



Environment
Agency

Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Kaug Refinery Services Limited

Kaug Refinery Services
10 Merse Road
Redditch
B98 9HL

Permit number

EPR/BP3421SC

Kaug Refinery Services

Permit number EPR/BP3421SC

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

This notice permits the operation of a new bespoke permit for a small-scale facility that extracts and recovers precious metals from wastes that contain metal. *The term refinery is referred within the Installation name to reflect the precious metals refining steps. **This is not a fuel refining installation.***

The annual throughput of the site is proposed to be less than 250 tonnes per annum.

The processes undertaken onsite include thermal, chemical and physical treatment or processing of metal-bearing wastes by various methods including shredding, thermal decontamination, grinding, milling and sieving, chemical recovery processes using acids and alkalis and melting to produce ingots.

The scheduled activities (Schedule 1, Part 2, Chapter 2 of The Environmental Permitting (England and Wales) Regulations 2016) are:

- Section 2.2 Part A(1)(a) - Producing non-ferrous metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic activities.
- Section 2.2 Part B(b) - Heating in a furnace or any other appliance any non-ferrous metal or non-ferrous metal alloy for the purpose of removing grease, oil or any other non-metallic contaminant
- Section 2.2 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.

The operator has previously operated a facility (undertaking the same processes as in this permit) at a different location in Birmingham. This operation took place for over 20 years and achieved a good compliance record. Whilst the operations at the facility have not changed, we have amended the regulated facility's activities covered by this permit to properly reflect Schedule 1 activity descriptions.

Waste Operations

A large proportion (100tonnes) of the metal wastes received on site originate from UK printed circuit board manufacturing industries and will not be subject to chemical or thermal treatment. These wastes will either be sorted/batched or shredded/batched and then exported (under the waste operation activity permitted) for further recovery. Other waste types may also be accepted onto site for physical treatment and despatch offsite for recovery elsewhere without undergoing chemical or thermal processes.

Part B Activities

The Installation also operates a small-scale metal decontamination process (using heat from a small scale thermal appliance), and a small-scale metal melting process. These are Part B activities that will be regulated within this permit by virtue of the technical connection that exists between both Part B and Part A operations. The metal decontamination appliance is fitted with a secondary combustion chamber which will ensure the waste gases are raised to a minimum of 850°C for a minimum of 2 seconds, to ensure complete combustion and control of emissions.

Emissions

The permit includes four emission points to air. Abatement plant serves the acid processes (alkaline scrubber – A1) and the thermal decontamination, drying and melting processes (A4). There are emission points for steam vents from the alkaline processes (A3) and from the steam-raising boilers (A2). Emission limit values and monitoring are included for A1 and A4.

There will be no discharges to land, water or sewer from the process. Any waste effluents that arise will be collected, stored and then removed off site for appropriate disposal (or recovery where viable).

The facility is located approximately 3km east of Redditch, within a small industrial estate. The closest residential receptors are located around 90 metres west of the installation. There is one Site of Special Scientific Interest (SSSI), one Local Nature Reserve (LNR), eleven Local Wildlife Sites (LWSs), and six Ancient Woodlands within 2km from the Installation. There are no European Sites within the screening distance to the site.

The site will be operated in accordance with a comprehensive Environmental Management System.

The status log of the permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
Application EPRBP3421SC/A001	Duly made 31/07/2024	
Response to Schedule 5 Notice	05/09/2024	Response received 04/10/2024
Response to Schedule 5 Notice	05/09/2024	Response received 25/10/2024
Response to Request for Further Information email	13/02/2025	Further information received by email 14/02/2025
Response to Request for Further Information email	17/02/2025	Further information received by email 19/02/25
Draft notice for consultation	DD/MM/YY	Date to be added for the "minded to" consultation
Permit determined EPRBP3421SC/A001	DD/MM/YY	Permit issued to Kaug Refinery Services Limited

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/BP3421SC

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

Kaug Refinery Services Limited ("the operator"),

whose registered office is

**31 Green Street
Deritend
Birmingham
West Midlands
B12 0NB**

company registration number 04685454

to operate an installation at

**Kaug Refinery Services
10 Merse Road
Redditch
B98 9HL**

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

Name	Date
[name of authorised person]	[DD/MM/YYYY]

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme.

1.2 Energy efficiency

- 1.2.1 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR13) the operator shall:
- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
 - (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
 - (c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

- 1.3.1 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR13) the operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
 - (b) maintain records of raw materials and water used in the activities;
 - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
 - (d) take any further appropriate measures identified by a review.

1.4 Avoidance, recovery and disposal of wastes produced by the activities

- 1.4.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).
- 2.1.2 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR13) waste authorised by this permit shall be clearly distinguished from any other waste on the site.

2.2 The site

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.4 Waste shall only be accepted if:
 - (a) it is of a type and quantity listed in schedule 2 tables S2.2 and S2.3; and
 - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
 - (a) the nature of the process producing the waste;
 - (b) the composition of the waste;
 - (c) the handling requirements of the waste;
 - (d) the hazardous property associated with the waste, if applicable; and
 - (e) the waste code of the waste.
- 2.3.6 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

Hazardous waste storage and treatment

- 2.3.7 Hazardous waste shall not be mixed, either with a different category of hazardous waste or with other waste, substances or materials, unless it is authorised by schedule 1 table S1.1 and appropriate measures are taken.

2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

2.5 Pre-operational conditions

- 2.5.1 The activities shall not be brought into operation until the measures specified in schedule 1 table S1.4 have been completed.

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3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Total annual emissions from the emission point(s) set out in schedule 3 tables S3.1 of a substance listed in schedule 3 table S3.4 shall not exceed the relevant limit in table S3.4.
- 3.1.4 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

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

3.3 Odour

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

3.4 Noise and vibration

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

3.4.2 The operator shall:

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

3.5 Monitoring

3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:

- (a) point source emissions specified in tables S3.1

3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 table S3.1 unless otherwise agreed in writing by the Environment Agency.

3.6 Pests

3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.

3.6.2 The operator shall:

- (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution from pests;
- (b) implement the pest management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.7 Fire prevention

3.7.1 The operator shall take all appropriate measures to prevent fires on site and minimise the risk of pollution from them including, but not limited to, those specified in any approved fire prevention plan.

4 Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and
 - (ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR13) a report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
- (b) the annual production/treatment data set out in schedule 4 table S4.2; and
- (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter, if during that quarter the total amount accepted exceeds 100 tonnes of non-hazardous waste or 10 tonnes of hazardous waste.

4.3 Notifications

4.3.1 In the event:

- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
- (b) of a breach of any permit condition the operator must immediately—
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

- 4.3.6 The Environment Agency shall be given at least 14 days' notice before implementation of any part of the site closure plan.
- 4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:
- (a) a decision by the Secretary of State not to re-certify the agreement;
 - (b) a decision by either the operator or the Secretary of State to terminate the agreement; and
 - (c) any subsequent decision by the Secretary of State to re-certify such an agreement.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately" in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
AR1	Section 2.2 Part A(1)(a)	Producing non-ferrous metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic activities. Acidic processing of precious metals from precious metal bearing wastes. (Operator References: G&H)	From receipt of precious metal-containing wastes into physical treatment, thermal or chemical processing to transfer to packaging and storage. Wastes as specified in table S2.2
AR2	Section 2.2 A(1)(a)	Producing non-ferrous metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic activities. Alkaline processing of precious metal bearing wastes (Operator References: E&F)	From receipt of precious metal-containing wastes into physical treatment, thermal or chemical processing to transfer to packaging and storage. Wastes as specified in table S2.2
AR3	Section 2.2 Part B(b)	Heating in a furnace or any other appliance any non-ferrous metal or non-ferrous metal alloy for the purpose of removing grease, oil or any other non-metallic contaminant (Operator Reference: A)	Thermal metal decontamination process Decontamination of precious metal bearing wastes using a 500KW rated thermal input thermal appliance (to remove organic material from precious metals bearing waste) From receipt of precious metal bearing wastes for decontamination to transfer to grinding, barrelling, sieving and blending processes Wastes from table S2.2
AR4	Section 2.2 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. (Operator Reference: B)	Melting of precious metal powders into ingots using a 60KW electrical induction furnace and a 112KW gas fired furnace From receipt of precious metal bearing wastes, or output from chemical processing into furnace, to transfer to packaging and storage. Includes casting of bars/ingots. Wastes as specified in table S2.2

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
Directly Associated Activity			
AR5	Raw materials storage and handling	Receipt, handling and storage of precious metal-containing wastes and all process substances.	From receipt of raw materials until used in the process.
AR6	Grinding, crushing, barrelling, sieving, blending	Grinding and crushing of precious metal-containing wastes and manual sieving. 2x50kg crushing and grinding mills 100kg crushing and grinding mill (Operator Reference: C)	Generated from inhouse processes AR3 and AR8. Includes abatement of extracted air through closed loop local exhaust ventilation systems for precious metal recovery. Wastes as specified in table S2.2.
AR7	Filtration	Separation of liquid from precious metal precipitates using ceramic vacuum filters (Operator Reference: J)	Inputs from AR1 & AR2
AR8	Drying	Drying of precious metal powders in 12kw and 1kw electric ovens (Operator References: I)	Inputs from AR1, AR2 and AR7. Includes abatement of extracted air through abatement plant serving AR3 and AR4, emitting via emission point A4
AR9	Storage and handling of wastes	Storage of wastes generated by production processes prior to collection or recycling elsewhere	From separation of wastes from process to dispatch from installation. Includes neutralisation of waste residues from hydrometallurgical processes
AR10	Steam boilers 2 x 0.2MW (gas fired)	Raising of steam for use in chemical recovery processes	Boilers operating separately where second boiler acts as back-up
AR11	Abatement plant serving acidic chemical recovery processes	Operation of extraction and abatement plant to treat acid gases from acid processing AR1	caustic scrubber to abate acid gases from acid processing AR1
AR12	Abatement plant serving small scale thermal appliances for metal decontamination and drying processes	Operation of extraction and abatement plant to treat gases from thermal treatment activities and drying ovens AR3, AR4 and AR8	Includes baghouse filtration, activated carbon filter and sorbent injection
A13	Washing	Washing of filters from alkaline precious metal electroplating solutions	Wash solution from AR7 (filtration) to AR2 and AR3

Table S1.1 activities		
Activity reference	Description of activities for waste operations	Limits of activities
AR14	Waste operation to process waste that is not subject to chemical or thermal treatment, to cover: - Base metal scrap (sent for further recovery in the UK) - Shredded circuit board manufacturing scrap – frames and boards (sent for further recovery) - Precious metal ingots/scrap and precious metal powder (sent for further recovery) D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced) R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) R4: Recycling/reclamation of metals and metal compounds (Operator Reference: D)	Physical treatment consisting of manual and mechanical sorting, separation, dismantling and shredding of waste into different components for disposal or recovery. Waste types as specified in Table 2.3 Acceptance/treatment of hazardous waste shall not exceed more than 10 tonnes per day. Storage of hazardous waste will not exceed 50 tonnes at any one time. Treatment for disposal shall not exceed 50 tonnes per day, or if for a mix of recovery and disposal shall not exceed 75 tonnes per day

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application EPR/BP3421SC/A001	Application forms B2, B3 and B4 and referenced supporting information	Duly Made 31/07/2024
Response to Schedule 5 Notice dated 05/09/2024	Response to questions 1,3,4 & 5 with further information informing AQ dispersion modelling (q1), justification of XX 99 waste codes (q3), confirmation of application of Appropriate Measures applied to shredding of PCB (q4) and confirmation of compliance with CIRIA guidance on containment.	04/10/2024
Permit Supporting documents:	2765-010-F v1.10 – Overarching Permit Supporting document	11/06/2024
	2765-010-A v1.6 Environmental Management System	22/01/2024
	2765-010-B v1.5 Fire Prevention Plan	11/06/2024
	2765-010-C v1.5 Non-Technical Summary	05/03/2024
	2765-010-D v1.4 Environmental Risk Assessment	22/01/2024
	2765-010-E v1.2 Site Condition Report	17/05/2024
	2765-010-G v1.2 Best Available Techniques Assessment	01/03/2024
	2765-009-C v1.9 Emissions Modelling Assessment	05/09/2023
Permit Boundary Plan	2765-010-02 Rev B	17/04/2023
Site Layout Plan	2765-010-03 Rev H	19/02/2025
Site Location Plan	2765-009-02	20/05/2022

Table S1.2 Operating techniques		
Description	Parts	Date Received
Updated NIA	2765-010-NIA v1.8 Noise Impact Assessment	25/10/2024
Updated NVMP	2765 010 NVMP v1.8 Noise & Vibration Management Plan	25/10/2024

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	The Operator shall: a) Provide confirmation in a written report for approval by the Environment Agency that activities AR1 – AR13 (inclusive) comply with BAT conclusion 3 (Process Control). <i>Note: BATc3 specifies a number of techniques that could be used in order to be compliant.</i> For each technique that you are compliant with, provide full details as to how you comply, with reference to process control operating procedures included in your Environmental Management System. For any technique with which you are not compliant, provide justification for the deviation from BAT.	Two months after issue of the permit
IC2	The Operator shall: a) Provide confirmation in a written report for approval by the Environment Agency that your Schedule 2.2 Part B activities covering thermal decontamination, drying and melting processes (AR3 & AR4) comply with the BAT conclusions 10 and 134 – 146 using the following terms: • NA - Not applicable. The BAT Conclusion is not applicable to the specific NFM sector or the specific site operations. • CC - Currently compliant. The operator is already operating in line with the BAT Conclusion. • NC - Not Compliant. The site is not currently meeting the requirements of the BAT conclusion Make direct reference to the BAT Conclusions, the processes they apply to and the measures described within them, including the BAT-associated emission levels (BAT-AELs) and associated monitoring methods described in BAT 10. A copy of the BAT Conclusions is available at https://eippcb.jrc.ec.europa.eu/reference/non-ferrous-metals-industries-0. <i>Note: that some BAT Conclusions specify the number of techniques that must be used in order to be compliant. In some cases all techniques must be used.</i> b) For any BAT Conclusions (10, 136 – 144) which you consider are not applicable to the installation, provide a justification of your assessment. c) For any of the BAT Conclusions (10, 136 – 144) with which you are not compliant, propose measures to be undertaken and the associated timescales for these measures to be implemented.	Two months after issue of the permit

Table S1.4 Pre-operational measures	
Reference	Pre-operational measures
PO1	The Operator shall: a) Provide a revised Fire Prevention Plan (FPP) for approval by the Environment Agency taking into account all wastes with potential to be combustible that are accepted at the site for treatment, recovery and storage. This includes wastes accepted for all activities undertaken at the site including i) physical treatment consisting of manual and mechanical sorting, separation, dismantling and shredding of waste into different components for disposal or recovery or storage. ii) Thermal decontamination and melting activities iii) Acidic and alkaline chemical recovery activities The FPP shall be written in accordance with the following guidance available on our website: Fire prevention plans: environmental permits - GOV.UK

Schedule 2 – Waste types, raw materials and fuels

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

Table S2.2 Permitted waste types and quantities for AR1 – AR13	
Maximum quantity	Total annual throughput for the site shall not exceed 85 tonnes; Only WEEE waste containing Precious Metals shall be accepted for treatment and recovery
Exclusions	Wastes having any of the following characteristics shall not be accepted: - Containing ozone-depleting substances - Containing Persistent Organic Pollutants (POPs) - Containing mercury - Containing cathode ray tubes - Containing batteries of any description - Containing fluorescent lamps
Waste code	Description
06	Wastes from inorganic chemical processes
06 01	Wastes from MFSU of acids
06 01 06*	Other acids (consisting of acidic precious metal electroplating solutions)
06 03	Wastes from the MFSU of salts and their solutions and metallic oxides
06 03 13*	Solid salts and solutions containing heavy metals
08	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01	Wastes from MFSU and removal of paint and varnish
08 01 11*	Waste paint and varnish containing organic solvents or other hazardous substances
08 01 12	Waste paint and varnish other than those mentioned in 08 01 11
08 01 13*	Sludges from paint or varnish containing organic solvents or other hazardous substances
08 01 14	Sludges from paint or varnish other than those mentioned in 08 01 13
08 01 99	Wastes not otherwise specified (consisting only of the following: Silver solder paste & rags/gloves/wipes/floor sweeps contaminated with precious metal paint)
08 02	Wastes from MFSU of other coatings (including ceramic materials)
08 02 01	waste coating powders
08 02 99	wastes not otherwise specified (consisting only of the following: rags/gloves/paper contaminated with silver/copper conductive coating)
08 03	Wastes from MFSU of printing inks
08 03 12*	waste ink containing hazardous substances
08 03 13	waste ink other than those mentioned in 08 03 12
09	WASTES FROM THE PHOTOGRAPHIC INDUSTRY
09 01	Wastes from the photographic industry
09 01 07	photographic film and paper containing silver or silver compounds

Table S2.2 Permitted waste types and quantities for AR1 – AR13	
Maximum quantity	Total annual throughput for the site shall not exceed 85 tonnes; Only WEEE waste containing Precious Metals shall be accepted for treatment and recovery
Exclusions	Wastes having any of the following characteristics shall not be accepted: • Containing ozone-depleting substances • Containing Persistent Organic Pollutants (POPs) • Containing mercury • Containing cathode ray tubes • Containing batteries of any description • Containing fluorescent lamps
Waste code	Description
10	WASTES FROM THERMAL PROCESSES
10 07	Wastes from silver, gold and platinum thermal metallurgy
10 07 01	slags from primary and secondary production
10 07 02	dross and skimmings from primary and secondary production
10 07 04	other particulates and dust
10 08	wastes from other non-ferrous thermal metallurgy
10 08 11	dross and skimmings other than those mentioned in 10 08 10
10 08 14	Anode scrap (consisting of tin, nickel and copper)
10 12	wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)
10 12 99	Wastes not otherwise specified (consisting only of the following: transfers, sponges, polishing wheels & paint brush stands from the ceramic industry)
11	WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS, NON-FERROUS HYDRO-METALLURGY
11 01	Wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphatising, alkaline degreasing, anodising)
11 01 06*	acids not otherwise specified (consisting of acidic precious metal electroplating solutions)
11 01 09*	sludges and filter cakes containing hazardous substances
11 01 10	sludges and filter cakes other than those mentioned in 11 01 09
11 01 11*	aqueous rinsing liquids containing hazardous substances
11 01 12	aqueous rinsing liquids other than those mentioned in 11 01 11
11 01 98*	other wastes containing hazardous substances
11 01 99	wastes not otherwise specified consisting only of the following: jig wire and scrap plating tanks from precious metal plating
12	WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS
12 01	Wastes from shaping and physical and mechanical surface treatment of metals and plastics
12 01 04	non-ferrous metal dust and particles
12 01 99	wastes not otherwise specified consisting only of the following: handwash/settlement tanks from jewellery manufacturing industry

Table S2.2 Permitted waste types and quantities for AR1 – AR13	
Maximum quantity	Total annual throughput for the site shall not exceed 85 tonnes; Only WEEE waste containing Precious Metals shall be accepted for treatment and recovery
Exclusions	Wastes having any of the following characteristics shall not be accepted: • Containing ozone-depleting substances • Containing Persistent Organic Pollutants (POPs) • Containing mercury • Containing cathode ray tubes • Containing batteries of any description • Containing fluorescent lamps
Waste code	Description
15	WASTE PACKAGING, ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 02	absorbents, filter materials, wiping cloths and protective clothing
15 02 02*	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
16	WASTE NOT OTHERWISE SPECIFIED IN THE LIST
16 01	end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)
16 01 18	non-ferrous metal
16 02	Wastes from electrical and electronic equipment
16 02 15*	hazardous components removed from discarded equipment
16 02 16	components removed from discarded equipment other than those mentioned in 16 02 15
16 08	Spent catalysts
16 08 01	spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 07)
16 08 07*	spent catalysts contaminated with hazardous substances
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 04	Metals (including their alloys)
17 04 11	cables other than those mentioned in 17 04 10
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE
19 09	Waste from the preparation of water intended for human consumption or water for industrial use
19 09 05	saturated or spent ion exchange resins
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01	
20 01 40	Metals

Table S2.3 Permitted waste types and quantities for AR14 - Physical treatment of waste	
Maximum quantity	100 tonnes per annum printed circuit boards 65 tonnes per annum of base metal scrap
Exclusions	Wastes having any of the following characteristics shall not be accepted: • Containing ozone-depleting substances • Containing Persistent Organic Pollutants (POPs) • Containing mercury • Containing cathode ray tubes • Containing batteries of any description • Containing fluorescent lamps
Waste code	Description
09	WASTES FROM THE PHOTOGRAPHIC INDUSTRY
09 01	Wastes from the photographic industry
09 01 07	photographic film and paper containing silver or silver compounds
10	WASTES FROM THERMAL PROCESSES
10 08	wastes from other non-ferrous thermal metallurgy
10 08 11	dross and skimmings other than those mentioned in 10 08 10
10 08 14	Anode scrap (consisting of tin, nickel and copper)
12	WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS
12 01	Wastes from shaping and physical and mechanical surface treatment of metals and plastics
12 01 17	waste blasting material other than those mentioned in 12 01 16 (consisting of grit blast)
16	WASTE NOT OTHERWISE SPECIFIED IN THE LIST
16 02	Wastes from electrical and electronic equipment
16 02 16	components removed from discarded equipment other than those mentioned in 16 02 15 (consisting of unpopulated printed circuit boards and copper laminate only)
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 04	Metals (including their alloys)
17 04 11	cables other than those mentioned in 17 04 10
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01	
20 01 40	Metals (consisting of aluminium sheet, copper foil, copper wire from manufacture of printed circuit boards)

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1	Abatement plant serving acid processes (alkaline scrubber)	Oxides of nitrogen NO _x (NO and NO ₂ , expressed as NO ₂)	150mg/Nm ³	Average over the sampling period	Annual extractive	Manual extractive test BS EN 14792
		Sulphur dioxide (SO ₂)	100 mg/Nm ³	Average over the sampling period	Annual extractive	Manual extractive test EN 14791
		Gaseous chlorides, expressed as HCl	10mg/Nm ³	Average over the sampling period	Annual extractive	Manual extractive test EN 1911
		Chlorine (Cl ₂)	2 mg/Nm ³	Average over the sampling period	Annual extractive	Manual extractive test - USEPA method 26 A
A2	Combined exhaust from 2 x 0.2MW steam boilers (gas fired)	No limits set	-	-	-	-
A3	Flue serving alkaline based metal extraction process	Hydrogen cyanide	No limits set	-	-	-
		Volatile Organic compounds (VOCs)	No limits set	-	-	-
A4 See Notes 1, 2 and 3	Abatement plant (baghouse and sorbent injection) serving small scale thermal appliances for metal decontamination, drying ovens and melting furnaces	Total particulate matter	20mg/Nm ³	Average over the sampling period	Annual extractive test	BS EN 13284-1
				Continuous indicative		Dust opacity meter
		Volatile Organic compounds excluding particulate matter	20mg/Nm ³	Average over the sampling period	Annual extractive test	EN 12619:2013
		Chloride emissions excluding particulate matter	10mg/Nm ³	Average over the sampling period	Annual extractive	EN 1911
		Nickel, cobalt, chromium and their compounds	Total emissions in combination 5mg/Nm ³	Average over the sampling period	Annual extractive	BS EN 14385

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
Note 1: The temperature of the secondary combustion chamber fitted to the metal decontamination unit shall be maintained at or above 850° C and be continuously recorded during operation of the metal decontamination unit. The residence time in the secondary chamber shall be at least 2.0 seconds. Note 2: The reference conditions for the emissions limit values from emission point A4 are: 273.1K, 101.3kPa, without correction for water vapour content, unless stated otherwise. The reference conditions shall be normalised to 11% oxygen measured dry, averaged over the monitoring cycle. Note 3 - Environment Agency guidance M2 gives BS EN 14385 and associated MID 14385 (Method Implementation Document) as the preferred method for the determination of total emissions of metals by isokinetic sampling and impingement. Use of this method gives total metals in both the particulate and vapour phases. Metal emissions in the vapour phase are generally considered to be negligible, therefore, it is not necessary to apply the clauses in EN 14385 that are related to the measurement of metals in the vapour phase.						

Table S3.2 Point source emissions to sewer, effluent treatment plant or other transfers off-site– emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
None	-	-	-	-	-	-

Table S3.3 Point source emissions to groundwater/soakaway.						
Emission point ref. & location	Source	Parameter	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
None	-	-	-	-	-	-

Table S3.4 Annual limits		
Substance	Medium	Limit (including unit)
None	-	-

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Point source emissions to air Parameters as required by condition 3.5.1	A1, A4	Every 12 months	1 January

Table S4.2: Annual production/treatment	
Parameter	Units
-	-

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Water usage	Annually	Tonnes/m ³
Energy usage	Annually	MWh

Table S4.4 Reporting forms		
Parameter	Reporting form	Form version number and date
Point source emissions to air	Emissions to Air Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Water usage	Water Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Energy usage	Energy Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Waste returns	E-Waste Return Form	-

Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

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

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements for the breach of permit conditions not related to limits	
To be notified within 24 hours of detection	
Condition breached	
Date, time and duration of breach	
Details of the permit breach i.e. what happened including impacts observed.	
Measures taken, or intended to be taken, to restore permit compliance.	

(d) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

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

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

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

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission limit.

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

“Hazardous property” has the meaning in Annex III of the Waste Framework Directive.

“Hazardous waste” has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005.

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

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

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

Pests” means Birds, Vermin and Insects.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

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

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

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

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content “year” means calendar year ending 31 December.

When the following terms appear in the waste code list in Schedule 2, tables S2.2 and S2.3 for those tables they have the meaning given below:

‘hazardous substance’ means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008

'heavy metal' means any compound of antimony, arsenic, cadmium, chromium (VI), copper, lead, mercury, nickel, selenium, tellurium, thallium and tin, as well as these materials in metallic form, as far as these are classified as hazardous substances

'PCBs' means

- polychlorinated biphenyls
- polychlorinated terphenyls
- monomethyl-tetrachlorodiphenyl methane, Monomethyl-dichloro-diphenyl methane, Monomethyldibromo-diphenyl methane
- any mixture containing any of the above mentioned substances in a total of more than 0,005 %by weight

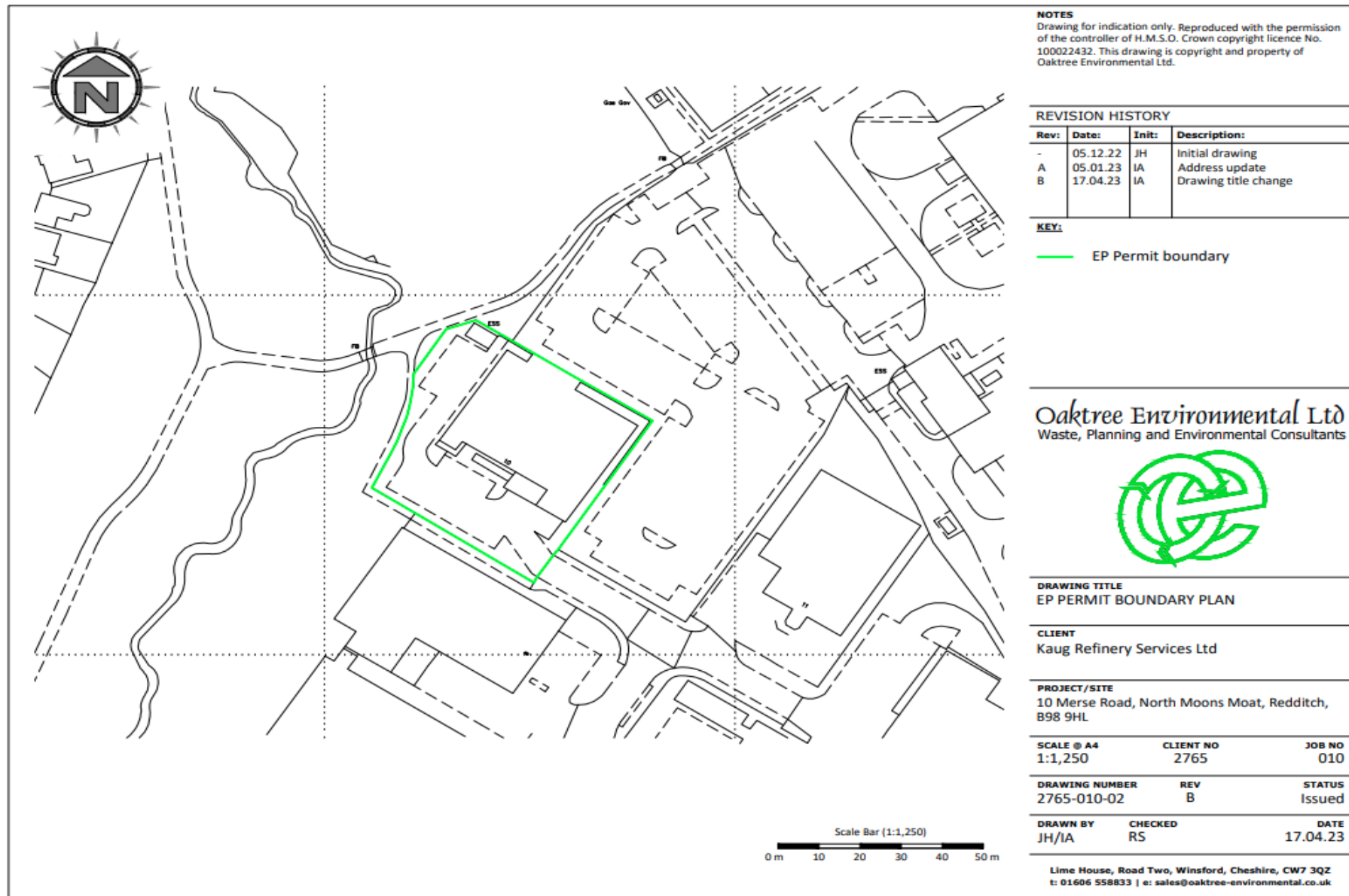
'transition metals' means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified as hazardous substances

'stabilisation' means processes which change the hazardousness of the constituents in the waste and transform hazardous waste into non-hazardous waste

'solidification' means processes which only change the physical state of the waste by using additives without changing the chemical properties of the waste

'partly stabilised wastes' means wastes containing, after the stabilisation process, hazardous constituents which have not been changed completely into non-hazardous constituents and could be released into the environment in the short, middle or long term

Schedule 7 – Site plan



END OF PERMIT

Permit number
EPR/BP3421SC

Emissions to Air Reporting Form

Permit number: EPR/BP3421SC

Operator: Kaug Refinery Services Limited

Facility name: Kaug Refinery Services

Emissions to Air Reporting Form: version 1, 08/03/2021

Reporting of emissions to air for the period from [DD/MM/YY] to [DD/MM/YY]

Emission point	Substance / parameter	Emission Limit Value	Reference period	Test method ¹	Result ²	Sample dates and times ³	Uncertainty ⁴
[e.g. A1]	[e.g. Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)]	[e.g. 200 mg/m ³]	[e.g. daily average]	[e.g. BS EN 14181]	[State result]	[State relevant dates and time periods]	[State uncertainty if not 95% confidence interval]

Signed: [Name]

Date: [DD/MM/YY]

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your monitoring results.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Complete columns 1 to 5 using the information from schedule 3 of your permit. Complete columns 6 to 8 with your monitoring data. Add additional rows as necessary.

- ¹ Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.
- ² Give the result as the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, give the result as the 'minimum to maximum' of the measured values.
- ³ For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.
- ⁴ Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

Water Usage Reporting Form

Permit number: EPR/BP3421SC

Operator: Kaug Refinery Services Limited

Facility name: Kaug Refinery Services

Water Usage Reporting Form: version 1, 08/03/2021

Reporting of water usage for the year [YYYY]

Water source	Water usage (m ³)	Specific water usage (m ³ /unit) ²
Mains water	<i>[insert annual usage in m³ where mains water is used]</i>	<i>[insert annual usage in m³/unit where mains water is used]</i>
Total water usage	<i>[insert total annual water usage in m³]</i>	<i>[insert total annual water usage in m³/unit]</i>

Operator's comments

Signed: [Name]

Date: [DD/MM/YY]

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your annual water usage.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Add additional rows as necessary.

Energy Usage Reporting Form

Permit number: EPR/BP3421SC

Operator: Kaug Refinery Services Limited

Facility name: Kaug Refinery Services

Energy Usage Reporting Form: version 1, 08/03/2021

Reporting of energy usage for the year [YYYY]

Energy source	Energy consumption / production (MWh)	Specific energy consumption (MWh/unit) ²
Electricity imported as delivered - source [specify source, e.g. supplied from the national grid]	<i>[insert annual consumption in MWh where electricity is imported]</i>	<i>[insert annual consumption in MWh/unit where electricity is imported]</i>
Natural gas	<i>[insert annual consumption in MWh where natural gas is used]</i>	<i>[insert annual consumption in MWh/unit where natural gas is used]</i>

Operator's comments

Signed: [Name]

Date: [DD/MM/YY]

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your annual energy usage.

Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Add additional rows as necessary.

¹ Multiply delivered electricity by 2.4 to convert to primary energy where the electricity is supplied from the national grid. If the electricity is supplied from another source, specify the conversion factor used. Add additional rows as needed if electricity is imported from multiple sources.

² Divide energy consumption by an appropriate unit of raw material processed or product output.