Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Ecobat Solutions UK Limited

Ecobat Solutions
Crescent Works
Willenhall Road
Darlaston
Wednesbury
West Midlands
WS10 8JR

Variation application number

EPR/DB3704FG/C008

Consolidated permit number

EPR/DB3704FG

Ecobat Solutions
Permit number EPR/DB3704FG

Introductory note

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

The following notice gives notice of the variation of environmental permits A and B referred to in the status logs below and the replacement of those permits with a consolidated environmental permit.

This variation amends the permit to

- Add a large scale primary shredding unit for processing non-hazardous lithium batteries and hazardous lithium battery components separately in batches.
- Amend scheduled shredding activity S5.3 A(1)(a)(ii) to allow the shredding of hazardous lithium battery off-specification components via the primary shredding stage.
- Add waste operation to allow the shredding, sieving and separation of non-hazardous lithium battery off-specification components which produce non-hazardous outputs.
- Add a directly associated activity for the storage of non-hazardous whole lithium batteries.
- Update operating techniques to include batch shredding of non-hazardous and hazardous batteries via the large shredder prior to onward processing via density separating units and a smaller secondary shredding unit.
- Update operating techniques to include the abatement of emissions from the revised shredding process via a wet scrubbing system and a bag filter.
- Increase the site total storage limits from 2000 to 7000 tonnes (consisting of 2000 hazardous and 5000 non-hazardous on the site at any one time).
- Increase annual throughput from 75,000 up to 100,000 tonnes per year and increase the ratios of hazardous and non-hazardous waste accepted under this total.
- Add waste codes lithium batteries and off specification lithium batteries for shredding including codes 12 01 03, 16 03 04, 16 06 05, 16 03 03* and 20 01 34.
- Add new waste codes to waste tables for storing, dismantling and storage.
- Amend improvement condition IC2 to reflect new operation and operational assessment of air emissions.
- Add Improvement conditions IC3 to review noise during operation.
- Add Improvement condition IC4 to review hazardous residue discharges from bin washing.
- Consolidate Permit B Standard Rules (SR2008No1) permit reference EPR/DB3704GK into the Permit A and amend the standard rules to a bespoke waste operation activity and add associated waste codes into waste table S2.8.
- Increase the site boundary to include the area covered by the former standard rules permit.

The installation will continue to operate as follows:

Ecobat Solutions is located on the northern edge of Darlaston south of the A454. The site is surrounded by industrial/commercial premises being part of an established industrial/commercial area.

The site is a treatment and transfer facility predominantly carrying out the treatment mainly indoors within Units 1 – 5 and storage of batteries within storage building 1 -3. Consolidated waste operation will be undertaken in Unit 8

The facility has a number of listed activities under Schedule 1, Part A1 of the Environmental Permitting Regulations 2016:

- S5.3 A(1)(a)(iv) - Treatment consisting of manual sorting, separation and bulking of hazardous waste (batteries only).
- S5.3 A(1)(a)(ii) - pH adjustment of contaminated water arising from on site processes prior to filter press process
- S5.6 A(1)(a) - Storage of hazardous waste pending transfer for treatment off site.
- S5.3 A(1)(a)(ii) - Treatment consisting only of sorting, separation, sieving of hazardous waste into different components for recovery
- S5.3 A(1)(a)(ii) Treatment consisting only of shredding, and granulation of hazardous waste

Directly associated activities:

- Bin washing plant
- Temporary storage of non-hazardous waste
- Raw materials handling and storage
- Filtrate and filter cake storage
- Shredding of non-hazardous waste whole Lithium Batteries
- Treatment of shredding plant wash water
- Production of nitrogen for use in shredding and separation process
- Carbon dioxide storage

Waste operations

- Storage of non-hazardous waste
- Treatment of WEEE to remove batteries.
- Physical treatment of non-hazardous Waste including inspection, testing, dismantling EV & HEV batteries.
- Storage of Lithium Batteries
- Household, commercial and industrial waste transfer

Batteries are brought onto site and undergo a combination of the treatments including manual sorting, repackaging, storage for onward recovery, dismantling, shredding and separation. The site also sorts and removes batteries from WEEE.

Shredding and separation of non-hazardous lithium batteries and hazardous lithium battery components is undertaken in Unit 3. Large shredding unit is used for the shredding of non-hazardous lithium batteries and hazardous lithium battery components. The hazardous (off-spec material) and non-hazardous (lithium batteries) waste will not be processed together. This followed by density separation units for sorting of hazardous waste generated from the shredding of lithium batteries. This is followed by a smaller secondary shredding stage for the shredding of hazardous output generated from the large shredder. This is then subject to further density vibratory, magnetic separation and sieving, and milling.

Lithium batteries will be shredded in an inert nitrogen and CO_2 atmosphere and sorted into three fractions for onward transport off site. Shredder capacity is 6 tonnes per hour processing a maximum 72 tonnes per day. Process output (black mass) is stored in buildings 2 and 3.

All activities are carried out on impermeable surface with sealed drainage. All contaminated water arising from onsite processes (excluding the large shredder wash water) go through the onsite effluent treatment plant.

The large shredding unit is a wet process and wash water is on a loop system which passes through a filter press prior to being recirculated until the water is spent and removed for offsite disposal, there is no discharge to sewer from this process.

The process is served by abatement systems including a wet scrubber and carbon filter which serve the main shredding process. The main sieving and separation stages are served by a bag filter.

The total quantity of waste accepted at the site for activities AR1 – AR17 shall not exceed 100,000 tonnes per year consisting of the following:

- no more than 50,000 tonnes of hazardous waste; and
- no more than 50,000 tonnes of non-hazardous waste.

The storage of hazardous waste shall not exceed 2000 tonnes at any one time and shall not exceed 5000 tonnes at any one time for non-hazardous waste.

Activity AR20 (consolidated Standard Rules permit) is restricted to a separate less than 75,000 tonnes per year.

Emissions from the process include:

- Emission to air from Wet scrubber and carbon filter stack
- Emissions to air from Bag filter stack
- Discharge of uncontaminated water to surface water sewer
- Discharge of treated effluent to sewer
- Tankering offsite of spent wash water

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 permit A: EPR/DB3704FG		
Description	**Date**	**Comments**
Licence SL2035 EAWML42701 determined	08/05/1997	Original licence for material recycling facility issued to G&P Batteries Limited.
Licence modified	21/04/1999	
Licence modified	20/11/2002	
Licence modified	04/12/2003	
Application DP3292LC/V003	Duly made 17/10/2008	
Additional information received	03/11/2008	
Variation DP3292LC/V003 issued	09/03/2009	Licence variation issued to extend the specified land and to increase storage of wastes.
Application DP3292LC/V004	Duly made 27/04/2010	
Variation DP3292LC/V004 issued	27/07/2010	Permit varied to extend the site boundary
Application EPR/DB3704FG/T001 (full transfer of permit EPR/DP3292LC	Duly made 16/12/2015	Application to transfer the permit in full to H.J. Enthoven Limited
Application EPR/DB3704FG/T001 (full transfer of permit EPR/DP3292LC	29/12/2015	Transfer determined
Application EPR/DB3704FG/T007	Duly made 10/01/2017	Application to remove on site wheel wash, install a bin washing machine and consolidate the permit.
Additional information received	20/02/2017	Updated site plans February 2017.
Additional information received	08/03/2017	Updated Waste Battery Acceptance & Sampling Process Flow EP12 Rev.02.
Permit determined EPR/DB3704FG	07/04/2017	Permit issued to Ecobat Solutions UK Limited.

Status log of permit A: EPR/DB3704FG		
Description	**Date**	**Comments**
Notified of change of Site Name	14/01/2019	Site Name changed to Ecobat Logistics, G&P House, Ecobat Solutions, Crescent Works Willenhall Road Darlaston Wednesbury West Midlands WS10 8JR
Variation issued EPR/DB3704FG/V003	25/01/2019	Varied permit issued to Ecobat Solutions UK Limited.
Application EPR/DB3704FG/T007 (variation and consolidation)	Duly made 28/06/2019	Application to vary the permit to include new waste types for hazardous waste storage.
Response to schedule 5 notice dated 17/07/2019	19/07/2019	Additional information received regarding aerosols storage arrangements and waste acceptance.
Variation determined EPR/DB3704FG Billing ref. - Installation - QP3803PH Waste – EAWML 42701	26/07/2019	Varied permit issued.
Application EPR/DB3704FG/V005 (variation and consolidation)	Duly made 13/10/2020	Application to add waste activity AR11 - Treatment of electric batteries and increase the number of wastes.
Additional Information	13/01/2021	Fire Prevention Plan version 5
Variation issued	25/01/2021	Varied and consolidated permit issued in modern format
Application EPR/DB3704FG/V006	Duly made 25/08/2022	Application to add scheduled activity 5.3 A(1)(a)(ii) AR4, associated shredding DAA AR10 and non-hazardous waste storage AR14 – Shredding and sorting of waste lithium batteries/electric batteries. Admin variation company name change from H.J. Enthoven Limited to Ecobat Resources UK Limited. Site name change to Ecobat Solutions, Crescent Works, Willenhall Road, Darlaston, Wednesbury, West Midlands, WS10 8JR
Additional information received	30/09/2022	Schedule 5 response Fire Prevention Plan version 6

Status log of permit A: EPR/DB3704FG		
Description	**Date**	**Comments**
Variation Issued EPR/DB3704FG Billing ref. Installation – JP3204LZ Waste – EAWML 42701	08/12/2022	Varied and consolidated permit issued
Application EPR/DB3704FG/T007 (full transfer of permit EPR/DB3704FG)	Duly made 08/02/2023	Application to transfer the permit in full to Ecobat Solutions UK Limited.
Transfer determined EPR/DB3704FG	13/02/2023	Full transfer of permit complete.
Application EPR/DB3704FG/C008 (variation and consolidation with EPR/DB3704GK)	Duly made 17/10/2023	Application to vary and update the permit to modern conditions.
Response to schedule 5 notice dated 30/11/2023	17/01/2024	Process controls, processing of hazardous and non-hazardous waste, noise mitigation, BAT controls, contingency measures, storage capacity, Fire prevention plan
Additional information received dated 26/01/2024	05/02/2024	Water loop and wet scrubber processing monitoring, FPP suppression system, drainage plan.
Variation determined and consolidation issued. EPR/DB3704FG Billing reference DB3704FG	20/03/2024	Varied and consolidated permit issued in modern format.

Status log of permit B: EPR/DB3704GK		
Description	**Date**	**Comments**
Application EPR/FB3436AU	Duly made 27/02/2012	Application for SR2008No1 (75,000T)
Permit determined EPR/FB3436AU	25/04/2012	Original permit issued to G & P Batteries Limited
Application EPR/DB3704GK/T001 (full transfer of permit EPR/FB3436AU)	Duly Made 16/12/2015	Application to transfer the permit in full to H. J. Enthoven Limited.
Transfer determined EPR/DB3704GK/T001	29/12/2015	Full transfer of permit complete.
Application EPR/DB3704GK/T002 (full transfer of permit EPR/DB3704GK)	Duly made 08/02/2023	Application to transfer the permit in full to Ecobat Solutions UK Limited from Ecobat Resources UK Limited (previously known as H J Enthoven Limited).
Transfer determined EPR/DB3704GK	13/02/2023	Full transfer of permit complete.
Application EPR/DB3704FG/C008 (variation and consolidation with EPR/DB3704FG)	Duly made 17/10/2023	Application to vary and update the permit to modern conditions.
Variation determined and consolidation issued. EPR/DB3704FG	20/03/2024	Varied and consolidated permit issued in modern format.

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 regulations 18 and 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies and consolidates environmental permits

Permit numbers

EPR/DB3704FG
EPR/DB3704GK

Issued to

Ecobat Solutions UK Limited ("the operator")

whose registered office is

Darley Dale Smelter
South Darley
Matlock
Derbyshire
DE4 2LE

company registration number 14388312

to operate regulated facilities at

Ecobat Solutions
Crescent Works
Willenhall Road
Darlaston
Wednesbury
West Midlands
WS10 8JR

to the extent set out in the schedules.

The notice shall take effect from 20/03/2024

The number of the consolidated permit is EPR/DB3704FG.

Name	Date
Vicky Patchett	**20/03/2024**

Authorised on behalf of the Environment Agency

Schedule 1 – changes in the permit

Note: The conditions numbers used in this schedule refer to those in the consolidated permit.

All conditions have been varied by the consolidated permit as a result of the application made by the operator.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/DB3704FG

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/DB3704FG/C008 authorising,

Ecobat Solutions UK Limited (“the operator”),

whose registered office is

Darley Dale Smelter
South Darley
Matlock
Derbyshire
DE4 2LE

company registration number 14388312

to operate an installation and waste operations at

Ecobat Solutions
Crescent Works
Willenhall Road
Darlaston
Wednesbury
West Midlands
WS10 8JR

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

Name	Date
Vicky Patchett	**20/03/2024**

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 or other approval issued by the Environment Agency.

1.2 Energy efficiency

1.2.1 For the following activities referenced in schedule 1, table S1.1 AR1 to AR14, 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 AR14, 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 AR14, 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 Waste shall only be accepted if:

(a) it is of a type and quantity listed in schedule 2 table(s) S2.2, S2.3, S2.4, S2.5, S2.6, S2.7, S2.8; and

(b) it conforms to the description in the documentation supplied by the producer and holder.

2.3.4 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.

2.3.5 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.

Waste battery and accumulator treatment

2.3.6 Treatment of waste batteries and accumulators must meet the minimum requirements set out in Annex III, Part A of the Batteries Directive.

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.

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 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.

3.4.3 Emissions from the metal shredder shall be free from sudden noise or vibration at levels likely to cause pollution outside the site, 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 sudden 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) process monitoring specified in table S3.3;

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, 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.

3.6.2 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 pests 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 AR14, 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.

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.

4.3.7 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	S5.3 A(1)(a)(iv) Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving repackaging.	Treatment of more than 10 tonnes of hazardous wastes a day for the purpose of recovery. R4: Recycling/reclamation of metals and metal compounds.	From receipt and storage of hazardous waste prior to despatch off site. Treatment consisting of manual sorting, separation and bulking of hazardous waste (batteries only). All treatment must take place on an impermeable surface with sealed drainage. Waste types as specified in Table S2.2.
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.	pH adjustment of more than 10 tonnes of hazardous wastes a day for the purpose of disposal. D9: Physico-chemical treatment not specified elsewhere which results in final compounds or mixtures which are disposed of by any of the operations numbered D01 to D12.	pH adjustment of contaminated water arising from on site processes prior to filter press process.
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	Temporary storage of more than 50 tonnes of hazardous waste pending disposal or recovery. D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending	Storage of hazardous waste pending transfer for treatment off site. Total storage not to exceed 2000 tonnes of hazardous waste at any one time.

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**
	in Section 5.1, 5.2 and 5.3	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).	No waste shall be stored for longer than 6 months. All wastes shall be stored on impermeable pavement with sealed drainage. All containers used to store waste outside the building shall be sealed to prevent the ingress or egress of liquid. All aerosols to be stored under cover in closed containers or cages. Waste types restricted to the hazardous wastes listed in table S2.2, S2.4 and S2.7.
AR4	S5.3 A(1)(a)(ii) Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving physico-chemical treatment.	Sieving, separating and milling for onward recovery of hazardous materials generated by AR5 and AR11 from the shredding of lithium batteries. R4 Recycling/reclamation of metals and metal compounds	Treatment operations shall be limited to: Treatment of waste produced from the battery shredding process consisting only of sorting, separation, sieving of hazardous waste into different components for recovery. Treatment shall only take place within a building, reference unit 3 and 4. Subject to any other requirements of this permit wastes shall be stored for no longer than 6 months prior to recovery. Spent scrubber liquor from the wet-scrubber abatement system shall be sent off site for disposal at an appropriate facility. Waste types are limited to the waste output from activity AR5 and AR11.

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**
AR5	S5.3 A(1)(a)(ii) Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving physico-chemical treatment.	Primary and secondary shredding of hazardous waste waste batteries and their components. R4 Recycling/reclamation of metals and metal compounds	Treatment operations shall be limited to: Treatment consisting only of shredding, and granulation of hazardous waste via primary stage (large) shredder and second stage (small) shredder into different components for recovery. Treatment shall only take place within a building, reference Unit 3 and 4. Treatment for recovery under activities AR5, AR11 and AR19 shall be no more than 72 tonnes per day. Subject to any other requirements of this permit wastes shall be stored for no longer than 6 months prior to recovery. Waste types are limited to those specified in Table S2.7 and outputs from activity AR11.
	Directly Associated Activity		
AR6	Bin washing plant	Treatment of nominally empty containers in a bin washing area to remove hazardous residue.	Only nominally empty containers previously used to contain batteries. Washings to be treated in the onsite effluent treatment plant (AR2) prior to discharge to sewer.
AR7	Temporary storage of non-hazardous waste	Temporary storage of non-hazardous waste incidental to the acceptance of batteries. D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced).	Storage of non-hazardous waste pending transfer for treatment off site. In total storage of non-hazardous waste shall not exceed 5000 tonnes on the site at any one time. No waste shall be stored for longer than 6 months. All wastes shall be stored on impermeable pavement with sealed drainage.

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**
		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).	Waste types as specified in Table S2.3.
AR8	Raw materials handling and storage	Handling and storage of raw materials, including fuel and chemicals.	Receipt and storage of any raw materials directly associated with the permitted activities on site.
AR9	Filtrate and filter cake storage	Storage of separated filtrate and filter cakes from the filter press.	Filtrate to be stored in a storage tank, filter cakes to be stored in skips or bags.
AR10	Discharge to foul sewer	Discharge to foul sewer under the terms of the trade effluent consent.	Waste and site drainage (excluding clean roof water) to be discharged to foul sewer.
AR11	Shredding of Non-hazardous waste whole Lithium Batteries	R4 Recycling/reclamation of metals and metal compounds	Treatment operations shall be limited to: Treatment consisting only of shredding, and granulation of non-hazardous waste whole Lithium Batteries via primary stage (large) shredder into different components for recovery. Treatment shall only take place within a building, reference unit 3 and 4. Treatment for recovery under activities AR5, AR11 and AR19 shall be no more than 72 tonnes per day. Subject to any other requirements of this permit wastes shall be stored for no longer than 6 months prior to recovery. Waste types are limited to those specified in Table S2.6.

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**
AR12	Storage of non-hazardous waste whole lithium batteries	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).	Storage of non-hazardous waste whole lithium batteries prior to onsite treatment In total storage of non-hazardous waste shall not exceed 5000 tonnes on the site at any one time Waste types are limited to those specified in Table S2.6.
AR13	Treatment of shredding plant wash water	Treatment via filter press	Storage of wash water in 'dirty water tank' and passing through filter press and storage in 'clean water tank' prior to reuse or tankering offsite of spent wash water.
AR14	Production of nitrogen for use in shredding and separation process	Production of nitrogen via membrane and air compressor	From production of nitrogen to for use within the shredding and separation process.

Table S1.1 activities		
Activity reference	**Description of activities for waste operations**	**Limits of activities**
AR15	Storage of non-hazardous waste D15: Storage pending any of the operations numbered D1 to D14. 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 temporary storage of non-hazardous wastes that is not directly associated with AR1 before either processing onsite or transfer off site. In total storage of non-hazardous waste shall not to exceed 5000 tonnes on the site at any one time. Storage must take place on impermeable surface with sealed drainage. No waste shall be stored for longer than 6 months. Waste types and quantity restricted to the non-hazardous wastes listed in table S2.3 and S2.5.

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**
AR16	Treatment of WEEE to remove batteries. R4: Recycling/reclamation of metals and metal compounds.		Treatment limited to the manual sorting and removal of batteries from WEEE in association with AR1 above. No waste shall be stored for longer than 6 months. All wastes shall be stored on impermeable pavement with sealed drainage. There shall be no treatment of WEEE containing ozone depleting substances. Waste types as specified in Table S2.4 and S2.5.
AR17	Physical treatment of non-hazardous Waste. Inspection, testing, dismantling EV & HEV batteries. On dismantling, the modules will be tested, after testing removed from site for reuse or recycling. R4: Recycling/reclamation of metals and metal compounds.		All wastes shall be stored on impermeable pavement with sealed drainage. Waste types as specified in Table S2.3.
AR18	Storage of Lithium Batteries prior to on site treatment 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 of non-hazardous lithium batteries to storage prior to onsite treatment. Lithium batteries shall be stored under weatherproof covering or in suitable containers. Batteries of different types and chemistry shall be stored separately. In total storage of non-hazardous waste shall not to exceed 5000 tonnes on the site at any one time. Waste types are limited to lithium battery wastes only as specified in Table S2.3

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**
AR19	Shredding, sieving and separation of non-hazardous off-specification lithium battery wastes. R4 Recycling/reclamation of metals and metal compounds		Treatment consisting only of shredding, sieving separation and granulation of non-hazardous off specification lithium battery waste via primary stage (large) shredder, second stage (small) shredder and sieving and separation of non-hazardous outputs for recovery. Treatment shall only take place within a building, reference unit 3. Treatment for recovery under activities AR5, AR11 and AR19 shall be no more than 72 tonnes per day. Subject to any other requirements of this permit wastes shall be stored for no longer than 6 months prior to recovery. Waste types are limited to those to lithium battery wastes only specified in Table S2.3.
AR20	Household, commercial and industrial waste transfer 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 wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) D14: Repackaging prior to submission to any of the operations numbered D1 to 13 D9: Physico-chemical treatment not specified elsewhere in Annex IIA which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to D8 and D10 to D12		Treatment consisting only of manual sorting or manual separation of waste into different components for disposal, (no more than 50 tonnes per day) or recovery. No more than a total of 50 tonnes of intact and shredded waste vehicle tyres (waste codes 16 01 03 and 19 12 04) shall be stored at the site. All waste shall be stored and treated on an impermeable surface with sealed drainage system. Waste types are limited to those specified in Table S2.8

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**
	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		

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Variation Application EPR/DB3704FG/V002	Application forms C2 and C3 and referenced supporting information	Duly Made 10/01/2017
Additional information received	Updated site plans February 2017	20/02/2017
Additional information received	Updated Waste Battery Acceptance & Sampling Process Flow EP12 Rev.02	08/03/2017
Variation Application EPR/DB3704FG/V004	Site Plan – general arrangements, June 2019 Environmental Risk Assessment, Ref. RA-47, June 2019 – controls to mitigate/negate the risk	28/06/2019
Additional information received Schedule 5 Notice Response	Waste Pre-acceptance process Non-Battery Waste EP14 Rev01 Waste Acceptance & Sampling Process EP12 Rev06	19/07/2019
Variation Application EPR/DB3704FG/V005	Non-Technical Summary	13/10/2020
Variation Application EPR/DB3704FG/V005	Technical description EV project process handling and dismantling	28/10/2020
Variation Application EPR/DB3704FG/V005	Fire Prevention Plan version 5	13/01/2021
Variation Application EPR/DB3704FG/V006	Answer to question 3a application form C4 and referenced supporting information.	27/01/2022
Variation Application EPR/DB3704FG/V006	Fire Prevention Plan version 6	30/10/2022
Response to Schedule 5 Notice	Schedule 5 response to question 3	30/10/2022

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Variation Application EPR/DB3704FG/V008	Response to Question 3a application form C3 and all referenced supporting information.	17/10/2023
Response to Schedule 5 Notice dated 30/11/2023	Schedule 5 response to questions 1c) Processing monitoring carbon filter 1d) Processing monitoring carbon bag filter 2) Water loop treatment 3) Water loop filter press 5) Noise mitigation 9) EWC codes Lithium battery components 10) Hazardous and Non-hazardous batch processing 14) Persistent Organic Pollutant (POPs) 15) Contingency measures 16) Waste storage operating techniques 17) BAT3 18) BAT 4 19) BAT 19 20) BAT 27 Ecobat solutions Best available techniques (BAT) conclusions for waste treatment industries	17/01/2024
Additional information received dated 26/01/2024	Water loop top up and settlement offsite disposal and wet scrubber processing monitoring, revised drainage plan. Ecobat Solutions Fire Prevention Plan	05/01/2024

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC1	The Operator shall carry out an options appraisal review for the packaging of lead acid batteries for transport. The review shall consider, but not be limited to: • measures to minimise the physical damage to battery casings • measures to minimise the potential for pollution from battery acid leaks during transport and storage • proposals for amendments to existing procedures and/or for the implementation of additional measures to ensure the safe storage and transportation of batteries and appropriate treatment of battery acid The Operator shall submit a written report of the review to the Environment Agency for approval and shall implement any improvements identified to a timetable agreed in writing with the Environment Agency.	Completed
IC2	The Operator shall submit a written report to the Environment Agency for technical assessment and approval. The report must contain: • Results of monitoring from emission point W3 for the parameters assessed within the H1 submitted with the application EPR/DB3704FG/C008 and any other parameters included Table in S3.1 to verify the assumptions made within the H1. The results shall be taken from a minimum of three rounds of monitoring. • A revised H1 using the results of the monitoring where the actual emissions are higher than those in the original H1. • Detailed air dispersion modelling where the emissions do not screen out within the revised H1. • Measures to be taken to reduce or abate emissions where detailed modelling does not screen out emissions. The Operator shall implement any improvement measures and applicable emission limits identified within the report in line with a timetable agreed in writing with the Environment Agency.	3 months from completion of commissioning activities permitted under EPR/DB3704FG/C008

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC3	**Noise management** The operator shall submit a written report to the Environment Agency for assessment and written approval. The report must contain: • Results of noise surveys taken once the large shredder is operation • Analysis of the results and identification of adverse impacts • Identification of where additional noise mitigation is required and timescales for implementation The operator must implement the proposals in the report in line with the timescales agreed with the Environment Agency's written approval.	3 months from completion of commissioning activities permitted under EPR/DB3704FG/C008
IC4	**Bin Residue** The operator shall submit a written report to the Environment Agency (EA) for assessment and written approval. The report must contain: • Result from sampling of the bin washings produced from washing hazardous residue from bins • Analysis and characterisation of the washing content • Screening of any relevant hazardous pollutant using an EA H1 risk assessment Tool. • Confirmation of relevant BAT AELs as outlined in appropriate measures guidance • If any emissions are not determined to be insignificant, outline measures for further treatment required and/or demonstration of BAT measure are in place • Timescale for implementation of additional measures The operator must implement the proposals in the report in line with the timescales agreed with the Environment Agency's written approval.	20/07/2024

Schedule 2 – Waste types, raw materials and fuels

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

Table S2.2 Permitted waste types and quantities for activities AR1 and AR3	
Maximum quantity	**The total waste accepted at site for activities AR1 – AR19 will not exceed 100,000 tonnes per year.** **Consisting of no more than 50,000 tonnes of hazardous waste.**
Waste code	**Description**
09	**Wastes from the photographic industry**
09 01	**wastes from the photographic industry**
09 01 11*	single-use cameras containing batteries included in 16 06 01, 16 06 02 or 16 06 03
15	**Packaging**
15 01	packaging (including separately collected municipal packaging waste)
15 01 10*	packaging containing residues or of contaminated by hazardous substances
16	**Wastes 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 21*	hazardous components other than those mentioned in 16 01 07 to 16 01 11 and 16 01 13 and 16 01 14
16 02	**wastes from electrical and electronic equipment**
16 02 09*	transformers and capacitors containing PCBs
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
16 03	off-specification batches and unused products
16 03 03*	inorganic wastes containing hazardous substances (associated with the lithium batteries only)
16 06	**batteries and accumulators**
16 06 01*	lead batteries
16 06 02*	Ni-Cd batteries
16 06 03*	mercury-containing batteries

Table S2.2 Permitted waste types and quantities for activities AR1 and AR3	
Maximum quantity	**The total waste accepted at site for activities AR1 – AR19 will not exceed 100,000 tonnes per year.** **Consisting of no more than 50,000 tonnes of hazardous waste.**
16 06 06*	separately collected electrolyte from batteries and accumulators
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 33*	batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries
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 activities AR7, AR17 and AR18	
Maximum quantity	**The total waste accepted at site for activities AR1 – AR19 will not exceed 100,000 tonnes per year.** **Consisting of no more than 50,000 tonnes of non-hazardous waste.**
Waste code	**Description**
09	**Wastes from the photographic industry**
09 01	**wastes from the photographic industry**
09 01 12	single-use cameras containing batteries other than those mentioned in 09 01 11
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 03	non-ferrous metal filings and turnings (associated with the lithium batteries only)
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 (associated with the lithium batteries only)
16 03	off-specification batches and unused products
16 03 04	inorganic wastes other than those mentioned in 16 03 03 (associated with the lithium batteries only)
16 06	**batteries and accumulators**
16 06 04	alkaline batteries (except 16 06 03)
16 06 05	other batteries and accumulators

Table S2.3 Permitted waste types and quantities for activities AR7, AR17 and AR18	
Maximum quantity	**The total waste accepted at site for activities AR1 – AR19 will not exceed 100,000 tonnes per year.** **Consisting of no more than 50,000 tonnes of non-hazardous waste.**
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 34	batteries and accumulators other than those mentioned in 20 01 33
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 activities AR3 and AR16	
Maximum quantity	**The total waste accepted at site for activities AR1 – AR19 will not exceed 100,000 tonnes per year.** **Consisting of no more than 50,000 tonnes of hazardous waste.**
Waste code	**Description**
09	**Wastes from the photographic industry**
09 01	**wastes from the photographic industry**
09 01 01*	water-based developer and activator solutions
09 01 02*	water-based offset plate developer solutions
09 01 04*	fixer solutions
09 01 05*	bleach solutions and bleach fixer solutions
09 01 06*	wastes containing silver from on-site treatment of photographic wastes
13	**Oil wastes and wastes of liquid fuels (except edible oils, and those in chapters 05, 12 and 19)**
13 01	**waste hydraulic oils**
13 01 09*	mineral-based chlorinated hydraulic oils
13 01 10*	mineral based non-chlorinated hydraulic oils
13 01 11*	synthetic hydraulic oils
13 01 12*	readily biodegradable hydraulic oils
13 01 13*	other hydraulic oils
13 02	**waste engine, gear and lubricating oils**
13 02 04*	mineral-based chlorinated engine, gear and lubricating oils
13 02 05*	mineral-based non-chlorinated engine, gear and lubricating oils
13 02 06*	synthetic engine, gear and lubricating oils
13 02 07*	readily biodegradable engine, gear and lubricating oils

Table S2.4 Permitted waste types and quantities for activities AR3 and AR16	
Maximum quantity	**The total waste accepted at site for activities AR1 – AR19 will not exceed 100,000 tonnes per year.** **Consisting of no more than 50,000 tonnes of hazardous waste.**
13 02 08*	other engine, gear and lubricating oils
13 04	**bilge oils**
13 04 01*	bilge oils from inland navigation
13 04 02*	bilge oils from jetty sewers
13 04 03*	bilge oils from other navigation
13 07	**wastes of liquid fuels**
13 07 01*	fuel oil and diesel
13 07 03*	other fuels (including mixtures)
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
16	**Wastes 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 07*	oil filters
16 01 13*	brake fluids
16 01 14*	antifreeze fluids containing hazardous substances
16 02	**wastes from electrical and electronic equipment**
16 02 13*	discarded equipment containing hazardous components other than those mentioned in 16 02 09 to 16 02 12
16 03	off-specification batches and unused products
16 03 03*	inorganic wastes containing hazardous substances (associated with the lithium batteries only)
16 05	**gases in pressure containers and discarded chemicals**
16 05 04*	gases in pressure containers (including halons) containing hazardous substances
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

Table S2.4 Permitted waste types and quantities for activities AR3 and AR16	
Maximum quantity	**The total waste accepted at site for activities AR1 – AR19 will not exceed 100,000 tonnes per year.** **Consisting of no more than 50,000 tonnes of hazardous 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 S2.5 Permitted waste types and quantities for activities AR15 and AR16	
Maximum quantity	**The total waste accepted at site for activities AR1 – AR19 will not exceed 100,000 tonnes.** **Consisting of no more than 50,000 tonnes of non-hazardous waste.**
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
09 01 10	single-use cameras without batteries
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 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
16	**Wastes 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 17	ferrous metal
16 01 18	non-ferrous metal
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 08	**spent catalysts**
16 08 01	spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 07)
16 08 03	spent catalysts containing transition metals or transition metal compounds not otherwise specified
17	**Construction and demolition wastes (including excavated soil from contaminated sites)**
17 02	**wood, glass and plastic**
17 02 01	wood

Table S2.5 Permitted waste types and quantities for activities AR15 and AR16	
Maximum quantity	**The total waste accepted at site for activities AR1 – AR19 will not exceed 100,000 tonnes.** **Consisting of no more than 50,000 tonnes of non-hazardous waste.**
17 02 02	glass
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
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 40	metals

Table S2.6 Permitted waste types and quantities for activities AR11, AR12, AR18, AR19	
Maximum quantity	**The total waste accepted at site for activities AR1 – AR19 will not exceed 100,000 tonnes.** **Consisting of no more than 50,000 tonnes of non-hazardous waste.**
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 03	non-ferrous metal filings and turnings (associated with the lithium batteries only)
16	**Wastes not otherwise specified in the list**
16 03	off-specification batches and unused products
16 03 04	inorganic wastes other than those mentioned in 16 03 03 (associated with the lithium batteries only)
16 06	**batteries and accumulators**
16 06 05	other batteries and accumulators (associated with the lithium batteries only)
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 34	batteries and accumulators other than those mentioned in 20 01 33 (associated with the lithium batteries only)

Table S2.7 Permitted waste types and quantities for activities AR3 and AR5,	
Maximum quantity	**The total waste accepted at site for activities AR1 – AR19 will not exceed 100,000 tonnes.** **Consisting of no more than 50,000 tonnes of hazardous waste.**
16	**Wastes not otherwise specified in the list**
16 03	off-specification batches and unused products
16 03 03*	inorganic wastes containing hazardous substances (associated with the lithium batteries only)

Table S2.8 Permitted waste types and quantities for activities AR20	
Maximum quantity	**The total waste accepted under activity AR20 shall be less than 75,000 tonnes a year.**
01	WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS
01 01	wastes from mineral excavation
01 01 01	wastes from mineral metalliferous excavation
01 01 02	wastes from mineral non-metalliferous excavation
01 03	wastes from physical and chemical processing of metalliferous minerals
01 03 06	tailings other than those mentioned in 01 03 04 and 01 03 05
01 03 09	red mud from alumina production other than the wastes mentioned in 01 03 07
01 04	wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
01 04 11	wastes from potash and rock salt processing other than those mentioned in 01 04 07
01 04 12	tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11
01 04 13	wastes from stone cutting and sawing other than those mentioned in 01 04 07
02	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 03	plant-tissue waste

02 01 04	waste plastics (except packaging)
02 01 07	wastes from forestry
02 01 10	waste metal
02 02	wastes from the preparation and processing of meat, fish and other foods of animal origin
02 02 03	materials unsuitable for consumption or processing
02 03	wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 03 04	materials unsuitable for consumption or processing
02 04	wastes from sugar processing
02 04 01	soil from cleaning and washing beet
02 04 02	off-specification calcium carbonate
02 05	wastes from the dairy products industry
02 05 01	materials unsuitable for consumption or processing
02 06	wastes from the baking and confectionery industry
02 06 01	materials unsuitable for consumption or processing
02 06 02	wastes from preserving agents
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	wastes from spirits distillation
02 07 04	materials unsuitable for consumption or processing
03	WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD
03 01	wastes from wood processing and the production of panels and furniture
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	wastes from pulp, paper and cardboard production and processing
03 03 01	waste bark and wood
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	wastes from sorting of paper and cardboard destined for recycling
03 03 10	fibre rejects, fibre-, filler- and coating-sludges from mechanical separation
04	WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES

04 01	wastes from the leather and fur industry
04 01 08	waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium
04 01 09	wastes from dressing and finishing
04 02	wastes from the textile industry
04 02 21	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres
06	WASTES FROM INORGANIC CHEMICAL PROCESSES
06 09	wastes from the MSFU of phosphorous chemicals and phosphorous chemical processes
06 09 02	phosphorous slag
06 09 04	calcium-based reaction wastes other than those mentioned in 06 09 03
06 11	wastes from the manufacture of inorganic pigments and opacificiers
06 11 01	calcium-based reaction wastes from titanium dioxide production
07	WASTES FROM ORGANIC CHEMICAL PROCESSES
07 02	wastes from the MFSU of plastics, synthetic rubber and man-made fibres
07 02 13	waste plastic
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
09 01 08	photographic film and paper free of silver or silver compounds
09 01 10	single-use cameras without batteries
09 01 12	single-use cameras containing batteries other than those mentioned in 09 01 11
10	WASTES FROM THERMAL PROCESSES
10 01	wastes from power stations and other combustion plants (except 19)
10 01 01	bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 01 05	calcium-based reaction wastes from flue-gas desulphurisation in solid form
10 01 07	calcium-based reaction wastes from flue-gas desulphurisation in sludge form

10 01 15	bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14
10 01 19	wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18
10 01 24	sands from fluidised beds
10 02	wastes from the iron and steel industry
10 02 01	wastes from the processing of slag
10 02 02	unprocessed slag
10 02 08	solid wastes from gas treatment other than those mentioned in 10 02 07
10 02 10	mill scales
10 02 14	filter cakes from gas treatment other than those mentioned in 10 02 13
10 02 15	other filter cakes
10 03	wastes from aluminium thermal metallurgy
10 03 02	anode scraps
10 03 05	waste alumina
10 03 16	skimmings other than those mentioned in 10 03 15
10 03 18	carbon-containing wastes from anode manufacture other than those mentioned in 10 03 17
10 03 24	solid wastes from gas treatment other than those mentioned in 10 03 23
10 03 26	filter cakes from gas treatment other than those mentioned in 10 03 25
10 03 28	wastes from cooling-water treatment other than those mentioned in 10 03 27
10 03 30	wastes from treatment of salt slags and black drosses other than those mentioned in 10 03 29
10 04	wastes from lead thermal metallurgy
10 04 10	wastes from cooling-water treatment other than those mentioned in 10 04 09
10 05	wastes from zinc thermal metallurgy
10 05 01	slags from primary and secondary production
10 05 09	wastes from cooling-water treatment other than those mentioned in 10 05 08
10 05 11	dross and skimmings other than those mentioned in 10 05 10
10 06	wastes from copper thermal metallurgy

10 06 01	slags from primary and secondary production
10 06 02	dross and skimmings from primary and secondary production
10 06 10	wastes from cooling-water treatment other than those mentioned in 10 06 09
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 03	solid wastes from gas treatment
10 07 05	filter cakes from gas treatment
10 07 08	wastes from cooling-water treatment other than those mentioned in 10 07 07
10 08	wastes from other non-ferrous thermal metallurgy
10 08 09	other slags
10 08 11	dross and skimmings other than those mentioned in 10 08 10
10 08 13	carbon-containing wastes from anode manufacture other than those mentioned in 10 08 12
10 08 14	anode scrap
10 08 18	filter cakes from flue-gas treatment other than those mentioned in 10 08 17
10 08 20	wastes from cooling-water treatment other than those mentioned in 10 08 19
10 09	wastes from casting of ferrous pieces
10 09 03	furnace slag
10 09 06	casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05
10 09 08	casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07
10 09 14	waste binders other than those mentioned in 10 09 13
10 09 16	waste crack-indicating agent other than those mentioned in 10 09 15
10 10	wastes from casting of non-ferrous pieces
10 10 03	furnace slag
10 10 06	casting cores and moulds which have not undergone pouring, other than those mentioned in 10 10 05
10 10 08	casting cores and moulds which have undergone pouring, other than those

	mentioned in 10 10 07
10 10 14	waste binders other than those mentioned in 10 10 13
10 10 16	waste crack-indicating agent other than those mentioned in 10 10 15
10 11	wastes from manufacture of glass and glass products
10 11 03	waste glass-based fibrous materials
10 11 10	waste preparation mixture before thermal processing, other than those mentioned in 10 11 09
10 11 12	waste glass other than those mentioned in 10 11 11
10 11 16	solid wastes from flue-gas treatment other than those mentioned in 10 11 15
10 11 18	filter cakes from flue-gas treatment other than those mentioned in 10 11 17
10 12	wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 01	waste preparation mixture before thermal processing
10 12 05	filter cakes from gas treatment
10 12 06	discarded moulds
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)
10 12 10	solid wastes from gas treatment other than those mentioned in 10 12 09
10 12 12	wastes from glazing other than those mentioned in 10 12 11
10 13	wastes from manufacture of cement, lime and plaster and articles and products made from them
10 13 01	waste preparation mixture before thermal processing
10 13 04	wastes from calcination and hydration of lime
10 13 07	filter cakes from gas treatment
10 13 10	wastes from asbestos-cement manufacture other than those mentioned in 10 13 09
10 13 11	wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10
10 13 13	solid wastes from gas treatment other than those mentioned in 10 13 12
10 13 14	waste concrete
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, phosphating, alkaline degreasing, anodising)
11 01 10	filter cakes other than those mentioned in 11 01 09
11 01 14	degreasing wastes other than those mentioned in 11 01 13
11 02	wastes from non-ferrous hydrometallurgical processes
11 02 03	wastes from the production of anodes for aqueous electrolytical processes
11 02 06	wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05
11 05	wastes from hot galvanising processes
11 05 01	hard zinc
11 05 02	zinc ash
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 01	ferrous metal filings and turnings
12 01 03	non-ferrous metal filings and turnings
12 01 05	plastics shavings and turnings
12 01 13	welding wastes
12 01 17	waste blasting material other than those mentioned in 12 01 16
12 01 21	spent grinding bodies and grinding materials other than those mentioned in 12 01 20
15	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01	packaging (including separately collected municipal packaging waste)
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 04	metallic packaging
15 01 05	composite packaging

15 01 06	mixed packaging
15 01 07	glass packaging
15 01 09	textile packaging
15 02	absorbents, filter materials, wiping cloths and protective clothing
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
16	WASTES 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 03	end-of-life tyres
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
16 03	off-specification batches and unused products
16 03 04	inorganic wastes other than those mentioned in 16 03 03
16 03 06	organic wastes other than those mentioned in 16 03 05
16 06	batteries and accumulators
16 06 04	alkaline batteries (except 16 06 03)
16 06 05	other batteries and accumulators
16 11	waste linings and refractories
16 11 02	carbon-based linings and refractories from metallurgical processes others than those mentioned in 16 11 01
16 11 04	other linings and refractories from metallurgical processes other than those mentioned in 16 11 03
16 11 06	linings and refractories from non-metallurgical processes others than those mentioned in 16 11 05
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 01	concrete, bricks, tiles and ceramics
17 01 01	concrete
17 01 02	bricks

17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	wood, glass and plastic
17 02 01	wood
17 02 02	glass
17 02 03	plastic
17 03	bituminous mixtures, coal tar and tarred products
17 03 02	bituminous mixtures other than those mentioned in 17 03 01
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
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 08	track ballast other than those mentioned in 17 05 07
17 06	insulation materials and asbestos-containing construction materials
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03
17 08	gypsum-based construction material
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01
17 09	other construction and demolition wastes
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03

19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION/INDUSTRIAL USE
19 01	wastes from incineration or pyrolysis of waste
19 01 02	ferrous materials removed from bottom ash
19 01 12	bottom ash and slag other than those mentioned in 19 01 11
19 01 18	pyrolysis wastes other than those mentioned in 19 01 17
19 01 19	sands from fluidised beds
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 03	premixed wastes composed only of non-hazardous wastes
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09
19 04	vitrified waste and wastes from vitrification
19 04 01	vitrified waste
19 05	wastes from aerobic treatment of solid wastes
19 05 01	non-composted fraction of municipal and similar wastes
19 05 02	non-composted fraction of animal and vegetable waste
19 05 03	off-specification compost
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 01	paper and cardboard
19 12 02	ferrous metal
19 12 03	non-ferrous metal
19 12 04	plastic and rubber
19 12 05	glass
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 09	minerals (for example sand, stones)
19 12 10	combustible waste (refuse derived fuel)
19 13	wastes from soil and groundwater remediation

19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
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 01	paper and cardboard
20 01 02	glass
20 01 08	biodegradable kitchen and canteen waste
20 01 10	clothes
20 01 11	textiles
20 01 34	batteries and accumulators other than those mentioned in 20 01 33
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 40	metals
20 01 41	wastes from chimney sweeping
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 02 02	soil and stones
20 03	other municipal wastes
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 03	street-cleaning residues
20 03 07	bulky waste

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**
W3	Wet scrubber	Total Particulate Matter (Dust)	10 mg/m^3	Average of 3 consecutive representative measurements of at least 30 minutes each	6 monthly	BS EN 13284-1
W3	Wet scrubber	Total VOCs	No Limit or as agreed in line with IC2	Average value of 3 consecutive measurements of at least 30 minutes	6 monthly or As agreed in line with IC2	EN 12619
W3	Wet scrubber	As, Cd, Co, Cr, Cu, Mn, Ni Pb, Sb, Se, Tl, V	No Limit or as agreed in line with IC2	Average value of 3 consecutive measurements of at least 30 minutes	Annually or As agreed in line with IC2	EN 14385
W3	Wet scrubber	SO_2	No Limit or as agreed in line with IC2	Average value of 3 consecutive measurements of at least 30 minutes	Annually or As agreed in line with IC2	EN 14791
W3	Wet scrubber	HCl	No Limit or as agreed in line with IC2	Average value of 3 consecutive measurements of at least 30 minutes	Annually or As agreed in line with IC2	EN 1911
W3	Wet scrubber	HF	No Limit or as agreed in line with IC2	Average value of 3 consecutive	Annually or As agreed in line with IC2	As agreed in line with IC2

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**
				measurements of at least 30 minutes		
W3	Wet scrubber	Brominated flame retardants	As agreed in line with IC2	Average value of 3 consecutive measurements of at least 30 minutes	Annually or As agreed in line with IC2	EN 1948-1
W3	Wet scrubber	Dioxin-like PCBs	As agreed in line with IC2	Average value of 3 consecutive measurements of at least 30 minutes	Annually or As agreed in line with IC2	EN 1948-1, -2, and -4 (3)
W3	Wet scrubber	PCDD/F	As agreed in line with IC2	Average value of 3 consecutive measurements of at least 30 minutes	Annually or As agreed in line with IC2	EN 1948-1, -2 and -3 (3)
W4	Baghouse wet scrubber, and carbon filters. stack	Total Particulate Matter (Dust)	5 mg/Nm3	Average of 3 consecutive representative measurements of at least 30 minutes each	6 monthly	BS EN 13284-1
W4	Baghouse wet scrubber, and carbon filters. stack	Total VOCs	No Limit or as agreed in line with IC2	Average value of 3 consecutive measurements of at least 30 minutes	6 monthly or As agreed in line with IC2	EN 12619
W4	Baghouse wet scrubber, and	As, Cd, Co, Cr, Cu, Mn, Ni Pb, Sb, Se, Tl, V	No Limit or as agreed in line with IC2	Average value of 3 consecutive	Annually or As agreed in line with IC2	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**
	carbon filters. stack			measurements of at least 30 minutes		
W4	Baghouse wet scrubber, and carbon filters. stack	SO_2	No Limit or as agreed in line with IC2	Average value of 3 consecutive measurements of at least 30 minutes	Annually or As agreed in line with IC2	EN 14791
W4	Baghouse wet scrubber, and carbon filters. stack	HCl	No Limit or as agreed in line with IC2	Average value of 3 consecutive measurements of at least 30 minutes	Annually or As agreed in line with IC2	EN 1911
W4	Baghouse wet scrubber, and carbon filters. stack	HF	No Limit or as agreed in line with IC2	Average value of 3 consecutive measurements of at least 30 minutes	Annually or As agreed in line with IC2	As agreed in line with IC2
W4	Baghouse wet scrubber, and carbon filters. stack	Brominated flame retardants	As agreed in line with IC2	Average value of 3 consecutive measurements of at least 30 minutes	Annually or As agreed in line with IC2	EN 1948-1
W4	Baghouse wet scrubber, and carbon filters. stack	Dioxin-like PCBs	As agreed in line with IC2	Average value of 3 consecutive measurements of at least 30 minutes	Annually or As agreed in line with IC2	EN 1948-1, -2, and -4 (3)
W4	Baghouse wet scrubber, and carbon filters. stack	PCDD/F	As agreed in line with IC2	Average value of 3 consecutive measurements of at least 30 minutes	Annually or As agreed in line with IC2	EN 1948-1, -2 and -3 (3)

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**
W1 discharge to the public surface water system as shown on plan titled Site Plan – Water Management System dated February 2017	Uncontaminated rainwater	No parameters set	No limit set	-	-	-
W2 as shown on plan titled Site Plan – Water Management System dated February 2017	Effluent treatment plant including contaminated rainwater	As per an authorised trade effluent consent Or as agreed as per IC4	As per an authorised trade effluent consent	-	-	-

Table S3.3 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Wet Scrubber	Gas flow rate – inlet and outlet	Continuous	Gas flow meter / EN 16911-1 and MID for EN 16911-1	
	pH scrubber solution	Continuous	pH meter	
	Conductivity	Daily	Conductivity meter	
Carbon Filter	Carbon bed temperature – inlet and outlet	Continuous	Temperature probe	
	Gas flow rate – inlet and outlet	Continuous	Gas flow meter	
	Moisture or humidity	Daily	Moisture meter	
	Pressure	Weekly	Recognised industry method	
Bag filter	Pressure	Weekly	Recognised industry method	
Li battery shredding and processing activities under AR5 and AR11	Nitrogen pressure	Daily	Recognised industry method	
	Temperature	Daily	Recognised industry method	

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	W3, W4	Every 12 months	1 January
Process monitoring Parameters as required by condition 3.5.	Wet scrubber Carbon Filter Bag filter Li battery shredding and processing	Every 12 months	1 January

Table S4.2: Annual production/treatment	
Parameter	**Units**
Batteries treated via shredding	tonnes
Black mass	tonnes

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Water usage	Annually	m^3
Energy usage	Annually	MWh
Nitrogen usage	Annually	M^3
Other performance parameters	Annually	tonnes per production unit

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
Process monitoring	Process Monitoring 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
Other performance parameters	Other Performance Parameters Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021

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	

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.

“background concentration” means such concentration of that substance as is present in:

for emissions to surface water, the surface water quality up-gradient of the site; or

for emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.

“Batteries Directive“ means Directive 2006/66/EC of the European Parliament and of the Council on batteries and accumulators and waste batteries and accumulators and repealing Directive 91/157/EEC”, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“D” means a disposal operation provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on Waste.

“disposal” means any of the operations provided for in Annex I to the Waste Framework Directive.

“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 or background concentration limit.

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“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 lll of the Waste Framework Directive.

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

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

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions.

“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.

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

“pests” means birds, vermin and insects.

“pollution” includes pollution of the environment, harm to human health and serious detriment to the amenities of the locality, resulting from the permitted activities.

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

“R” means a recovery operation provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on Waste.

“recovery” means any of the operations provided for in Annex II to the Waste Framework Directive.

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

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

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

“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.’

“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.

“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.

“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.

When the following terms appear in the waste code list in Schedule 2, tables S2.2, S2.3, S2.4, S2.5 and S2.6 for those tables, they have the meaning given below:

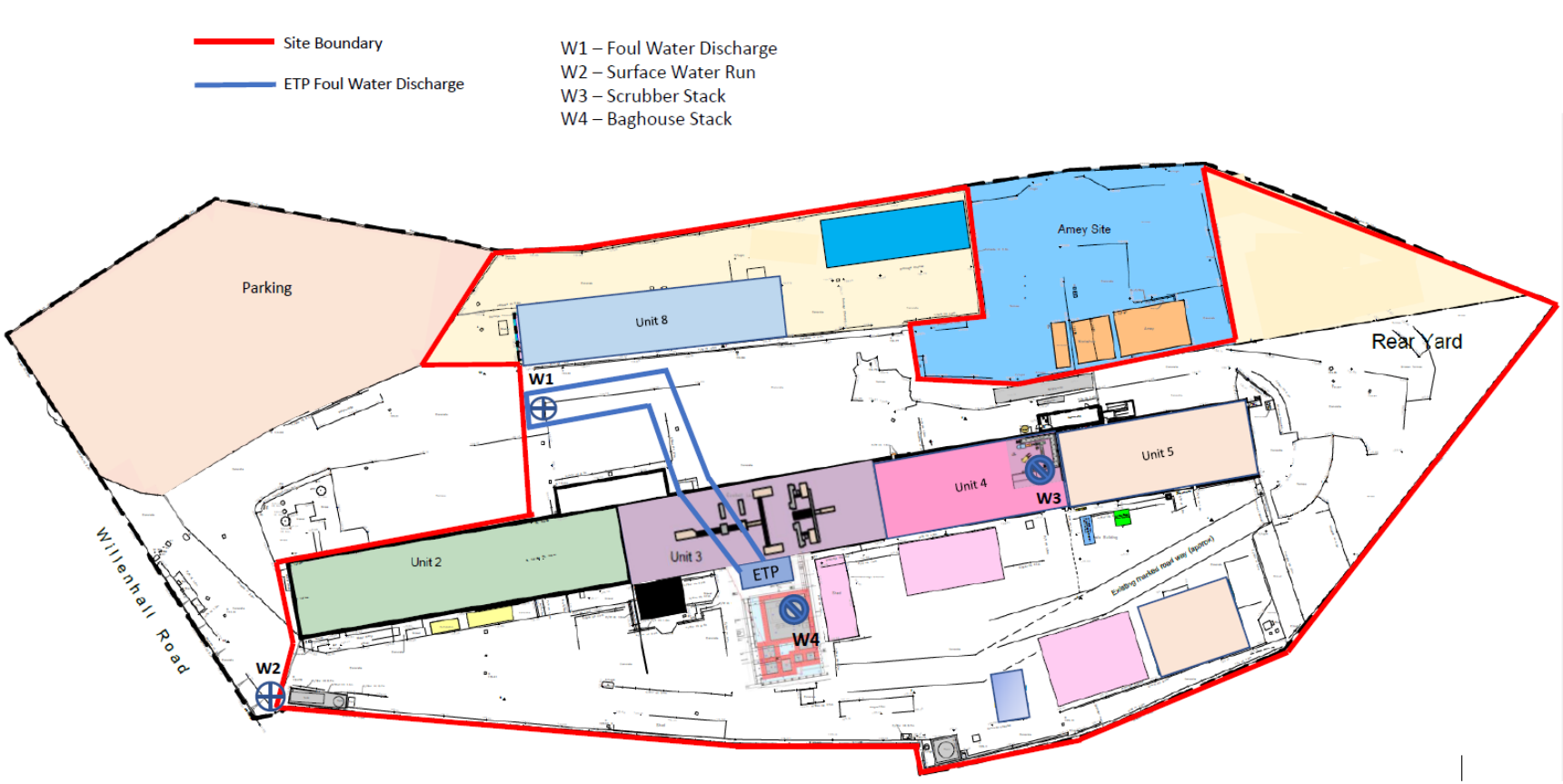
“hazardous substance” means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008.

“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.

Schedule 7 – Site plan



END OF PERMIT

Permit number
EPR/DB3704FG

Reporting Forms

Emissions to Air Reporting Form

Permit number: *[EPR/AB1234CB]*

Operator: *[A Company Name Limited]*

Facility name: *[Unit A, Anytown]*

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.

Process Monitoring Form

Permit number: *[EPR/AB1234CB]*

Operator: *[A Company Name Limited]*

Facility name: *[Unit A, Anytown]*

Process Monitoring Form: version 1, 08/03/2021

Reporting of process monitoring for the period from *[DD/MM/YY]* to *[DD/MM/YY]*

Monitoring point description or source	Parameter	Reference period	Test method [1]	Result [2]	Sample dates and times [3]	Uncertainty [4]
[e.g. Condenser V 2345]	*[e.g. cooling water outlet temperature]*	*[e.g. instantaneous]*	*[if applicable]*	*[State result]*	*[State relevant dates and time periods]*	*[if applicable]*

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 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/AB1234CB]*

Operator: *[A Company Name Limited]*

Facility name: *[Unit A, Anytown]*

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 applicablel. 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 m^3/unit]*

Operator's comments

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/AB1234CB]*

Operator: *[A Company Name Limited]*

Facility name: *[Unit A, Anytown]*

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

Energy source	Energy consumption / production (MWh)	Specific energy consumption (MWh/unit) [2]

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.

Other Performance Parameters Reporting Form

Permit number: *[EPR/AB1234CB]* **Operator:** *[A Company Name Limited]*

Facility name: *[Unit A, Anytown]* **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]*
Nitrogen usage	M^3

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.