

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Environcom (North West) Limited

West Midlands Recycling Centre Rufford Street Lye Stourbridge West Midlands DY9 7DP

Variation application number

EPR/BB3109LT/V003

Permit number

EPR/BB3109LT

West Midlands Recycling Centre Permit number EPR/BB3109LT

Introductory note

This introductory note does not form a part of the notice.

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. All the conditions of the permit have been varied and are subject to the right of appeal.

This permit variation has been issued to implement guidance "Waste electrical and electronic equipment (WEEE): appropriate measures for permitted facilities" (including additional guidance Waste temperature exchange equipment (WTEE): appropriate measures for permitted facilities).

Changes introduced by this variation notice/statutory review

The Industrial Emissions Directive (IED) came into force on 7 January 2014 with the requirement to implement all relevant Best Available Techniques (BAT) Conclusions as described in the Commission Implementing Decision. Article 21(3) of the IED requires the Environment Agency to review conditions in permits that it has issued and to ensure that the permit delivers compliance with relevant standards, within four years of the publication of updated decisions on Best Available Techniques (BAT) Conclusions. The BAT Conclusions for Waste Treatment (the BREF) was published on 17 August 2018 following a European Union wide review of BAT, implementing decision (EU) 2018/1147 of 10 August 2018.

The appropriate measures for WEEE were published on gov.uk on 13 July 2022. The guidance explains the standards that are relevant to regulated facilities with an environmental permit to treat or transfer relevant wastes, providing indicative BAT for those sites.

This permit variation has been issued to update some of the conditions following a statutory review of the permits in the WEEE treatment and transfer and to implement the appropriate measures guidance. The opportunity has also been taken to consolidate the original permit and subsequent variations where appropriate.

Change of registered office address

As of 6th December 2023, the registered office address of Environcom (North West) Limited, registered with Companies House under company number 06472943, changed from Spittlegate Level, Grantham, Lincolnshire NG31 7UH to Bilsthorpe Industrial Estate, Brailwood Road, Bilsthorpe, Newark NG22 8UA. The legal entity, identified by the Company number remains the same, therefore this change is noted within this variation as a change of fact only.

Brief description of the process

Environcom (North West) Limited operates a Waste Electronic Electrical Equipment (WEEE) recycling facility at West Midlands Recycling Centre, Rufford Street, Stourbridge. The site can accept WEEE products including fridges, freezers, cookers and small domestic appliances (SDA).

The facility is permitted to accept up to 30,000 tonnes per year of hazardous and up to 44,999 tonnes per year of non-hazardous waste.

Fridges and freezers are processed by degassing (stage 1 pre-destruction) followed by shredding and fraction segregation (stage 2 destruction). Other large domestic appliances such as electric cookers and washing machines are inspected for hazardous elements which are removed, wires and plugs are cut, and the appliances are then stored prior to removal off-site for further processing.

The activities undertaken at the facility include physico-chemical treatment of hazardous waste, and the temporary storage of hazardous waste for recovery. The permit authorises the following regulated activities listed in Schedule 1 of the Environmental Permitting Regulations:

- Section 5.3 A (1) (a) (ii) disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving physico-chemical treatment.
- Section 5.6 A (1) (a) Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes.

In addition to the above installation activities, the facility can undertake treatment of non-hazardous WEEE, and temporary storage of non-hazardous waste for recovery as waste operations.

The schedules specify the changes made to the permit.

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

Status log of the permit			
Description	Date	Comments	
Permit determined EAWML 46202	08/06/06	Original permit issued to Overton Recycling Limited	
Agency initiated modification EAWML 46202 EPR/WP3499CV	07/11/08	WEEE modification	
Transfer determined EPR/BB3109LT	14/01/14	Full transfer of permit EPR/WP3499CV to Environcom (North West) Limited complete.	
Application EPR/BB3109LT/V002 (variation and consolidation)	Duly made 23/12/14	Application to vary and update the permit to IED conditions.	
Variation determined EPR/BB3109LT (Ref EAWML 46202) (Billing ref: HP3737WW)	09/08/2016	Varied and consolidated permit issued in modern condition format.	
Regulation 61 Notice sent to Operator	20/04/2022	Regulation 61 Notice requiring information for statutory review of permit.	
Regulation 61 Notice response	29/08/2022	Response received from the operator.	
Application (variation and consolidation) EPR/BB3109LT/V003	Environment Agency Initiated Variation	Statutory review of permit occasioned by Waste Treatment BAT Conclusions published on 17 August 2018 and Waste electrical and electronic equipment (WEEE): appropriate measures for permitted facilities published 13 July 2022	
Request for information	08/12/2023	Response received from the operator with updated information including:	
		Alternative measures proposed to Section 3.3 Waste Tracking of WEEE	
		• Details of waste storage measures and a site infrastructure plan.	
		Emissions Inventory.	
		Assessment of refrigerant and blowing agent recovery rate.	
		Pre-operational measure for future development.	
Request for information	13/03/2024	Response received from the operator with updated information including:	

Status log of the permit		
Description	Date	Comments
		Alternative measures proposed to Section 3.3 Waste Tracking of WEEE
		• Process monitoring requirements.
		 Details of waste treatment capacity and storage quantities.
Environment Agency Waste Treatment Sector Review	17/05/2024	Varied and consolidated permit issued.
Permit reviewed.		
Variation determined EPR/BB3109LT/V003		

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies and consolidates.

Permit number

EPR/BB3109LT

Issued to

Environcom (North West) Limited ("the operator")

whose registered office is

Bilsthorpe Industrial Estate Brailwood Road Bilsthorpe Newark NG22 8UA

company registration number 06472943

to operate a regulated facility at

West Midlands Recycling Centre Rufford Street Lye Stourbridge West Midlands DY9 7DP

to the extent set out in the schedules.

The notice shall take effect from 17/05/2024

Name	Date
Rob McHale	17/05/2024

Authorised on behalf of the Environment Agency

Schedule 1

All conditions have been varied by the consolidated permit as a result of an Environment Agency initiated variation.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/BB3109LT

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BB3109LT/V003 authorising,

Environcom (North West) Limited ("the operator"),

whose registered office is

Bilsthorpe Industrial Estate Brailwood Road Bilsthorpe Newark NG22 8UA

company registration number 06472943

to operate an installation and waste operations at

West Midlands Recycling Centre Rufford Street Lye Stourbridge West Midlands DY9 7DP

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

Name	Date
Rob McHale	17/05/2024

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 AR7) 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 AR7) the operator shall:
 - 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 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 to S1.4, 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 to S1.4, 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 All activities shall take place on impermeable surfaces with sealed drainage, unless otherwise specified in Table S1.1 or agreed in writing with the Environment Agency.
- 2.3.4 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.5 Waste shall only be accepted if:
 - (a) it is of a type and quantity listed in schedule 2 tables S2.2, S2.3 and S2.4; and
 - (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.6 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 properties associated with the waste, if applicable; and
 - (e) the waste code of the waste.
- 2.3.7 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.
- 2.3.8 For the activity referenced as AR1 in schedule 1, table S1.1 where any of the following situations arise, the operator shall, as soon as is practicable, cease the treatment of waste until normal operation can be restored:

- (a) failure of the contained environment; or
- (b) breach of a relevant Lower Explosive Limit (LEL) or Limiting Oxygen Concentration (LOC).
- 2.3.9 Following the cessation of treatment under condition 2.3.8 the operator shall not recommence treatment unless:
 - (a) the failed equipment is repaired and brought back into normal operation; and
 - (b) gas concentrations remain below any relevant lower explosive limit or limiting oxygen concentration.

2.4 Hazardous waste storage and treatment

2.4.1 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.

2.5 WEEE treatment

- 2.5.1 As a minimum, the substances, preparations and components specified in table S1.3 shall be removed from any WEEE unless the WEEE is being prepared for re-use or the operator has taken appropriate measures to ensure their removal following transfer off site.
- 2.5.2 Unless otherwise agreed in writing by the Environment Agency, WEEE and components of WEEE shall be treated in accordance with the methods and standards specified in table S1.4, unless it is being prepared for re-use or the operator has taken appropriate measures to ensure such treatment following transfer off site.

2.6 Improvement programme

- 2.6.1 The operator shall complete the improvements specified in schedule 1 table S1.5 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.6.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

3 Emissions and monitoring

3.1 Emissions to water, air or land

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

3.2 Emissions of substances not controlled by emission limits

3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions. 3.2.2 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

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

3.4 Noise and vibration

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

3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
 - (a) point source emissions specified in tables S3.1 and S3.2;
 - (b) noise specified in table S3.3;
 - (c) process monitoring specified in table S3.4;
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 and S3.2 unless otherwise agreed in writing by the Environment Agency.

3.6 Pests

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

3.7 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

Permit number EPR/BB3109LT

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 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 one 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 year.

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.
- 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.

4.4 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

Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
AR1	S5.3 A(1)(a)(ii) Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving physico- chemical treatment.	Treatment of waste temperature exchange equipment, involving stage 1 degassing and stage 2 destruction processes. R3: Recycling/reclamation of organic substances which are not used as solvents R4: Recycling/reclamation of metals and metal compounds R5: Recycling/reclamation of other inorganic materials	 From treatment of waste by degassing and destruction to storage of treated waste. Treatment of waste temperature exchange equipment involving: degassing of equipment, with collection of oil and refrigerant gas mechanical destruction of degassed equipment, including the sorting, separation of plastic, metal and foam fractions, and treatment of foam to remove and capture the blowing agent using cryogenic condensation. Treatment of refrigeration units shall be carried out within a building provided with weatherproof covering. Waste types suitable for acceptance are limited to those specified in Table S2.2. No more than 65 tonnes of waste shall be treated per day.
AR2	S5.3 A(1)(a)(ii) Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving physico- chemical treatment.	Mechanical treatment of CRT glass and processing of panel glass. R3: Recycling/ reclamation of organic substances which are not used as solvents R4: Recycling/ reclamation of metals and metal compounds R5: Recycling/reclamation of other inorganic materials	From mechanical treatment of waste to storage of treated waste. Treatment limited to crushing and granulating CRT and panel glass for the purpose of recovery of constituent parts and materials. Treatment shall be carried out within a building provided with weatherproof covering. Waste types suitable for acceptance are limited to those specified in Table S2.3.
AR3	S5.6 A(1)(a) Temporary storage of hazardous waste in a facility with a total capacity exceeding 50 tonnes pending any of the activities listed	Storage of hazardous waste pending on-site treatment or off- site transfer. 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).	From receipt and storage of hazardous waste on site to its treatment on site or its transfer off- site. Waste types suitable for acceptance are limited to those specified in Table S2.2 and S2.3. WTEE shall not be stored for more than 3 months without prior written approval from the Environment Agency.

	in Section 5.1,		WTEE must be stored on level ground
	5.2 and 5.3.		and on an impermeable surface provided with sealed drainage.
			Storage of WTEE shall not exceed a maximum storage height of 3.6 metres.
			Storage capacity of WTEE shall not exceed 1200 tonnes at any one time.
			Lamps shall be stored in rigid lidded, leakproof and weatherproof containers.
			The storage capacity for lamps shall not exceed 0.3 tonnes at any one time.
			The storage capacity for CRT equipment shall not exceed 450 tonnes at any one time.
			The storage capacity for flat panel display equipment shall not exceed 150 tonnes at any one time.
			CRT equipment shall be stored in cages, bulk bags or securely on pallets to prevent breakage.
			All flat panel display equipment shall be stored in cages, stillages or securely on pallets.
			Flat panel display equipment which may contain cold cathode fluorescent backlights shall be stored under weatherproof covering.
			All batteries shall be stored in either appropriate weatherproof containers, or in appropriate containers within a building on an impermeable surface with a sealed drainage system.
			Lead acid batteries shall be stored upright with terminals taped off or capped, in acid proof containers to prevent leaks and short circuits.
			All other hazardous waste storage pending treatment shall not exceed 6 months, without prior written approval from the Environment Agency.
			Storage of hazardous waste pending treatment or transfer shall not exceed 2200 tonnes at any one time.
	Directly Associa	ated Activities	
AR4	Storage of processed	Storage of recovered fractions and shredder residue following	From storage of processed materials to despatch off site for recovery.
	materials.	treatment. R13: Storage of waste pending the operations numbered R1 to R12 (excluding temporary	Storage of residual materials resulting from pre-destruction and destruction processing, excluding temporary storage of hazardous waste under Section 5.6 A(1)(a).
	1	I	

		storage, pending collection, on the site where it is produced)		
AR5	Physical treatment for the purpose of recycling.	Manual processing of CRT display equipment. R3: Recycling/ reclamation of organic substances which are not used as solvents R4: Recycling/ reclamation of metals and metal compounds R5: Recycling/reclamation of other inorganic materials	From manual treatment of waste to storage of treated waste. Treatment limited to manual dismantling and separating of CRT display equipment for the purpose of recovery of constituent parts and materials. Treatment shall be carried out within a building provided with weatherproof covering. Waste types suitable for acceptance are limited to those specified in Table S2.3. No more than 54 tonnes of cathode ray tube equipment shall be treated per day.	
AR6	Raw materials storage.	Storage of raw materials including nitrogen, lubricating oil and diesel.	From the receipt of raw materials to despatch for use within the facility.	
AR7	Abatement system.	Carbon filters serving the fridge treatment plant.	From the input of air to the abatement system to emission to air.	
	Waste Operations			
Activity reference	Description of a	ctivities for waste operations	Limits of activities	
AR8	operations numb temporary storag where it is produ R3: Recycling/ re which are not us R4: Recycling/ re compounds	eclamation of organic substances	 Storage and treatment of non-hazardous WEEE, baling of cardboard packaging waste generated from site operations, and storage of non-hazardous waste pending dispatch off-site for the purpose of recovery. Treatment operations shall be limited to: Treatment consisting of sorting, grading and manual dismantling for the purpose of recovery of constituent parts and materials. Preparation for reuse. Baling of cardboard packaging waste generated on site for dispatch off-site for the purpose of use as a raw material. WEEE that is POPs waste must not be repaired or refurbished for re-use. There shall be no treatment of hazardous waste other than for sorting and separation from other waste streams, repair or refurbishment, or manual dismantling only. 	

	Treatment of WEEE shall be carried out within a building provided with a weatherproof covering.
	There shall be no treatment of batteries, other than sorting and separating from other wastes, and repackaging for third party processing.
	Waste types suitable for acceptance are limited to those specified in Table S2.4.
	All batteries shall be stored in either appropriate weatherproof containers, or in appropriate containers within a building on an impermeable surface with a sealed drainage system.
	Lead acid batteries shall be stored upright with terminals taped off or capped in acid proof containers to prevent leaks and short circuits.
	Nickel metal hydride (Ni-MH) batteries shall be stored in a way that will prevent them being damaged. Li-ion batteries from electric vehicles
	shall be stored separately from other batteries.
	Li-ion batteries shall be stored to prevent them from:
	 coming into contact with any liquids
	being damaged or shorting
	 being exposed to high temperatures
	Batteries shall be stored on site for no longer than 6 months.
	Subject to any other requirements of this permit, wastes shall be stored for no longer than 6 months.

Table S1.2 Operating techniques			
Description	Parts	Date Received	
Response to Regulation 61 Notice dated 20/04/2022	 Regulation 61 Notice response. Working Site Plan, v10 dated January 2022. Site plan for drainage. Site plan for processing areas. Site plan for storage areas. Alternative measures for WEEE Section 3.3 Waste Tracking. 	29/08/2022	

Table S1.2 Operating techniques			
Description	Parts	Date Received	
Waste electrical and electronic equipment (WEEE): appropriate	All parts of the appropriate measures guidance shall apply other than:	29/08/2022	
measures for permitted facilities Version published 13 July 2022	• those parts for which an alternative measure has been agreed.		
	The following alternative measures have been agreed:		
	Waste pre-acceptance, acceptance and waste tracking appropriate measures – measure 3.3.1, 3.3.2, 3.3.3 and 3.3.4.		
Waste temperature exchange equipment: appropriate measures for permitted facilities Version published 13 July 2022	All parts of the appropriate measures guidance shall apply.	29/08/2022	
Fire Prevention Plan	Approved Fire Prevention Plan issue 7 Ref: IMFCP- Environcom, dated 25/07/2021		

Table S1.3 Substances, preparations and components to be removed during treatment from WEEE

- Capacitors containing polychlorinated biphenyls in accordance with Council Directive 96/59/EC of 16 September 1996 on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT)
- Mercury-containing components, such as switches or backlighting lamps
- Batteries
- Printed circuit boards of mobile phones generally, and of other devices if the surface of the printed circuit board is greater than 10 square centimetres
- Toner cartridges, liquid and paste, as well as colour toner
- Plastic containing brominated flame retardants
- Asbestos waste and components which contain asbestos
- Cathode ray tubes
- Chlorofluorocarbons (CFC), hydrochlorofluorocarbons (HCFC), hydrofluorocarbons (HFC), or hydrocarbons (HC)
- Gas discharge lamps
- Liquid crystal displays (together with their casing where appropriate) of a surface greater than 100 square centimetres and all those back-lighted with gas discharge lamps
- External electric cables
- Components containing refractory ceramic fibres as described in REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
- Components containing radioactive substances with the exception of components that are below the
 exemption thresholds set in Article 3 of and the Annex I to Council Directive 96/29/Euratom of 13 May
 1996 laying down basic safety standards for the protection of the health of workers and the general
 public against the dangers arising from ionising radiation

Table S1.3 Substances, preparations and components to be removed during treatment from WEEE

• Electrolyte capacitors containing "substances of concern" (height > 25mm, diameter > 25mm or proportionately similar volume)

Table S1.4 Specified treat of WEEE	ment methods and standards for the treatment of WEEE and components
Stage 1) Pre-destruction treatment (degassing) of	Refrigerants and oils must be properly extracted and treated. Ozone depleting gases must be treated in accordance with Regulation (EC) No 1005/2009.
WTEE	Degassing of the refrigeration cooling system must be undertaken in a manner that results in the removal of at least 99% of the refrigerant and the oil from the cooling circuit.
	The degassing of WTEE must be undertaken in a way that prevents fugitive losses of refrigerant and achieves the following refrigerant recovery rate:
	 90% or more, based upon a mass balance calculation, as set out in Waste temperature exchange equipment: appropriate measures for permitted facilities.
	The oil removed from the cooling circuit must be treated to ensure that the concentration of refrigerant in the oil is <0.9% w/w unless it is transferred immediately to a suitable sealed container to prevent fugitive emissions and sent for further refrigerant recovery or destruction.
Stage 2) WTEE and insulation panel destruction	VFC and VHC blowing agents must be properly extracted and treated. Ozone depleting gases must be treated in accordance with Regulation (EC) No 1005/2009.
	WTEE must not be subject to the destruction process unless treated to the appropriate Stage 1 pre-destruction standards specified above.
	The destruction of WTEE and insulation panels must be undertaken in a contained environment that prevents fugitive losses of blowing agent and achieves the following blowing agent removal and recovery rates:
	 90% or more, based upon an annual assessment of a representative sample of the WTEE treated Note 1
	 80% or more, based upon a monthly assessment of the WTEE treated that period Note 1
	Residual materials resulting from the destruction of WTEE and insulation panels must meet the specified standards below:
	 Metal – The quantity of foam remaining in the granulated ferrous and non-ferrous metal fractions after treatment shall not exceed 0.5% w/w
	 Plastic – The quantity of foam remaining in the granulated plastic fraction after treatment shall not exceed 1% w/w
	 Foam – The quantity of residual blowing agent remaining in the polyurethane foam after treatment shall not exceed 0.2% w/w
	Note 1 As set out in Waste temperature exchange equipment: appropriate measures for permitted facilities.
Treatment of CRT display	The fluorescent coating must be removed from CRTs.
equipment	The panel or screen glass must be separated from the neck, funnel and frit glass.
	Mechanical processing of CRT equipment or crushing of CRT glass must be provided with a suitable dust extraction and abatement system to minimise fugitive release of dust.
	Crushed panel glass must not exceed the following limits:
	3% lead oxide

 Table S1.4 Specified treatment methods and standards for the treatment of WEEE and components

 of WEEE

• 5 mg/kg sulphide

Table S1.5 In	nprovement programme requirements	
Reference	Requirement	Date
IC1	The operator shall submit a revised written management plan for approval by the Environment Agency to meet all the relevant BAT requirements for activities A1 to A5 detailed in Sector Guidance Note IPPC S5.06 – <i>Guidance for the Treatment of Hazardous and Non Hazardous Waste</i> . In particular, the revised management plan shall include a site plan that clearly identifies material storage areas and capacities, and the facility's point source emission points.	Completed
IC2	The operator shall submit a written plan to the Environment Agency for approval that includes:	Superseded by IC5
	 (a) proposals to undertake representative monitoring of the air discharged from points A1, A2 and A3 including the parameters to be monitored, frequencies of monitoring and methods to be used; 	
	 (a) proposals to undertake representative monitoring of the ambient air including the sampling locations, parameters to be monitored, frequencies of monitoring and methods to be used; 	
	 (b) confirmation that a written report will be submitted to the Environment Agency for approval that includes: 	
	 i) the results of an assessment of the impact of the emission to air from the site using the Environment Agency's 'H1 Environmental Risk Assessment' tool (or equivalent as agreed with the Environment Agency) based on the parameters monitored in (a) above; and 	
	 proposals for appropriate measures to mitigate the impact of the emission where the assessment determines they are significant, including emissions limits and monitoring and dates for implementation of individual measures; and 	
	 details of appropriate measures for the operation and maintenance of the abatement system to ensure that where emission limits are proposed they are met or, where emission limits are not required, emissions remain insignificant. 	
	The operator shall carry out the monitoring in accordance with the Environment Agency's written approval.	
IC3	The operator shall submit a written monitoring plan to the Environment Agency for approval.	One day from the date of this permit variation issue, unless otherwise agreed in writing with the
	The plan must contain proposals for a comprehensive monitoring exercise to demonstrate that the stage 1 and stage 2 treatment of WTEE and insulation panels does not give rise to fugitive releases to air of refrigerant or blowing agent gases (i.e. CFCs, HCFCs, HFCs or HCs).	
	The operator shall carry out the monitoring exercise and submit a report in accordance with the Environment Agency's written approval.	Environment Agency
	The operator will give the Environment Agency at least fourteen days notice of the commencement of the monitoring exercise.	

	The Environment Agency will be notified immediately if any fugitive releases are detected during the monitoring exercise.	
IC4	 The Operator shall submit a written proposal to the Environment Agency to carry out tests to determine the size distribution of the particulate matter in the exhaust gas emissions to air from emission point A1, A2 and A3 in Table S3.1, identifying the fractions within the PM₁₀, and PM_{2.5} ranges. The proposal shall include a timetable for approval by the Environment Agency to carry out such tests and produce a report on the results. On receipt of written agreement by the Environment Agency to the proposal and the timetable, the Operator shall carry out the tests and submit to the Environment Agency a report on the results. 	One day from the date of this permit variation issue, unless otherwise agreed in writing with the Environment Agency
IC5	The operator shall submit a written report to the Environment Agency for approval that proposes a monitoring programme to characterise and assess the facility's point source emissions to air and water (including sewer) in accordance with the Emissions monitoring and limits appropriate measures of technical guidance (Waste electrical and electronic equipment: appropriate measures for permitted facilities, dated 13 July 2022). The report shall detail the parameters and substances that will be tested for, the monitoring methods and equipment that will be used, and a timetable for undertaking the monitoring. The monitoring programme shall be carried out as approved by the Environment Agency. A written report shall be submitted to the Environment Agency for approval detailing the results and conclusions of the emissions monitoring and assessment undertaken, including a completed H1 Environmental Risk Assessment and proposals for any ongoing monitoring or further assessment.	Submission of written report proposing monitoring programme Two months from the date of this permit variation issue Submission of subsequent written report detailing monitoring and assessment results Six months from the date of this permit variation issue

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels					
Raw materials and fuel description	Specification				
Nitrogen					
Lubricating oil					
Diesel					

Table S2.2 Permitted Waste types and quantities for Waste Temperature Exchange Equipment (WTEE) treatment facility. (Activities AR1 and AR3)

Maximum Quantities

The total quantity of hazardous waste accepted at the site shall be less than 30,000 tonnes a year.

Exclusions

Wastes having any of the following characteristics shall not be accepted:

• Consisting solely or mainly of dusts, powders or loose fibres

Waste Code	Description				
16	WASTES NOT OTHERWISE SPECIFIED IN THE LIST				
16 02	wastes from electrical and electronic equipment				
16 02 11*	discarded equipment containing chlorofluorocarbons, HCFC, HFC				
16 02 13*	discarded equipment containing hazardous components other than those mentioned in 16 02 09 to 16 02 12				
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS				
20 01	separately collected fractions (except 15 01)				
20 01 23*	Discarded equipment containing chlorofluorocarbons				
20 01 35*	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components				

Table S2.3 Permitted Waste types and quantities for Waste Electrical and Electronic Equipment (WEEE) treatment facility. (Activities AR2, AR3 and AR5)

Maximum Quantities

The total quantity of hazardous waste accepted at the site shall be less than 30,000 tonnes a year.

Exclusions

Wastes having any of the following characteristics shall not be accepted:

• Consisting solely or mainly of dusts, powders or loose fibres

Waste Code Description

16 WASTES NOT OTHERWISE SPECIFIED IN THE LIST

Table S2.3 Permitted Waste types and quantities for Waste Electrical and Electronic Equipment (WEEE) treatment facility. (Activities AR2, AR3 and AR5)

Maximum Quantities

The total quantity of hazardous waste accepted at the site shall be less than 30,000 tonnes a year.

Exclusions

Wastes having any of the following characteristics shall not be accepted:

• Consisting solely or mainly of dusts, powders or loose fibres

Waste Code	Description
16 02	wastes from electrical and electronic equipment
16 02 09*	transformers and capacitors containing PCBs
16 02 10*	discarded equipment containing or contaminated by PCBs other than those mentioned in 16 02 09
16 02 12*	discarded equipment containing free asbestos
16 02 13*	discarded equipment containing hazardous components other than those mentioned in 16 02 09 to 16 02 12
16 02 15*	hazardous components removed from discarded equipment
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01	separately collected fractions (except 15 01)
20 01 21*	fluorescent tubes and other mercury-containing waste
20 01 35*	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components

Table S2.4 Permitted Waste types and quantities for waste operations. (Activity AR8 only)

Maximum Quantities

The total quantity of non-hazardous waste accepted at the site shall be less than 44,999 tonnes a year.

Exclusions

Wastes having any of the following characteristics shall not be accepted:

- Consisting solely or mainly of dusts, powders or loose fibres
- Wastes that are in a form which is either sludge or liquid

Waste Code	Description				
16	WASTES NOT OTHERWISE SPECIFIED IN THE LIST				
16 02	wastes from electrical and electronic equipment				
16 02 14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13				
16 02 16	components removed from discarded equipment other than those mentioned in 16 02 15				

Table S2.4 Permitted Waste types and quantities for waste operations.(Activity AR8 only)

Maximum Quantities

The total quantity of non-hazardous waste accepted at the site shall be less than 44,999 tonnes a year.

Exclusions

Wastes having any of the following characteristics shall not be accepted:

- Consisting solely or mainly of dusts, powders or loose fibres
- Wastes that are in a form which is either sludge or liquid

Waste Code	Description					
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)					
17 04	metals (including their alloys)					
17 04 01	copper, bronze, brass					
17 04 02	aluminium					
17 04 03	lead					
17 04 04	zinc					
17 04 05	iron and steel					
17 04 06	tin					
17 04 07	mixed metals					
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 10	wastes from shredding of metal-containing wastes					
19 10 01	iron and steel waste					
19 10 02	non-ferrous wastes					
19 10 06	other fractions other than those mentioned in 19 10 05					
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified					
19 12 02	ferrous metal					
19 12 03	non-ferrous metal					
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11. Limited to fractions resulting from the shredding of wastes containing ferrous and non-ferrous metals that have been pre-treated elsewhere.					
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS					
20 01	separately collected fractions (except 15 01)					
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35					

Table S2.4 Permitted Waste types and quantities for waste operations.(Activity AR8 only)

Maximum Quantities

The total quantity of non-hazardous waste accepted at the site shall be less than 44,999 tonnes a year.

Exclusions

Wastes having any of the following characteristics shall not be accepted:

- Consisting solely or mainly of dusts, powders or loose fibres
- Wastes that are in a form which is either sludge or liquid

Waste Code	Description	
20 01 40	metals	

Schedule 3 – Emissions and monitoring

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 Emissions control system exhaust (fridge	Air extraction and abatement system of WTEE	Dust	5 mg/m ³	Average value of 3 consecutive measurements of at least 30 minutes	6 monthly	EN 13284-1
plant)	treatment	CFCs	10 mg/m ³	Average value of 3 consecutive measurements of at least 30 minutes	6 monthly	Following CEN/TS 13649
		Total VOCs (concentration)	15 mg/m ³	Average value of 3 consecutive measurements of at least 30 minutes	6 monthly	EN 12619
		Total VOCs (mass emission)	Mass loss limit, set on a pro-rata basis, based upon a mass limit of 5g per 100 units treated per hour	Average value of 3 consecutive measurements of at least 30 minutes	Monthly for first 6 months then quarterly with written agreement from the Environment Agency	EN 12619
		Air flow		Average value of 3 consecutive measurements of at least 30 minutes?	Monthly for first 6 months then quarterly with written agreement from the Environment Agency	EN 16911-1
		Brominated flame retardants		Average value of 3 consecutive measurements of at least 30 minutes	Annually ^{Note 1}	BS EN 1948
		Dioxin-like polychlorinated biphenyls (PCBs)		Average value of 3 consecutive measurements of at least 30 minutes	Annually Note 1	EN 1948-1, 2, 4.
		Metals (As, Cd, Co, Cr, Cu, Mn,		Average value of 3	Annually Note 1	EN 14385

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
		Ni, Pb, Sb, Se, Tl, V)		consecutive measurements of at least 30 minutes		
		Dioxins and furans (PCDD/F)		Average value of 3 consecutive measurements of at least 30 minutes	Annually Note 1	EN 1948-1, 2, 3
A2 Emissions control system exhaust (CRT plant)	Air extraction and abatement system of CRT glass	Dust	5 mg/m ³	Average value of 3 consecutive measurements of at least 30 minutes	6 monthly	EN 13284-1
	separation booth	Total VOCs	15 mg/m ³	Average value of 3 consecutive measurements of at least 30 minutes	6 monthly	EN 12619
		Brominated flame retardants		Average value of 3 consecutive measurements of at least 30 minutes	Annually Note 1	BS EN 1948
		Dioxin-like polychlorinated biphenyls (PCBs)		Average value of 3 consecutive measurements of at least 30 minutes	Annually ^{Note 1}	EN 1948-1, 2, 4.
		Metals (As, Cd, Co, Cr, Cu, Mn, Ni, Pb, Sb, Se, Tl, V)		Average value of 3 consecutive measurements of at least 30 minutes	Annually ^{Note 1}	EN 14385
		Dioxins and furans (PCDD/F)		Average value of 3 consecutive measurements of at least 30 minutes	Annually ^{Note 1}	EN 1948-1, 2, 3
A3 Emissions control system exhaust (glass plant)	Air extraction and abatement system of glass	Dust	5 mg/m ³	Average value of 3 consecutive measurements of at least 30 minutes	6 monthly	EN 13284-1

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
	granulation line	Total VOCs	15 mg/m ³	Average value of 3 consecutive measurements of at least 30 minutes	6 monthly	EN 12619
		Brominated flame retardants		Average value of 3 consecutive measurements of at least 30 minutes	Annually ^{Note 1}	BS EN 1948
		Dioxin-like polychlorinated biphenyls (PCBs)		Average value of 3 consecutive measurements of at least 30 minutes	Annually ^{Note 1}	EN 1948-1, 2, 4.
		Metals (As, Cd, Co, Cr, Cu, Mn, Ni, Pb, Sb, Se, Tl, V)		Average value of 3 consecutive measurements of at least 30 minutes	Annually ^{Note 1}	EN 14385
		Dioxins and furans (PCDD/F)		Average value of 3 consecutive measurements of at least 30 minutes	Annually Note 1	EN 1948-1, 2, 3

Note 1: An alternative monitoring frequency may be agreed in writing with Environment Agency following completion of IC5.

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period (Note 1)	Monitoring frequency (Note 2)	Monitoring standard or method
W1 on site plan in schedule 7 discharge to River Stour	Uncontaminated site source water from roofs and non-operational areas via filter and an oil interceptor	Particulate matter, oil or grease	None visible		Daily	Visual assessment

Table S3.3 Noise monitoring requirements						
Location or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications		
Perimeter noise survey, locations as specified in noise management plan	Noise	Annually or as agreed in writing by the Environment Agency.	BS 4142:2014			

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
WTEE Stage 1 degassing	WTEE unit type	Daily	Record of each	Туре 1 - 4
WTEE degassed.	Refrigerant type		unit degassed	VHC, VFC or other (e.g. ammonia)
	Number of defective			
WTEE Stage 1 degassing Quantity of refrigerant recovered.	Quantity of refrigerant collected over reporting period	Monthly	Weighed using calibrated scales of appropriate precision	
WTEE Stage 1 degassing Compressor oil.	Concentration of refrigerant in the oil (% w/w)	Quarterly	Independent conformance testing in accordance with Section 6 (process monitoring) of Waste temperature exchange equipment: appropriate measures for permitted facilities	Assessment must be undertaken using a representative composite sample, consisting of at least 3 individual samples. Sample analysis must be carried out by an appropriately accredited independent laboratory (for example, UKAS accredited) and using recognised accredited methods if they are available.
WTEE Stage 1 degassing Refrigerant recovery rate	Refrigerant recovery, based upon mass balance calculation	6 monthly	In accordance with Section 6 (process monitoring) of Waste temperature exchange equipment: appropriate measures for permitted facilities	Based upon a representative sample of WTEE treated
	WTEE unit type	Daily		Type 1 - 4

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
WTEE Stage 2 destruction WTEE treated	Blowing agent type		Record of number of units treated by type and blowing agent	VHC, VFC or other (e.g. carbon dioxide)
WTEE Stage 2 destruction Contained environment	Lower Explosive Limit (LEL) or Limiting Oxygen Concentration (LOC)	Continuous		
WTEE Stage 2 destruction Residual materials conformance testing	Quantity of foam remaining on the granulated metal after treatment (%w/w)	Quarterly	Independent conformance testing in accordance with Section 6 (process	Assessment must be undertaken using a representative composite sample, consisting of at least
	Quantity of foam remaining on the granulated plastic after treatment (%w/w)	Quarterly	monitoring) of Waste temperature exchange equipment: appropriate measures for	3 individual samples. Sample analysis must be carried out by an appropriately accredited
	Quantity of residual blowing agents remaining in the foam after treatment (%w/w)	Quarterly	permitted facilities	independent laboratory (for example, UKAS accredited) and using recognised accredited methods if they are available.
WTEE Stage 2 destruction Quantity of blowing agent recovered	Quantity of blowing agent collected over reporting period	Monthly	Weighed using calibrated scales of appropriate precision	
WTEE Stage 2 destruction Blowing agent recovery rate	Blowing agent recovered as a percentage of the theoretical	Monthly	Calculated in accordance with Section 6 (process monitoring) of	Monthly assessment based upon the waste treated during that period
	waste treated Annually temperature exchange equipment: appropriate measures for		exchange equipment: appropriate	Annual assessment based upon a representative sample of WTEE treated
WTEE Record of residual wastes removed from site	As set in Form Appendix A: Quantities of residual materials from pre-destruction and destruction treatment	Quarterly		

Table S3.4 Process moni	Table S3.4 Process monitoring requirements			
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
All mechanical treatment of WEEE	Mass balance	Annually		
Crushed panel glass from CRT treatment	Lead as lead oxide	6 monthly		
	Sulphide			
Carbon filters serving fridge treatment plant	Performance of Carbon filters	Quarterly	Carbon filters shall be installed, maintained, operated and replaced in accordance with the manufacturer's recommendations.	

Schedule 4 – Reporting

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

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to Air Parameters as required by condition 3.5.1	A1, A2, A3	Every 6 months, or as agreed in writing by the Environment Agency.	1 January, 1 July
Process monitoring Parameters as required by condition 3.5.1	As agreed in writing by the Environment Agency.	Quarterly or as agreed in writing by the Environment Agency.	1 January, 1 April, 1 July, 1 October
Noise monitoring Parameters as required by condition 3.5.1	As agreed in writing by the Environment Agency.	Annually or as agreed in writing by the Environment Agency.	1 January

Table S4.2 Annual production/treatment		
Parameter	Units	
WEEE treated (excluding WTEE)	tonnes	
WTEE treated	tonnes	
Ferrous metal recovered	tonnes	
Non-ferrous metal recovered	tonnes	
Other fractions recovered	tonnes	
Non-metallic shredder residue	tonnes	

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

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
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

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Energy usage	Energy Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Other performance parameters	Other Performance Parameters Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
WTEE process monitoring - Quantities of residual wastes removed from site	Quantities of residual materials from pre-destruction and destruction process form (Appendix A Excel Form) or other form as agreed in writing by the Environment Agency	
WTEE process monitoring - Summary of WTEE and insulation panels treated - Quantities of refrigerant and blowing agent recovered	Degassing and destruction process efficiency reporting form (Appendix B Excel Form) or other form as agreed in writing by the Environment Agency	
- Assessment of refrigerant and blowing agent recovery rate		
WTEE process monitoring - Conformance testing of residual materials	Residual materials conformance testing reporting form (Appendix C Excel Form) or other form as agreed in writing by the Environment Agency	
Waste returns	E-waste returns	

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		

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification 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		
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		
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.

"baling" means baling that utilises a hydraulic machine that using compressive forces compacts various materials into regular-shaped dense bales (typically a cube). Bales may be belted with straps or steel wire to keep the bale in its compacted state; although for most metal bales this is not necessary. Baled scrap metal may be easier to handle, store and transport than loose scrap.

"best available treatment, recovery and recycling techniques" shall have the meaning given to it in the document published jointly by the Department for Environment, Food and Rural Affairs, the Welsh Assembly Government and the Scottish Executive on 27th November 2006, entitled 'Guidance on Best Available Treatment, Recovery and Recycling Techniques (BATRRT) and Treatment of Waste Electrical and Electronic Equipment (WEEE)'.

"Blowing agent" Blowing agent used in the foam formation process and contained in the insulating foam of a WTEE unit, or other relevant electrical appliance, or insulation panel. Blowing agents are used in the foam formation process and include chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), hydrofluorocarbons (HFCs) and hydrocarbons (HCs).

"compacting" means compacting involving the flattening or crushing of compactable metal wastes to aid storage and economic transportation to the scrap processor; it is often a preparation for shredding. Compacting may be achieved using a waste handler's loading shovel (known as "tapping") or speciallydesigned hydraulic flattener.

"Contained environment" Means an environment where there is atmospheric containment. This includes areas where air egress may only be facilitated through air extraction and blowing agent capture systems

"controlled substances" means chlorofluorocarbons, other fully halogenated chlorofluorocarbons, halons, carbon tetrachloride, 1,1,1-trichloroethane, methyl bromide, hydrobromofluorocarbons and hydrochlorofluorocarbons listed in Annex I of Regulation (EC) No 2037/2000 of the European Parliament and of the Council of 29 June 2000 on substances that deplete the ozone layer, including their isomers, whether alone or in a mixture, and whether they are virgin, recovered, recycled or reclaimed.

"cutting" means cutting typically utilising either an oxy-acetylene gas cutting torch or abrasive disc cutter to cut and/or resize large pieces of scrap metal into more manageable sizes; powder torches and plasma torches may be used to cut heat-resistant scrap e.g. pig iron, copper, bronze).

"Defective unit" means a WTEE unit that does not have any gas pressure in the cooling circuit.

"disposal" means any of the operations provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

"dust" means total particulate matter (in air).

"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.

"emissions to land" includes emissions to groundwater.

"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.

"grading" means the sorting of metals to industry-agreed specifications ready for use, without the need for further treatment, by the end consumer to manufacture new metals.

"granulating" means granulated to a very small size with metal/non-metal separation by air classification and flotation.

"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 No.894, the Hazardous Waste (Wales) Regulations 2005 No. 1806 (W.138), the List of Wastes (England) Regulations 2005 No.895 and the List of Wastes (Wales) Regulations 2005 No. 1820 (W.148).

"impermeable surface" means a surface or pavement constructed and maintained to a standard sufficient to prevent the transmission of liquids beyond the pavement surface.

"Independent conformance testing" means independent sampling and testing of residual materials and emission points to confirm whether or not the standards set in the permit for fridge destruction are being fulfilled, carried out by an external laboratory and using accredited methods where they are available.

"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

"Insulation panel" means rigid polyurethane foam insulation boards, typically removed from the internal and external walls, roofs and ceilings of buildings, cold stores or commercial or domestic cooling equipment, which contain CFC, HCFC, HFC or HC blowing agents.

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

"Lower Explosive Limit" means the lowest concentration (specified as a percentage) of a combustible gas in air capable of burning in the presence of an ignition source.

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

"ozone-depleting substances" "ODS" means "controlled substances" contained in refrigeration, airconditioning and heat pump equipment (WTEE); equipment containing solvents; fire protection systems and fire extinguishers.

"pests" means Birds, Vermin and Insects.

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

"recovery" means any of the operations provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

"Refrigerant" means refrigerant gas contained in the compressor and cooling circuit of the WTEE unit. Refrigerants include chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), hydrofluorocarbons (HFCs), hydrocarbons (HCs) and ammonia.

"WTEE unit type" are four identified types of refrigeration unit, as set out in the table below:

Type 1	Refrigerators with storage capacity less than 0.18m ³			
Type 2	Refrigerators or combined fridge-freezers with storage capacity between $0.18m^3$ & $0.35m^3$			
Туре 3	Freezers with storage capacity less than 0.50m ³ and combined fridge-freezers with capacity greater than 0.35m ³ and no more than 0.5m ³			
Type 4	any refrigerators, freezers or fridge-freezers with a capacity greater than 0.5m ³			

"Residual materials" means both materials and wastes resulting from the specified operations.

"sealed drainage system" in relation to an impermeable surface, means a drainage system with impermeable components which does not leak and which will ensure that:

- no liquids will run off the surface otherwise than via the system
- all liquids entering the system are collected in a sealed sump, except where liquids may be lawfully discharged.

"separation" means separating wastes into different material types, components and grades.

"shearing" means utilises a range of hydraulic machinery that comprise hard steel blades which cut metals into manageable sizes. It may be hand-held, static or attached to mobile plant (e.g. cranes).

"sorting" means sorting that may be undertaken by hand or machinery. Sorting enables materials to be processed and recycled appropriately. It may involve separation of different waste types or the separation of different metal types including different ferrous metals, non-ferrous metals and non-metallic materials (e.g. paper and plastic). The sorted metals are graded by visual inspection, supplemented by chemical and other laboratory tests. The physical sorting may be assisted by conveyors and electromagnets.

"shredding" includes treatment in plant such as hammer mills, chain mills, rotary shears and other similar equipment that is designed to fragment metal into smaller pieces to allow the separation of the metallic and the non metallic fractions. It does not include shearers and guillotines which utilise a range of hydraulic machinery that comprise hard steel blades to cut metals into manageable sizes.'

"VHC" means volatile hydrocarbon.

"VFC" means volatile (hydro)fluorocarbon, including chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs) and hydrofluorocarbons (HFCs).

"Waste code" means the six digit code referable to a type of waste in accordance with the List of Wastes (England)Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

"Waste Framework Directive" or "WFD" means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

"WEEE" means waste electrical and electronic equipment.

"WEEE Directive" means Directive 2012/19/EU of the European Parliament and of the Council of 4th July 2012 on waste electrical and electronic equipment (WEEE).

"WTEE" means waste temperature exchange equipment, as defined in guidance Waste temperature exchange equipment: appropriate measures.

"year" means calendar year ending 31 December.

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

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

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

Where the following terms appear in the waste code list in Tables S2.2, S2.4 and S2.4 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

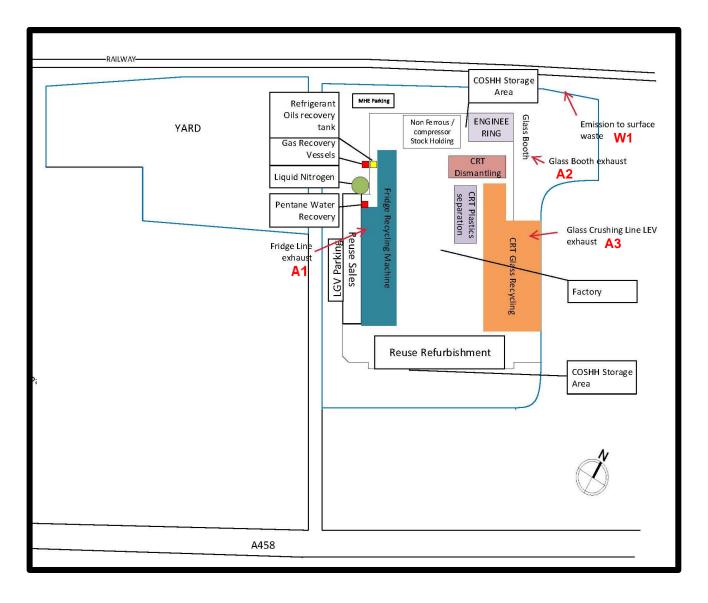
"polychlorinated biphenyls and polychlorinated terphenyls" ("PCBs") means PCBs as defined in Article 2(a) of Council Directive 96/59/EC'.

Article 2(a) says that 'PCBs' means:

- polychlorinated biphenyls;
- polychlorinated terphenyls;
- monomethyl-tetrachlorodiphenyl methane, Monomethyl-dichloro-diphenyl methane, Monomethyldibromo-diphenyl methane; and
- 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.

Schedule 7 – Site plan





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END OF PERMIT

Emissions to Air Reporting Form

Permit number: EPR/BB3109LT

Facility name:West Midlands Recycling Centre

Operator:Environcom (North West) LimitedEmissions 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/m³]	[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/BB3109LT

Facility name:West Midlands Recycling Centre

Operator: Environcom (North West) Limited 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	[insert annual usage in m ³ where mains water is used]	[insert annual usage in m ³ /unit where mains water is used]		
Site borehole	[insert annual usage in m ³ where water is used from a site borehole]	[insert annual usage in m ³ /unit where water is used from a site borehole]		
River abstraction	[insert annual usage in m ³ where abstracted river water is used]	[insert annual usage in m ³ /unit where abstracted river water is used]		
Other – [specify other water source where applicable]. Add extra rows where needed]	[insert annual usage in m ³ where applicable]	[insert annual usage in m ³ /unit where applicable]		
Total water usage	[insert total annual water usage in m ³]	[insert total annual water usage in <i>m³/unit</i>]		

Operator's comments					

Signed:	[Name]	Date:	[DD/MM/YY]
(Authorised t	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/BB3109LT

Facility name:West Midlands Recycling Centre

Operator: Environcom (North West) Limited 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]	[insert annual consumption in MWh where electricity is imported]	[insert annual consumption in MWh/unit where electricity is imported]		
Electricity imported as primary energy 1 – conversion factor of [specify conversion factor used to convert electricity delivered to primary energy]	[insert annual consumption in MWh where electricity is imported]	[insert annual consumption in MWh/unit where electricity is imported]		
Natural gas	[insert annual consumption in MWh where natural gas is used]	[insert annual consumption in MWh/unit where natural gas is used]		
Gas oil – conversion factor of [specify conversion factor used to convert tonnes to MWh]	[insert annual consumption in MWh where gas oil is used]	[insert annual consumption in MWh/unit where gas oil is used]		
Imported heat	[insert annual consumption in MWh where heat is imported]	[insert annual consumption in MWh/unit where heat is imported]		
Other – [specify other energy source and conversion factors where applicable, e.g. renewable fuel. Add extra rows where needed]	[insert annual consumption in MWh where applicable]	[insert annual consumption in MWh/unit where applicable]		
Electricity exported	[insert annual production in MWh where electricity is exported]	Not applicable		
Heat exported	[insert annual production in MWh where heat is exported]	Not applicable		

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.

Other Performance Parameters Reporting Form

Permit number:

EPR/BB3109LT

Operator: Environcom (North West) Limited

Facility name: West Midlands Recycling Centre Other Performance Parameters Reporting Form: version 1, 08/03/2021

Reporting of other performance parameters for the period from [DD/MM/YY] to [DD/MM/YY]

Parameter	Units
[e.g. Total raw material usage]	[e.g. tonnes per production unit]

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 the performance parameters (other than water and energy) required by your permit. Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. The parameters to report and units to be used can be found in the 'Performance parameters' table in schedule 4 of your permit. Add additional rows as necessary.