



**POLLUTION PREVENTION AND CONTROL ACT 1999
ENVIRONMENTAL PERMITTING (ENGLAND & WALES) REGULATIONS
2016, as amended**

Permit Number: 5.1/092580/JT

**Ian Whitehead Contract Furnishings Limited
Unit 2 Bankside Works
Darnall Road
SHEFFIELD
S9 5AH**

In accordance with Regulation 13(1) of the Environmental Permitting (England and Wales) Regulations 2016, as amended, Ian Whitehead Contract Furnishings Limited is hereby permitted to operate a scheduled activity at the address detailed above, namely the incineration in a small waste incineration plant with an aggregate capacity of 50kg or more per hour of clean untreated wood waste, with the exception of wood waste which may contain halogenated organic compounds or heavy metals as a result of treatment with wood preservatives or coatings, as described in Schedule 1, Part 2, Chapter 5, Section 5.1, Part B, (a)(v) of the Environmental Permitting (England and Wales) Regulations 2016, as amended, and subject to the following Permit conditions.

Signed

Dated: 21st March 2019

**Commercial Team Manager
Authorised by Sheffield City Council to sign on their behalf**

The Secretary of States Process Guidance Note PG 1/12(13) and draft Environmental Permitting Technical Note 5/1(18) have provided the framework for the conditions in this Permit.

Name & Address of Operator:

Ian Whitehead Contract Furnishings Limited
Unit 2 Bankside Works
Darnall Road
Sheffield
S9 5AH

Contact: Ian Whitehead - ianwhitehead@ianwhitehead.co.uk Tel: 2490050

Registered Office:

Ian Whitehead Contract Furnishings Limited
Unit 2 Bankside Works
Darnall Road
Sheffield
S9 5AH

Company Registration number: 02858285

Address of Permitted Installation:

Ian Whitehead Contract Furnishings Limited
Unit 2 Bankside Works
Darnall Road
Sheffield
S9 5AH

Holding Company: NO

Talking to Us

Any communication with Sheffield City Council should be made to the following address quoting the Permit Number: **5.1/092580/JT**

**ENVIRONMENTAL PROTECTION SERVICE
FLOOR 5 (NORTH) HOWDEN HOUSE
1 UNION STREET
SHEFFIELD
S1 2SH**

Alternatively Email: epsadmin@sheffield.gov.uk or ippc@sheffield.gov.uk
Telephone: (0114) 273 4651

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Explanatory Note to Pollution Prevention and Control Permit for Part B Installations.

(This note does not form a part of the Permit)

The following Permit is issued under Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016 (S.I. 2016 No.1154), as amended, (“the EP Regulations”) to operate an installation described in Schedule 1, Part 2, Chapter 5, Section 5.1, Part B, (a)(v) as described below;

Part B

- (a) The incineration in a small waste incineration plant with an aggregate capacity of 50kg or more per hour of the following waste –
 - (v) Wood waste with the exception of wood waste which may contain halogenated organic compounds or heavy metals as a result of treatment with wood preservatives or coatings.

Process Changes

Under the provisions of the EP Regulations, you are required to notify the Council of any proposed change in operation at least 14 days before making the change. This must be in writing and must contain a full description of the proposed change in operation and the likely consequences. Failure to do so is an offence.

If you consider that a proposed change could result in the breach of the existing permit conditions or is likely to require the variation of permit conditions then you may apply in writing under Regulation 20(1) of the EP Regulations. Additionally, if this involves a SUBSTANTIAL CHANGE to the installation you will be required to submit an application, pay the relevant fee and advertise the application accordingly. You may serve a Notice on the Council requesting that they determine whether any change that is proposed would constitute a substantial change before you proceed with application.

Variations to the Permit

The Permit may be varied in the future by the Council serving a Variation Notice on the Operator. If the Operator wishes any of the Conditions of the Permit to be changed, a formal Application must be submitted.

Surrender of the Permit

Where the Operator of a Part B installation or mobile plant ceases or intends to cease the operation of the activity the Operator may notify the regulator of the surrender of the whole permit, in any other case, notify the regulator of the surrender of the permit in so far as it authorises the operation of the installation or mobile plant which he/she has ceased or intends to cease

operating. The notification shall contain information as described in Regulation 24 or 25 of the EP Regulations.

Transfer of the Permit or Part of the Permit

Before the Permit can be wholly or partially transferred to another person, a joint application to transfer the Permit has to be made by both the existing and proposed holders, in accordance with Regulation 21 of the EP Regulations. A transfer will be allowed unless Sheffield City Council considers that the proposed holder will not be the person who will have control over the operation of the installation or will not ensure compliance with the conditions of the transferred Permit.

Annual Subsistence Fee

In accordance with Regulation 66 of the EP Regulations, the holder of a permit is required to pay a fee for the subsistence of the Permit. This fee is payable annually on 1st April. You are advised that under the provisions of Regulation 66 (5) of the EP Regulations, if you fail to pay the fee due promptly, Sheffield City Council may revoke the Permit. You will be contacted separately each year in respect to this payment.

Public Register

The Council is required by Regulation 46 of the EP Regulations to maintain a Public Register containing information on all LAPPC installations and mobile plant. The register is available for inspection by the public free of charge during office hours (Monday to Friday 9.00 am to 5.00 pm) at the following address:

Environmental Protection Service
Sheffield City Council
Floor 5 (North) Howden House
1 Union Street
Sheffield
S1 2SH

Tel: 0114 273 4651 or email epsadmin@sheffield.gov.uk

Confidentiality

Sheffield City Council has a duty to consider the question of confidentiality of information supplied to it. If any information supplied is considered confidential, a statement of which information this applies to and the reasons why it is considered confidential should be specified. The Operator is reminded that he may apply to Sheffield City Council for the exclusion of information from the public register under the provisions of the Environmental Permitting (England and Wales) Regulations 2016.

Appeals

Under Regulation 31 of the EP Regulations Operators have the right of appeal against the conditions attached to their permit. Schedule 6 of the EP Regulations sets out the detailed procedures.

Appeals against a Variation Notice do not have the effect of suspending the operation of the Notice. Appeals do not have the effect of suspending Permit conditions.

Notice of appeal against the conditions attached to the permit must be given within six months of the date of the Notice, which is the subject matter of the appeal.

How to Appeal

There are no forms or charges for appealing. However, for an appeal to be valid, appellants (the person/Operator making the appeal) are legally required to provide:

- Written notice of the appeal;
- A statement of the grounds of appeal;
- A statement indicating whether the appellant wishes the appeal to be dealt with by written representations procedure or a hearing – a hearing must be held if either the appellant or enforcing authority requests this, or if the Planning Inspector or the Secretary of State decides to hold one.
- (Appellants must copy the above three items to the local authority when the appeal is made)
- A copy of any relevant application;
- A copy of any relevant permit;
- A copy of any relevant correspondence between the appellant and the regulator; and
- A copy of any decision or notice, which is the subject matter of the appeal.

Where to Send Your Appeal Documents

Appeals should be addressed to:

**The Planning Inspectorate
Environmental Appeals Administration
Room 4/19 – Eagle Wing
Temple Quay House
2 The Square
Temple Quay
Bristol BS1 6PN**

In the course of an Appeal process the main parties will be informed of procedural steps by the Planning Inspectorate.

To withdraw an appeal the appellant must notify the Planning Inspectorate in writing and copy the notification to the local authority.

Enforcement

An **Enforcement Notice** may be served if the Local Authority believes an Operator has contravened, is contravening or is likely to contravene any condition of his Permit.

A **Suspension Notice** may be served if in the opinion of the Local Authority the operation of an installation involves an imminent risk of serious pollution. This applies whether or not the Operator has breached a Permit condition.

The Local Authority can revoke a Permit by written notice at any time by serving a **Revocation Notice**. The Permit then ceases to authorise the operation of the installation.

Offences

A limited summary of the offences is listed below:

- a) operation of an installation without a Permit
- b) failure to comply with or contravene a Permit condition
- c) failure to comply with the requirements of an enforcement or suspension notice

A full list is available under Regulation 38 of the Environmental Permitting (England & Wales) Regulations 2016.

Penalties

The maximum penalties for the above offences are a fine not exceeding £50,000 and/or up to twelve months imprisonment per offence for a summary conviction (in a Magistrates Court); and a fine and/or up to five years imprisonment for conviction on indictment (in a Crown Court).

Definitions

In relation to this Permit, the following expressions shall have the following meanings:

“Application” means the application for this Permit, together with any response to a notice served under Schedule 4 to the EPR Regulations and any operational change agreed under the conditions of this Permit.

“EPR Regulations” means the Environmental Permitting (England and Wales) Regulations S.I .2016 No. 1154 and words and expressions defined in the EPR Regulations shall have the same meanings when used in this Permit save to the extent they are explicitly defined in this Permit.

“Permitted Installation” means the activities and the limits to those activities described in this Permit.

“Monitoring” includes the taking and analysis of samples, instrumental measurements (periodic and continual), calibrations, examinations, tests and surveys.

“Regulator” means any officer of Sheffield City Council who is authorised 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(1) of that Act.

“BAT” means 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 bases for emission limit values designed to prevent, and where that is not practical, generally to reduce emissions and the impact on the environment as a whole. For those purposes:

“available techniques” means those techniques which have been developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the cost and advantages, whether or not the techniques are used or produced inside the United Kingdom, as long as they are reasonably accessible to the Operator;

“best” means, in relation to techniques, the most effective in achieving a high general level of protection of the environment as a whole; *“techniques”* include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned. Schedule 2 of the Regulations shall have effect in relation to the determination of best available techniques, and;

“Fugitive Emission” means an emission to air from the permitted installation that is not controlled by an emission limit imposed by a condition of this Permit.

Where any condition of this Permit refers to the whole or parts of different documents, in the event of any conflict between the wording of such documents, the document with the most recent publication date shall be taken to be the most appropriate document to be used.

DESCRIPTION OF ACTIVITIES.

This Permit covers the incineration in a small waste incineration plant. Wood waste which may contain halogenated organic compounds or heavy metals as a result of treatment with wood preservatives or coatings such as paint is not permitted to be burnt. The plant permitted is a Talbotts MWE 600, with a net rated thermal input of 706kW and thermal output of 600kW. The appliance has an aggregate capacity of 162kg per hour of clean and untreated wood waste. The abatement is a multicyclone.

Woodchip Feedstock

The feedstock for the boiler consists of woodchip produced from chipping uncontaminated and untreated waste wood, or virgin waste wood.

Operation of the Boiler.

The boiler is started using virgin wood. Wood off cuts are shredded and automatically transferred to the fuel storage bunker. Any sawdust produced is automatically extracted and also fed into the biomass boiler plant. Flue gas recirculation is incorporated into the design of the biomass combustion system, and is introduced to maintain the combustion temperatures below critical values to avoid excess thermal NO_x formation, and to prevent ash fusion and clinkering. Fuel is introduced to the top of the inclined grate where moisture is driven off and the temperature is raised to ~350°C where devolatilisation of the biomass fuel begins to occur. The fuel continues to pass down the inclined grate and the volatiles that are released burn above the bed of fuel and pass into the secondary combustion chamber, while the resulting char passes on down the grate where it is exposed to higher concentrations of oxygen (higher air:fuel ratio) to promote complete combustion of the less reactive char. Particulate matter emissions are filtered through a twin cyclone before exhausting to air via the chimney. The required chimney height is 10m from the ground.

Heat Recovery.

Thermal energy associated with the hot combustion gases is recovered in the convective smoke tube section of the boilers to produce hot water at ~90°C, which is then introduced into the heating circuit of the drying plant and returned to the boiler at a temperature of ~70°C. The heat produced by the boiler is used to heat the workshop and offices.

Process Control

The boiler control system provides combustion management by a lambda control loop (oxygen trim) through the Programmable Logic Controllers unit along with real time feed back of the furnace; post furnace and flue gas temperatures. The primary and secondary fans are inverter driven allowing optimum combustion to be achieved for various load requirements, and variability in the proportions of sawdust in the fuel mixture.

Combustion Management

All aspects of the combustion of the fuels are managed by the biomass boiler's Programmable Logic Controllers (PLC). Fuel is called for from the fuel store via demand to satisfy the temperature set within the PLC.

Fuel is supplied via automated control, managed by a series of infra red sensors mounted in the chain conveyor and fuel hopper. This provides a constant controlled supply of fuel to the hydraulic loading system. The rate of fuel feed is governed by preset cycle times programmed into the PLC control system. The hydraulic fuel feed 'pusher' loads the pre-determined quantity of fuel into the combustion chamber's 'loading plate'.

This allows the process of pre-combustion drying/evaporation to start prior to the fuel being pushed onto the moving grate. The fuel is subsequently moved down the grate delivering it to the point of maximum pyrolysis/gasification, and the primary air addition first and second stages.

The speed of the moving grate is governed by pre-set times programmed into the PLC, as is the primary air flowrate to the combustion chamber. A zirconia probe situated within the combustion chamber provides information to the PLC to "trim" the oxygen concentration (excess air levels) to provide efficient combustion conditions at all times. Secondary and tertiary air speeds are controlled by the flue gas oxygen monitoring.

Abnormal Operating Conditions

The PLC system detects deviations from standard operating conditions and triggers a visible and audible alarm on the control panel. The boiler control system is able to indicate a low alarm condition, for small deviations which would not have a significant impact on emissions, and a high alarm condition for large deviations which could impact significantly on emissions. Under the low alarm condition, the PLC controller will alert the operator, but will continue operating. In the event that the low alarm persists without an operator responding within a defined period (typically between 4 to 24 hours depending upon severity of the alarm), then the PLC controller will automatically shut down the boiler and lock-out to prevent automated restart. Under high alarm condition, the boiler will immediately shut down in a controlled manner as quickly as possible, and will then lock-out to prevent automated restart. Both high and low alarm conditions operate independently of the operator notification.

Storage and Removal of Ash.

At the end of the grate the fully burnt-out, bottom ash residue falls into an ash quench chamber prior to being transferred to an ash collection bin by a screw feeder. Flyash collected from the base of the twin cyclones falls into a hopper from where it is collected for subsequent disposal. Ash is emptied from the ash box, bagged and stored inside a building prior to removal from site by a registered waste carrier.

CONDITIONS OF PERMIT.

The following conditions shall be complied with immediately unless otherwise stated.

Section 1 – Upgrading

- 1.1 The chimney height of the boiler shall be extended to 10 metres from ground level within 14 days of the date of this Permit.
- 1.2 The Operator shall inform the Regulator in writing when the requirements of condition 1.1 have been completed.
- 1.3 Within 6 weeks from the date of this permit, the Operator shall undertake emissions testing to determine whether the emission limits laid down in Table 2 of condition 3.18 are complied with.
- 1.4 Where the results of the emissions testing required by condition 1.3 demonstrate an exceedance of an emission limit, within 14 days of receipt of the results, the Operator shall provide an Improvement Plan to the Regulator detailing the steps to be taken to meet the emission limit(s) in exceedance.

Section 2 – Plant and Equipment

- 2.1 The activities at the installation shall be carried out within the boundary outlined in red as indicated on the Installation Location and Boundary plan in Schedule 1 of this Permit.
- 2.2 Permitted activities shall only be carried on using the plant, equipment and feedstock as detailed in the Description of Activities and as shown on the plans in Schedule 2 of this Permit.
- 2.3 The Operator shall ensure that the Regulator is notified of any proposed operational changes including any alterations to the process such as but not limited to the removal of plant, provision or change in plant, equipment, a change in fuel, substances or processes which may affect emissions. The information shall be submitted at least 14 days before the changes take place.
- 2.4 No plant or equipment used for any activity shall be operated with an extraction point direct to atmosphere unless specifically noted within this Permit or specifically agreed in writing with the Regulator.

Section 3 – Emission Limits and Controls.

- 3.1 All emissions to air, other than steam or condensed water vapour, shall be free from persistent visible emissions and free from droplets.
- 3.2 Emissions to air shall be free from offensive odour beyond the installation boundary, as perceived by the Regulator.
- 3.3 Emissions from the final point of discharge from the chimney shall be vertically upwards.
- 3.4 All reasonably practicable steps shall be taken to minimise the duration and visibility of emissions during start up and shut down.
- 3.5 The number of start-ups and shut downs shall be kept to a minimum and shall be recorded in the log book.
- 3.6 During start up and shut down, any smoke emissions shall not exceed the equivalent of Ringelmann Shade 1, as described in British Standard BS 2742:2009 and shall not exceed a period of 10 minutes.
- 3.7 Emissions from the chimney shall be free from visible smoke during normal operation.
- 3.8 Woodchip shall be inspected prior to loading the boiler. Any potentially contaminated woodchip, such as those with stains, coatings, treatments, paints, plastics, metals, foreign objects or odorous materials, shall be quarantined.
- 3.9 Any waste wood which is classified as hazardous waste cannot be combusted in the appliance.
- 3.10 Contaminated or treated wood shall not be burnt or loaded into the hopper. Plastics, metals or other foreign objects shall not be burnt or loaded into the hopper.

- 3.11 Only clean untreated wood as described in Table 1 “Acceptable Waste Codes” below shall be combusted in the appliance.

Table 1: Acceptable Waste Codes

European Waste Classification Codes	Description	Further restriction
02 01 03 02 01 07	Plant tissue waste from agriculture, horticulture and forestry	
03 01 01	Waste bark and cork from wood processing and the production of panels and furniture	No chemical treatments applied
03 01 05	Sawdust, shavings, cuttings, wood, particle board and veneer ⁽¹⁾ other than those mentioned in 03 01 04	No chemical treatments applied ⁽¹⁾ Only veneer that is fixed to the board
03 03 01	Waste bark and wood from pulp, paper and cardboard production and processing	No chemical treatments applied
15 01 03	Wooden packaging	Visibly clean wooden packaging including pallets, no chemical treatments applied
19 12 07	Wood other than wood containing hazardous substances (191206) from waste management facilities	Source segregated visibly clean single waste wood streams such as pallets, where no chemical treatments have been applied
		Post segregation of mixed waste wood streams from civic amenity sites or skip hire operators is not sufficient

- 3.12 Fuel shall be automatically fed into the combustion chamber by a combination of screw feed and walking floor.

- 3.13 The operation of the boiler shall be fully automated. Woodchip feed and air supply shall be adjusted automatically.
- 3.14 A Lambda flue gas analyser probe located after the cyclone shall continuously monitor oxygen and carbon monoxide emissions and feed the results back to the boiler control panel.
- 3.15 The plant shall only be loaded, operated and adjusted by trained and competent operatives.
- 3.16 The boiler shall be automatically de-ashed via screw feed into an enclosed ash box.
- 3.17 Ash shall be stored separately from the woodchip store.
- 3.18 Emissions from the chimney serving the combustion appliance shall not exceed the following emission limit values as laid down in Table 2;

Table 2:

Pollutant	Emission Limit Value mg/m³	Minimum Monitoring Frequency
Carbon monoxide	250	Annual
Total particulate matter	60	Annual
Total volatile organic compounds	20	Annual
Chloride expressed as hydrogen chloride	100	Annual
Hydrogen cyanide	5	Annual
Formaldehyde	5	Annual
Oxides of nitrogen (NO _x)	400	Annual

- 3.19 The boiler shall only operate with the cyclones in place and in working order.
- 3.20 Heat from the boiler shall be recovered at all times when in operation, and used to heat offices and the workshop.

Section 4 – Monitoring, Sampling and Measurement of Emissions.

- 4.1 The Operator shall ensure that a visual assessment of emissions from the chimney serving the boiler is carried out at least once a day when it is operational. The duration of the assessment shall be for a minimum of one minute. All results of observations shall be recorded in accordance with condition 8.4.

- 4.2 The Operator shall ensure that an olfactory assessment of emissions from the chimney serving the boiler is carried out at least once a day when the boiler is operational, at a point on the boundary downwind of the stack. The duration of the assessment shall be for a minimum of one minute. All results of observations shall be recorded in accordance with condition 8.4.
- 4.3 Emissions of total particulate matter from the stack serving the boiler shall be tested at least once in every 12 month period in accordance with the main procedural requirements of BS EN 13284-1 unless otherwise agreed in writing with the Regulator.
- 4.4 Emissions of carbon monoxide shall be tested at least once in every twelve month period in accordance with the main procedural requirements of BS EN 15058 unless otherwise agreed in writing with the Regulator.
- 4.5 Emissions of total volatile organic compounds shall be tested at least once in every twelve month period in accordance with the main procedural requirements of BS EN 12619 unless otherwise agreed in writing with the Regulator.
- 4.6 Emissions of oxides of nitrogen (NO and NO₂, expressed as NO₂) shall be tested at least once in every twelve month period in accordance with the relevant EN 14792 unless otherwise agreed in writing with the Regulator.
- 4.7 Emissions of hydrogen cyanide shall be tested at least once in every twelve month period in accordance with US EPA Method 316 or as otherwise agreed in writing with the Regulator.
- 4.8 Emissions of formaldehyde shall be tested at least once in every 12 month period in accordance with BS CEN/TS 13649 or as otherwise agreed in writing with the Regulator.
- 4.9 Emissions of hydrogen chloride shall be tested at least once in every 12 month period in accordance with EN 1911 or as otherwise agreed in writing with the Regulator.
- 4.10 The introduction of dilution air into duct systems in order to comply with an emission limit is not permitted.
- 4.11 The Operator shall ensure that adequate facilities for sampling are provided on vents or ducts. Sampling points on new plant shall be designed to comply with the British or equivalent standards.
- 4.12 Stack emissions shall be tested when an operative of Ian Whitehead Contract Furnishings Limited is operating the boiler and under representative process conditions.

- 4.13 Prior to undertaking any emissions monitoring, the Operator shall submit an emissions site monitoring protocol detailing the pollutants to be tested, stacks to be tested, the methods to be used and the proposed date of testing, at least 7 days before the testing is to take place to the Regulator for approval in writing.
- 4.14 The results of annual non-continuous monitoring tests shall be forwarded to the Regulator within 8 weeks of completion of the testing.
- 4.15 Where the results of any non-continuous monitoring are adverse, or approach or exceed any emission concentration limit, the Operator shall inform the Regulator no later than 10:00 hours the following working day after receipt of the results.
- 4.16 Stack emissions monitoring shall be carried out in accordance with methods described in M1 "Sampling requirements for monitoring stack emissions to air from industrial installations"¹ and M2 "Monitoring of stack emissions to air"², or by another method agreed in writing by the Regulator.
- 4.17 Results of non-continuous monitoring shall include details of process conditions at the time of monitoring, monitoring uncertainty and any deviations from the procedural requirements of standard reference methods and any error invoked from such deviations.
- 4.18 The monitoring reports shall record all pollutant concentrations expressed at reference conditions, 273K, 101.3kPa and 11% oxygen.
- 4.19 In the event of results from any monitoring activity demonstrating an adverse emission, approach to a limit, or a breach of emissions limit, the Operator shall undertake the following actions:
- Cease the activity or process causing the adverse emission immediately;
 - Investigate the cause immediately;
 - Carry out corrective actions as soon as is practicably possible;
 - Record in the recording system required by condition 8.4 as much detail as possible regarding the cause and extent of the problem and the action taken to rectify the situation;
 - Undertake emissions re-testing to demonstrate compliance as soon as possible;
 - Only re-start the activity in question when it is compliant with emission limits and Permit requirements;
 - Notify the Regulator within one day of becoming aware of the results.

¹ Environment Agency, January 2016, or any re-issue or update

² Environment Agency, January 2014, or any re-issue or update

Section 5 – Continuous Monitoring

- 5.1 Emissions of oxygen and carbon monoxide from the boiler shall be continuously monitored using a lambda probe.
- 5.2 Any continuous monitor used shall provide reliable data >95% of the operating time, (i.e. availability >95%). A manual or automatic procedure shall be in place to detect instrument malfunction and to monitor instrument availability.
- 5.3 Continuously monitored data and alarm events of O₂ and CO shall be sent via telemetry to the service contractor and the plant senior managers.
- 5.4 The Operator shall ensure that a visual assessment of the continuous monitors and associated alarms is carried out at least once in every three month period for any signs of damage. Any defects shall be repaired as soon as possible. Details of the checks and any repair work shall be recorded in the log book or recording system required by condition 8.4.
- 5.5 The Operator shall ensure that all continuous monitors are serviced and calibrated at least once in every 12 month period by a competent person. Details of the servicing or maintenance shall be recorded in the log book or recording system kept in accordance with condition 8.4.
- 5.6 New or replacement continuous indicative monitors shall be designed for less than 5% down time over any 3 month period. Details of any proposed replacement equipment shall be submitted to the Regulator for written approval prior to installation.
- 5.7 The PLC system shall trigger a visible and audible alarm on the control panel to indicate a low alarm condition, for small deviations. In the event that the low alarm persists without an operator responding within 24 hours, the PLC controller shall automatically shut down the boiler and lock-out to prevent automated restart.
- 5.8 Under high alarm condition, the PLC system shall trigger automatic and immediate controlled shutdown of the boiler and shall then lock-out to prevent automated restart.

Section 6 – Maintenance.

- 6.1 A written audit of items of plant and equipment shall be undertaken. The audit shall identify all plant and equipment that is critical to prevent, reduce or control emissions to air from the boiler. A copy of the audit shall be submitted to the Regulator for written approval within 4 weeks of the date of this Permit.

- 6.2 A written preventative maintenance schedule shall be produced for all critical plant and equipment identified from the audit required by condition 6.1. A copy of the maintenance schedule shall be submitted to the Regulator for written approval within 4 weeks of the date of this Permit.
- 6.3 The maintenance schedule shall be revised and updated upon provision, removal or alteration of plant, equipment or devices. Once approved by the Regulator, the maintenance schedule shall be implemented by the Operator and adhered to.
- 6.4 The Operator shall ensure that all abatement plant is operated and maintained in accordance with manufacturer's recommendations and serviced at least once in every 12 month period. Details of the maintenance and servicing shall be recorded and made available for inspection by the Regulator on demand.
- 6.5 The Operator shall ensure that pollution abatement plant such as cyclones, lambda probe, associated monitors, control panels, alarms, data loggers and control systems shall be checked and maintained in good working order as part of an ongoing written planned preventative maintenance programme, to ensure sound operation. Details of these checks shall be recorded and made available for inspection by the Regulator on demand.
- 6.6 The Operator shall ensure that a visual inspection of all abatement plant such as the cyclone and associated ductwork is carried out at least once in every 6 month period under normal operating conditions for any signs of wear, tear or damage. Any damage or defects shall be repaired as soon as possible. Details of inspections including any remedial action shall be recorded and made available for inspection by the Regulator on demand.
- 6.7 The Operator shall ensure that the oxygen and carbon monoxide monitors serving the boiler stack are serviced and calibrated in accordance with manufacturer's recommendations.
- 6.8 All continuous monitoring readings shall be on display to operating staff.
- 6.9 The chimney, flue and ductwork shall be internally swept at a period recommended by the manufacturer. A record of the cleaning shall be kept.
- 6.10 An adequate supply of spares and consumables shall be kept on site or made available within 1 day from guaranteed suppliers for all items of plant and equipment identified as being critical as a result of the audit carried out in compliance with condition 6.1.

- 6.11 Records of breakdowns and plant failure shall be kept and analysed in order to eliminate common failures. The records shall be made available for inspection by the Regulator on demand.
- 6.12 For plant and equipment identified in the audit required by condition 6.1, alarms or other warning systems shall be provided as appropriate to indicate equipment malfunction or breakdown by a date agreed with the Regulator.
- 6.13 All alarms or warning systems for plant and equipment shall be checked as part of a preventative maintenance schedule and maintained in accordance with manufacturer's instructions. A record of such checks and maintenance shall be noted. Details shall be made available for inspection by the Regulator on demand.
- 6.14 Buildings, housings and structures including roofs and guttering shall be inspected at least once per year for any signs of accumulations of dusty material or ash that may become wind-whipped. Repairs and cleaning shall be carried out immediately and details of inspections shall be recorded and made available for inspection by the Regulator on demand.
- 6.15 Roadways, storage areas and yards shall be inspected at least once per month for any signs of accumulations of dusty material that may become wind-whipped. Cleaning shall be carried out immediately and details of inspections shall be recorded and made available for inspection by the Regulator on demand.

Section 7 – Materials Handling.

- 7.1 Ash shall be automatically screw fed from the boiler into the ash pan. The ash pan shall be emptied daily when the boiler is operational.
- 7.2 Bags containing ash or dust shall be tied or fastened securely and stored inside a building in order to prevent emissions to atmosphere. Any split bags shall be double bagged.
- 7.3 Storage and handling of particulate matter including ash shall be carried out indoors so as to prevent or minimise dust emissions.
- 7.4 Spillages of potentially dusty materials shall be cleared up immediately.
- 7.5 Cleaning operations shall be carried out by wet sweeping methods or vacuuming in order to minimise emissions of particulate matter to air.

Section 8 – General Conditions.

- 8.1 The stack serving the boiler shall be adequately insulated to minimise cooling of waste gases and steam to prevent liquid condensation. Stacks and ductwork shall be leak proof.
- 8.2 The stack serving the boiler shall be 11m high from ground level.
- 8.3 The stack serving the boiler shall not be fitted with any restriction at the final opening to exit velocity such as a plate, cap or cowl other than an accelerator cone or low resistance cowl.
- 8.4 The Operator shall ensure that records containing the details and results of all visual assessments and records of all inspections, observations and maintenance made in accordance with Permit conditions are kept. These records shall include the time and date of inspection, the nature, colour, persistency and intensity of any emission and the name of the person carrying out the assessment. For visual and olfactory assessments the weather conditions, including wind speed and direction, shall be logged. The records shall be kept on the permitted premises and made available for inspection by the Regulator. Such records shall be kept for a minimum of two years and shall be submitted in writing to the Regulator on demand.
- 8.5 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.
- 8.6 Staff at all levels shall receive training and instructions necessary for their duties and shall include the following:
- Responsibilities under the Permit;
 - Minimisation of emissions at start up and shut down;
 - Actions during abnormal emissions including minimisation of emissions.
- 8.7 Boiler operatives shall be trained by Talbotts Biomass Energy Systems or other competent engineers using written operating procedures.
- 8.8 The training records and operating procedures required by condition 8.7 shall be available to the Regulator on demand.
- 8.9 The Operator shall keep and maintain a statement of training requirements for each operational post and keep a record of the training received by each employee whose actions may have an impact on emissions to atmosphere. These documents shall be made available to the Regulator upon request.

- 8.10 The Operator shall manage and operate the activities in accordance with a written 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 Operators as a result of complaints, and using sufficient competent persons and resources.
- 8.11 The Operator shall ensure that all records required to be made by this Permit and any other records made by it in relation to the operation of the permitted process shall:-
- a) be made available for inspection by the Regulator at any reasonable time;
 - b) be supplied to the Regulator on demand and without charge;
 - c) be legible;
 - d) be made as soon as reasonably practicable;
 - e) indicate any amendments which have been made and shall include the original record wherever possible, and;
 - f) be retained at the Permitted installation, or other location agreed by the Regulator in writing, for a minimum period of 2 years from the date when the records were made, unless otherwise agreed in writing.
- 8.12 The Operator shall notify the Regulator **without delay** of:-
- a) The detection of an emission of any substance, which exceeds any limit or criterion in this Permit, specified in relation to the substance;
 - b) The detection of any fugitive emission that has caused, is causing or may cause significant pollution, unless the quantity emitted is so trivial that it would be incapable of causing significant pollution;
 - c) The detection of any malfunction, breakdown or failure of plant or techniques which has caused, is causing or has the potential to cause significant pollution;
 - d) Any accident, which has caused, is causing or has the potential to cause significant air pollution.
- 8.13 The Operator shall give written notification to the Regulator in the following instances;
- a) Permanent cessation of the operation of any part of, or all of the Permitted Installation;
 - b) Cessation of the operation of any part of, or all of the Permitted Installation for a period, likely to exceed 1 year;
 - c) Resumption of the operation of any part of, or all of the permitted installation after a cessation notified under (b) above.

- 8.14 The Operator shall inform the Regulator immediately in cases where:
- An emission is likely to have an effect on neighbouring premises; or
 - There is a failure of any arrestment plant.

The report to the Regulator shall include:

- The date and time of the incident;
 - The cause and nature of the incident;
 - Details of any abnormal emissions;
 - Details of remedial action taken.
- 8.15 All reports and notifications required by this Permit, or under any Regulation under the Environmental Permitting (England and Wales) Regulations 2016, as amended, shall be sent to the Regulator. Unless notified in writing, all reports, notifications and communications in respect of this Permit shall be sent to:

epsadmin@sheffield.gov.uk or jppc@sheffield.gov.uk

or

**Sheffield City Council,
Environmental Protection Service,
Floor 5 North Howden House
1 Union Street
Sheffield
S1 2SH.**

END OF PERMIT CONDITIONS

Please Note.

Where complaint is attributable to the operation of the installation and is, in the opinion of the Local Authority, justified, or if new knowledge develops on the potential for harmful effects from emissions, an immediate review of the Permit shall be undertaken. The Local Authority shall subsequently specify any new requirements and compliance time scales.

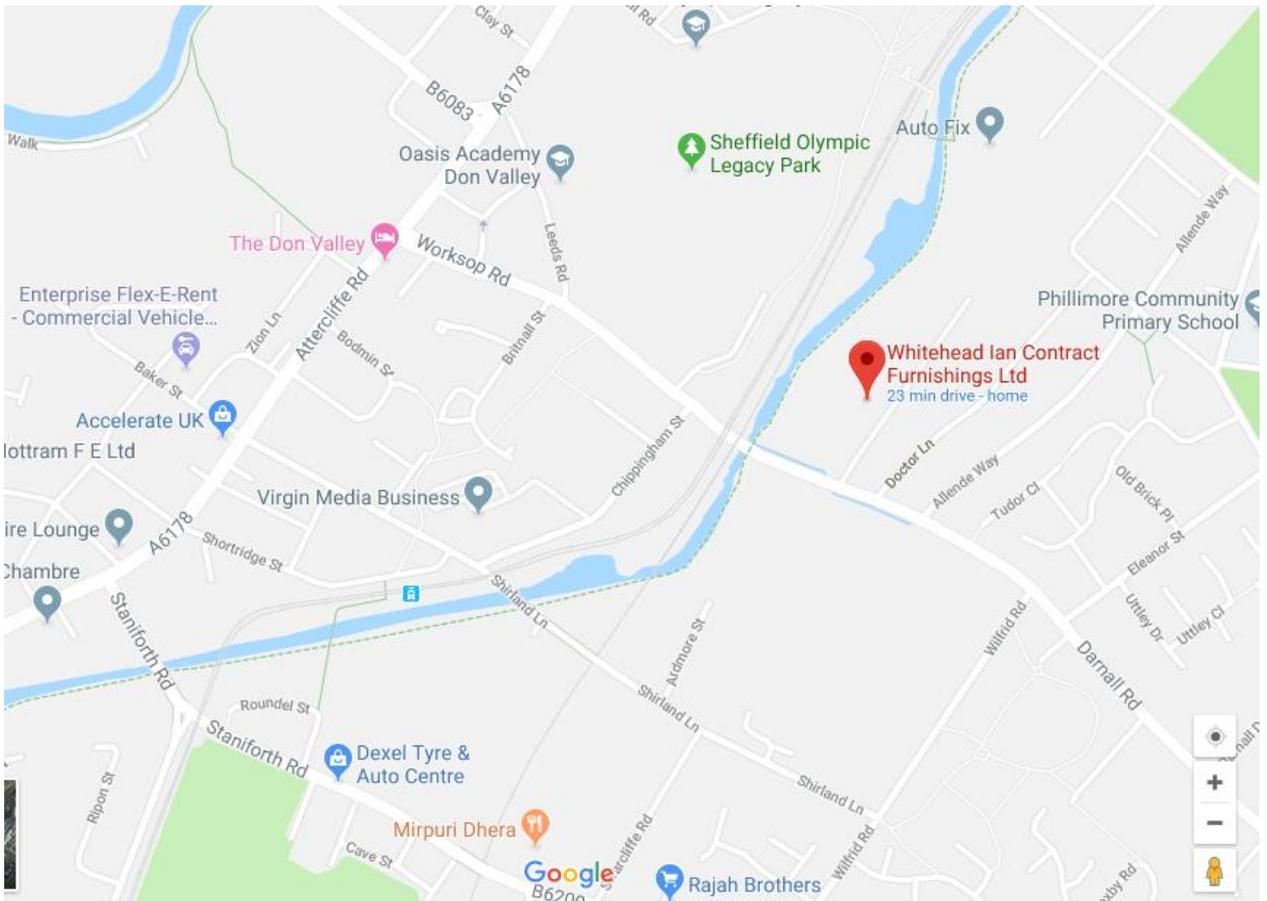
An annual subsistence fee as prescribed by the Secretary of State for the Environment shall be payable, for this Permit, by the process Operator, to this Authority within 2 weeks of the 1st April of each year.

In the event that the Permit has been issued after the 1st April in the initial year then the subsistence fee shall be pro rata for the complete months remaining and shall be due within 2 weeks of the Permit issue date.

If the relevant payment is not received by Sheffield City Council's Environmental Protection Service then Permit revocation procedures shall be initiated in accordance with Section 22 of the Environmental Permitting (England & Wales) Regulations 2016 or any statutory re-enactment of the same.

The requirements of this Permit are not to be taken as planning permission. Where any structural alterations are necessary to ensure compliance with this Permit then the normal planning channels should be followed.

Schedule 1 Installation Location.



Schedule 1A Installation Boundary



Schedule 2 Installation Layout

[View file attachments](#)

