



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

Permit Number: 2.2/103203/JT

**Charles H Coward Limited
540 Ecclesfield Road
Sheffield
S5 0DJ**

In accordance with Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016, as amended, Charles H Coward Limited is hereby permitted to operate a scheduled activity at the address detailed above, namely the melting, including making alloys, of non-ferrous metals, as described in Schedule 1, Chapter 2, Section 2.2 Part B, subsection (a) and subject to the following Permit.

Signed

A handwritten signature in black ink, appearing to be 'A. H. Coward', written over a light grey rectangular background.

Dated this day: 9th January 2024

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

The following Secretary of States Guidance Notes has provided the framework for the conditions in this Permit:

PG 2/3(13) "Electrical Furnaces"

PG 2/4 (13) "Iron, Steel and Non Ferrous Metal Foundry Processes"

PG 2/08(13) "Copper and copper alloy installations"

PG2/16 (13) "Melting aluminium and its alloys"

Name & Address of Operator:

Charles H Coward Limited
540 Ecclesfield Road
Sheffield
S5 0DJ

Site Contact: liam@chcsheffield.co.uk Tel: 0114 2577666

Registered Office:

Charles H Coward Limited
540 Ecclesfield Road
Sheffield
S5 0DJ

Company Registration Number: 00456385

Address of Permitted Installation:

Charles H Coward Limited
540 Ecclesfield Road
Sheffield
S5 0DJ

Talking to Us

Any communication with Sheffield City Council should be made to the following address quoting the Permit number.

Environmental Protection Service

Sheffield City Council
Howden House
1 Union Street
Sheffield
S1 2SH

Telephone: (0114) 273 4651

Email: ippc@sheffield.gov.uk or epsadmin@sheffield.gov.uk

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

The following Permit is issued under Regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016, as amended (Statutory Instrument 1154), (“the EP Regulations”) to operate an installation carrying out activities covered by the description in Schedule 1, Chapter 2, Section 2.2 Part B, subsection (a) of those Regulations, to the extent authorised by the Permit:

SECTION 2.2 *Non-ferrous metals*

Part B

(a) Melting, including making alloys of, non-ferrous metals (other than tin or any alloy which in molten form contains 50 per cent or more by weight of tin), including recovered products (such as refining or foundry casting) in plant with a melting capacity of 4 tonnes or less per day for lead or cadmium or 20 tonnes or less per day for all other metals;

And

(d) Melting zinc, aluminium, or an alloy of one or more of these metals in conjunction with a die-casting activity at a rate of 20 or less tonnes per day.

Process Changes

As part of your permit 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 itself wants 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
Howden House
1 Union Street
Sheffield
S1 2SH

Please contact us to make an appointment on Telephone: (0114) 273 4651 or by email at jppc@sheffield.gov.uk or 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 they 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, as amended.

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 forms available to lodge an appeal here:

[Environmental permit: appeal form - GOV.UK \(www.gov.uk\)](http://www.gov.uk)

There is no fee to appeal.

Where to Send Your Appeal Documents

Appeals should be addressed to:

**The Planning Inspectorate
Environment Appeals Team
3A Eagle Wing
Temple Quay House
2 The Square
Temple Quay
Bristol BS1 6PN**

Phone: 0303 444 5584

Email: etc@planninginspectorate.gov.uk

You must also send a copy of your appeal to the relevant regulator.

In the course of an Appeal process, the main parties will be informed of the 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.

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 (As Amended) 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;

“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.

Description of Activities

Charles H Coward Limited are a non-ferrous melting activity that manufacture a variety of items for different industry sectors, mainly and specifically into the Architectural and Engineering sectors. The methods used are sand casting and gravity die casting.

Sand Moulding

Sand moulds are prepared on site using a mixture of new sand and sand reclaimed from casting knock-out. Several types of foundry binders are used in the process, manufactured by Permabind.

Molten metal is cast into green sand moulds manufactured by hand mixing inside moulding boxes, or air set sand moulds manufactured using silica sand and alphaset resins. Moulds which are over 1 metre length, 90cm width and 10cm depth are dressed in isopropanol based coatings. Casting and melting fumes from this area are not extracted to atmosphere but are fugitive within the foundry area.

Virgin sand is delivered to site via bulk tankers and stored in a 40T silo. The silo is fitted with pressure relief valve and high and low level alarms. During tanker deliveries the displaced air is passed through filters to capture particulate matter.

Sand Casting

The plant for this activity consists, 1 x Gas Furnace of 250kg Capacity, 1 x 50 kg capacity and 1 x 120 kg Radyne electric furnaces for melting aluminum, copper-based material, and brass. Molten metals are either poured from the pot or hand ladled into the mould. Fluxes may be added to remove metal impurities. Castings are then left to cool.

The moulds for the parts are manufactured using green sand moulding methods and air set moulding.

There is no direct extraction off the melting furnaces. Emissions are fugitive within the foundry.

Die Casting

The die casting activity has 4 x gas furnaces each with a 250kg capacity, for the melting of aluminium. Fluxes may be added to remove metal impurities. Molten metal is hand ladled into cast iron/steel die moulds. Dycote is used as a releasing agent.

There is no direct extraction off the melting furnaces. Emissions are fugitive within the foundry.

Casting and melting fumes are not extracted to atmosphere but are fugitive within the foundry area.

Knock Out

Warm moulds are stored on pallets near the reclaim area.

Cooled castings are split and knocked out of the moulds. Once they are cool enough, they are placed on the "Gamma Reclamation Unit" from this place larger parts of sand are excluded and drop into a bucket, which is then disposed of as and when $\frac{3}{4}$ full.

After this, used sand travels up a conveyor which vibrates as it travels upwards, this makes the sand break down further. Sand which makes it through this stage then enters a reclaim hopper, which is then in turn controlled by a blowing bell, which blows a pre-determined amount of sand through.

Throughout all stages of the above process extraction points are in place to stop any sand from entering the atmosphere, it is pulled into our main extraction.

Fettling and Grinding

Castings from sand and die casting are finished in the fettling and grinding area.

Products are transferred from the foundry to the fettling area for finishing off. Castings are cut off using a vertical bandsaw. Waste materials cut off are recycled. Castings are fettled using a dual belt finisher and hand tools. Dust from this process is extracted via the dust extraction system and blown into a Tornado bag filter located externally in the yard.

Conditions of Permit

Section 1 – Upgrading

- 1.1 There are no upgrading requirements.

Section 2 – Plant and Equipment

- 2.1 The activities at the installation shall be carried out within the installation boundary as indicated on the Installation Location and Boundary plan shown in Schedule 1 of this Permit.
- 2.2 Permitted activities shall only be carried on using the plant and equipment as detailed in the Description of Activities and on the Installation Layout reproduced in Schedule 2 of this Permit.
- 2.3 The Operator shall notify Sheffield City Council's Environmental Protection Service, hereafter referred to as "the Regulator" of any proposed operational changes including any alterations to the process involving the provision of new plant or equipment which may affect emissions or have consequences for the environment. 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 to atmosphere unless specifically noted within this Permit or specifically agreed in writing with the Regulator.

Section 3 – Production Capacity

- 3.1 The installation shall have a melting capacity of less than twenty tonnes per day.
- 3.2 The Operator shall maintain a record of daily melt quantities. The record shall detail, in weight, the quantity of ingots and scrap used/melted each day in the process. The record shall be kept in a logbook on site in accordance with condition 6.4 and be available for inspection by the Regulator.

Section 4 – Emission Limits and Controls

- 4.1 There shall be no burning of materials, including waste, in the open air, inside buildings or in any form of incinerator in connection with the activities within the installation boundary, without permission in writing from the Regulator.
- 4.2 Emissions from combustion processes shall 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.
- 4.3 All reasonably practicable steps shall be taken to minimise the duration and visibility of emissions during start up and shut down.

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- 4.4 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.
 - 4.5 Emissions to air shall be free of offensive odour beyond the installation boundary as perceived by the Regulator.
 - 4.6 All emissions to air, including fugitive emissions, arising in normal operating conditions, including charging and pouring, shall be free from persistent visible emissions.
 - 4.7 Emissions of fume from the electric melting furnaces shall be kept to a minimum by using only clean scrap or reworked material from previous castings produced at the installation which are not contaminated. A system shall be employed which ensures that only clean scrap is melted.
 - 4.8 All grinding, fettling, finishing, shot blasting and any other casting finishing processes shall be connected to suitable dust arrestment plant.
 - 4.9 IBC's or drums containing resin, isopropanol or other potentially harmful substances shall be stored in a bund.
 - 4.10 All waste storage areas shall be clearly marked, and waste containers shall be clearly labelled with their contents.
 - 4.11 Potentially dusty materials shall be stored in enclosed areas of the site, or under cover.
 - 4.12 The Operator shall ensure that any spillage of particulates is cleaned up immediately by a wet or vacuum cleaning. Dry sweeping of dusty spillages is not permitted.
 - 4.13 Particulate matter collected from the filters serving arrestment plant shall drop down directly into heavy duty bags or containers, to prevent double handling of fines, which shall be sealed before being handled for removal.
 - 4.14 All process buildings shall be cleaned regularly to minimise the risk of fugitive emissions, and made as dust tight as possible to prevent visible emissions.
 - 4.15 Dusty wastes, including those from dross pans and any bag filters, shall be stored in closed containers and handled in a manner that avoids emissions.
 - 4.16 Dross or ash shall be handled and stored under dry conditions.
 - 4.17 The use of grain modifiers, oxidation control materials, fluxes and degassing agents shall be reduced to a minimum consistent with good operating practice.

5.0 Sand Silos

- 5.1 The Operator shall ensure that a visual assessment of emissions from the virgin sand silo, associated bag filters and delivery pipes shall be undertaken for a period of at least the first and last five minutes during all bulk deliveries. Any adverse emissions shall be investigated immediately and rectified. The results of these visual assessments and the start and finish time of deliveries shall be recorded in the logbook or recording system kept in accordance with condition 6.4.
- 5.2 The bulk sand silo shall be vented to suitable bag filters to prevent emissions of particulate matter. These bags shall be of a sufficient size and kept clean to avoid over pressurisation during delivery. The virgin sand silo shall also be fitted with a pressure relief valve, high-level indicator and audible alarm to warn of overfilling.
- 5.3 The Operator shall ensure that a visual inspection of the sand silo bag filters, high level alarms and pressure relief valves is carried out at least once a quarter for any signs of wear, tear or damage. Any defect shall be repaired as soon as possible and prior to another delivery taking place. All inspections, including any remedial action taken, shall be recorded in the logbook or recording system kept in accordance with condition 6.4.
- 5.4 During pressure tanker delivery into a silo, the silos shall be charged at a rate prescribed by the filter manufacturer, and shall not be exceeded, in order to prevent causing any visible emissions of materials.
- 5.5 The seating of pressure relief valve on the silo shall be checked before a delivery takes place. A record of the checks shall be made in the log book or recording system kept in accordance with condition 6.4. If, during a delivery it appears that the valve may have become unseated, the delivery shall cease immediately, and the valve examined and re-seated, if necessary, prior to the delivery continuing.
- 5.6 All new or replacement silo filtration plant shall be designed to operate to an emission standard of less than 10mg/m³ for particulate matter.
- 5.7 The filters serving the silo shall be cleaned by reverse air jets pulsing continuously throughout each delivery of material into that silo such that the filters are kept clean with the arrested dust being blown back into the silo.
- 5.8 Any spillage of sand shall be cleared immediately.

Section 6 - Monitoring, Sampling and Measurement of Emissions

- 6.1 The Operator shall ensure that a visual assessment of fugitive fume and dust emissions from the building housing the melting process is carried out at least once a day when molten metal is being cast. The duration of the assessment shall be for a minimum of one minute. All results of observations shall be recorded in the logbook or recording system kept in accordance with condition 6.4.
- 6.2 The Operator shall ensure that an olfactory assessment of odour emissions from the permitted activities is carried out at least once a day under normal operating conditions. The duration of the assessment shall be for a minimum of one minute. All results of observations shall be recorded in the logbook or recording system kept in accordance with condition 6.4.
- 6.3 The Operator shall ensure that adverse results from visual or olfactory assessments, and any alarm events, are investigated immediately and remedied. The corrective action taken shall be recorded in the log book or recording system kept in accordance with condition 6.4.
- 6.4 The Operator shall ensure that a logbook or suitable recording system containing the details and results of all visual and olfactory assessments, records of all inspections, checks and assessments made in accordance with Permit conditions is 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. The logbook or recording system shall be kept on the premises and made available for inspection by the Regulator. Such records shall be kept for a minimum of two years and shall be furnished in writing to the Regulator on demand.
- 6.5 The Operator shall inform the Regulator within one day 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
- Remedial action taken.

Section 7 - Maintenance of Abatement Plant

- 7.1 The Operator shall ensure that a visual inspection of all arrestment plant ductwork is carried out at least once in every three-month period under normal operating conditions, for any signs of wear, tear, or damage. Any defects shall be repaired as soon as possible to ensure sound operation and prevent emissions to atmosphere. Details of the checks and any repair work shall be recorded in the logbook or recording system required by condition 6.4.
- 7.2 The Operator shall ensure that arrestment plant is serviced at least once in every 12-month period to ensure sound operation. Details of the servicing or maintenance shall be recorded in the logbook or recording system kept in accordance with condition 6.4.
- 7.3 Effective preventative maintenance shall be employed on all plant and equipment concerned with the control of emissions to air. Essential spares and consumables, such as replacement filters, shall be stored on site or be readily available in 24 hours from guaranteed suppliers, to rectify break downs rapidly.
- 7.4 The Operator shall keep a written maintenance programme in relation to permitted pollution control equipment. The programme shall be made available to the Regulator upon request.
- 7.5 All malfunctions or breakdowns leading to visible or odorous emissions shall be investigated and rectified immediately. Process operations shall be adjusted until normal operations are restored. Details of the malfunction shall be recorded in the logbook or recording system kept in accordance with condition 6.4. If an effect on the local community is likely, the Operator shall inform the Regulator within 1 working day.
- 7.6 Filtration plant shall be inspected at the frequency specified in the Table below;

Table- Filter Plant Inspection Frequency

Filter Cleaning Method	Frequency of Visual Inspection
Fitted with reverse jets	At least once a month
Fitted with mechanical shakers	At least once a day
Requiring manual shaking	Daily inspection or prior to any delivery being made if deliveries are not daily

Section 8 - Chimneys and Process Vents

- 8.1 Stacks or process vents shall not be fitted with any restriction at the final opening such as a plate, cap or cowl, with the exception of a cone which has been fitted to increase the efflux velocity with prior written approval of the Regulator.

8.2 Stack flues and duct work shall be checked and cleaned at least once every six month period in order to prevent an accumulation of materials. This shall be written into the site Maintenance Programme and a record of the check and clean made in the logbook or recording system required by condition 6.4.

Section 9 - Records and Training

9.1 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;
- Actions during abnormal emissions including dust suppression.

9.2 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. These documents shall be made available to the Regulator on request.

9.3 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 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.

Section 10 - General Conditions

10.1 The Operator shall notify the following to the Regulator, in writing, within 14 days of their occurrence:-

- Any change in the trading name, registered name or registered office address
- A change to any particulars of any ultimate holding company (including details of an ultimate holding company where the company has become a subsidiary);
- Any steps taken with a view to going into administration, entering a company voluntary arrangement or being wound up.

10.2 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.

10.3 All reports and notifications required by this Permit, or under any Regulation under the Environmental Permitting 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 4 Howden House
1 Union Street
Sheffield
S1 2SH**

END OF CONDITIONS

Please Note

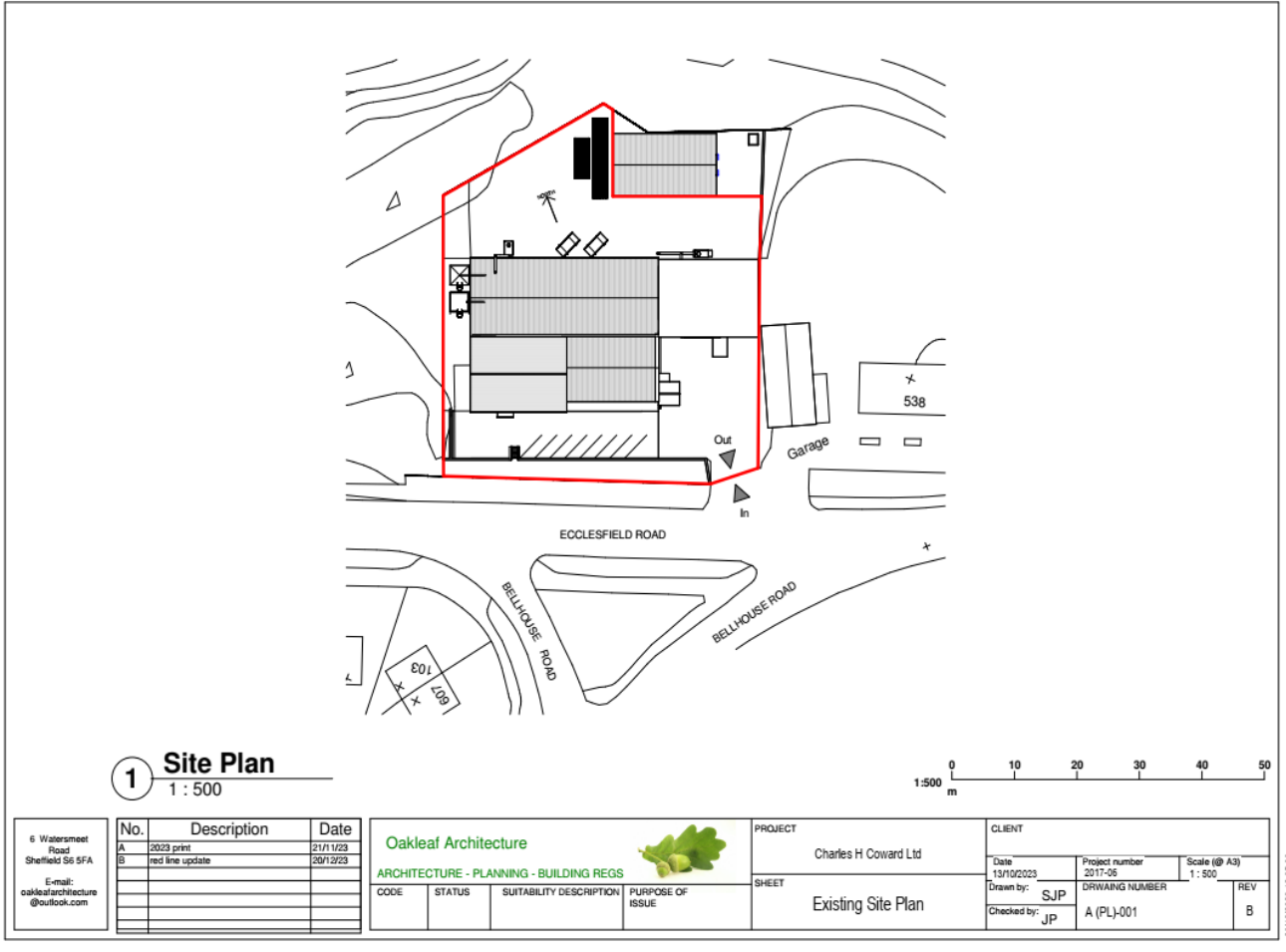
Where complaint is attributable to the operation of the installation and is, in the opinion of the Local Authority, justified, or if new knowledge develops on the potential for harmful effects from emissions, an immediate review of the Permit shall be undertaken. The Local Authority shall subsequently 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 the Regulator, Sheffield City Council's Environmental Protection Service, then Permit revocation procedures may be initiated.

Schedule 1 Installation Location and Boundary



Schedule 2 Installation Layout

