

## Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Astwood Energy Limited

Meriden Waste Water Treatment Facility Meriden Quarry Cornets End Lane Coventry West Midlands CV7 7LG

#### Permit number

EPR/ZP3237YL

# Meriden Waste Water Treatment Facility Permit number EPR/ZP3237YL

## Introductory note

### This introductory note does not form a part of the permit

The main features of the permit are as follows.

This permit is for a listed activity which is part of a multi-operator installation. The other part of the installation is operated by Rebellion Biomass LLP under permit EPR/CP3735RL, which is a directly associated activity to this permit.

Under this permit the operator carries out the physical treatment of landfill and compost leachate (Section 5.4 Part A(1) (a)(ii) Physico-chemical treatment of waste for the purposes of disposal).

Leachate is received on site by road tanker and is delivered in to one of four storage tanks. The addition of hydrogen peroxide and sulphuric acid dissolves sulphides, minimising odour, and controls pH. Aeration within the pipework aims to reduce VOCs and ammonia. Two pairs of tanks are linked to carbon filters where any displaced air is directed. The tanks and carbon filters are located within a concrete bund and vent into the evaporator unit building.

The leachate is pumped, via a duplex filter to remove solids, to one of six evaporator units located within a three sided building. Each unit consists of a holding tank, evaporative heat exchanger, exhaust fan and flue, waste water distribution system and solids removal system. The leachate is sprayed on to hot pipes and through the process of thin film evaporation solids are washed off into the bottom of the unit with the water vapour being emitted via a stack. The remaining solids are scraped onto a conveyor, deposited into a covered container and removed off-site for disposal.

Each unit has the capacity to treat 1,050 litres of leachate per hour, with an annual throughput of 67,000 tonnes, producing approximately 12 kg of sludge per hour.

The evaporator units utilise low grade steam generated by the incinerator under permit EPR/CP3735RL. The steam is piped to the evaporators, is cooled by the leachate and is returned back to the incinerator. There are no combustion activities covered by this permit.

The main emission from the units is ammonia, other chemicals are expected to be negligible.

The whole installation facility is constructed on an impermeable surface. All site drainage is directed to an attenuation pond via an interceptor and discharges to an unnamed tributary of the River Blythe. The attenuation pond is fitted with a penstock valve so it can be isolated if required.

There are five ancient woodlands, four local wildlife sites and two sites of special scientific interest within 2 km of the installation. There are also human sensitive receptors located nearby which have been included in impact assessments together with the conservation designations, impacts on these are likely to be insignificant.

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/ZP3237YL/A001	Duly made 22/12/17	Application for a waste water treatment plant	
Additional information submitted	11/03/18	Additional information on operation of the facility	
Response to Schedule 5	08/06/18	Response to Schedule 5 dated 24/04/18; Odour, foaming, site plan, sludge management, lab testing.	

Status log of the permit				
Description	Date	Comments		
Response to Schedule 5	28/06/18	Response to Schedule 5 dated 24/04/18; air modelling update.		
Additional information submitted	17/10/18	Information on proposals for commissioning and monitoring		
Permit determined EPR/ZP3237YL (PAS Billing ref. ZP3237YL)	20/11/18	Permit issued to Astwood Energy Limited.		

Other Part A installation permits relating to this installation				
Operator Permit number Date of issue				
Rebellion Biomass LLP	EPR/CP3735RL	20/11/18		

End of introductory note

## **Permit**

## The Environmental Permitting (England and Wales) Regulations 2016

#### Permit number

#### EPR/ZP3237YL

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

Astwood Energy Limited ("the operator"),

whose registered office is

Kentle Wood House Browns Road Daventry Northamptonshire NN11 4NS

company registration number 09376413

to operate part of an installation at

Meriden Waste Water Treatment Facility Meriden Quarry Cornets End Lane Coventry West Midlands CV7 7LG

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

Name	Date
Rebecca Warren	20/11/18

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 recovered with a high level of energy efficiency and 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.

## 1.5 Multiple operator installations

1.5.1 Where the operator notifies the Environment Agency under condition 4.3.1 (a) or 4.3.1 (c), the operator shall also notify without delay the other operator(s) of the installation of the same information.

## 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, which is within the area edged in red on the site plan that represents the extent of the installation covered by this permit and that of the other operator of the installation.

## 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 Pre-operational conditions

2.4.1 The activities shall not be brought into operation until the measures specified in schedule 1, table S1.3 have been completed.

### 2.5 Improvement programme

- 2.5.1 The operator shall complete the improvements specified in schedule 1 table S1.4 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.5.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

## 3 Emissions and monitoring

#### 3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3, tables S3.1 and S3.2.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

#### 3.2 Emissions of substances not controlled by emission limits

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

#### 3.3 Odour

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

#### 3.4 Noise and vibration

3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the

operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

#### 3.4.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## 3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
  - (a) point source emissions specified in tables S3.1 and S3.2; and
  - (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 For the following activities referenced in schedule 1, table S1.1 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 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.
- 4.3.4 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.
- 4.3.5 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 "without delay" in which case it may be provided by telephone.

## Schedule 1 – Operations

Table S1.1	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)(a)(ii)  Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving physical treatment		D9: Physico-chemical treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to D12.	From receipt of waste to removal off-site of residues.  Pre-treatment in four tanks consisting of aeration, chemical dosing (hydrogen peroxide and sulphuric acid), filtration and carbon absorption.  Treatment consisting of waste water evaporation in six evaporation units.  Waste types as specified in Table		
	S2.2				
	Directly Associated Ac	tivity	,		
AR2	Storage of waste	D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where the waste is produced).	Storage of waste pending on-site pre-treatment and treatment.  Waste types as specified in Table S2.2		
AR3	Storage of waste	D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where the waste is produced).	From receipt of sludge from the waste water treatment evaporator units to dispatch off-site for disposal.		
AR4	Raw materials storage	Storage of raw materials.	From the receipt of raw materials to despatch for use within the facility.		
AR5	Surface water management	Collection and discharge of uncontaminated surface run-off.	From collection of uncontaminated surface run-off to discharge off-site to a lagoon and then to surface water.		

Table S1.2 Operating techniques				
Description	Parts	Date Received		
Application	Application form Part B3, section 3 Operating techniques and Appendix 5	22/12/17		
	This includes EPR permit application support document, SOL1706AE01, which consists of:  Working plan:			
	<ul> <li>Environmental Management System, AE-SWP</li> <li>Waste pre-acceptance, AE-E01</li> </ul>			

Table S1.2 Ope	Table S1.2 Operating techniques				
Description	Parts	Date Received			
	Waste acceptance, AE-E02				
	<ul> <li>Waste Rejection and storage, AE-E05</li> </ul>				
	<ul> <li>Infrastructure management and monitoring, AE-E08</li> </ul>				
	Odour management plan, SOL1706AE01_OMP  All dated December 2017				
Request for	Response to Schedule 5 notice dated 24/05/18, SOL1806AE01	08/06/18			
information	Further detail on the management of the sludge removed from the evaporators.				
	Further detail on the management of foaming.				
	Further detail on laboratory testing of the leachate.				

Table S1.3 F	Table S1.3 Pre-operational measures			
Reference	Pre-operational measures			
PO1 (air emissions monitoring)	Prior to the commencement of operations the Operator shall submit proposals to the Environment Agency for approval for representative monitoring of emissions of ammonia, total volatile organic compounds (TVOCs) and odour to air from the evaporator units (A1 to A6) during the first 12 months of operation.  The proposals shall include the sampling locations, parameters to be monitored, frequencies of monitoring and methods to be used.  Monitoring shall be carried out in accordance with the requirements of conditions 3.5.2 and 3.5.3 of this permit.			
PO2 (commissioning plan)	Prior to the commencement of commissioning, the Operator shall provide a written commissioning plan, including timelines for completion, for approval by the Environment Agency. 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 actions to be taken to protect the environment and report to the Environment Agency in the event that actual emissions exceed expected emissions. Commissioning shall be carried out in accordance with the commissioning plan as approved.			

Table S1.4 Im	Table S1.4 Improvement programme				
Reference	Requirement	Date			
IC1 (air emission report)	Following the completion of the first year of representative monitoring as required by PO1 the Operator shall submit a report to the Environment Agency for approval which interprets and evaluates the results, against those stated in permit application EPR/CP3735RL/A001. The report shall include an ammonia removal efficiency shall be calculated.	To be completed within 2 months of the end of monitoring specified by PO1			
IC2 (chemical optimisation)	The Operator shall submit a written report to the Environment Agency describing the performance and optimisation of:  • The chemical dosing system settings to minimise emission of ammonia. The report shall include an assessment of the level of ammonia emissions that can be achieved under optimum operating conditions.  • The aeration and carbon abatement system for minimisation of VOCs and odour.	Within 6 months of the completion of commissioning.			

## Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels		
Raw materials and fuel description Specification		

Table S2.2 Per	Table S2.2 Permitted waste types and quantities			
Maximum quantity	Annual throughput shall not exceed 67,000 tonnes.			
Waste code	Description			
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 05	wastes from aerobic treatment of solid wastes			
19 05 99	wastes not otherwise specified – leachate from composting facilities			
19 07	landfill leachate			
19 07 03	landfill leachate other than those mentioned in 19 07 02			

## Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location <sup>a</sup>	Source	Parameter	Limit (incl. unit) <sup>b</sup>	Reference period	Monitoring frequency	Monitoring standard or method
A1	Evaporator Unit 1	Ammonia	3.2 mg/m <sup>3</sup>	Annual	As agreed	BS EN 1479
A2	Evaporator Unit 2		3.2 mg/m <sup>3</sup>	average	under PO1 then 6-monthly	
A3	Evaporator Unit 3		3.2 mg/m <sup>3</sup>		or as otherwise	
A4	Evaporator Unit 4		3.2 mg/m <sup>3</sup>		agreed in writing with the Environment Agency.	
A5	Evaporator Unit 5		3.2 mg/m <sup>3</sup>			
A6	Evaporator Unit 6		3.2 mg/m <sup>3</sup>			
A1	Evaporator Unit 1	Odour		As agreed	As agreed under PO1	As agreed under PO1
A2	Evaporator Unit 2			under PO1		
A3	Evaporator Unit 3					
A4	Evaporator Unit 4					
A5	Evaporator Unit 5					
A6	Evaporator Unit 6					
A1	Evaporator Unit 1	Total		As agreed	As agreed	As agreed
A2	Evaporator Unit 2	volatile organic		under PO1	under PO1	under PO1
A3	Evaporator Unit 3	compounds				
A4	Evaporator Unit 4	(TVOC)				
A5	Evaporator Unit 5			1		
A6	Evaporator Unit 6					

a – As marked on site plan in schedule 7.

b – These limits are based on normal operating conditions – temperature 0°C (273K). No correction for pressure, oxygen or moisture.

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W1 as marked on site plan in schedule 7 emission to an unnamed tributary of the river Blythe	Oil and grease	Uncontaminated surface run-off via attenuation lagoon	None visible		Weekly	

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	
Carbon filter	Key process parameters to include temperature and air flow	In accordance with manufacturer's recommendations.	None specified	Carbon filters to be replaced when saturated in accordance with manufacturer's recommendations.	
Waste reception storage tanks, processed waste storage vessels and evaporator units	Odour	Daily	Olfactory monitoring	Odour detection at the site boundary.	
	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 to A6	Annually	1 January	
Parameters as required by condition 3.5.1				

Table S4.2 Annual production/treatment			
Parameter	Units		

Table S4.3 Performance parameters				
Parameter	Frequency of assessment	Units		
Water usage	Annually	tonnes		
Energy usage	Annually	MWh		
Total raw material used	Annually	Tonnes		

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	20/11/18			
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	20/11/18			
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	20/11/18			
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	20/11/18			

## 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	
	any malfunction, breakdown or failure of equipment or techniques, nce not controlled by an emission limit which has caused, is pollution
To be notified within 24 hours of o	detection
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	
(b) Notification requirements for t	he 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 li	mit	
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 follo	owing detection o	of a breach of a limit	
Parameter			Notification period
(c) Notification requirements for	the detection of a	any significant advers	se 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 submit	ted as soo	n as practical	ble
Any more accurate information on t notification under Part A.	he matters for		
Measures taken, or intended to be to a recurrence of the incident	aken, to prevent		
Measures taken, or intended to be a limit or prevent any pollution of the which has been or may be caused be	environment		
The dates of any unauthorised emis facility in the preceding 24 months.	ssions from the		
Name*			
Post			
Signature			
Date			

<sup>\*</sup> authorised to sign on behalf of the operator

## Schedule 6 - Interpretation

"accident" means an accident that may result in pollution.

"application" means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

"authorised officer" means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

"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.

"EP Regulations" means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

"groundwater" means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

"Industrial Emissions Directive" means Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions.

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

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

"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.

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

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

"year" means calendar year ending 31 December.

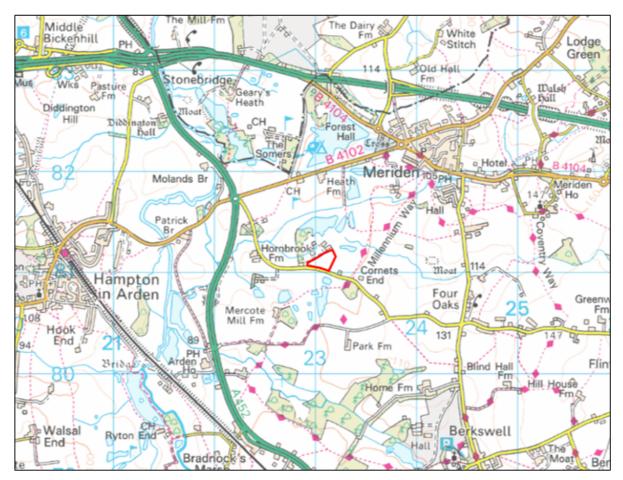
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

## Schedule 7 – Site plan





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Permit Number:	ZP3237YL	Operator:	Astwood Energy Ltd
Facility:	Meriden Waste Water Treatment Facility	Form Number:	Air1 / 20/11/18

## 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	Ammonia	3.2 mg/m3					
A2	Ammonia	3.2 mg/m3					
A3	Ammonia	3.2 mg/m3					
A4	Ammonia	3.2 mg/m3					
A5	Ammonia	3.2 mg/m3					
A6	Ammonia	3.2 mg/m3					

- 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:	ZP3237YL	Operator:	Astwood Energy Ltd
Facility:	Meriden Waste Water Treatment Facility	Form Number:	WaterUsage1 / 20/11/18
Reporting of Water Usa	age for the year yyyy		
Water Source	Usage (m³/year)		Specific Usage (m³/unit output)
Mains water			
Site borehole			
River abstraction			
TOTAL WATER USAGE			
Operator's comments:			
Signed	Date.		
(authorised to sign as representati	ive of Operator)		

Permit Number:	ZP3237YL	Operator:	Astwood Energy Ltd				
Facility:	Meriden Waste Water Treatment Facility	Form Number:	Energy1 / 20/11/18				
Reporting of Energy Usage for the year yyyy							
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						
TOTAL	-						
* Conversion factor for delivered ele	ectricity to primary energy = 2.4						
Operator's comments:							
Cianad	Dete						
Signed							
(Authorised to sign as representativ	e of Operator)						

· crimi ramber.	21 0207 12	operator.		Astwood Energy Eta	
Facility:	Meriden Waste Water Treatment Facility	Form Number	er:	Performance1 / 20/11/18	
Reporting of other perfor	rmance indicators for the pe	riod DD/MM/YYY	Y to DD	/MM/YYYY	
Parameter			Units		
Total raw material used			tonnes		
Operator's comments:					
Signed	Date				
(Authorised to sign as representative	of Operator)				

Operator:

Permit Number

7P3237YI

Astwood Energy Ltd