime mud waste fibre rejects, fibre-, filler- and coating-sludges from mechanical separation sludges from on-site effluent treatment other than those mentioned in 03 03 10  WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES
03 01 01 03 01 05 03 03 03 03 01 03 03 02 03 03 05 03 03 08 03 03 09 03 03 10 03 03 11 04 04 02	wastes from wood processing and the production of panels and furniture waste bark and cork sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04  wastes from pulp, paper and cardboard production and processing waste bark and wood green liquor sludge (from recovery of cooking liquor) de-inking sludges from paper recycling wastes from sorting of paper and cardboard destined for recycling lime mud waste fibre rejects, fibre-, filler- and coating-sludges from mechanical separation sludges from on-site effluent treatment other than those mentioned in 03 03 10  WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES wastes from the textile industry
03 01 01 03 01 05 03 03 03 03 01 03 03 02 03 03 05 03 03 08 03 03 09 03 03 10 03 03 11 04 04 02 04 02 10	wastes from wood processing and the production of panels and furniture waste bark and cork sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04  wastes from pulp, paper and cardboard production and processing waste bark and wood green liquor sludge (from recovery of cooking liquor) de-inking sludges from paper recycling wastes from sorting of paper and cardboard destined for recycling lime mud waste fibre rejects, fibre-, filler- and coating-sludges from mechanical separation sludges from on-site effluent treatment other than those mentioned in 03 03 10  WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES wastes from the textile industry organic matter from natural products (for example grease, wax)
03 01 01 03 01 05 03 03 03 03 01 03 03 02 03 03 05 03 03 08 03 03 09 03 03 10 03 03 11 04 04 02 04 02 10 04 02 20	wastes from wood processing and the production of panels and furniture waste bark and cork sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04  wastes from pulp, paper and cardboard production and processing waste bark and wood green liquor sludge (from recovery of cooking liquor) de-inking sludges from paper recycling wastes from sorting of paper and cardboard destined for recycling lime mud waste fibre rejects, fibre-, filler- and coating-sludges from mechanical separation sludges from on-site effluent treatment other than those mentioned in 03 03 10  WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES wastes from the textile industry organic matter from natural products (for example grease, wax) sludges from on-site effluent treatment other than those mentioned in 04 02 19  WASTES FROM PETROLEUM REFINING, NATURAL GAS PURIFICATION

15	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER
45.04	MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01	packaging (including separately collected municipal packaging waste)
15 01 01	paper and cardboard packaging
15 01 03	wooden packaging
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 02	wood, glass and plastic
17 02 01	Wood
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09
19 05	wastes from aerobic treatment of solid wastes
19 05 01	non-composted fraction of municipal and similar wastes
19 05 02	non-composted fraction of animal and vegetable waste
19 05 03	off-specification compost (from source segregated biodegradable waste)
19 05 99	Liquor from aerobic treatment of source segregated biodegradable waste - IVC effluent arising from the on-site IVC process.
19 06	wastes from anaerobic treatment of waste
10.06.03	liquer from an archia tractment of municipal wasts
19 06 03	liquor from anaerobic treatment of municipal waste
19 06 03	digestate from anaerobic treatment of municipal waste
19 06 04	digestate from anaerobic treatment of municipal waste liquor from anaerobic treatment of animal and vegetable waste digestate from anaerobic treatment of animal and vegetable waste
19 06 04 19 06 05	digestate from anaerobic treatment of municipal waste liquor from anaerobic treatment of animal and vegetable waste
19 06 04 19 06 05 19 06 06	digestate from anaerobic treatment of municipal waste liquor from anaerobic treatment of animal and vegetable waste digestate from anaerobic treatment of animal and vegetable waste
19 06 04 19 06 05 19 06 06 <b>19 08</b>	digestate from anaerobic treatment of municipal waste liquor from anaerobic treatment of animal and vegetable waste digestate from anaerobic treatment of animal and vegetable waste wastes from waste water treatment plants not otherwise specified sludges from biological treatment of industrial waste water other than those
19 06 04 19 06 05 19 06 06 <b>19 08</b> 19 08 12	digestate from anaerobic treatment of municipal waste liquor from anaerobic treatment of animal and vegetable waste digestate from anaerobic treatment of animal and vegetable waste wastes from waste water treatment plants not otherwise specified sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11 wastes from the preparation of water intended for human consumption or water for industrial use sludges from water clarification
19 06 04 19 06 05 19 06 06 <b>19 08</b> 19 08 12 <b>19 09</b>	digestate from anaerobic treatment of municipal waste liquor from anaerobic treatment of animal and vegetable waste digestate from anaerobic treatment of animal and vegetable waste wastes from waste water treatment plants not otherwise specified sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11 wastes from the preparation of water intended for human consumption or water for industrial use
19 06 04 19 06 05 19 06 06 <b>19 08</b> 19 08 12 <b>19 09</b> 19 09 02	digestate from anaerobic treatment of municipal waste liquor from anaerobic treatment of animal and vegetable waste digestate from anaerobic treatment of animal and vegetable waste wastes from waste water treatment plants not otherwise specified sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11 wastes from the preparation of water intended for human consumption or water for industrial use sludges from water clarification wastes from the mechanical treatment of waste (for example sorting,
19 06 04 19 06 05 19 06 06 <b>19 08</b> 19 08 12 <b>19 09</b> 19 09 02 <b>19 12</b>	digestate from anaerobic treatment of municipal waste liquor from anaerobic treatment of animal and vegetable waste digestate from anaerobic treatment of animal and vegetable waste wastes from waste water treatment plants not otherwise specified sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11 wastes from the preparation of water intended for human consumption or water for industrial use sludges from water clarification wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 06 04  19 06 05  19 06 06  19 08  19 08 12  19 09  19 09 02  19 12  19 12 01	digestate from anaerobic treatment of municipal waste liquor from anaerobic treatment of animal and vegetable waste digestate from anaerobic treatment of animal and vegetable waste wastes from waste water treatment plants not otherwise specified sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11 wastes from the preparation of water intended for human consumption or water for industrial use sludges from water clarification wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified paper and cardboard wood other than that mentioned in 19 12 06 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
19 06 04  19 06 05  19 06 06  19 08  19 08 12  19 09  19 09 02  19 12  19 12 01  19 12 07	digestate from anaerobic treatment of municipal waste liquor from anaerobic treatment of animal and vegetable waste digestate from anaerobic treatment of animal and vegetable waste wastes from waste water treatment plants not otherwise specified sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11 wastes from the preparation of water intended for human consumption or water for industrial use sludges from water clarification wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified paper and cardboard wood other than that mentioned in 19 12 06 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY
19 06 04  19 06 05  19 06 06  19 08  19 08 12  19 09  19 09 02  19 12  19 12 01  19 12 07  20	digestate from anaerobic treatment of municipal waste liquor from anaerobic treatment of animal and vegetable waste digestate from anaerobic treatment of animal and vegetable waste wastes from waste water treatment plants not otherwise specified sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11 wastes from the preparation of water intended for human consumption or water for industrial use sludges from water clarification wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified paper and cardboard wood other than that mentioned in 19 12 06 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
19 06 04  19 06 05  19 06 06  19 08  19 08 12  19 09  19 09 02  19 12  19 12 01  19 12 07  20  20 01	digestate from anaerobic treatment of municipal waste liquor from anaerobic treatment of animal and vegetable waste digestate from anaerobic treatment of animal and vegetable waste wastes from waste water treatment plants not otherwise specified sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11 wastes from the preparation of water intended for human consumption or water for industrial use sludges from water clarification wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified paper and cardboard wood other than that mentioned in 19 12 06 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS separately collected fractions (except 15 01)
19 06 04  19 06 05  19 06 06  19 08  19 08 12  19 09  19 09 02  19 12  19 12 01  19 12 07  20  20 01  20 01 01	digestate from anaerobic treatment of municipal waste liquor from anaerobic treatment of animal and vegetable waste digestate from anaerobic treatment of animal and vegetable waste wastes from waste water treatment plants not otherwise specified sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11 wastes from the preparation of water intended for human consumption or water for industrial use sludges from water clarification wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified paper and cardboard wood other than that mentioned in 19 12 06 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS separately collected fractions (except 15 01) paper and cardboard

20 02	garden and park wastes (including cemetery waste)	
20 02 01	biodegradable waste	
20 03	other municipal wastes	
20 03 02	waste from markets	

# **Schedule 3 – Emissions and monitoring**

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 Point CHP1 on site plan in Schedule 7)	CHP engine 1 [note 1]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	500 mg/m <sup>3</sup>	Hourly average	Annual	BS EN 14792
		Sulphur dioxide	350 mg/m <sup>3</sup>	-		BS EN 14791
		Carbon monoxide	1400 mg/m <sup>3</sup>			BS EN 15058
		Total VOCs	1000 mg/m <sup>3</sup>			BS EN 12619:2013
		NMVOCs	75 mg/m <sup>3</sup>			BS EN 12619:2013
A2 Point CHP2 on site plan in Schedule 7)	CHP engine 2 [note 1]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	500 mg/m <sup>3</sup>	Hourly average	Annual	BS EN 14792
		Sulphur dioxide	350 mg/m <sup>3</sup>			BS EN 14791
		Carbon monoxide	1400 mg/m <sup>3</sup>			BS EN 15058
		Total VOCs	1000 mg/m <sup>3</sup>			BS EN 12619:2013
		NMVOCs	75 mg/m <sup>3</sup>			BS EN 12619:2013
AD Biofilter on site plan in schedule 7	Biofilter	No parameter set	No limit set			Gas sampling points must be fitted on each
IVC Biofilter on site plan in schedule 7	Biofilter	No parameter set	No limit set			outlet and used as required to ensure compliance with the conditions of this permit
Auxiliary Boiler	Auxiliary boiler	No parameter set	No limit set			
Pressure relief valves, AD Tank vents 1 and 2 in schedule 7.	Digesters and digestate storage tanks	No parameter set	No limit set		Record of operating hours	
Vents from tank(s)	Oil/Fuel Storage tank(s)	No parameter set	No limit set			

Table S3.1 Point source emissions to air – emission limits and monitoring requirements – AD Plant						
Emission point ref. & location	Source	Parameter			Monitoring frequency	Monitoring standard or method

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 LFTGN08 v2 2010 shall apply. Minimum stack exit velocity of 15 m/s to ensure effective plume breakaway

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
AD - Biogas from Digester(s)	Flow	Continuous	In accordance with EU weights and measures Regulations	
AD - Biogas from Digester(s)	Methane	Continuous	None specified	Gas monitors to be calibrated in accordance with manufacturer's recommendations
	Hydrogen sulphide	Continuous	None specified	
AD - Waste reception building; Digester(s) and storage tank(s)	Odour	Daily	Olfactory monitoring	Odour detection at the site boundary
Biofilters	Temperature	As required	Temperature probe	Biofilter shall be regularly checked
	Moisture	As required	None specified	and maintained to ensure appropriate temperature and moisture content.
	Thatching/compaction	As required	None specified	
AD - Scrubber system / Carbon filter	Key process parameters to include pH, temperature and air flow	In accordance with manufacturer's recommendations.	None specified	Scrubber system / Carbon filter shall be regularly checked and maintained to ensure appropriate temperature and moisture content.
				Carbon filters to be replaced when saturated in accordance with manufacturer's recommendations.
AD - Digester and storage tank(s)	Integrity checks	Weekly	Visual assessment	Monitoring equipment shall be
IVC – Internal for each	Temperature	At least daily	Temperature probe	available on site and used as required to
composting batch during sanitisation stage	Moisture	None specified		maintain aerobic conditions and ensure compliance
IVC - Internal for each composting batch during	Temperature	At least weekly	Temperature probe	with this permit.  Equipment shall be calibrated on a 4
stabilisation stage	Moisture	None specified		monthly basis or as

Table S3.2 Process monitoring requirements					
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications	
				agreed in writing by the Environment Agency.	
Open composting - Internal for each	Temperature	At least daily	Temperature probe	Monitoring equipment shall be	
composting batch during sanitisation stage	Moisture	None specified		available on site and used as	
Open composting - Internal for each composting batch during stabilisation stage	Temperature	At least weekly	Temperature probe	required to maintain aerobic conditions and	
	Moisture	None specified		ensure compliance with this permit.	
				Equipment shall be calibrated on a 4 monthly basis or as agreed in writing by the Environment Agency.	
IVC / Open Composting - Waste reception building; Storage tank(s); Maturation area	Odour	Daily	Olfactory monitoring	Odour detection at the site boundary.	
IVC - Storage tank(s)	Integrity checks	Weekly	Visual assessment		

# 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	A1 and A2	Every 12 months	1 January	
Parameters as required by condition 3.5.1.				

Table S4.2 Annual production/treatment			
Parameter	Units		
Electricity generated	MWh		
Whole digestate	tonnes		
Liquid digestate	tonnes or m <sup>3</sup>		
Solid digestate	tonnes		
Processed Compost	tonnes		

Table S4.3 Performance parameters				
Parameter	Frequency of assessment	Units		
Water usage	Annually	tonnes or m <sup>3</sup>		
Energy usage	Annually	MWh		
Raw material usage	Annually	tonnes or m <sup>3</sup>		
CHP engine usage	Annually	hours		
CHP engine efficiency	Annually	%		
Auxiliary boiler usage	Annually	hours		

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	23/12/15			
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	23/12/15			
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	23/12/15			
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	23/12/15			
Waste returns	E-waste Return Form				

# 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 the breach of a limit				
To be notified within 24 hours of detection unless otherwise specified below				
Emission point reference/ source				
Parameter(s)				
Limit				
Measured value and uncertainty				
Date and time of monitoring				
Measures taken, or intended to be taken, to stop the emission				

Time periods for notification following detection of a breach of	of a limit
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  Any more accurate information on the matters for	practicable
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.	
facility in the preceding 24 months.	
facility in the preceding 24 months.  Name*	
Name*	

<sup>\*</sup> 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 methanerich 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.

"treated wood" means any wood that has been chemically treated (e.g. to enhance or alter the performance of the original wood). Treatments may include penetrating oils, tar oil preservatives, water-borne preservatives, organic-based preservatives, boron and organo-metallic based preservatives, boron and halogenated flame retardants and surface treatments (including paint and venner).

"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.

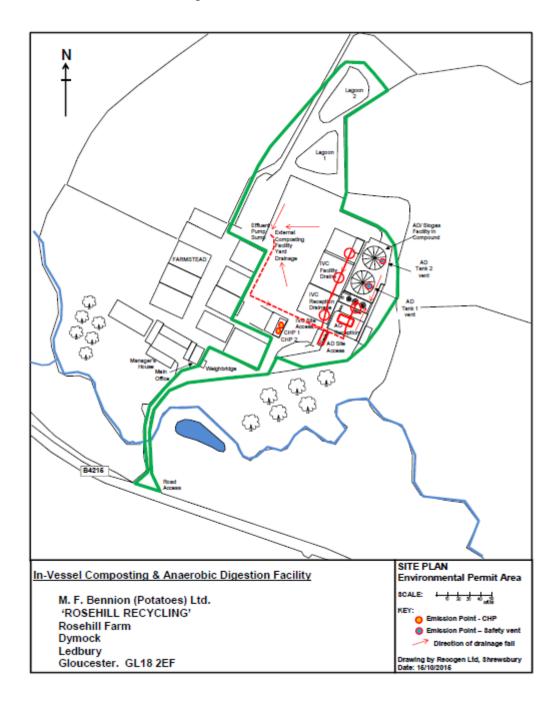
"year" means calendar year ending 31 December.

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



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**END OF PERMIT** 

Permit Number: HP3398CY Operator: M F Bennion (Potatoes)
Limited

Facility: Rose Hill Farm Form Number:

Air1 / 23/12/15

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

Emission	Substance /	Emission	Reference Period	Result [1]	Test	Sample	Uncertainty
Point	Parameter	Limit Value			Method [2]	Date and Times [3]	[4]
A1	Oxides of nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	500 mg/m <sup>3</sup>	1 hour period		BS EN 14792		
A1	Sulphur dioxide	350 mg/m <sup>3</sup>	1 hour period		BS EN 14791		
A1	Carbon monoxide	1400 mg/m <sup>3</sup>	1 hour period		BS EN 15058		
A1	Total VOCs	1000 mg/m <sup>3</sup>	1 hour period		BS EN 12619:2013		
A1	NMVOCs	75 mg/m <sup>3</sup>	1 hour period		BS EN 12619:2013		
A2	Oxides of nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	500 mg/m <sup>3</sup>	1 hour period		BS EN 14792		
A2	Sulphur dioxide	350 mg/m <sup>3</sup>	1 hour period		BS EN 14791		
A2	Carbon monoxide	1400 mg/m <sup>3</sup>	1 hour period		BS EN 15058		
A2	Total VOCs	1000 mg/m <sup>3</sup>	1 hour period		BS EN 12619:2013		
A2	NMVOCs	75 mg/m <sup>3</sup>	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:	HP3398	BCY	Operator:	M F Bennion (Potatoes) Limited
Facility: Rose Hil		II Farm Form Number:		WaterUsage1 / 23/12/15
Reporting of Water Usag	e for the yea	ar		
Water Source		Usage (m3/year)		Specific Usage (m3/unit output)
Mains water				
Site borehole				
River abstraction				
TOTAL WATER USAGE				
Operator's comments:				
Signed		Do	ate	
olylica		De	χι <del>ς</del>	

(authorised to sign as representative of Operator)

**HP3398CY** 

**Permit Number:** 

Facility:	Rose Hill Farm	Form Number:	Energy1 / 23/12/15
Reporting of Energy	Usage for the year		
Energy Source	Energy Usage		Specific Usage (MWh/unit output)
	Quantity	Primary Energy (MWh)	
Electricity *	MWh		
Biogas	tonnes or m <sup>3</sup>		
Natural Gas	MWh		
Recovered Fuel Oil	tonnes		
Gas Oil	tonnes		
TOTAL	-		
* Conversion factor for delivere	ed electricity to primary energy = 2.4		
Operator's comments:			
Signed	r	lata	
Signed	L	Oate	

**Operator:** 

M F Bennion (Potatoes)

Limited

(Authorised to sign as representative of Operator)

Permit Number:	HP3398CY	Operator:		M F Bennion (Potatoes) Limited
Facility:	Rose Hill Farm	Form Number	er:	Performance1 / 23/12/15
Reporting of other perfo	ermance indicators for the	e period DD/MM/YYY	Y to DD/	MM/YYYY
Parameter			Units	
Total raw material used - AD			tonnes	
Total raw material used - IVC			tonnes	
Total raw material used - Windrow			tonnes	
CHP engine usage			hours	
CHP engine efficiency			%	
Electricity exported			MWh	
Auxiliary boiler usage			hours	
Operator's comments:				
Signed		Date		
(Authorised to sign as representative	e of Operator)			