

Natural Resources Wales Permitting Decisions

Darlow Lloyd & Sons Limited (South Side Queensway (SSQ) Materials Recycling Facility Report)

Decision Document

Application for a Bespoke New Permit

The application number is PAN-027639

The permit number will be EPR/DB3599CR/A001

The applicant/operator is Darlow Lloyd & Sons Limited

The Installation is located at South Side Queensway (SSQ) Materials Recycling Facility, Queensway, Newport, NP19 4QX

Purpose of this document

This decision document:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account
- justifies the specific conditions in the permit other than those in our generic permit template.

Unless the decision document specifies otherwise, we have accepted the applicant's proposals.

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1. Executive summary

1.1. Application summary

An application was made on 09/12/2024 for a waste permit for a non-hazardous physical treatment facility to treat non-hazardous iron and steelmaking wastes and construction and demolition wastes via the treatment methods of manual and/or mechanical sorting and/or separation (via manual methods, closed-loop washing system, or magnetic separation), screening, crushing, blending, and bulking up. Details of the determination of this waste application are detailed below.

When the operator reviewed the draft waste permit it was confirmed that the 75 tonnes per day treatment limit involving the treatment of slags and ashes could not be met, and therefore the application was changed to an application for a 5.4 A(1)(b)(iii) installation activity for the treatment of slags and ashes, and a waste treatment non-hazardous physical treatment facility.

The maximum quantity of waste accepted and processed on site (under both the installation and waste activities) shall not exceed 300,000 tonnes per year.

There are no point source emissions to air, land or into surface waters or groundwater.

1.2. Our decision

We have decided to grant the permit South Side Queensway (SSQ) Materials Recycling Facility operated by Darlow Lloyd & Sons Limited.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

2. Receipt of the application

The waste application was received on 09/12/2024. In order for us to be able to consider the application duly made, we needed more information. We requested the following:

- Further information and associated fee for a point source emission to water. This emission point was removed.
- Further information on mirror hazardous codes. This information was provided.
- Further information on waste coded as 10 02 99. This information was provided.
- Copies of the procedures referenced but not provided within the site EMS. These were provided
- Additional fee for the Site of Special Scientific Interest (SSSI) assessment and Discharge to water assessment. The SSSI assessment fee was paid.
- Further information on technical competence regarding the required Continuing Competence qualification. This information was provided.

An email requesting this information was sent to the applicant on 02/04/2025. Upon receipt of this information, on 24/04/2025, we were able to consider the application duly made. This means we considered it was in the correct form and contained sufficient information for us to begin our determination, but not that it necessarily contained all the information we would need to complete that determination.

3. Confidential information

The applicant made no claim for commercial confidentiality, and we have not received information in relation to the application that appears to be confidential in relation to any party.

4. Legislation

The permit will be granted, under Regulation 13 of the EPR. The Environmental Permitting regime is a legal vehicle which delivers most of the relevant legal

requirements for activities falling within its scope. In particular, the regulated facility is an *installation* as described by the IED.

We address the legal requirements directly where relevant in the body of this document. NRW is satisfied that the decision on this application is consistent with its general purpose of pursuing the sustainable management of natural resources (SMNR) in relation to Wales and applying the principles of SMNR. In particular, NRW acknowledges that it is a principle of sustainable management to take action to prevent significant damage to ecosystems. We consider that, in granting the permit a high level of protection will be delivered for the environment and human health through the operation of the Installation in accordance with the permit conditions. NRW is satisfied that this decision is compatible with its general purpose of pursuing the sustainable management of natural resources in relation to Wales and applying the principles of sustainable management of natural resources

As the EPR regulator for Part A1 installations in Wales, NRW are required to determine any duly made Part A1 permit applications. This means that we must decide either to grant, or to refuse the variation based upon an objective assessment of the proposals against the detailed legal requirements of EPR. Our public participation statement¹ gives more information on what can, and cannot, be taken into account when making our permitting decision.

The application, and this decision document, only considers the permitting of the facility under EPR as described throughout the document. We only assess the installation and its impacts and cannot take into consideration indirect impacts which are not as a direct result of activity within the installation boundary.

Any proposed development and wider associated activities will be required to be compliant with all relevant and applicable law, for example, environmental law, health and safety law, planning law. This other legislation acts largely independently of EPR (although they may be inter-related). Such other matters are beyond both the scope of this document, and of our regulatory remit and expertise and are not

¹ [Natural Resources Wales / Public participation: how you can take part in our permit and licence consultations](#)

relevant to our EPR permitting decision. Ensuring compliance with all other regulation and obtaining any required consents (such as planning permission) is the responsibility of those undertaking the development and is regulated by the relevant appropriate authority for each.

5. Consultation

5.1. Consultation on the Application

We have carried out consultation on the application in accordance with the Environment Permitting Regulations (EPR), our statutory Public Participation Statement (PPS) and our Regulatory Guidance.

A copy of the application is available on the public register for anyone to view. We advertised the application to the public by a notice placed on our website directing people to the public register, advising them of how they could arrange for copies to be made if required and how they can provide comments.

We also consulted with the following bodies, which includes those with whom we have “Working Together Agreements”:

- Newport County Council- Environmental Health department
- Newport County Council- Planning department
- Public Health Wales
- Aneurin Bevan Health Board

These are bodies whose expertise, democratic accountability and/or local knowledge make it appropriate for us to seek their views directly.

The consultation started 24/04/2025 and ended on 23/05/2025.

A summary of consultation comments and our response to the representations we received can be found in Annex 1. We have taken all relevant representations into consideration in reaching our decision.

The consultees were notified of the change in application type on 07/08/2025 via email.

5.2. Draft Permit Consultation

We have carried out consultation on our draft decision. This consultation began on 21/10/2025 and ended on 18/11/2025. No consultation responses were received.

6. Requests for information

6.1. Schedule 5 notice 1 29/05/2025

Further information was requested during determination by way of a Schedule 5 Notice requiring the applicant to provide further information relating to:

- Use of treated waste
- Inconsistent levels of detail within supporting documents
- Dust suppression methods
- Monitoring locations
- Trigger levels for dust, noise and vibration.

The Schedule 5 Notice was sent on 29/05/2025 with a deadline for response of 13/06/2025.

The applicant's response to the Schedule 5 Notice was provided on 13/06/2025. The additional information supplied satisfied the requirements of the Schedule 5 Notice.

6.2. Schedule 5 notice 2 14/08/2025

Following the change to an application for an installation activity; Further information was requested during determination by way of a Schedule 5 Notice requiring the applicant to provide further information relating to compliance with the Waste Treatment BAT conclusions. The Schedule 5 Notice was sent on 14/08/2025 with a deadline for response of 04/09/2025, which was later extended to 11/09/2025.

The applicant's response to the Schedule 5 Notice was provided on 11/09/2025. The additional information supplied satisfied the requirements of the Schedule 5 Notice.

A copy of the information notice(s) and e-mails requesting further information were placed on our public register as were the responses when received.

7. The Installation

7.1. The permitted activities

The regulated facility will be an installation which comprises the following activities listed in Part 2 of Schedule 1 to the Environmental Permitting Regulations:

- 5.4 A(1)(b)(iii) Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving the treatment of slags and ashes

The regulated facility will also undertake a waste operation including:

- Non-hazardous physical treatment facility (not including slag wastes)- R13, R3, R4 and R5.

Together, these listed and directly associated activities comprise the Installation.

7.2. What the installation will do

The installation (together with the waste facility) will treat and recover iron and steelmaking, and construction and demolition wastes from the former Llanwern Steel Works on the South Side Queensway (SSQ) to enable redevelopment of the site.

The wastes are to be treated via sorting and/or separation (via manual methods, closed-loop washing system, or magnetic separation), screening, crushing, blending.

Targeted treatments are to be carried out over 3 distinct, but connected area, with the closed-loop washing system located in the central of the 3 areas (area 2_10).

There are not point source emissions to air, land or into surface waters or groundwater.

8. Operation of the installation

8.1 Operator competence

The applicant is the sole operator of the Installation. We are satisfied that the applicant is the person who will have control over the operation of the Installation

after the permit is granted; and that they will be able to operate the Installation so as to comply with the conditions included in the permit. The decision was taken in accordance with EPR RGN 1 Understanding the meaning of operator².

Relevant Convictions

The applicant has declared they have no relevant convictions.

NRW's COLINS Database has been checked to confirm there are no relevant convictions.

No relevant convictions were found.

Financial Provision

The applicant has declared they have no current or past bankruptcy or insolvency proceeding against them.

There is no known reason to consider that the operator will not be financially able to comply with the permit. The decision was taken in accordance with RGN 5 on Operator Competence.

Technical competence

Technical competency is required for the proposed activities. The primary award of Managing Treatment Hazardous Waste (4TMH) issued 07/11/2014 can be used in place of the relevant primary award, however the relevant continuing competence for this award is Treatment Non-Hazardous (TMNH) which is not held. The operator has confirmed that when the other Continuing Competence tests are due (17/10/2026), TMNH will also be completed.

The operator satisfies the criteria in RGN 5 on Operator Competence³.

8.2 Environmental Management System

The applicant has stated in the application that they will implement an Environmental Management System (EMS) that will meet the requirements for an EMS in our "How to comply with your environmental permit" guidance⁴

The applicant has submitted a summary of the EMS with their application.

We have reviewed the application and are satisfied that appropriate management systems and management structures will be in place for this Installation, and that

² [RGN 1 Understanding the meaning of 'operator' \(naturalresources.wales\)](#)

³ [regulatory-guidance-note-5-operator-competence.pdf \(naturalresources.wales\)](#)

⁴ [Natural Resources Wales / Guidance to help you comply with your environmental permit](#)

sufficient resources are available to the Operator to ensure compliance with all the Permit conditions.

Accident management

The EMS includes an Accident Management Plan which the applicant has submitted as part of this application. We have reviewed this and are satisfied that appropriate controls are in place to help reduce the occurrence and impact of any accident that occur.

In order to ensure that the management system proposed by the applicant sufficiently manages the residual risk of accidents, permit condition 1.1.1a requires the implementation of a written management system which addresses the pollution risks associated with, amongst other things, accidents.

Site security

Having considered the information submitted in the application, we are satisfied that appropriate infrastructure and procedures will be in place prior to start up to ensure that the site remains secure.

8.3 Operating techniques

Installation activities and assessment of Best Available Techniques

The applicant has described the proposed equipment and operating techniques and compared these against the relevant guidance notes and Best Available Techniques conclusions (BATc) which for an installation of this type are the Waste Treatment BATc and for the waste facility Technical Guidance Document: 'How to comply with your environmental permit' and Sector Guidance Note IPPC S5.06: Guidance for the Recovery and Disposal of Hazardous and Non Hazardous Waste.

See Annex 2 for information on the relevant BATc and how they have been met.

We have reviewed the techniques proposed and consider them in line with them to represent BAT at this installation.

We have specified that the applicant must operate the permit in accordance with descriptions in the application. See section 12.1 of this document for more information on how we have incorporated the application into the permit.

Efficient use of raw materials, water and energy Avoidance, recovery or disposal of wastes produced by the activities

Having considered the information submitted in the application, we are satisfied that the applicant will ensure that raw materials, water and energy is used as efficiently as possible.

Avoidance, recovery or disposal of wastes produced by the activities

Having considered the information submitted in the application, we are satisfied that the waste hierarchy referred to in Article 4 of the WFD will be applied to the generation of waste and that any waste generated will be treated in accordance with this Article.

We are satisfied that waste from the Installation that cannot be recovered will be disposed of offsite using a method that minimises any impact on the environment. Permit condition 1.4.1 of the permit will ensure that this position is maintained.

9. The site

9.1. Site Plan

The applicant has provided a plan which we consider is satisfactory, showing the extent of the site of the facility.

The plan will be included in the permit, and the operator will be required to carry on the permitted activities within the site boundary.

9.2. Site Condition Report

The applicant has provided a description of the condition of the site in a Site Condition Report. We have reviewed this and consider this description is satisfactory. The decision was taken in accordance with our guidance on site condition reports – guidance and templates (H5)⁵.

9.3 Closure and decommissioning

Permit condition 1.1.1 requires the Operator to have a written management system in place which identifies and minimises risks of pollution including those arising from closure.

⁵ [Environmental Permitting Regulations, Guidance for applicants H5, Site Condition Report, Guidance and Template \(naturalresources.wales\)](https://www.naturalresources.wales/guidance-and-templates)

At the definitive cessation of activities, the operator has to satisfy us that the necessary measures have been taken so that the site ceases to pose a risk to soil or groundwater, taking into account both the baseline conditions and the site's current or approved future use. To do this, the operator has to apply to us for surrender, which we will not grant unless and until we are satisfied that these requirements have been met.

10. Environmental Risk Assessment

Regulated activities can present different types of risk to the environment, these include odour, noise and vibration; accidents, fugitive emissions to air and water; as well as point source releases to air, water, sewer and discharges to ground or groundwater, global warming potential and generation of waste. All these factors have been considered during the determination and the relevant risks from this proposal are discussed in this and other sections of this document.

The next sections of this document explain how we have approached the critical issue of assessing the likely impact of emissions from the Installation on human health and the environment and what measures we are requiring ensuring a high level of protection.

In line with our guidance, the applicant has provided an environmental risk assessment with the application which identifies and the sources of key risks from the installation, possible pathways and receptors. This risk assessment and further assessments provided by the applicant and/or completed by NRW will be discussed in further detail below.

10.1. Fugitive emissions

The applicant has identified the potential fugitive emissions in the form of dust in their environmental risk assessment and Emissions Monitoring plan.

The application details measures which will be in place for preventing and minimising fugitive emissions.

Based upon the information in the application we are satisfied that the appropriate measures will be in place to prevent or where that is not practicable to minimise fugitive emissions and to prevent pollution from fugitive emissions.

Permit condition 3.1.1 requires that emissions of substances not controlled by emission limits (i.e., fugitive emissions) shall not cause pollution. Condition 3.1.2 requires that a management plan shall be developed if pollution is subsequently identified.

11. Impact on National Site Network Sites, SSSIs and non-statutory sites

The applicant has used the relevant screening distance criteria to identify relevant protected conservation sites which could be at risk from the proposal, these screening distances were taken from waste permitting guidance, which also match with Installation OPRA screening distances. We are in agreement with the screening distances used.

A full assessment of the application and its potential to affect the identified sites identified has been carried out as part of the permit determination process. National Site Network sites, Sites of Special Scientific Interest (SSSI) and non-statutory conservation sites will be discussed separately below.

11.1. The National Site Network

No National Site Network Sites are located within 2 km of the installation. Therefore, a Habitats Regulations Assessment (HRA) is not required because there is no conceivable impact pathway by virtue of location of the project.

11.2. Sites of Special Scientific Interest (SSSI)

The following SSSIs are located within 2 km of the installation:

- Gwent Levels - Whitson
- Gwent Levels - Nash and Goldcliff
- Gwent Levels - Redwick and Llandeenny

As a Section 28G Authority as defined in the Countryside Rights of Way Act 2000 permitting teams within NRW has a legal duty, under Section 28I of the Wildlife and

Countryside Act 2981, to consult with NRW for formal advice when permitting an activity which has been determined to be likely to damage the features of a SSSI.

To determine if consultation is required, a SSSI Assessment was completed. The assessment concluded that the proposed permission is not likely to damage any of the flora, fauna or geological or physiological features which are of special interest. Therefore, no consultation with NRW's protected sites advisors is required.

A copy of the assessment is available to view on the public register, please see [here](#).

11.3. Non-statutory conservation sites

The following relevant non-statutory sites re located within 1 km of the installation:

- Spencer Works 3 Local Wildlife Site/Site of Importance for Nature Conservation
- Church Farm, Porton Local Wildlife Site/Site of Importance for Nature Conservation
- Areas of Purple moor grass and rush pastures
- Areas of Reedbeds

The main risks from the proposed activities are Dust, Noise & Vibration and possible water emissions.

The applications Risk Assessment (2473r2v3d0625 ERA) includes the procedures for management of these risks. The relevant procedures to mitigate the risks have been incorporated into the permit to ensure compliance.

Based upon the information in the application we are satisfied that there will be no adverse impact to the non-statutory conservation sites identified.

12. The Permit Conditions

12.1 Reporting

We have specified the reporting requirements in Schedule 4 of the Permit to ensure data is reported to enable timely review by Natural Resources Wales to ensure compliance with permit conditions and to monitor the efficiency of material use and waste recovery at the installation.

12.2 Incorporating the application

We have specified that the applicant must operate the permit in accordance with descriptions in the application, including additional information received as part of the determination process.

These descriptions have been specified in the Operating Techniques table in the permit.

12.3 Waste Types

We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility.

We are satisfied that the operator can accept these wastes for the following reasons

- the proposed wastes are suitable for the nature of the permitted activity
- appropriate measures for acceptance, storage and processing have been included in the permit and identified by the operator
- the appropriate measures are in place to prevent fugitive emissions.

We have excluded the following wastes for the following reasons. Wastes:

- consisting solely or mainly of dusts, powders or loose fibres
- sludges
- odorous or odour producing
- hazardous wastes
- slurry wastes
- liquid wastes

because the exclusions will ensure risk from the activity is contained and that measures used on site remain appropriate for the permitted activity.

We made these decisions with respect to waste types in accordance with waste facility technical guidance note 'How to comply with your environmental permit' and after full assessment of the risk controls used on site.

13. OPRA

The agreed OPRA score at the installation is 108. This will form the basis for ongoing subsistence fees as well as a subsistence fee for the waste activity.

ANNEX 1: Consultation Responses

1. Advertising and consultation on the Application

The application has been advertised and consulted upon in accordance with Natural Resources Wales Public Participation Statement. Responses to this consultation and how we have taken consultation responses into account in reaching our draft decision is summarised in this Annex.

Consultation Responses from Statutory and Non-Statutory Bodies

Response Received from Planning- Newport Council	
Newport Council were notified of the change in application type on 07/08/2025	
Brief summary of issues raised:	Summary of action taken / how this has been covered
Planning Permission not currently in place (as of 24/04/25) for the proposed activities.	Planning permission is not a requirement for an Environmental Permitting Regulations permit to be issued; however, we have shared this response with the operator.

Response Received from Public Health Wales	
Public Health Wales were notified of the change in application type on 07/08/2025	
Brief summary of issues raised:	Summary of action taken / how this has been covered
Environmental management system (EMS)	Operators EMS has been reviewed against our guidance and incorporated into the permit (Table 1.2) where relevant, to ensure compliance and avoid pollution.
Emissions to air, noise, dust, water and land	The operators measures to manage emissions to air, noise, dust, water and land has been reviewed against our guidance and the relevant BATc and incorporated into the permit (Table 1.2) where relevant, to ensure compliance and avoid pollution.
Flooding	The flooding information provided in the Site Condition Report states that

	<p>the permitted area is at risk of “Extreme Flooding from Rivers or Sea without Defences” however the area in question does have sea defences as also shown in Site Condition Report. NRW’s flooding data shows that the permitted areas are at Low Flood Risk from the Sea. Low means that each year, this area has a chance of flooding of between 1 in 1000 (0.1%) and 1 in 200 (0.5%). The operator has adequately addressed risks from flooding in their application.</p>
Fire	<p>None of the permitted wastes are considered combustible, therefore a Fire Prevention and Mitigation Plan was not required for this application</p>

ANNEX 2: BAT Assessment

BAT Conclusions for Waste Treatment in the Official Journal of the EU on 10/08/2018. There are 53 BAT Conclusions in total. This checklist provides a record of decisions made in relation to each relevant BAT Conclusion applicable to the installation. This annex should be read in conjunction with the permit. For definitions and acronyms see the [BAT Conclusions Document](#).

Waste Treatment

BATc number	Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant	
OVERALL ENVIRONMENTAL PERFORMANCE			
1	Environment Management System (EMS) – ALL of the following:		
	I.	Management commitment	Currently Compliant - information contained in: - Environment Management System (Report 3) (Document reference: 2473r3v3d0625 EMS) - EMS Appendix 2 Factory Production Control (ref DLS-MP-60)
	II.	Environmental policy development including CI of performance	Currently Compliant - information contained in: - Environment Management System (Report 3) (Document reference: 2473r3v3d0625 EMS) - EMS Appendix 2 Factory Production Control (ref DLS-MP-60)
	III.	Planning and implementing procedures & targets in conjunction with financial planning & investment	Currently Compliant - information contained in: - Environment Management System (Report 3) (Document reference: 2473r3v3d0625 EMS) - EMS Appendix 2 Factory Production Control (ref DLS-MP-60)
	IV.	Implementation of procedures (a) Structure & responsibility (b) Recruitment, training, awareness & competence (c) Communication (d) Employee involvement	Currently Compliant - information contained in: - Environment Management System (Report 3) (Document reference: 2473r3v3d0625 EMS) - EMS Appendix 2 Factory Production Control (ref DLS-MP-60)

BATc number	Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant
	(e) Documentation (f) Effective process control (g) Maintenance programmes (h) Emergency preparedness & response (i) Safeguarding compliance with environmental legislation	
V.	Checking performance and taking corrective action (a) Monitoring & measurement (b) Corrective and preventive action (c) Maintenance of records (d) Independent (where practicable) internal or external EMS auditing	Currently Compliant - information contained in: - Environment Management System (Report 3) (Document reference: 2473r3v3d0625 EMS) - EMS Appendix 2 Factory Production Control (ref DLS-MP-60)
VI.	Senior management review of EMS	Currently Compliant - information contained in: - Environment Management System (Report 3) (Document reference: 2473r3v3d0625 EMS) - EMS Appendix 2 Factory Production Control (ref DLS-MP-60)
VII.	Following development of cleaner technologies	Currently Compliant - information contained in BATc response document WT BATc (version 1) DLS
VIII.	Whole life cycle considerations when designing a new plant i.e. impacts from eventual decommissioning and throughout its operating life	Not Applicable - equipment to be used is readily available mobile plant.
IX.	Regular sectoral bench marking	Currently Compliant - information contained in BATc response document WT BATc (version 1) DLS
X.	Waste stream management (BAT 2)	See BAT 2
XI.	Inventory of wastewater & waste gas streams (BAT 3)	See BAT 3
XII.	Residues Management Plan – S6.5	Currently Compliant - information contained in: - BATc response document WT BATc (version 1) DLS - EMS Appendix 2 Factory Production Control (ref DLS-MP-60)
XIII.	Accident Management Plan – S6.5	Currently Compliant - information contained in: - BATc response document WT BATc (version 1) DLS - Environment Management System (Report 3) (Document reference: 2473r3v3d0625 EMS)

BATc number	Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant
		<ul style="list-style-type: none"> - Environmental Risk Assessment (Report 2) (Document reference: 2473r2v3d0625 ERA) - DLS - EMERGENCY PREPAREDNESS & RESPONSE (Document reference: DLS Emergency Preparedness) - Accident Management Plan (Report 6) (Document reference: 2473r6v1d0925EAMP)
XIV.	Odour Management Plan (BAT 12)	See BAT 12
XV.	Noise & Vibration Management Plan (BAT 17)	See BAT 13
2	Improving overall environmental performance – ALL of the following:	
	a. Set up and implement waste characterisation & pre-acceptance procedures	Currently Compliant - information contained in: <ul style="list-style-type: none"> - Environment Management System (Report 3) (Document reference: 2473r3v3d0625 EMS) - EMS Appendix 2 Factory Production Control (ref DLS-MP-60)
	b. Set up and implement waste acceptance procedures	
	c. Set up and implement a waste tracking system & inventory	
	d. Set up and implement an output quality management system	
	e. Ensure waste segregation	
	f. Ensure waste compatibility prior to mixing or blending	
g. Sort solid incoming waste – S6.4		
3	Establish and maintain a waste water and waste gas inventory as part of the EMS - ALL of the following:	
	Information on characteristics of waste and waste treatment processes	
	(i)(a) simplified process flow sheets showing emission sources	Currently Compliant - waste water to be contained and tankered off site. All disposals will be undertaken in accordance with Duty of Care and reported. Information contained in: <ul style="list-style-type: none"> - Environment Management System (Report 3) (Document reference: 2473r3v3d0625 EMS) - Emissions Monitoring (Report 4) (Document reference: 2473r4v3d0625 Emissions).
	(i)(b) Process-integrated and wastewater/waste gas treatment descriptions including performance	
	Not Applicable to activity- no waste gas elements	
Information on characteristics of wastewater streams		
(ii)(a)	<i>Mean and variability of:</i> Flow pH	Not Applicable to activity- no water emissions

BATc number	Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant
	Temperature	
	Conductivity	
(ii)(b)	<i>Mean concentration, load and variability of:</i>	Not Applicable to activity- no water emissions
	Total suspended solids	
	COD/TOC	
	Nitrogen species	
	Phosphorous	
	Metals	
	Priority substances/micropollutants	
(ii)(c)	<i>Any other relevant compounds</i>	Not Applicable to activity- no water emissions
	<i>Bioeliminability data (see BAT 52):</i>	
	BOD	
	BOD to COD ratio	
	Zahn-Wellens test	
	Biological inhibition potential	
Information on characteristics of waste gas streams		
(iii)(a)	<i>Mean and variability of:</i>	Not Applicable to activity- no gas emissions
	Flow	
	temperature	
(iii)(b)	<i>Mean concentration, load and variability of relevant substances:</i>	Not Applicable to activity- no gas emissions
	Organic compounds	
	POPs e.g. PCBs	
(iii)(c)	Any other relevant compounds	Not Applicable to activity- no gas emissions
	Flammability	
	Lower and Higher Explosive Limits	
(iii)(d)	Reactivity	Not Applicable to activity- no gas emissions
	<i>Presence of other substances that may affect the gas treatment system or plant safety:</i>	
	O2	
	N2	
	Water vapour	

BATc number	Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant
	Dust	
4	Reducing environmental risk associated with waste storage – ALL of the following:	
	a. Optimised storage location	Currently Compliant - information contained in: - Environment Management System (Report 3) (Document reference: 2473r3v3d0625 EMS) - EMS Appendix 2 Factory Production Control (ref DLS-MP-60)
	b. Adequate storage capacity	
	c. Safe storage operation	
d. Separate area for storage & handling of packaged hazardous waste	Not Applicable- no hazardous waste to be stored or handled	
5	Set up and implement procedures to reduce the environmental risk associated with handling and transfer of waste - include following elements:	
	Carried out by competent staff	Currently Compliant - information contained in: - Environment Management System (Report 3) (Document reference: 2473r3v3d0625 EMS) - EMS Appendix 2 Factory Production Control (ref DLS-MP-60) - Environmental Risk Assessment (Report 2) (Document reference: 2473r2v3d0625 ERA)
	Duly documented, validated and verified	
	Spill prevention, detection and mitigation measures	
	Take precautions when mixing or blending wastes	
Procedures are risk-based and consider likelihood of accidents, incidents and their environmental impact		
MONITORING		
6	Relevant emissions to water: monitor key process parameters at key locations	
	Key process parameters	
	Wastewater flow	Not Applicable to activity- no water emissions
	pH	
	Temperature	Not Applicable to activity- no water emissions
	Conductivity	
	BOD	
	Other process parameters	
	Key monitoring locations	
	Pre-treatment inlet and/or outlet	Not Applicable to activity- no water emissions
	Final treatment inlet	
	Discharge point (to the environment)	
Other location		

BATc number	Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant	
7	Monitoring emissions to water (refer to table) Monitoring parameters depend on waste treatment process(es) involved	Not Applicable to activity- no water emissions	
8	Monitoring emissions to air (refer to table) Monitoring parameters depend on waste treatment process(es) involved	Not Applicable to activity- no channelled emissions to air	
9	Monitoring diffuse emissions of organic compounds to air from processes involving solvents. Use one or a combination of the following:		
	a	Measurement – S6.2 descriptions	Not Applicable to activity
	b	Emissions factor calculation	
c	Mass balance calculation		
10	Periodically monitor odour emissions where nuisance is expected and/or has been substantiated (monitoring frequency is outlined in BAT 12) Use EN standards e.g. 13725 or 16841	Not Applicable- waste to be treated is not odorous, nuisance not expected or has been substantiated.	
	Use equivalent methods e.g. ISO / national / international monitoring standards	See information contained in the following to support the decision of not requiring an Odour Management Plan: <ul style="list-style-type: none"> - BATc response document WT BATc (version 1) DLS - Environmental Risk Assessment (Report 2) (Document reference: 2473r2v3d0625 ERA) - Emissions Monitoring (Report 4) (Document reference: 2473r4v3d0625 Emissions). 	
11	Annual monitoring for:	Currently Compliant - information contained in: <ul style="list-style-type: none"> - BATc response document WT BATc (version 1) DLS - Environment Management System (Report 3) (Document reference: 2473r3v3d0625 EMS) 	
	- Water, energy and raw materials		
- Generation of residues and wastewater			
EMISSIONS TO AIR			
12	Set up, implement and review an Odour Management Plan (as part of the site EMS) where nuisance is expected and/or has been substantiated. Include ALL of the following:	Not Applicable- waste to be treated is not odorous, nuisance not expected or has been substantiated.	
	Protocol containing actions and timelines		
	Protocol for conducting odour monitoring (BAT 10)		
Protocol for response to odour incidents/complaints			

BATc number	Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant
	Odour prevention and reduction programme	See information contained in the following to support the decision of not requiring an Odour Management Plan: <ul style="list-style-type: none"> - BATc response document WT BATc (version 1) DLS - Environmental Risk Assessment (Report 2) (Document reference: 2473r2v3d0625 ERA) - Emissions Monitoring (Report 4) (Document reference: 2473r4v3d0625 Emissions).
13	Techniques to prevent, or where not practicable reduce odour emissions. Use one or a combination of the following:	
	a. Minimising residence times (open systems only)	Not Applicable- waste to be treated is not odorous, nuisance not expected or has been substantiated.
	b. Use chemical treatment (N/A if desired output is hampered)	
c. Optimising aerobic treatment – see examples. Refer to BAT 36 for wastes other than water-based liquid waste.	See information contained in the following to support the decision of not requiring an Odour Management Plan: <ul style="list-style-type: none"> - BATc response document WT BATc (version 1) DLS - Environmental Risk Assessment (Report 2) (Document reference: 2473r2v3d0625 ERA) - Emissions Monitoring (Report 4) (Document reference: 2473r4v3d0625 Emissions). 	
14	Techniques to prevent, or where not practicable reduce diffuse emissions to air, in particular of dust, organic compounds and odour. Use one or a combination of the following:	
	NOTE: This BATc is only relevant to dust, organic compound and odour emissions are not relevant to this activity, nor are they are expected.	
	a. Minimising potential diffuse emission sources – see examples	Currently Compliant - information contained in: <ul style="list-style-type: none"> - BATc response document WT BATc (version 1) DLS - Environment Management System (Report 3) (Document reference: 2473r3v3d0625 EMS) - Environmental Risk Assessment (Report 2) (Document reference: 2473r2v3d0625 ERA) - Emissions Monitoring (Report 4) (Document reference: 2473r4v3d0625 Emissions)
b. Select and use high-integrity equipment – see examples	Currently Compliant - information contained in BATc response document WT BATc (version 1) DLS	

BATc number	Summary of BAT Conclusion requirement		Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant
	c.	Corrosion prevention – see examples	Currently Compliant - information contained in BATc response document WT BATc (version 1) DLS
	d.	Containment, collection and treatment of diffuse emissions – see examples	Not Applicable- Activity is wholly outdoors and not appropriate to construct buildings or enclose equipment. See information contained in: <ul style="list-style-type: none"> - BATc response document WT BATc (version 1) DLS - Environmental Risk Assessment (Report 2) (Document reference: 2473r2v3d0625 ERA) - Emissions Monitoring (Report 4) (Document reference: 2473r4v3d0625 Emissions) Also See BAT 25.
	e.	Dampening (with water or fog)	Currently Compliant - information contained in the following to support the decision of not requiring an Odour Management Plan: <ul style="list-style-type: none"> - BATc response document WT BATc (version 1) DLS - Environment Management System (Report 3) (Document reference: 2473r3v3d0625 EMS) - Environmental Risk Assessment (Report 2) (Document reference: 2473r2v3d0625 ERA) - Emissions Monitoring (Report 4) (Document reference: 2473r4v3d0625 Emissions).
	f.	Maintenance – see examples	Currently Compliant - Preventative maintenance programmes information contained in: <ul style="list-style-type: none"> - Environment Management System (Report 3) (Document reference: 2473r3v3d0625 EMS) - EMS Appendix 2 Factory Production Control (ref DLS-MP-60)
	g.	Cleaning of waste treatment and storage areas – see examples	Currently Compliant - housekeeping information contained in: <ul style="list-style-type: none"> - Environment Management System (Report 3) (Document reference: 2473r3v3d0625 EMS) - EMS Appendix 2 Factory Production Control (ref DLS-MP-60)
	h.	Leak Detection And Repair (LDAR) programme for organics – S6.2	Not Applicable- organic compounds are not expected for this activity

BATc number	Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant			
15	Use flaring only for safety reasons or non-routine operating conditions (OTNOC). Use both of the following:				
	<table border="1"> <tr> <td>a.</td> <td>Correct plant design – see examples</td> </tr> <tr> <td>b.</td> <td>Plant management including gas system balancing and advanced process control</td> </tr> </table>	a.	Correct plant design – see examples	b.	Plant management including gas system balancing and advanced process control
a.	Correct plant design – see examples				
b.	Plant management including gas system balancing and advanced process control				
16	Reduce emissions to air when flaring is unavoidable. Use both of the following:				
	<table border="1"> <tr> <td>a.</td> <td>Correct design of flaring devices – see examples</td> </tr> <tr> <td>b.</td> <td>Monitoring and recording as part of flare management – see examples</td> </tr> </table>	a.	Correct design of flaring devices – see examples	b.	Monitoring and recording as part of flare management – see examples
a.	Correct design of flaring devices – see examples				
b.	Monitoring and recording as part of flare management – see examples				
NOISE AND VIBRATIONS					
17	Set up, implement, and regularly review a Noise and Vibration Management Plan (as part of the EMS) where nuisance is expected and/or has been substantiated. Include ALL of the following:				
	I. Protocol with actions and timelines	Not Applicable- nuisance not expected or has been substantiated due to proximity of the site to sensitive receptors.			
	II. Noise and vibration monitoring plan/protocol				
	III. Noise & vibration complaint response plan/protocol	See information contained in the following to support the decision of not requiring a Noise and Vibration Management Plan: - BATc response document WT BATc (version 1) DLS - Environmental Risk Assessment (Report 2) (Document reference: 2473r2v3d0625 ERA) - Emissions Monitoring (Report 4) (Document reference: 2473r4v3d0625 Emissions).			
IV. Noise and vibration reduction programme					
18	Techniques to prevent, or where not practicable reduce noise and vibration emissions. Use one or a combination of the following:				
	a. Appropriate location of equipment and buildings	Not Applicable- nuisance not expected or has been substantiated due to proximity of the site to sensitive receptors.			
	b. Operational measures – see examples				
	c. Low-noise equipment – see examples				
	d. Noise & vibration control equipment – see examples	See information contained in the following to support the decision of not requiring a Noise and Vibration Management Plan: - BATc response document WT BATc (version 1) DLS - Environmental Risk Assessment (Report 2) (Document reference: 2473r2v3d0625 ERA)			
e. Noise attenuation – see examples					

BATc number	Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant	
		- Emissions Monitoring (Report 4) (Document reference: 2473r4v3d0625 Emissions).	
EMISSIONS TO WATER			
19	Optimise water consumption, reduce wastewater generation and prevent or where not practicable reduce emissions to soil and water. Use one or a combination of the following:		
	a.	Water management – see examples	Currently Compliant - Only small quantity of water to be present in closed loop wash plant. Water to be tankered off-site once no longer required. See Environmental Risk Assessment (Report 2) (Document reference: 2473r2v3d0625 ERA)
	b.	Water recirculation	Currently Compliant - Only small quantity of water to be present in closed loop wash plant. Water to be tankered off-site once no longer required. See Environmental Risk Assessment (Report 2) (Document reference: 2473r2v3d0625 ERA)
	c.	Impermeable surface	Not Applicable to activity- all storage and treatment of waste is to occur on hardstanding only.
	d.	Reduce likelihood and impact of tank/vessel overflows and failures – see examples	Currently Compliant - Only small quantity of water to be present in closed loop wash plant. Water to be tankered off-site once no longer required. See Environmental Risk Assessment (Report 2) (Document reference: 2473r2v3d0625 ERA)
	e.	Roofing of waste storage and treatment areas	Not Applicable to activity- no buildings in place, all activities to be undertaken outside.
	f.	Segregation of water streams (being mindful of existing plant constraints)	Currently Compliant - Only small quantity of water to be present in closed loop wash plant. Water to be tankered off-site once no longer required. See Environmental Risk Assessment (Report 2) (Document reference: 2473r2v3d0625 ERA). All other “water” on site is weather dependant rainfall.
	g.	Adequate drainage infrastructure	Not Applicable to activity- all storage and treatment of waste is to occur on hardstanding only.
	h.	Design and maintenance provisions to allow risk-based leak detection and repair. Minimise use of underground components.	Currently Compliant -washplant is mobile in nature and is monitored and part of the sites Planned Preventative Maintenance programme. See information contained in:

BATc number	Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant	
		<ul style="list-style-type: none"> - Environment Management System (Report 3) (Document reference: 2473r3v3d0625 EMS) - EMS Appendix 2 Factory Production Control (ref DLS-MP-60) 	
i.	Appropriate buffer storage capacity (being mindful of existing plant constraints)	Not Applicable to activity- Only small quantity of water to be present in closed loop wash plant. Water to be tankered off-site once no longer required. See Environmental Risk Assessment (Report 2) (Document reference: 2473r2v3d0625 ERA)	
20	Treat wastewater using a combination of:		
	<i>Preliminary, primary and general treatment</i>		
	a.	Equalisation	Not Applicable to activity- no requirement for wastewater treatment. Water used in wash plant to be tankered offsite once no longer required.
	b.	Neutralisation	
	c.	Physical separation	
	<i>Physico-chemical treatment</i>		Not Applicable to activity- no requirement for wastewater treatment. Water used in wash plant to be tankered offsite once no longer required.
	d.	Adsorption	
	e.	Distillation/rectification	
	f.	Precipitation	
	g.	Chemical oxidation	
	h.	Chemical reduction	
	i.	Evaporation	
	j.	Ion exchange	
	k.	Stripping	
	<i>Biological treatment</i>		Not Applicable to activity- no requirement for wastewater treatment. Water used in wash plant to be tankered offsite once no longer required.
	l.	Activated sludge process	
	m.	Membrane bioreactor	
<i>Nitrogen removal</i>		Not Applicable to activity- no requirement for wastewater treatment. Water used in wash plant to be tankered offsite once no longer required.	
n.	Nitrification/denitrification (where biological treatment used)		
<i>Solids removal</i>		Not Applicable to activity- no requirement for wastewater treatment. Water used in wash plant to be tankered offsite once no longer required.	
o.	Coagulation and flocculation		
p.	Sedimentation		
q.	Filtration (sand, micro, ultra)		

BATc number	Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant
r.	Flotation	
BAT-AELs for DIRECT discharges to a receiving waterbody (mg/l) <i>Table 6.1 and its supporting notes. Monitoring requirements are outlined in BAT 7</i>		
TOC	10.0-60 10-100 for water-based liquid waste	Not Applicable to activity- no water emissions
COD (TOC is preferred)	30-180 30-300 for water-based liquid waste	
Suspended solids	5.0-60	
HOI	0.5-10 applying to specific waste treatments	
Total N	1-25 for biological treatment and waste oil re-refining 10-60 for water-based liquid waste	
Total P	0.3-2 for biological treatment 1-3 for water-based liquid waste	
Phenol	0.05-0.2 for waste oil re-refining and physio-chemical treatment of waste with CV 0.05-0.3 for water-based liquid waste	
Free CN-	0.02-0.1 for water-based liquid waste	
AOX	0.2-1 for water-based liquid waste	
Metals & Metalloids – specific waste treatments as listed in Table 6.1		
As	0.01-0.05	
Cd	0.01-0.05	
Cr	0.01-0.15	
Cu	0.05-0.5	
Pb	0.05-0.1	
Ni	0.05-0.5	
Hg	0.5-5	
Zn	0.1-1	
Metals & Metalloids – treatment of water-based liquid waste		
As	0.01-0.1	

BATc number	Summary of BAT Conclusion requirement		Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant
	Cd	0.01-0.1	
	Cr	0.01-0.3	
	Hexavalent Cr [Cr(VI)]	0.01-0.1	
	Cu	0.05-0.5	
	Pb	0.05-0.3	
	Ni	0.05-1	
	Hg	1.0-10	
	Zn	0.1-2	
BAT-AELs for INDIRECT discharges to a receiving waterbody (mg/l)			
<i>Table 6.2 and its supporting notes. Monitoring requirements are outlined in BAT 7</i>			
	HOI	0.5-10 applying to specific waste treatments	
	Free CN-	0.02-0.1 for water-based liquid waste	
	AOX	0.2-1 for water-based liquid waste	
Metals & Metalloids – specific waste treatments as listed in Table 6.2			
	As	0.01-0.05	
	Cd	0.01-0.05	
	Cr	0.01-0.15	
	Cu	0.05-0.5	
	Pb	0.05-0.1	
	Ni	0.05-0.5	
	Hg	0.5-5	
	Zn	0.1-1	
Metals & Metalloids – treatment of water-based liquid waste			
	As	0.01-0.1	
	Cd	0.01-0.1	
	Cr	0.01-0.3	
	Hexavalent Cr [Cr(VI)]	0.01-0.1	
	Cu	0.05-0.5	
	Pb	0.05-0.3	
			Not Applicable to activity- no water emissions

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant
	Ni	0.05-1	
	Hg	1.0-10	
	Zn	0.1-2	
EMISSIONS FROM ACCIDENTS AND INCIDENTS			
	Techniques to prevent or limit the environmental consequences of accidents and incidents, as part of the Accident Management Plan. Use <u>ALL</u> of the following:		
21	a.	Protection measures – see examples	Currently Compliant - information contained in: - Environmental Risk Assessment (Report 2) (Document reference: 2473r2v3d0625 ERA) - DLS - Emergency Preparedness & Response (Document reference: DLS Emergency Preparedness) - Accident Management Plan (Report 6) (Document reference: 2473r6v1d0925EAMP)
	b.	Management of incidental or accidental emissions	
	c.	Incident/accident registration and assessment system – see examples	
MATERIAL EFFICIENCY			
22	Use materials efficiently by substituting materials with waste e.g. waste acids/alkalis for pH adjustment, fly ashes for binders		Not Applicable- non-waste materials are not required for this activity
ENERGY EFFICIENCY			
	Use energy efficiently by using <u>both</u> of the following techniques:		
23	a.	Energy efficiency plan	Currently Compliant - information contained in BATc response document WT BATc (version 1) DLS is sufficient.
	b.	Energy balance record	
REUSE OF PACKAGING			
24	Maximise the reuse of packaging as part of a Residues Management Plan (see BAT 1 XII.)		Not Applicable- packaging not relevant to activity

BATc number	Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant	
MECHANICAL TREATMENT OF WASTE (GENERAL BAT)			
25	Reduce emissions to air of dust, particulate-bound metals, PCDD/F and dioxin-like PCBs by applying BAT 14d <u>AND</u> using one or a combination of the following techniques:		
	a.		Cyclone – see S6.1
	b.		Fabric filter – see S6.1
	c.		Wet scrubbing – see S6.1
d.	Water injection into the shredder	Not Applicable- shredding of waste not undertaken and containment, collection and treatment of diffuse emissions as per BAT14d is not being utilised	
BAT-AEL for channelled dust emissions to air from the mechanical treatment of waste (mg/Nm³) <i>Table 6.3 and its supporting note. Monitoring requirements are outlined in BAT 8</i>			
	Dust	2.0-5.0 Not Applicable to activity as no point source emissions to air.	
MECHANICAL TREATMENT OF METAL WASTE BY SHREDDING			
26	Improve overall environmental performance and prevent emissions due to accidents and incidents. Use BAT 14g <u>AND ALL</u> of the following techniques:		
	(a)	Detailed inspection procedure for baled waste before shredding	
	(b)	Remove dangerous items from waste inputs and dispose of them in a safe manner	
	(c)	Treatment of containers accompanied by a declaration of cleanliness	
		Not Applicable to activity	
27	Prevent deflagrations and reduce emissions from deflagrations. Use technique a. <u>AND ONE OR BOTH</u> of techniques b. and c.		
	a.	Deflagration management plan with reduction programme, incident review and response protocol	
	b.	Pressure relief dampers	
	c.	Pre-shredding (device)	
		Not Applicable to activity	
28	Use energy efficiently by keeping the shredder feed stable	Not Applicable to activity	
MECHANICAL TREATMENT OF WEEE CONTAINING VFCS AND/OR VHCS			

BATc number	Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant	
29	Techniques to prevent, or where not practicable reduce emissions of organic compounds to air. Apply BAT 14d AND BAT14h AND technique a. AND ONE OR BOTH of techniques b. and c.		
	a.	Optimised removal and capture of refrigerants and oils	Not Applicable to activity
	b.	Cryogenic condensation	
	c.	Adsorption	
	BAT-AELs for channelled TVOC and CFC emissions to air from treatment of WEEE containing VFCs and/or VHCs (mg/Nm3) <i>Table 6.4. Monitoring requirements are outlined in BAT 8</i>		
TVOC	3.0-15	Not Applicable to activity	
CFCs	0.5-10		
30	Prevent emissions due to explosions when treating WEEE containing VFCs and/or VHCs. Use EITHER of the following techniques:		
	a.	Inert atmosphere e.g. N2	Not Applicable to activity
	b.	Forced ventilation	
MECHANICAL TREATMENT OF WASTE WITH CALORIFIC VALUE			
31	Reduce emissions to air of organic compounds by applying BAT 14d AND using one or a combination of the following techniques:		
	a.	Adsorption – see S6.1	Not Applicable to activity- waste doesn't have a calorific value
	b.	Biofilter – see S6.1	
	c.	Thermal oxidation – see S6.1	
	d.	Wet scrubbing – see S6.1	
BAT-AEL for channelled TVOC emissions to air from the mechanical treatment of waste with calorific value (mg/Nm3) <i>Table 6.5 and its supporting note. Monitoring requirements are outlined in BAT 8</i>			
TVOC	10.0-30.0		
MECHANICAL TREATMENT OF WEEE CONTAINING MERCURY			
32	Reduce mercury emissions to air by collecting them at source, sending them to abatement and carrying out adequate monitoring. This includes ALL of the following:		
	Equipment is enclosed, under negative pressure and connected to a LEV system Waste gas treated using dedusting techniques – see examples – followed by adsorption on activated carbon	Not Applicable to activity	

BATc number	Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant
	Monitoring of waste gas treatment efficiency Mercury levels measured at least weekly within treatment and storage areas BAT-AEL for channelled mercury (Hg) emissions to air from the mechanical treatment of WEEE containing mercury ($\mu\text{g}/\text{Nm}^3$) <i>Table 6.6. Monitoring requirements are outlined in BAT 8</i>	Not Applicable to activity
BIOLOGICAL TREATMENT OF WASTE (GENERAL BAT)		
33	Reduce odour emissions and improve overall environmental performance by selecting the waste input (to ensure its suitability for biological treatment). See also BAT 2	Not Applicable to activity
34	Reduce emissions to air of dust, organic compounds and odorous compounds (including H₂S & NH₃) by using one or a combination of the following techniques: a. Adsorption – see S6.1 b. Biofilter – see S6.1 c. Fabric filter – see S6.1. d. Thermal oxidation – see S6.1 e. Wet scrubbing – see S6.1 BAT-AEL for channelled NH₃, odour, dust and TVOC emissions to air from the biological treatment of waste (mg/Nm^3) (ouE/m^3) <i>Table 6.7 and its supporting notes. Monitoring requirements are outlined in BAT 8</i>	Not Applicable to activity
35	Reduce the generation of wastewater and reduce water usage by using ALL of the following: a. Segregation of water streams (see also BAT 19f) b. Water recirculation c. Minimisation of the generation of leachate	Not Applicable to activity
BIOLOGICAL TREATMENT OF WASTE: AEROBIC METHODS		

BATc number	Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant
36	<p>Reduce emissions to air and improve overall environmental performance by monitoring and/or controlling key waste and process parameters. Include following elements:</p> <p>Waste input characteristics e.g. C to N ratio, particle size</p> <p>Temperature and moisture content within windrows (Moisture monitoring not needed for enclosed processes where H&S issues have been identified)</p> <p>Aeration of the windrow</p> <p>Windrow porosity, height and width</p>	Not Applicable to activity
37	<p>Reduce diffuse emissions to air of dust, odour and bioaerosols from open-air treatment steps. Use ONE OR BOTH of the following techniques:</p> <p>a. Use of semi-permeable membrane covers</p> <p>b. Adaptation of operations to the meteorological conditions</p>	Not Applicable to activity
BIOLOGICAL TREATMENT OF WASTE: ANAEROBIC METHODS		
38	<p>Reduce emissions to air and improve overall environmental performance by monitoring and/or controlling key waste and process parameters. Include following elements:</p> <p>Implement a manual and/or automatic monitoring system to:</p> <p>Ensure a stable digester operation</p> <p>Minimise operational difficulties and associated odour emissions</p> <p>Provide sufficient early warning of system failures</p> <p>Windrow porosity, height and width</p> <p>Monitoring and/or control of key waste and process parameters – examples below:</p> <p>pH and alkalinity of the digester feed</p> <p>Digester operating temperature</p> <p>Hydraulic and organic loading rates of the digester feed</p> <p>Volatile fatty acids and NH₃ concentrations within digester & digestate</p> <p>Biogas quantity, composition (e.g. H₂S) and pressure</p> <p>Liquid and foam levels in the digester</p>	Not Applicable to activity
MECHANICAL BIOLOGICAL TREATMENT (MBT) OF WASTE		
39	Reduce emissions to air. Generally applicable to new plants, existing plants may have layout constraints. Use BOTH of the following techniques:	

BATc number		Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant
	a.	Segregation of the waste gas streams (refer to inventory described in BAT 3)	Not Applicable to activity
	b.	Recirculation of waste gas. Waste gas treatment is described in BAT 34 and recirculation in BAT 35.	
PHYSICO-CHEMICAL TREATMENT OF SOLID AND/OR PASTY WASTE			
40	Improve overall environmental performance by monitoring the waste input as part of the waste pre-acceptance and acceptance procedures. See also BAT 2.		Not Applicable to activity- The Physico-chemical treatment of solid and/or pasty waste listed in the WASTE TREATMENT BREF are <i>Immobilisation</i> (not occurring under this permit) and <i>treatment before backfilling</i> (not occurring under this permit)
	Monitoring the waste input		
		Content of organics, oxidising agents, metals, salts, odorous compounds H2 formation potential upon mixing of flue-gas treatment residues/ashes with water	
41	Reduce emissions to air of dust, organic compounds and NH3 by applying BAT 14d AND using one or a combination of the following techniques:		Not Applicable to activity- The Physico-chemical treatment of solid and/or pasty waste listed in the WASTE TREATMENT BREF are <i>Immobilisation</i> (not occurring under this permit) and <i>treatment before backfilling</i> (not occurring under this permit)
	a.	Adsorption – see S6.1	
	b.	Biofilter – see S6.1	
	c.	Fabric filter – see S6.1.	
	d.	Wet scrubbing – see S6.1	
	BAT-AEL for channelled NH3, odour, dust and TVOC emissions to air from the physico-chemical treatment of solid and/or pasty waste (mg/Nm3) <i>Table 6.8. Monitoring requirements are outlined in BAT 8</i>		
	Dust	2.0-5.0	Not Applicable to activity- The Physico-chemical treatment of solid and/or pasty waste listed in the WASTE TREATMENT BREF are <i>Immobilisation</i> (not occurring under this permit) and <i>treatment before backfilling</i> (not occurring under this permit)
RE-REFINING OF WASTE OIL			
42	Improve overall environmental performance by monitoring the waste input as part of the waste pre-acceptance and acceptance procedures. See also BAT 2.		Not Applicable to activity
	Monitoring the waste input		
	Chlorinated compounds e.g. solvents or PCBs		

BATc number	Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant
43	Reduce quantity of waste sent for disposal by using ONE OR BOTH of the following techniques:	
	a. Material recovery e.g. organic residues in asphalt products	Not Applicable to activity
	b. Energy recovery	
Reduce emissions to air of organic compounds by applying BAT 14d AND using one or a combination of the following techniques:		
44	a. Adsorption – see S6.1	Not Applicable to activity
	b. Thermal oxidation – see S6.1	
	c. Wet scrubbing – see S6.1	
<i>The BAT-AEL for TVOC emissions to air set in Section 4.5 (below) applies. Monitoring requirements are outlined in BAT 8</i>		
PHYSICO-CHEMICAL TREATMENT OF WASTE WITH CALORIFIC VALUE		
45	Reduce emissions to air of organic compounds by applying BAT 14d AND using one or a combination of the following techniques:	
	a. Adsorption – see S6.1	Not Applicable to activity- waste doesn't have a calorific value
	b. Cryogenic condensation – see S6.1	
	c. Thermal oxidation – see S6.1	
	d. Wet scrubbing – see S6.1	
<i>The BAT-AEL for TVOC emissions to air set in Section 4.5 (below) applies. Monitoring requirements are outlined in BAT 8</i>		
REGENERATION OF SPENT SOLVENTS		
46	Improve overall environmental performance by using ONE OR BOTH of the following techniques:	
	a. Material recovery (by evaporation from distillation residues)	Not Applicable to activity
	b. Energy recovery e.g. using distillation residues	
Reduce emissions to air of organic compounds by applying BAT 14d AND using a combination of the following techniques:		
47	a. Recirculation of process off-gases in a steam boiler. Avoid generating PCBs and/or PCDD/Fs	Not Applicable to activity
	b. Adsorption – see S6.1	
	c. Thermal oxidation – see S6.1. Avoid generating PCBs and/or PCDD/Fs	

BATc number	Summary of BAT Conclusion requirement		Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant
	d.	Condensation or cryogenic condensation	
	e.	Wet scrubbing – see S6.1	
The BAT-AEL for TVOC emissions to air set in Section 4.5 (below) applies. <i>Monitoring requirements are outlined in BAT 8</i>			
BAT-AEL FOR EMISSIONS OF ORGANIC COMPOUNDS TO AIR – SECTION 4.5 (RE-REFINING OF WASTE OIL) (PHYSICO-CHEMICAL TREATMENT OF WASTE WITH CV) (REGENERATION OF SPENT SOLVENTS)			
BAT-AEL for channelled TVOC emissions to air from the re-refining of waste oil, physico-chemical treatment of waste with calorific value and regeneration of spent solvents (mg/Nm³) <i>Table 6.9 and its supporting note. Monitoring requirements are outlined in BAT 8</i>			
	TVOC	5.0-30	Not Applicable to activity
THERMAL TREATMENT OF SPENT ACTIVATED CARBON, WASTE CATALYSTS AND EXCAVATED CONTAMINATED SOIL			
Improve overall environmental performance by using ALL of the following techniques:			
48	a.	Heat recovery from the furnace off-gas e.g. for preheating combustion air or steam generation	Not Applicable to activity- no thermal treatment
	b.	Indirectly fired furnace i.e. avoids contact between the furnace contents and the burner flue-gases. Note applicability constraints.	
	c.	Process-integrated techniques to reduce emissions to air – see examples	
Reduce emissions to air of HCl, HF, dust and organic compounds by applying BAT 14d AND using one or a combination of the following techniques:			
49	a.	Cyclone – see S6.1	Not Applicable to activity- no thermal treatment
	b.	Electrostatic precipitator (ESP) – see S6.1	
	c.	Fabric filter – see S6.1	
	d.	Wet scrubbing – see S6.1	
	e.	Adsorption – see S6.1	

BATc number	Summary of BAT Conclusion requirement		Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant
	f.	Condensation – see S6.1	
	g.	Thermal oxidation – see S6.1	
<i>Note supporting text for BAT 49g (thermal oxidation) Monitoring requirements are outlined in BAT 8. No BAT-AELs have been set for this BATc.</i>			
WATER WASHING OF EXCAVATED CONTAMINATED SOIL			
50	Reduce emissions to air of dust and organic compounds from the storage, handling and washing steps by applying BAT 14d <u>AND</u> using one or a combination of the following techniques:		Not Applicable to IED activity is for treatment of slags not excavated contaminated soil
	a.	Adsorption – see S6.1	
	b.	Fabric filter – see S6.1	
	c.	Wet scrubbing – see S6.1	
<i>Monitoring requirements are outlined in BAT 8. No BAT-AELs have been set for this BATc.</i>			
Decontamination of equipment containing PCBs			
51	Reduce emissions to air of PCBs and organic compounds and improve overall environmental performance by using <u>ALL</u> of the following techniques:		Not Applicable to activity
	a.	Coating of the storage and treatment areas – see examples	
	b.	Implementation of staff access rules to prevent dispersion of contamination – see examples	
	c.	Optimised equipment cleaning and drainage – see examples	
	d.	Control and monitoring of emission to air – see examples	
	e.	Disposal of waste treatment residues – see examples	
	f.	Recovery of solvent when solvent washing is used	
<i>Monitoring requirements are outlined in BAT 8. No BAT-AELs have been set for this BATc.</i>			
TREATMENT OF WATER-BASED LIQUID WASTE			
52	Improve overall environmental performance by monitoring the waste input as part of the waste pre-acceptance and acceptance procedures. See also BAT 2.		
	Monitoring the waste input		

BATc number	Summary of BAT Conclusion requirement	Status/comment One of the following: Not Applicable, Currently Compliant , Compliant in the future (Only for existing activities within 4 years of publication of BAT conclusions), Not Compliant	
	Bioeliminability e.g. BOD, BOD-COD ratio, Zahn-Wellens test, biological inhibition potential	Not Applicable to activity	
	Feasibility of emulsion breaking e.g. lab testing		
53	Reduce emissions to air of HCl, NH3 and organic compounds by applying BAT 14d AND using one or a combination of the following techniques:		
	a.	Adsorption – see S6.1	Not Applicable to activity
	b.	Biofilter – see S6.1	
	c.	Thermal oxidation – see S6.1.	
	d.	Wet scrubbing – see S6.1	
	BAT-AELs for channelled HCl and TVOC emissions to air from the treatment of water-based liquid waste (mg/Nm3) <i>Table 6.10 and its supporting notes. Monitoring requirements are outlined in BAT 8</i>		
HCl	1.0-5.0	Not Applicable to activity	
TVOC	3.0-20		