



Pollution Prevention and Control Act 1999

Environmental Permitting (England and Wales) Regulations 2016

**Permit No:
WCBC/PG1/12/AHP**

Part B Permit for:

**ASH Heat and Power Ltd
Redwither Road
Wrexham Industrial Estate
Wrexham
LL13 9RD**

Issued by:

**Public Protection Service
Environment and Planning Department
Wrexham County Borough Council
Ruthin Road
Wrexham
LL13 7TU**

Date Permit issued: 11th September 2017

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Permit

Environmental Permitting (England
and Wales) Regulations 2016

**WREXHAM
COUNTY
BOROUGH
COUNCIL**

Permit

Permit Number

WCBC/PG1/12/AHP

Wrexham County Borough Council (the Council), in exercise of its powers under Part 2, Chapter 2, Regulation 13 of Environmental Permitting (England and Wales) Regulations 2016, hereby grants an Environmental Permit to:

ASH Heat and Power Ltd ("the Operator"),

Whose Registered Office is
C/O Lloyds (Animal) Feeds Ltd
Morton
Oswestry
Shropshire
United Kingdom
SY10 8BH

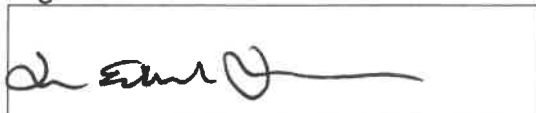
Company registration number **10380706**

To operate an Installation at

ASH Heat and Power Ltd
Redwither Road
Wrexham Industrial Estate
Wrexham
LL13 9RD

To the extent authorised by and subject to the Conditions of this Permit.

Signed



I. Jones

Public Protection Service Manager

Authorised to sign on behalf of Wrexham County Borough Council

Date

11th September 2017

WCBC Permit **WCBC/PG1/12/AHP**

Date of granting of permit: 11th September 2017

The Permitted Installation

The Operator is authorised to carry out the activities and/or the associated activities specified in Table 1.

Table 1		
Activity under Schedule 1, Part 2 of the Regulations / Associated Activity	Schedule 1 Activity Reference (if applicable)	Limits of Specified Activity
Incineration in a small waste incineration plant with an aggregate capacity of 50kg or more per hour.	Section 5.1 Part B (a)(v)	Incineration of virgin wood/biomass and waste, but not hazardous, wood.

Date of Application	28th February 2017
Date of Current Authorisation	11th September 2017

This permit shall relate to the area of land edged around in red on plan reference AHP1, henceforth called "the site" as shown in Appendix 1. The boundary of the permitted area is the wall of the biomass building.

Legislation

1. The Environmental Protection Act – Part I.
2. The Environmental Permitting (England and Wales) Regulations 2016
3. The Environmental Protection (Prescribed Processes and Substances) Regulations 1991 SI 472 (as amended).
4. The Environmental Protection (Application, Appeals and Registers) Regulations 1991 SI 507 (as amended).

Definitions

- i. The Permitted Process comprises the whole process including the treating, handling and storage of any materials used in and products and wastes produced by the process.
- ii. “week” means any calendar week.
- iii. “day” means any period of 24 consecutive hours commencing at midnight.
- iv. “incineration” means the burning of waste of any kind in any container, e.g. hearth, drum, or dustbin.
- v. “prescribed substances for air” are defined in Schedule 4 of The Environmental Protection (Prescribed Processes and Substances) Regulations 1991 SI 472 (as amended) as given below:

SCHEDULE 4	
Regulation 6(1)	
RELEASE INTO THE AIR: PRESCRIBED SUBSTANCES	
Oxides of sulphur and other sulphur compounds	
Oxides of nitrogen and other nitrogen compounds	
Oxides of carbon	
Organic compounds and partial oxidation products	
Metals, metalloids and their compounds	
Asbestos (suspended particulate matter and fibres), glass fibres and mineral fibres)	
Halogens and their compounds	
Phosphorus and its compounds	
Particulate matter.	

The Process specific emissions are highlighted above.

- vi. “visible emissions” may comprise dust, smoke.

Scope

Date Annual Subsistence Fee Required:	1 April annually
Date for Full Compliance:	11 th September 2017 unless otherwise stated.
Reference Secretary of State's Guidance Document for Compliance:	PG Note 1/12 (13) Statutory guidance for combustion of waste wood
Permit Prepared by:	Paul Campini, Enforcement Officer (01978) 297431

Process Description

See Appendix 1 for the general location plan of the process (marked in red on plan).

The authorised process consists of two biomass boilers with an operational capacity of 425 kg.hour⁻¹, generating up to 1000 kW each of heating for use on site. The boilers will be fuelled by a combination of virgin wood/biomass and Grade A waste wood. Grade A waste wood is currently defined as 'clean recycled wood'.

Each of the two boilers is a 1000kW Binder RRK1000 Boiler. Wood will be transferred to a walking floor fuel feed system by rubber wheeled shovel. Wood is loaded via continuous feed to each boiler at a rate of 425 kg.hour⁻¹, generating 2000kW (total) of heat for onsite use. Exhaust emissions are released via elevated flues.

Prior to release to atmosphere the boilers emissions will pass through or be subject to:

- Exhaust cyclone: To remove particulates from the emission
- High velocity air cleaning: To remove fly ash during cleaning cycles
- Exhaust gas recirculation: To reduce NO_x production
- O₂ trim: To reduce CO production.

Conditions

All conditions shall have effect from the 11th September 2017 unless otherwise stated

1.0 EMISSION LIMITS AND CONTROLS

- 1.1 All emissions to air from the process shall be free from persistent visible emissions and free from droplets.
- 1.2 There shall be no emissions of dust or other effluvia arising from the process.
- 1.3 Emissions from the exhaust stacks shall, in normal operation, be free from visible smoke, and in any case shall not exceed the equivalent of Ringelmann Shade 1 as described in British Standard BS 2742:2009.
- 1.4 There shall be no offensive odour beyond the site boundary.
- 1.5 Process emissions from the exhaust stacks serving the boilers shall comply with the emission limits and provisions specified in table 2 below:

Table 2: Emission limits, Monitoring and Other Provisions			
Substance	Emission Limit/ Provision	Type of Monitoring	Monitoring frequency
Carbon Monoxide	150 mg/m ³	Manual extractive testing Disregard: 30 minutes from cold start	Annual
Total Particulate Matter	60 mg/m ³	Filter leak monitor Visual and audible alarm and record Plus Manual extractive testing	Continuous Plus Annual
Oxides of Nitrogen (NOx)	400 mg/m ³	At commissioning and after any subsequent substantial change to the installation	
Organic Compounds	20 mg/m ³	Manual extractive testing	Annual

- 1.6 All pollutant concentrations shall be expressed at reference conditions: 273.1K, 101.3kPa, 11% oxygen.

2.0 MONITORING, SAMPLING AND MEASUREMENT OF EMISSIONS

- 2.1 Carbon Monoxide shall be monitored:
- Annually in accordance with Schedule 1 to this permit.
- 2.2 Total Particulate Matter shall be monitored:
- Continuously indicatively by a filter leak check fitted with an audible and visual alarm that shall activate in the event that 75% of the limit value in Table 2 is exceeded, i.e. at 45 mg/m³. Such activations shall be recorded in the site logbook as required by condition 4.1
 - Annually in accordance with Schedule 1 to this permit.
- 2.3 Oxides of Nitrogen shall be monitored for upon site commissioning. Monitoring shall be repeated following a substantial change to the process.
- 2.4 Organic compounds shall be monitored for annually in accordance with Schedule 1 to this permit.
- 2.5 The introduction of dilution air to achieve emission concentration limits is prohibited.
- 2.6 Continuous indicative monitoring as required by Table 2 shall be carried out as follows:
- The continuous indicative monitoring readings shall be on display to appropriately trained operating staff.
 - Instruments shall be fitted with audible and visual alarms, situated appropriately to warn the operator of arrestment plant failure or malfunction.
 - The activation of alarms shall be automatically recorded.
 - The continuous indicative monitor shall be operated and maintained in accordance with the manufacturer's instructions. The relevant maintenance shall be recorded in the site log book as required by condition 4.1
 - The continuous indicative monitor shall be referenced at least annually and in accordance with the manufacturer's instructions. Records of referencing shall be recorded in the site log book.
 - Any continuous indicative emission monitor used shall provide reliable data for more than 95% of the boiler operating time.
 - The operator shall have a written procedure to detect failure of the continuous indicative monitoring equipment and in such an event a defined means of achieving the minimum of 95% data capture
- 2.7 Annual testing as required by Table 2 shall be carried out as follows:
- The sampling period shall be sufficient such that at least 3 results are obtained
 - Sampling points shall be designed, located and maintained so as to achieve compliance with the relevant sampling standard as shown in Schedule 1 to this permit.
- 2.8 The Public Protection Service Manager of Wrexham County Borough Council shall be notified at least 7 days in advance of any periodic monitoring exercise to determine compliance with emission limit values. The notification shall state the provisional date and time of the monitoring, the pollutants to be tested, and the methods to be used.
- 2.9 The results of the annual emission testing specified in Conditions 2.1, 2.2, 2.3 and 2.4 shall be forwarded to the Public Protection Service Manager of Wrexham County Borough Council within 8 weeks of completion of the testing.
- 2.10 Adverse results from any monitoring activity (continuous or annual) shall be investigated by the operator without delay following receipt of the monitoring data. The operator shall:
- Identify the cause of the failure

- ii. Take corrective action without delay
- iii. Retest without delay.
- iv. Clearly record details of the failure, cause and extent along with corrective action taken in the site log book; and forward details to the Public Protection Service Manager of Wrexham County Borough Council along with the retest results.

Adverse results means any result which exceeds the emission limit values specified in Condition 1.5 of the Permit.

- 2.11 Visual assessments of emissions from the exhaust stacks serving the boilers shall be made on start-up, having regard to Condition 1.3. A record of the assessments shall be recorded in the site logbook as required by condition 4.1.
- 2.12 All appropriate precautions shall be taken to minimise emissions during start up and shut down.
- 2.13 Where there are problems that, in the opinion of the regulator, may be attributable to the installation, such as local complaints of visual emissions or where dust or odour from the installation is being detected beyond the site boundary, the operator shall:
 - i. Investigate in order to find out which part of their operation(s) is the cause.
 - ii. If this inspection does not lead to correction of the problem then the operator shall inform the regulator who will determine whether ambient air monitoring is necessary. Ambient monitoring may either be by a British Standard method or by a method agreed with the regulator.
 - iii. Whilst problems are ongoing, an additional visual check shall be made at least once per day/shift, by the operator during boiler operation. The time, location and result of these checks, along with weather conditions such as indicative wind direction and strength, shall be recorded in the site logbook as required by condition 4.1.
 - iv. Once the source of the emission is known, corrective action shall be taken without delay and details recorded in the site logbook as required by condition 4.1. Details of the problem, its extent and the remedial action taken shall be forwarded to the Public Protection Service Manager of Wrexham County Borough Council along with the results of any additional monitoring.

3.0 MATERIALS HANDLING AND OPERATIONAL CONTROLS

- 3.1 The following fuel shall be permitted for use in the boiler:
 - i. Virgin Wood / Biomass
 - ii. Grade A waste wood – Table 3 below, defines the different grades of waste wood and what is permissible:

Table 3: Waste Wood Grades

Waste Wood Grade	Typical materials	Typical non-wood content prior to processing	Permitted as a Fuel
Grade A. "Clean" Recycled Wood	Solid softwood and hardwood. Packaging waste, scrap pallets, packing cases, and cable drums. Process off-cuts from manufacture of untreated products.	Nails and metal fixings. Minor amounts of paint, and surface coatings.	YES
Grade B. Industrial Feedstock Grade	May contain up to 60% Grade A material as above, plus building and demolition materials and domestic furniture made from solid wood.	Nails and metal fixings. Some paints, plastics, glass, grit, coatings, binders and glues. Limits on treated or coated	NO
Grade C. Fuel Grade.	All of the above plus fencing products, flat pack furniture made from board products and DIY materials High content of panel products such as chipboard, MDF, plywood, OSB and fibreboard.	Nails and metal fixings. Paints coatings and glues, paper, plastics and rubber, glass, grit. Coated and treated timber (non CCA or creosote).	NO
Grade D Hazardous Waste	Fencing Transmission Poles Railway sleepers Cooling towers	Copper / Chrome / Arsenic preservation Treatments Creosote	NO

Further details can be found in the Defra publication 'Applying the Waste Hierarchy: evidence summary' published 2008:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69404/pb13529-waste-hierarchy-summary.pdf

- 3.2 The operator shall develop and implement a written procedure to ensure that the only waste wood used as a fuel is Grade A.
- 3.3 Fuel shall be loaded into each boilers continuous feed in such a manner as to minimise dust into the air.
- 3.4 All spillages shall be cleared up promptly by vacuum cleaning or wet methods. Dry sweeping of dusty spillages is not permitted. Wet material from spillages shall be dried before being burnt.

4.0 RECORDS

- 4.1 A site log book shall be kept on site containing a record of all monitoring, visual inspections, cleaning and maintenance. A breakdown of the requirements is shown in Table 4. The log book shall be kept available for inspection by the Council for at least 2 years. The log book may be kept in either a paper format or an electronic format. If an electronic format is selected, a backup record of information kept in the log book shall be made on a regular basis.

Table 4: Log Book Requirements		
Condition	Record	Frequency
2.2	Activation of the Particulate Matter continuous monitoring alarm.	As appropriate
2.6 (iv)	Record of the maintenance of the continuous monitoring analysers	As appropriate
2.6 (v)	Calibration (or referencing in the case of indicative monitors) of the continuous monitoring analysers	Annually
2.11	Visual assessment of emissions from the exhaust stacks serving the boilers.	At start up
2.13 (iii)	Visual and/or olfactory assessment during problem resolution.	As appropriate (at least daily)
2.13 (iv)	Description of problem, its extent, and resolution.	As appropriate
5.4	Details of malfunctions or breakdowns leading to abnormal emissions.	As appropriate

5.0 GENERAL OPERATIONS

- 5.1 The best available techniques shall be used to prevent, or where that is not practicable, reduce emissions from the installation in relation to any aspect of the operation of the installation which is not regulated by any other Condition of this Permit.
- 5.2 The operator shall maintain a list of key equipment / plant associated with abating emissions to air. This list shall be updated as required.
- 5.3 An appropriate written preventative maintenance programme shall be implemented for all plant and equipment concerned with emissions to air. A written copy of the maintenance programme shall be made available to an Authorised Officer of Wrexham County Borough Council upon request.
- 5.4 Any malfunction or breakdown leading to abnormal emissions shall be dealt with promptly, and process operations reduced or suspended until normal operations can be restored. All such malfunctions shall be recorded in the site log book. Where there is likely to be an effect on the local community, the Public Protection Service Manager of the Council shall be notified without delay.

- 5.5 On start-up from cold, the temperature of the combustion zone of the boilers shall be raised using only gas, oil or virgin timber as fuel. Waste wood shall not be burnt during the start-up from cold. The emission limits specified in Condition 1.5 shall be met from the point when waste wood is introduced into the process.
- 5.6 Staff at all levels shall receive appropriate training and instruction in their duties relating to control of the process and emissions to air. A record of training requirements for each operational post, and a record of the training received by each person whose actions may have an impact on the environment, shall be kept and made available to an Authorised Officer of Wrexham County Borough Council.
- 5.7 The Operator shall notify the Council of any proposed change to the operation of the installation at least 14 days before making the change. The notification shall be in writing and shall include a description of the proposed change in operation.
It is not necessary to make such a notification if an application to vary the Permit has been made and the application contains a description of the proposed change.
In this Condition "change in operation" means a change in the nature or the functioning, or an extension, of the installation, which may have consequences for the environment.

Schedule 1

Monitoring Methodology

Prescribed Substance	Monitoring Methodology to be Used
Carbon Monoxide	BS EN 15058
Total Particulate Matter	BS EN 13284-1 and MID
Oxides of Nitrogen	BS EN 14792
Organic Compounds (VOC)	BS EN 12619

Note:

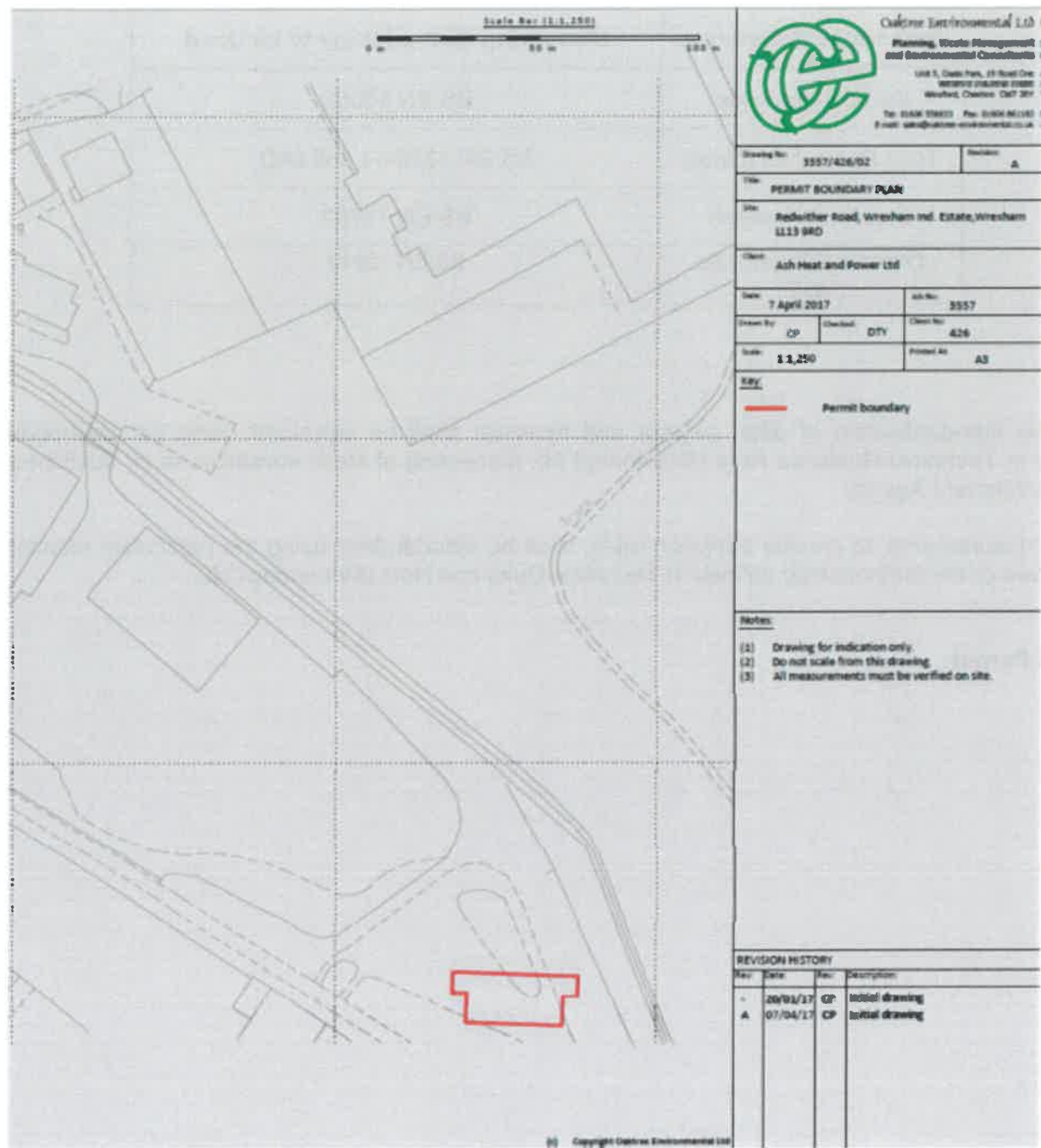
To allow standardisation of data, oxygen and moisture shall be corrected using the methodology defined in Technical Guidance Note (Monitoring) M2 Monitoring of stack emissions to air published by the Environment Agency

Flow measurements, to provide emission rates, shall be standardised using the particulate monitoring procedure or the methodology defined in Technical Guidance Note (Monitoring) M2.

End of Permit

APPENDIX 1

AHP1



Head of Environment and Planning Ruthin Road Wrexham LL13 7TU	WCBC/PG1/12/AHP ASH Heat and Power Ltd ASH Waste Ltd Redwither Road Wrexham Industrial Estate Wrexham LL13 9RD Date 25/5/2017	 Wrexham Council Wrexham
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These notes do not comprise part of the Permit but contain guidance relevant to the Permit.

Inspections and Powers of Entry

Regular inspections will be conducted by Authorised Officers of Wrexham County Borough Council to check and ensure full compliance with the Permit Conditions. These inspections may be undertaken without prior notice.

Under Section 108(6) of the Environment Act 1995 (as amended by Schedule 10 paragraph 16 of the Pollution Prevention and Control Regulations 2000) Authorised Officers of Wrexham County Borough Council have been granted powers of entry into any premises for the purposes of discharging relevant duties under the Pollution Prevention and Control Regulations 2000.

Residual Duty

Best Available Technique (BAT) is described as the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent and, where that is not practicable, generally to reduce emissions and the impact on the environment as a whole.

It should be noted that management systems are an integral part of BAT. It is not sufficient for an operator to have adequate technical control. Operating staff must be properly trained and regulators will recognise and encourage environmental management systems e.g. Eco-Management Audit Scheme and ISO 14001 Environmental Management Systems.

Other Statutory Requirements

This Permit does not detract from any other statutory requirement, such as the need to obtain planning permission, hazardous substances consent, discharge consent from Natural Resources Wales, Building Regulations approval, or a Waste Disposal licence.

All correspondence and reports shall be forwarded to:

Head of Environment and Planning
Public Protection Service
Wrexham County Borough Council
Ruthin Road
Wrexham
LL13 7TU

Other contact details:

Telephone No: 01978 298989 (08:30 hours to 17:30 hours Monday to Friday)

Telephone No: 01978 292055 (Out of hours emergency)

Fax No: 01978 315701

Permit Transfers

Transfers of Permits between operators must be the subject of a joint application to Wrexham County Borough Council, who will consider the application. If the Council considers that the conditions specified in the Permit will not be complied with, the permit will not be transferred. Unless a longer period is agreed, Wrexham County Borough Council will determine the application within 2 months.

Failure to do so will be deemed a refusal. There is a right to appeal against refusal (See section relating to Appeals).

Failure to inform Wrexham County Borough Council of a change of operator is an offence.

Wrexham County Borough Council must periodically review the conditions of the Permit and may do so at any time.

Variation of Conditions

Wrexham County Borough Council may vary the conditions of the Permit at anytime. It is also possible for the operator to apply for a variation to the Permit conditions. Further details of this procedure and the relevant application forms can be obtained from the Environmental Health and Housing Standards Section of Wrexham County Borough Council. The prescribed fee must accompany all applications.

There is a right to appeal against a change of conditions and against a refusal to grant an application for change. (See section titled appeals).

Noise

This Permit does not include reference to noise. Statutory noise nuisance is regulated separately under the provisions of Part III of the Environmental Protection Act 1990.

Offensive Odour

Where a process has the potential to give rise to offensive odour, then specific technical conditions are included in the Permit which are designed to prevent (rather than minimise) the escape of offensive odour. These specific conditions are supplemented with a general condition to require emissions to be free from offensive odour beyond the permitted process boundary.

In determining whether odour is offensive then Officers of the Council will take into account the nature, persistence, frequency and intensity of the odour. Additionally, Officers of the Council will take into account circumstances where offensive odours are released for reasons that are beyond the direct control of the operator. Allowance will be made for such occurrences, and it will not be a breach of the condition in a particular case, if the operator can demonstrate that he or she took all reasonable steps and exercised due diligence to prevent the release of offensive odour and to minimise the duration of the release.

Health and Safety

This Permit is given in relation to the requirements of Environmental Permitting (England and Wales) Regulations 2016. It must not be taken to replace any workplace responsibilities the operator has under Health & Safety legislation. Whenever emission limits quoted in this Permit conflict with occupational exposure limits set under the Health and Safety at Work Act 1974 to secure the health, safety or welfare of persons at work, the tighter limit should prevail.

Processes must be operated in order to protect persons at work as well as the environment. In achieving conditions in this Permit the operator must not adopt any course of action that would put at risk the health, safety or welfare of persons at work.

Appeals

An operator may appeal to the Secretary of State for the following reasons:-

- (a) refusal of an application
- (b) refusal of an application to vary the Permit
- (c) the service of a revocation , enforcement or suspension notice
- (d) determination that information is not commercially confidential.
- (e) refusal of an application to transfer or surrender a Permit
- (f) the service of a variation notice on the Local Authority's initiative.

Further information can be found in the Environmental Permitting (England and Wales) Regulations 2016 (Part 2, Chapter 5, Regulation 31).

Offences committed against any of the requirements of the Pollution Prevention and Control Regulations are punishable, on summary conviction, of an unlimited fine and /or up to 6 month imprisonment. Conviction in the Crown Court may lead to an unlimited fine and/or to imprisonment for up to 5 years.

