Best Available Techniques (BAT) Assessment

Sims Group UK Limited - Long Marston EPR/BP3698CY

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Best Available Techniques
(BAT) Assessment
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Quality Management					
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1 INTRODUCTION

1.1.1 Sims Group UK Limited (Sims) require a variation to the existing environmental permit from a waste activity to an installation for the Long Marston Metal Recycling Site, Warwickshire CV37 8AQ. The variation is being triggered for the following reasons:

- the mechanical separation of pre-treated small mixed WEEE now falls under section 5.3 of the Environmental Permitting Regulations;
- the storage of the pre-treated small mixed WEEE exceeds 50 tonnes and therefore falls under section 5.6 of the Environmental Permitting Regulations; and
- Sims no longer wish to constrain the operation of the treatment of metal waste in shredders to <75 tonnes per day and therefore seek to permit this activity under section 5.4 (b) of the Environmental Permitting Regulations.

1.1.2 This document details the assessment for the operations of the site against the conclusions set out in the revised Waste Treatment BREF[1] and associated implementing decision[2].

1.1.3 Section 2 reviews the site processes against each relevant BAT conclusion.

1.1.4 Section 3 outlines the outcomes of the BAT conclusions assessment.

[1] Best Available Techniques (BAT) Reference Document for Waste Treatment, JCR Science for Policy Report, 2018 https://eippcb.jrc.ec.europa.eu/reference/BREF/WT/JRC113018_WT_Bref.pdf

[2] Waste Treatment BAT conclusions https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018D1147&from=EN

2 BAT CONCLUSIONS

2.1.1 Data has been provided by Sims and reviewed by RPS in order to complete this BAT assessment.

2.1.2 The following information sources have been utilised to inform the BAT assessment:

- The permit itself;
- Operational techniques;
- Environmental management system, including operating procedures, management plans and facility description;
- Compliance assessment reports (CARs); and
- Other supplementary information and data together with discussions with the operator.

2.1.3 The responses to the relevant BAT conclusions for the installation activities undertaken on the Sims site are set out in the table below.

2.2 General BAT Conclusions

Overall environmental performance

BAT 1 **In order to improve the overall environmental performance, BAT is to implement and adhere to an environmental management system (EMS) that incorporates a list of features (as identified in the BAT Conclusions document).**	
SIMS Justification / Evidence	Sims Group UK Limited have an internal Environmental Management System (EMS). The management system includes standard operating procedures that minimise the environmental risks and impacts of the normal operations and include contingency plans to minimise the effect of breakdown and accidents etc. These include procedures relating to waste acceptance and environmental monitoring. A planned programme of maintenance is specified in the management system. All plant is inspected and maintained in line with the manufacturerôs instructions or other appropriate regime. Sims Group UK Limited have a training and development programme designed to ensure that staff are suitably trained to undertake their duties. The roles and responsibilities of staff on site are clearly defined and training records for each member of staff are maintained and reviewed regularly to ensure competence is maintained and up to date. Sims Group UK Limited will have an Emergency Contingency and Accident Management Plan. In the event of an incident, details are recorded, and a full review undertaken. The EMS contains the following sections/procedures: • EMS Summary • Safety, Health, Environment, Community and Sustainability Policy • Operating Techniques

BAT 1

In order to improve the overall environmental performance, BAT is to implement and adhere to an environmental management system (EMS) that incorporates a list of features (as identified in the BAT Conclusions document).

- Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan
- Complaints Log and Investigation Procedure
- Audit Procedure
- Emergency Contingency & Accident Management Plan (EC&AMP)
- Safe Working Procedure
- Maintenance and Training Records
- Site Closure Plan
- Fire Prevention Plan

List of BAT 1 Features	See for compliance
I. commitment of the management, including senior management.	EMS Summary, Operating Techniques
II. definition, by the management, of an environmental policy that includes the continuous improvement of the environmental performance of the installation.	Environment Policy
III. planning and establishing the necessary procedures, objectives and targets, in conjunction with financial planning and investment.	EMS Summary, Operating Techniques
IV. implementation of procedures paying particular attention to: (a) structure and responsibility; (b) recruitment, training, awareness and competence; (c) communication; (d) employee involvement; (e) documentation; (f) effective process control; (g) maintenance programmes; (h) emergency preparedness and response; (i) safeguarding compliance with environmental legislation.	a) covered by EMS Summary b) key personnel have relevant technical competencies, all staff receive environmental training, staff operating manual or mechanical equipment receive relevant training and Safe Working Procedures, and training records are kept by site management c) Operating Techniques, training and maintenance records d) key personnel have relevant technical competencies, all staff receive environmental training, staff operating manual or mechanical equipment receive relevant training and Safe Working Procedures e) EMS Summary, Training and Maintenance Records, Audit Procedure f) Operating Techniques and Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan g) maintenance records h) EC&AMP and Fire Prevention Plan i) Audit Procedure
V. checking performance and taking corrective action, paying particular attention to:	a) Operating Techniques, Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan, CARs, returns.

BAT 1 **In order to improve the overall environmental performance, BAT is to implement and adhere to an environmental management system (EMS) that incorporates a list of features (as identified in the BAT Conclusions document).**	
(a) monitoring and measurement (see also the JRC Reference Report on Monitoring of emissions to air and water from IED installations ï ROM); (b) corrective and preventive action; (c) maintenance of records; (d) independent (where practicable) internal or external auditing in order to determine whether or not the EMS conforms to planned arrangements and has been properly implemented and maintained.	b) Operating Techniques, Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan, CARs c) Maintenance Records d) Audit Procedure, EA CAR
VI. review, by senior management, of the EMS and its continuing suitability, adequacy and effectiveness.	EMS Summary, Operating Techniques
VII. following the development of cleaner technologies.	Sims is not currently compliant with this. The EMS needs to be updated to include this.
VIII. consideration for the environmental impacts from the eventual decommissioning of the plant at the stage of designing a new plant, and throughout its operating life.	Site closure plan
IX. application of sectoral benchmarking on a regular basis.	Sims is not currently compliant with this. The EMS needs to be updated to include this.
X. waste stream management.	See BAT 2 of this document.
XI. an inventory of wastewater and waste gas streams.	See BAT 3 of this document.
XII. residues management plan	Sims does not have a separate residues management plan in place. However, the aspects of a residue management plan are encompassed within the following EMS documents: minimisation of residues arising from the treatment of waste is addressed in the Operating Techniques and Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan; optimising the re-use, regeneration, recycling and/or recovery of energy of the residues is considered within the Operating Techniques; and ensuring proper disposal of residues is addressed within the Operating Techniques. Therefore, the requirements of a residueõs management plan are considered fulfilled by the EMS in place and it is concluded that Sims complies with this point.
XIII. accident management plan	See the EC&AMP and Fire Prevention Plan
XIV. odour management plan	See BAT 10 and 12 of this document and the Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan
XV. noise and vibration management plan	See BAT 17 of this document and the Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan

BAT 1 **In order to improve the overall environmental performance, BAT is to implement and adhere to an environmental management system (EMS) that incorporates a list of features (as identified in the BAT Conclusions document).**	
Compliant / Not Compliant	Not currently compliant with all of BAT 1.
Action	Update EMS to include sectoral benchmarking and following the development of cleaner technologies.

BAT 2

In order to improve the overall environmental performance of the plant, BAT is to use all of the techniques given below:

a) Set up and implement waste characterisation and pre-acceptance procedures
b) Set up and implement waste acceptance procedures
c) Set up and implement a waste tracking system and inventory
d) Set up and implement an output quality management system
e) Ensure waste segregation
f) Ensure waste compatibility prior to mixing or blending of waste
g) Sort incoming solid waste

SIMS Justification/ Evidence

Sims has established waste characterisation, waste pre-acceptance and waste acceptance procedures as part of the company's operating techniques plan.

These procedures identify site specific checks, procedures and responsibilities at the pre-acceptance of waste stage (BAT 2 a) and site acceptance and inspection of waste (BAT 2 b). Record keeping procedures include details for waste tracking for incoming waste and export of waste such as via waste transfer notes (BAT 2 c). The operating techniques details the in-process controls for pre-acceptance procedures to assess wastes, waste acceptance procedures and the non-operational metal treatment process.

The site's quality management system is in the form of the inspection, record-keeping and non-conformance procedures outlined in the operating techniques document and Audit Procedure. These documents describe the processes and procedures that have been designed and implemented to ensure that all waste products accepted and produced by Sims meet the necessary relevant criteria and all other legal requirements to which they subscribe (BAT 2 technique d). Separate waste storage areas (BAT 2 e) are shown on Drawing JER6361-031 SEP2021_LongMarstonSiteLayout. BAT 2 f is not applicable to this site as mixing or blending of waste does not take place. Incoming solid waste is sorted according to the procedures set out in the Operating Techniques Plan and the Process Description (BAT 2 g).

Waste is appropriately sorted, assessed for compatibility and segregated using the waste treatment process (Operating Techniques, BAT 2 e, BAT 2 g) and the materials movement and storage processes (Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan).

Relevant documents:

- Operating Techniques, Section 2.8 & 2.9
- Waste Acceptance Procedure
- Operating Techniques, Section 2.4 - Operations
- Audit Procedure
- Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan

List of BAT 2 Features	See for compliance
a. Set up and implement waste characterisation and pre-acceptance procedures	Long Marston_Site Waste Acceptance Procedure_Oct 2020
b. Set up and implement waste acceptance procedures	Operating Techniques, Section 2.8

c.	Set up and implement a waste tracking system and inventory	Record keeping procedures
d.	Set up and implement an output quality management system	Quality management system
e.	Ensure waste segregation	Operating Techniques, Section 2.9
f.	Ensure waste compatibility prior to mixing or blending of waste	Operating Techniques, Section 2.8
g.	Sort incoming solid waste	Operating Techniques, Section 2.8 & 2.9

Compliant / Not Compliant	Compliant with all relevant parts of BAT 2.
Action	No action required.

BAT 3

In order to facilitate the reduction of emissions to water and air, BAT is to establish and to maintain an inventory of waste water and waste gas streams, as part of the environmental management system (see BAT 1), that incorporates a list of features (as identified in the BAT Conclusions document).

SIMS justification/evidence	The plant does not include any process point source emissions to air or water. Details of mitigation measures to reduce emissions to air are included in the site dust & litter management plan. There is a single discharge of rainfall dependant surface water runoff, which passes through settlement and separation interceptors prior to discharge to surface water. This may contain water run-off from waste storage areas. As this discharge is rainfall dependant it is not practicable to maintain a detailed inventory in order to facilitate the reduction of this emission. Process wastewater is not generated by any waste treatment activities at the site. Small quantities of water are occasionally used as required for dust suppression. Run-off flows to the interceptor and then to the discharge point at the tributary of Noleham Brook.
Compliant / Not Compliant	Compliant with BAT 3.
Action	No action required.

BAT 4	
In order to reduce the environmental risk associated with the storage of waste, BAT is to use all of the techniques given below. a. Optimised storage location b. Adequate storage capacity c. Safe storage operation d. Separate area for storage and handling of packaged hazardous waste	
SIMS Justification / Evidence	All wastes are stored in line with the requirements of the relevant Regulations and Directives and as per the sites Environment Management Systems. All wastes received and all outputs from the site processes will be stored in designated areas as per Drawing JER6361-031 SEP2021_LongMarstonSiteLayout, as well as per the arrangements set out in the Operating Techniques document, and Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan. To ensure that waste storage arrangements are being adhered to, monthly checks of the stockpiles are conducted. If issues are identified, then records are made, and suitable actions are determined in accordance with the Non-Conforming Waste Procedure outlined in the Operating Techniques. The documents below cover BAT 4 techniques a (optimised storage location), b (adequate storage capacity) and c (safe storage operation). BAT 4 d (separate area for storage and handling of packaged hazardous waste), although incoming hazardous waste will not be packaged a dedicated separate area for storing this material is provided. Hazardous processed plastic will be bagged and stored prior to removal off site. Any other hazardous waste that is identified at site will be handled as non-conforming waste as described in the Operating Techniques document and the Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan. **Relevant documents:** • Operating Techniques • Drawing JER6361-031 SEP2021_LongMarstonSiteLayoutEnvironment, Fugitive Emissions & Accidents Risk Assessment and Management Plan
Compliant / Not Compliant	Compliant with all relevant parts of BAT 4.
Action	No action required.

BAT 5	
In order to reduce the environmental risk associated with the handling and transfer of waste, BAT is to set up and implement handling and transfer procedures.	
SIMS Justification / Evidence	Sims has established handling and transfer procedures which have been approved by the EA under the existing permit. Records of all incoming and outgoing waste are kept as part of EMS procedures. The Operating Techniques document and Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan detail the in-process controls for the handling and transfer of waste. The Operating Techniques document outlines that the handling and transfer of waste is carried out by competent staff.

BAT 5

In order to reduce the environmental risk associated with the handling and transfer of waste, BAT is to set up and implement handling and transfer procedures.

Section 5 of the Operating Techniques document states that a record system is to be maintained in accordance with the environmental permit. Recording of waste throughput and rejection is achieved via the use of a weighbridge system and duty of care information (waste transfer notes) recorded for every load that arrives and leaves.

All appropriate information to satisfy the requirement of duty of care and the permit is obtained and recorded. All records are maintained for inspection by the EA. The records contain the following information:

- Site inspections by the operator or other body and any subsequent issues and corrective actions taken (as recorded in Compliance Assessment Reports);
- Emergencies;
- Complaints and actions taken;
- Plant/equipment failure;
- A record of any rejection of waste;
- Any queries with Waste Carriers;
- Technically competent manager (TCM) ï times on site;
- Any incidents/accidents on site and actions taken;
- Security failures; and
- Severe weather conditions.

The operation currently benefits from an experienced and well-trained work force who are experienced in the current operations on site including appropriate waste storage and measures taken to prevent, detect and mitigate spills. Staff are trained appropriately in the handling and transfer of waste, in the use of spill kits and the requirements of the Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan, EC&AMP and Safe Working Procedures. All staff are trained in appropriately detecting and identifying spillages and the spill response procedure is used when a spillage is detected. Spill drills are undertaken to test response procedures. All site personnel are tasked with monitoring for evidence of spillages and leakage during their day to day routine. Any evidence of leaks or spillages are reported to the Site Manager or their nominated deputy for remedial action. The Safe Working Procedure for re-fuelling activities is used to prevent and mitigate spills.

Operation and design precautions taken when mixing or blending wastes (e.g. vacuuming dusty/powdery wastes) is not applicable to the Sims Site.

Relevant documents:

- Operating Techniques
- Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan
- EC&AMP
- Safe Working Procedure
- Compliance Assessment Reports (CARs)
- Complaints Log and Investigation Procedure

BAT 5	
In order to reduce the environmental risk associated with the handling and transfer of waste, BAT is to set up and implement handling and transfer procedures.	
Compliant / Not Compliant	Compliant with BAT 5.
Action	No action required.

Monitoring

BAT 6	
For relevant emissions to water as identified by the inventory of waste water streams (see BAT 3), BAT is to monitor key process parameters (e.g. waste water flow, pH, temperature, conductivity, BOD) at key locations (e.g. at the inlet and/or outlet of the pre-treatment, at the inlet to the final treatment, at the point where the emission leaves the installation).	
SIMS Justification / Evidence	As discussed above there are no relevant wastewater streams which would require an inventory under BAT 3. The environmental permit does not currently impose water quality limits or monitoring to be undertaken on the surface water discharge. Surface water runoff passes through an interceptor prior to discharge to surface water. This may contain water from the waste storage areas. It is proposed to undertake monitoring, the scope of which will be agreed with the EA in writing. The following discharge consents have been issued for the site and include limits on the releases: • **S/13/20700/T dated 29 June 1992** (Discharge 1 ï Treated Sewage Effluent. Discharge 2 ï Trade Effluent consisting of treated metal washing effluent and site drainage either separately or in a mixture. • **S/13/25553/T dated 12 November 1999** (Site Drainage Overflow from the Site Drainage Recycling System **However, these sit outside of the permit for the installation activities.**
Compliant / Not Compliant	Not currently compliant with BAT 6.
Action	Agree scope of monitoring programme with the EA and implement this.

BAT 7	
BAT is to monitor emissions to water with at least the frequency given below, and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality. (See BAT Conclusions document for standards)	
SIMS Justification / Evidence	The environmental permit does not currently impose water quality limits or monitoring to be undertaken on the surface water discharge and therefore routine monitoring has not historically been undertaken. As part of the variation application, it is proposed to monitor the relevant parameters in accordance with EN standards and at a frequency as agreed with the EA. This is for the surface water which may have come from the waste storage areas and therefore have the potential for contamination.

Compliant / Not Compliant	Not currently compliant with BAT 7.
Action	Agree scope of monitoring programme with the EA and implement this.

BAT 8

BAT is to monitor channelled emissions to air with at least the frequency given below, and in accordance with EN standards. If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality. (See BAT Conclusions document for standards)

SIMS Justification / Evidence	The environmental permit does not currently include any channelled emissions to air therefore no monitoring is required.
Compliant / Not Compliant	N/A
Action	No action required.

BAT 9

BAT is to monitor diffuse emissions of organic compounds to air from the regeneration of spent solvents, the decontamination of equipment containing POPs with solvents, and the physico-chemical treatment of solvents for the recovery of their calorific value, at least once per year using one or a combination of the techniques in the BAT conclusions document.

SIMS Justification / Evidence	Not applicable to site operations as these activities are not carried out.
Compliant / Not Compliant	N/A
Action	No action required.

BAT 10

BAT is to periodically monitor odour emissions.

SIMS Justification / Evidence	The nature of the waste accepted at the site presents a low risk of odour nuisance. The processes undertaken on site will not give rise to malodours or residues with malodours. Odour management controls are detailed in the Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan. This includes control and monitoring of waste acceptance procedures will ensure wastes likely to cause malodours not accepted. In the unlikely event that any odorous material is identified it will be handled accordingly and removed from site as a

	priority. Site employees will undertake regular inspections and undertake remedial action if odour is identified as a problem. Good housekeeping is implemented across the site to minimise the risk of odours occurring. There is no history of odour complaints at the site. Any complaints, should they be received will be investigated and appropriate action will be taken if the site is found to be the source of odour. All complaints will be recorded in accordance with the EMS. Drainage systems will be inspected and maintained to minimise the odours associated with stagnating water. The BAT conclusion document states the following for BAT 10: *The applicability is restricted to cases where an odour nuisance at sensitive receptors is expected and/or has been substantiated.* Therefore, the management in place is deemed sufficient for the site and monitoring in accordance with BAT 10 is not required. **Relevant documents:** • Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan • Complaints Log and Investigation Procedure
Compliant / Not Compliant	N/A
Action	No action required.

BAT 11

BAT is to monitor the annual consumption of water, energy and raw materials as well as the annual generation of residues and wastewater, with a frequency of at least once per year.

SIMS Justification / Evidence	Waste returns are submitted to the EA for all wastes received and dispatched. Monitoring of raw water and energy use on site is carried out via supplier invoices and records of these are maintained. Use of hydraulic and lubricating oils is monitored via purchase invoices. A full description of the process techniques can be found in the operating techniques document, which accompanied the permit variation application. **Relevant documents:** Operating Techniques
Compliant / Not Compliant	Compliant with BAT 11.
Action	No action required.

Emissions to air:

BAT 12 **BAT is to set up, implement and regularly review an odour management plan, as part of the environmental management system (see BAT 1), that includes all of the elements specified in the BAT Conclusions document.**	
SIMS Justification / Evidence	The nature of the waste accepted at the site presents a low risk of odour nuisance. See BAT 10 for details of the odour management measures in place at the Sims plant, as set out in the Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan. The Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan is reviewed as part of the EMS, and the odour mitigation measures specifically would also be reviewed following receipt of an odour complaint, albeit this is considered unlikely and to date there have been no odour complaints received for this facility. **Relevant documents:** • Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan • Audit Procedure
Compliant / Not Compliant	Compliant with BAT 12.
Action	No action required.

BAT 13 **In order to prevent or, where that is not practicable, to reduce odour emissions, BAT is to use one or a combination of the techniques specified in the BAT conclusions document.**	
SIMS Justification / Evidence	Odour management controls are detailed in the Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan, as set out in the response to BAT 10. The waste accepted at the site presents a low risk of odour nuisance and there have been no complaints to date. Control and monitoring of waste acceptance procedures will ensure wastes likely to cause malodours are minimised. Any odorous material identified will be handled accordingly and removed from site as a priority (BAT 13a). The techniques outlined in BAT 13 b and 13c are not applicable to this site as odour-minimising chemicals may adversely affect the quality of the output and aerobic treatment is not used on site.
Compliant / Not Compliant	Compliant with BAT 13ï adequately covered in existing measures.
Action	No action required.

BAT 14

In order to prevent or, where that is not practicable, to reduce diffuse emissions to air, in particular of dust, organic compounds and odour, BAT is to use an appropriate combination of the techniques given in the BAT Conclusions document.

SIMS Justification / Evidence

The Operating Techniques document and Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan set out the measures in place to reduce diffuse emissions to air, including those of VOCs, dust and odour.

Sims have a series of VOC emission mitigation measures that are implemented on site to ensure VOC emissions are controlled as far as is practicable. These include:

- Insignificant source of fugitive emissions of VOC. Treatment of petroleum products and petroleum combustion processes on are not carried out on the site. Petroleum is not stored onsite. Vehicles/plant used on site are diesel (BAT 14a).
- There are no solvents in use on the site.
- The integrity of fuel and oil tanks and function of gauges are checked regularly.
- Spillages of petroleum products is therefore unlikely. However, spill kits will be available, and any spills of diesel will be attended to immediately. Spill kits will be located at key locations on site and will be mobile so that they may be taken to the site of an incident (BAT 14d, 14h).
- Emergency Contingency Plan will be in place, which will include documented procedures for handling spillages to minimise impacts.
- Employees have training on emergency contingency plan and environmental awareness.

Sims have a series of dust mitigation measures implemented on site to ensure dust emissions are controlled as far as is practically possible. The measures include:

- The site operates in accordance with the dust management measures specified in the Operating Techniques document and the Dust Management Plan.
- The waste materials handled will under normal circumstances be of be of macro solid form. The feed material is not powdery, under normal circumstances is in macro solid form and the potential for dust generation is therefore limited. (BAT 14a).
- Compliance with waste acceptance procedures will identify wastes consisting solely of dusts and ensure they are adequately contained. It will identify the presence of wastes with the potential to generate significant quantities of dusts so they can be managed accordingly. Wastes will be inspected at weighbridge and in unloading areas (BAT 14a).
- The site management team carry out monitoring of site operations and undertake regular visual inspections (at least once per day) of operations to check that routine dust management practices are being adhered to and to assess the potential for dust emissions. Remedial action is taken if dust/particulates are identified as a potential problem.
- Mobile suppression is available for the shredder, should dust suppression be needed.
- Dust suppression techniques such as dampening and the use of both manual and mechanical sweeping are employed as necessary to prevent unacceptable emissions. The area benefits also from a netted screen to contain any particulate emissions locally.
- In dry conditions, a portable dust buster will be available to suppress dust in areas not covered by fixed spray systems.
- Where appropriate and reasonably practicable, the parts of the mechanical treatment processes with the potential to give rise to dusts are covered and/ or fitted with dust suppressing technology to eliminate fugitive emissions from plant and machinery during the process. This includes the use of covered hoppers, bays fitted with sprinkler systems, litter and dust netting.
- The majority of static processes are located within a building, which acts to reduce dust and particulate emissions from the site.
- Drop heights the distance between the grab and the stockpile ñthe dropò(deliveries and products) are kept to a minimum in line with company best practice (i.e. grab lowers material onto stockpiles or into containers) to prevent the generation of fugitive emissions of dusts (BAT 14a).

BAT 14

In order to prevent or, where that is not practicable, to reduce diffuse emissions to air, in particular of dust, organic compounds and odour, BAT is to use an appropriate combination of the techniques given in the BAT Conclusions document.

- The wastes and process residues are adequately stored and treated in a manner so as to prevent the potential release of dusts and particulates. Storage and containment include managed stockpiles, bays, bins, skips, containers, stillages, sacks or drums (BAT 14d).
- All treatment activities take place on impermeable surface with sealed drainage system, minimising the risk of generation of dusts from site surfacing. The integrity of the surfacing is maintained.
- Good housekeeping is employed daily to reduce quantities of particulates and dust accumulating on the site and alleviate any waste leaving the site (BAT 14g).
- Manual sweeping is employed to minimise build-up of dust and debris. Visual monitoring by the site manager or appointed representative in their absence is undertaken throughout the day to determine the frequency such sweeping. The bobcat has a brush attachment with suppression and sweeping is undertaken daily. A road sweeper is used routinely at least once per week, more frequently (up to 3 times per week) if deemed necessary following inspections (BAT 14g).
- Distances that material has to travel are kept to a minimum with due care and consideration being given to unloading and loading areas and distance from storage area (BAT 14d).
- Traffic speed including vehicles and mobile plant is limited to minimise dust generation by vehicle movement on site. Visible signage informing of the speed limit is displayed on site.
- Netting is erected at appropriate areas of the site boundary to further help prevent escape of dust and particulates from the site.
- A skirt is present around parts of the plant to prevent windblown material (BAT 14d).
- All relevant Sims Metal Management employees and relevant contractors are aware of the details of the procedure for dust management and control.
- Any complaints regarding dusts/particulates will be investigated and appropriate action taken if the site is found to be the source of the emission. All complaints will be recorded in accordance with the EMS.
- Significant changes to operational practices will be subject to discussions and to investigation to assess their potential impact on the environment. Operational changes are defined as a significant change to plant type, a change to storage/treatment location of waste or a significant change to waste handling procedure.
- Dust/particulates will be controlled through the ongoing visual monitoring of site operations by the site management team who will undertake regular inspections and undertake remedial action if dust/particulates are identified as a problem (BAT 14f).
- All plant and machinery associated with the site operations & used for the prevention of fugitive emissions will be subject to a preventative maintenance programme (BAT 14f).
- Plant and machinery will be inspected/maintained and cleaned on a regular basis (BAT 14f, 14g).

The waste accepted at the site presents a low risk of odour nuisance and there have been no complaints to date. However, Sims have a series of odour mitigation measures implemented on site to ensure odour emissions are controlled as far as is practicable. These include:

- The waste types handled will be unlikely to give rise to malodours and compliance with waste acceptance procedures will prevent receipt of odour-generating wastes (BAT 14a).
- Control and monitoring of waste acceptance procedures will ensure wastes likely to cause malodours are minimised. Any malodorous material identified will be handled accordingly and removed from site as a priority (BAT 14a).
- The processes undertaken on site will not give rise to malodours (BAT 14a).
- Site employees will undertake regular inspections and undertake remedial action if odour is identified as a problem (BAT 14f, 14g).
- Where there is the potential for malodours, quantities of wastes stockpiled will be kept to a minimum (BAT 14a).
- Good housekeeping will be implemented across the site to minimise the risk of odours occurring (BAT 14f, g).

BAT 14	
In order to prevent or, where that is not practicable, to reduce diffuse emissions to air, in particular of dust, organic compounds and odour, BAT is to use an appropriate combination of the techniques given in the BAT Conclusions document.	

- Drainage systems will be inspected and maintained to minimise the odours associated with stagnating water (BAT 14f).

These measures demonstrate the use of minimising the number of potential diffuse emission sources (BAT 14 technique a), containment, collection and treatment of diffuse emissions (BAT 14 technique d), maintenance (BAT 14 technique f) and cleaning of waste treatment and storage areas (BAT 14 technique g).

Relevant documents:

- Operating Techniques
- Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan

Compliant / Not Compliant	Compliant with BAT 14.
Action	No action required.

BAT 15	
BAT is to use flaring only for safety reasons or for non-routine operating conditions (e.g. start-ups, shutdowns) by using both of the techniques given below. **a) Correct plant design** **b) Plant management**	
SIMS Justification / Evidence	Not applicable to site operations as no use of flares.
Compliant / Not Compliant	N/A
Action	No further action

BAT 16	
In order to reduce emissions to air from flares when flaring is unavoidable, BAT is to use both of the techniques given below. **a) Correct design of flaring devices** **b) Monitoring and recording as part of flare management**	
SIMS Justification / Evidence	Not applicable to site operations as no use of flares.
Compliant / Not Compliant	N/A
Action	No further action

Noise and Vibrations:

BAT 17	
In order to prevent or, where that is not practicable, to reduce noise and vibration emissions, BAT is to set up, implement and regularly review a noise and vibration management plan, as part of the environmental management system (see BAT 1), that includes all of the following elements: **a) a protocol containing appropriate actions and timelines;** **b) a protocol for conducting noise and vibration monitoring;** **c) a protocol for response to identified noise and vibration events, e.g. complaints;** **d) a noise and vibration reduction programme designed to identify the source(s), to measure/estimate noise and** **e) vibration exposure, to characterise the contributions of the sources and to implement prevention and/or reduction measures.**	
SIMS Justification / Evidence	The Environment Risk Assessment and Fugitive Emissions Management Plan considers the risk from Noise and Vibration and there are procedures within the EMS that include the elements set out in BAT 17, where applicable. These are: • Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan ï sets out measures taken at the site to minimise any potential noise and vibration emissions. The site has a Noise Management Plan. (BAT 17a). • Complaints Log and Investigation Procedure ï As part of the EMS, the operator has systems in place for dealing with complaints and this would be relevant to any noise complaints received at the site (BAT 17c). A protocol for conducting noise and vibration monitoring (BAT 17b) is set out in the noise assessment, which details the noise monitoring that has been undertaken at the site as well as a noise and vibration reduction programme (BAT 17d) and the pre- and post-mitigation noise levels measured at sensitive receptors. The site has a Noise Management Plan and roller shutter doors were fitted to the XRF/XRT Plant. These are on sensors / kept closed when not in use. These resulted in a reduction in noise escape from the plant. The mitigation and management measures in place are deemed sufficient for the site.
Compliant / Not Compliant	Compliant with BAT 17.
Action	No action required.

BAT 18	
In order to prevent or, where that is not practicable, to reduce noise and vibration emissions, BAT is to use one or a combination of the techniques given in the BAT conclusions document	
SIMS Justification / Evidence	The activities currently undertaken by Sims at the site are not considered to represent a significant risk of noise or vibration. However, the Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan sets out measures taken at the site to minimise any potential noise and vibration emissions. These include: • The majority of the static plant used at the site is contained within buildings i.e. OLRP plant, , Stainless Steel separation plant, non-ferrous separation plant aka XRF/XRT, plastic separation plant, , stone and wire plant (not operational). (BAT 18a, BAT 18d). • Employees are requested to keep doors shut to limit noise escape from plant and machinery in buildings. Roller shutter doors on XRF/XRT plant are on sensors / kept shut when not in use(BAT 18b) • A noise attenuating bund is in place around the sites perimeter in key areas to reduce noise levels for neighbouring residents. (BAT 18e)

- All plant within the control of Sims Group and subcontractors will be inspected and maintained to current recommended standards and manufacturer recommendations (BAT 18b).
- Vehicles, plant and machinery will be switched off when not in use where practicable. Delivery vehicles processed as quickly as possible to minimise noise from engines, reversing warning signals etc. Sympathetic driving of vehicles will reduce unnecessary revving of engines (BAT 18b).
- Drop heights (deliveries and products) are kept to the practical minimum in line with company best practice (i.e. grabs lower material into bulkers) and containers are filled using a rapid loader. (BAT 18b).
- When moving material around site, operators ensure that the grab / loading shovel bucket only collects enough material that can be easily contained and transported around the site. This reduces the likelihood that material is dropped.

As part of the EMS, the operator has systems in place for dealing with complaints and this would be relevant to any noise complaints received at the site. In response to previous noise nuisance complaints, Sims has installed additional noise mitigation measures at the site, including roller shutter doors on the XRF/ XRT plant.

These measures demonstrate the use of appropriate location of equipment and buildings (BAT 18 technique a), operational measures (BAT 18 technique b), noise and vibration control equipment (BAT 18 technique d) and noise attenuation (BAT technique 18 e).

Relevant documents:

- Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan
- Complaints Log and investigation Procedure
- Noise Assessment for Environmental Permitting, RPS
- Noise Management Plan

Compliant / Not Compliant	Compliant with BAT 18.
Action	No action required.

Emissions to Water:

BAT 19

In order to optimise water consumption, to reduce the volume of waste water generated and to prevent or, where that is not practicable, to reduce emissions to soil and water, BAT is to use an appropriate combination of the techniques given in the BAT conclusions document

SIMS Justification / Evidence	There is no continuous water use associated with the installation permitted activities on site although water is occasionally used as required for dust suppression. Water used for dust suppression is supplied from mains water. Wastewater is not generated by any installation activities on site apart from surface water runoff which contains water from waste storage areas. The only discharge from the site is a rainfall dependent discharge to surface water post-interceptor to the discharge point at the tributary of Noleham Brook. As this is rainfall dependent, it is not possible to reduce the volume of discharge. A full description of the process techniques can be found in the operating techniques document, which accompanied the permit variation application.

BAT 19 **In order to optimise water consumption, to reduce the volume of waste water generated and to prevent or, where that is not practicable, to reduce emissions to soil and water, BAT is to use an appropriate combination of the techniques given in the BAT conclusions document**	
	All operational areas within the site are covered with impermeable concrete or tarmac hardstanding (BAT 19c). Daily site checks are carried out which would identify any leaks or spillages and procedures are in place to minimise any impacts from leaks or spills. Impermeable surfaces are subject to regular inspections and maintenance to minimise the risk of any fugitive emissions (BAT 19h). **Relevant documents:** Operating Techniques
Compliant / Not Compliant	Compliant with BAT 19.
Action	No action required.

BAT 20 In order to reduce emissions to water, BAT is to treat wastewater using an appropriate combination of the techniques given in the BAT conclusions document.	
SIMS Justification / Evidence	There is no wastewater generated from site installation activities. The site has a rainfall dependent discharge of clean rainwater to surface water, which passes through an interceptor prior to discharge (BAT 20c). A full description of the process techniques can be found in the operating techniques document, which accompanied the permit variation application. See further comments in the response to BAT 3. **Relevant documents:** Operating Techniques
Compliant / Not Compliant	Compliant with BAT 20.
Action	No action required.

Emissions from Accidents and Incidents:

BAT 21

In order to prevent or limit the environmental consequences of accidents and incidents, BAT is to use all of the techniques given below, as part of the accident management plan (see BAT 1).

SIMS Justification / Evidence

Sims has an Emergency Contingency & Accident Management Plan (EC&AMP) which includes site information and contacts list as part of the EMS. Site Operational/Accident Procedures in place are driven by risk assessment as part of the Companyôs own generic EMS.

The EC&AMP contains the following procedures:

- Site evacuation including drill requirements
- Fire
- Explosions
- Non-conforming waste including drill requirements
- Security breach including drill requirements
- Emergency procedures for liquid spillages or leaks including drill requirements
- Flooding
- Escape from containment

The EC&AMP covers potential impacts, risks, control, protection and mitigation measures. This includes detail of accessibility and operability of relevant control equipment in emergency situations as well as protection against vandalism (BAT 21a).

The site EC&AMP contains procedures for accident and incident management such as spill response and flood management (BAT 21a, 21b). The operation currently benefits from an experienced and well-trained work force who are experienced in the current operations on site including appropriate waste storage and measures taken to prevent, detect and mitigate spills (BAT 21b). Staff are trained appropriately in the handling and transfer of waste, in the use of spill kits and the requirements of the EC&AMP and spill clean-up procedures (BAT 21b). All staff are trained in appropriately detecting and identifying spillages and the spill response is used when a spillage is detected. Spill drills are undertaken. All site personnel are tasked with monitoring for evidence of spillages and leakage during their day to day routine. Any evidence of leaks or spillages are reported to the Site Manager or their nominated deputy for remedial action (BAT 21c). All plant and equipment are inspected and maintained in accordance with legal requirements and the manufacturerôs recommendations, and maintenance records are kept by site management. Records of any incidents, accidents, changes to procedures and findings of inspections are also kept by site management (BAT 21c).

The infrastructure and associated drainage systems are inspected regularly to ensure appropriate performance and to prevent any accidental escape of spills from the containment infrastructure to surface water (BAT 21b).

A fire prevention plan (FPP) has been submitted in response to a compliance assessment report (CAR) (BAT 21a, b and c).

Relevant documents:

- Emergency Contingency and Accident Management Plan (August 2020)
- Fire Prevention Plan

Compliant / Not Compliant Compliant with BAT 21.

BAT 21 **In order to prevent or limit the environmental consequences of accidents and incidents, BAT is to use all of the techniques given below, as part of the accident management plan (see BAT 1).**	
Action	No action required.

Material Efficiency:

BAT 22 **In order to use materials efficiently, BAT is to substitute materials with waste.**	
SIMS Justification / Evidence	The raw materials used on site are as follows: • Lubricating oil/grease, for parts lubrication • Hydraulic oil, used as a power transmitting medium and to protect machine components At present, it is not considered possible to substitute the raw materials used by the process with waste. Mains water is used on site for dust suppression in relation to the permitted installation activities. It is not currently possible to collect rainwater for use as dust suppression. This is an ongoing process and Sims will continue to look into identifying alternative resources and enhance efficiency of material use, where possible.
Compliant / Not Compliant	Compliant with BAT 22.
Action	No action required.

Energy Efficiency:

BAT 23 **In order to use energy efficiently, BAT is to use both of the techniques given in the BAT conclusions document.**	
SIMS Justification / Evidence	At present, the site does not have an energy efficiency plan or energy balance record in place. The site has obligations to report energy efficiency under ethos. The Operating Techniques document includes a short summary of energy usage, stating that Sims has an Energy Policy to ensure that energy is used efficiently at the site. Energy metrics are monitored, and records are kept. **Relevant documents:** Operating Techniques
Compliant / Not Compliant	Not currently compliant with BAT 23.
Action	Produce an energy efficiency plan and energy balance record. Update EMS once the above document has been produced.

Reuse of Packaging:

BAT 24 **In order to reduce the quantity of waste sent for disposal, BAT is to maximise the reuse of packaging, as part of the residues management plan (see BAT 1).**

SIMS Justification / Evidence	The majority of waste received at the site is loose therefore there is very little packaging received at site. Where possible, any packaging is re-used for waste leaving the site. Sims is also looking into options for recycling such packaging.
Compliant / Not Compliant	Compliant with BAT 24.
Action	No action required.

2.3 BAT Conclusions for the Mechanical Treatment of Waste

General BAT conclusions for the mechanical treatment of waste:

BAT 25 **In order to reduce emissions to air of dust, and of particulate-bound metals, PCDD/F and dioxin-like PCBs, BAT is to apply BAT 14d and to use one or a combination of the techniques given in the BAT conclusions document.**	
SIMS Justification / Evidence	Storage bays that collect the final outputs from the trommel/magnets/eddy-current separator (fines, clean ferrous, aluminium etc.). will be fitted with spray bars (BAT 25d) and rubber skirts down the front where required in order to minimise emissions of dust to air. The shredder is not currently operational, however, once operational will be provided with dust abatement in the form of misting sprays and covered conveyors. Dust suppression techniques such as dampening and the use of both manual and mechanical sweeping are employed as necessary to prevent unacceptable emissions. The area benefits also from a netted screen to contain any particulate emissions locally. In dry conditions, a portable dust buster will be available to suppress dust in areas not covered by fixed spray systems. Where appropriate and reasonably practicable, the parts of the mechanical treatment processes with the potential to give rise to dusts are covered and/ or fitted with dust suppressing technology to eliminate fugitive emissions from plant and machinery during the process. This includes the use of covered hoppers, bays fitted with sprinkler systems, litter and dust netting. The majority of static processes are located within a building, which acts to reduce dust and particulate emissions from the site. As set out in the response to BAT 14, BAT 14d (Containment, collection and treatment of diffuse emissions) is also in place on the site.
Compliant / Not Compliant	Compliant with BAT 25 once new abatement techniques are installed.
Action	No action required.

The mechanical treatment in shredders of metal waste:

BAT 26 **In order to improve the overall environmental performance, and to prevent emissions due to accidents and incidents, BAT is to use BAT 14g and all of the techniques given in the BAT conclusions document.**	
SIMS Justification / Evidence	BAT 14g is used at the Sims site in the following ways: • Plant and machinery are inspected/maintained and cleaned on a regular basis. • Good housekeeping is employed daily to reduce quantities of particulates and dust accumulating on the site, to minimise the risk of emissions and alleviate any waste leaving the site.

	• Manual sweeping is employed to minimise build-up of dust and debris. Visual monitoring by the site manager or appointed representative in their absence is undertaken throughout the day to determine the frequency such sweeping. The bobcat has a brush attachment and sweeping is undertaken daily. A road sweeper is used 3 times per week. • Site employees will undertake regular inspections and undertake remedial action if odour is identified as a problem. The shredder and mobile size separation plant is used for residues from previously shredded materials and is not capable of shredding baled wastes. There are no baled wastes shredded at the site and therefore BAT 26a is not applicable. However, Sims has established waste characterisation, waste pre-acceptance and waste acceptance procedures as part of the company's operating techniques plan. These procedures identify site specific checks, procedures and responsibilities at the pre-acceptance of waste stage and site acceptance and inspection of waste. The operating techniques details the in-process controls for pre-acceptance procedures to assess wastes, waste acceptance procedures and the installation treatment processes, however, Staff are trained appropriately in the handling and transfer of waste, and the requirements of the Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan, Operating Procedures, EC&AMP and Safe Working Procedures. The operating techniques document sets out the process for dealing with non-conforming wastes such as those containing dangerous items (BAT 26b). As far as possible all loads are visually assessed from the weighbridge and may be rejected if the waste is found to be mis-described or non-permitted. If there are other irregularities with the paperwork, the weighbridge operator may also radio a designated site operative and request specific inspection of the load when deposited at the reception / storage area. Further inspection follows before and during the unloading stage. If the site operative is unsatisfied with any particular item(s) or indeed the whole load, its removal off-site by the driver is required or, if the Company considers it to be the best environmental option, the material is quarantined pending further investigation and possible referral to the Environment Agency. Non-conforming wastes will be placed immediately in a designated quarantine area until suitable disposal arrangements can be made. There will be no mixing of non-conforming (quarantined) wastes with authorised wastes. Non-conforming wastes will be stored separately where possible and when legislation requires. Any non-conforming wastes that are defined as hazardous under the Hazardous Waste Directive will be handled and moved off site in line with the requirements of the Directive. Following acceptance and inspection there is further inspection, sorting prior to the installation activity treatment processes, giving the opportunity to remove any unsuitable / dangerous items to prevent emissions due to accidents and incidents. BAT 26c is not applicable to the site as containers are not accepted on site for treatment. **Relevant documents:** • Operating Techniques • EC&AMP • Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan • Long Marston_Site Waste Acceptance Procedure_Oct 2020
Compliant / Not Compliant	Compliant with BAT 26.
Action	No action required.

BAT 27 In order to prevent deflagrations and to reduce emissions when deflagrations occur, BAT is to use technique a. and one or both of the techniques b. and c. given in the BAT conclusions document.	
SIMS Justification / Evidence	BAT 27 is not applicable as there is no conventional metal shredder at the Sims site. The installation treatment processes (shredder and mobile size reduction plant) do not treat wastes that could cause deflagrations. Wastes that could cause deflagrations are not accepted at the site. The operating techniques document sets out the process for dealing with non-conforming wastes such as these. As far as possible all loads are visually assessed from the weighbridge and may be rejected if the waste is found to be mis-described or non-permitted. If there are other irregularities with the paperwork, the weighbridge operator may also radio a designated site operative and request specific inspection of the load when deposited at the reception / storage area. Further inspection follows before and during the unloading stage. If the site operative is unsatisfied with any particular item(s) or indeed the whole load, its removal off-site by the driver is required or, if the Company considers it to be the best environmental option, the material is quarantined pending further investigation and possible referral to the Environment Agency. Non-conforming wastes will be placed immediately in a designated quarantine area until suitable disposal arrangements can be made. There will be no mixing of non-conforming (quarantined) wastes with authorised wastes. Non-conforming wastes will be stored separately where possible and when legislation requires. Any non-conforming wastes that are defined as hazardous under the Hazardous Waste Directive will be handled and moved off site in line with the requirements of the Directive. **Relevant documents:** Operating Techniques Long Marston_Site Waste Acceptance Procedure_Oct 2020
Compliant / Not Compliant	N/A
Action	No action required.

BAT 28 In order to use energy efficiently, BAT is to keep the shredder feed stable.	
SIMS Justification / Evidence	There is no conventional metal shredder on the Sims site. The installation activities undertaken on site (shredding of residues from wastes that have already been mechanically treated / shredded/ granulated etc.) are different to those carried out by a conventional shredder and are less variable in energy demand due to the stable / consistent nature of the process infeed.
Compliant / Not Compliant	Compliant with BAT
Action	No action required.

BAT conclusions for the treatment of WEEE containing VFCs and/or VHCs:

BAT 29 **In order to prevent or, where that is not practicable, to reduce emissions of organic compounds to air, BAT is to apply BAT 14d, BAT 14h and to use techniques specified in the BAT conclusions document.**	
SIMS Justification / Evidence	Not applicable to site operations as there is no treatment of WEEE containing VFCs and/or VHCs. Treatment of WEEE (End of Life Fridges {ELFs}) is carried out at the fridge plant site in Newport.
Compliant / Not Compliant	N/A
Action	No action required.

BAT-associated emission levels (BAT-AELs) for channelled TVOC and CFC emissions to air from the treatment of WEEE containing VFCs and/or VHCs:

BAT 30 **In order to prevent emissions due to explosions when treating WEEE containing VFCs and/or VHCs, BAT is to use either of the techniques given below.** **a) Inert atmosphere** **b) Forced ventilation**	
SIMS Justification / Evidence	Not applicable to site operations as there is no treatment of WEEE containing VFCs and/or VHCs. Treatment of WEEE (End of Life Fridges {ELFs}) is carried out at the fridge plant site in Newport.
Compliant / Not Compliant	N/A
Action	No action required.

BAT conclusions for the mechanical treatment of waste with calorific value:

BAT 31 **In order to reduce emissions to air of organic compounds, BAT is to apply BAT 14d and to use one or a combination of the following techniques: Adsorption, biofilter, thermal oxidation and wet scrubbing.**	
SIMS Justification / Evidence	Not applicable to site operations as there is no mechanical treatment of waste with calorific value.
Compliant / Not Compliant	N/A
Action	No action required.

BAT conclusions for the mechanical treatment of WEEE containing mercury:

BAT 32 **In order to reduce mercury emissions to air, BAT is to collect mercury emissions at source, to send them to abatement and to carry out adequate monitoring.**	
SIMS Justification / Evidence	Not applicable to site operations as the site does not treat WEEE containing mercury. Waste acceptance procedures ensure that no mercury containing waste is received at the site.
Compliant / Not Compliant	N/A
Action	No action required.

2.4 BAT Conclusions for the Biological Treatment of Waste

The biological treatment of waste:

BAT 33 **In order to reduce odour emissions and to improve the overall environmental performance, BAT is to select the waste input.**	
SIMS Justification / Evidence	Not applicable as no biological treatment of the waste is carried out.
Compliant / Not Compliant	N/A
Action	No action required.

BAT 34 **In order to reduce channelled emissions to air of dust, organic compounds and odorous compounds, including H_2S and NH_3, BAT is to use one or a combination of the techniques given in the BAT conclusions document. See Table 6.7 for BAT-associated emission levels (BAT-AELs) for channelled NH3, odour, dust and TVOC emissions to air from the biological treatment of waste.**	
SIMS Justification / Evidence	Not applicable as no biological treatment of the waste is carried out.
Compliant / Not Compliant	N/A
Action	No action required.

BAT 35 **In order to reduce the generation of wastewater and to reduce water usage, BAT is to use all of the techniques given in the BAT conclusions document.**

SIMS Justification / Evidence	Not applicable as no biological treatment of the waste is carried out.
Compliant / Not Compliant	N/A
Action	No action required.

The aerobic treatment of waste:

BAT 36 **In order to reduce emissions to air and to improve the overall environmental performance, BAT is to monitor and/or control the key waste and process parameters.**	
SIMS Justification / Evidence	Not applicable as no aerobic treatment of the waste is carried out.
Compliant / Not Compliant	N/A
Action	No action required.

BAT 37 **In order to reduce diffuse emissions to air of dust, odour and bioaerosols from open-air treatment steps, BAT is to use one or both of the techniques specified in the BAT conclusion document.**	
SIMS Justification / Evidence	Not applicable as no aerobic treatment of the waste is carried out.
Compliant / Not Compliant	N/A
Action	No action required.

The anaerobic treatment of waste:

BAT 38 **In order to reduce emissions to air and to improve the overall environmental performance, BAT is to monitor and/or control the key waste and process parameters.**	
SIMS Justification / Evidence	Not applicable as no anaerobic treatment of the waste is carried out.
Compliant / Not Compliant	N/A
Action	No action required.

The mechanical biological treatment (MBT) of waste:

BAT 39 **In order to reduce emissions to air, BAT is to use both of the techniques given below.**	
SIMS Justification / Evidence	Not applicable as no mechanical biological treatment of the waste is carried out.
Compliant / Not Compliant	N/A
Action	No action required.

2.5 BAT Conclusions for the Physico-Chemical Treatment of Waste

The physico-chemical treatment of solid and/or pasty waste:

BAT 40 **In order to improve the overall environmental performance, BAT is to monitor the waste input as part of the waste pre-acceptance and acceptance procedures (see BAT 2).** **Monitoring the waste input, e.g. in terms of:** **- content of organics, oxidising agents, metals (e.g. mercury), salts, odorous compounds;** **- H_2 formation potential upon mixing of flue-gas treatment residues, e.g. fly ashes, with water.**	
SIMS	
Justification / Evidence	No chemical treatment processes are undertaken at the site. All incoming waste is subject to pre-acceptance and acceptance checks as detailed in BAT 2.
Compliant / Not Compliant	N/A
Action	No action required.

BAT 41 **In order to reduce emissions of dust, organic compounds and NH_3 to air, BAT is to apply BAT 14d and to use one or a combination of the of the following techniques: Adsorption, biofilter, thermal oxidation and wet scrubbing.**	
SIMS	
Justification / Evidence	Not applicable as no physico-chemical treatment of solid and/or pasty waste is carried out.
Compliant / Not Compliant	N/A
Action	No action required.

BAT conclusions for the re-refining of waste oil:

BAT 42 **In order to improve the overall environmental performance, BAT is to monitor the waste input as part of the waste pre-acceptance and acceptance procedures (see BAT 2).**	
SIMS Justification / Evidence	Not applicable to site operations as no re-refining of waste oil carried out.
Compliant / Not Compliant	N/A
Action	No action required.

BAT 43 **In order to reduce the quantity of waste sent for disposal, BAT is to use one or both of the following techniques: Material recovery and/or energy recovery.**	
SIMS Justification / Evidence	Not applicable to site operations as no re-refining of waste oil carried out.
Compliant / Not Compliant	N/A
Action	No action required.

BAT 44 **In order to reduce emissions of organic compounds to air, BAT is to apply BAT 14d and to use one or a combination of the following techniques: Adsorption; thermal oxidation; and wet scrubbing.**	
SIMS Justification / Evidence	Not applicable to site operations as no re-refining of waste oil carried out.
Compliant / Not Compliant	N/A
Action	No action required.

BAT conclusions for the physico-chemical treatment of waste with calorific value:

BAT 45 **In order to reduce emissions of organic compounds to air, BAT is to apply BAT 14d and to use one or a combination of the techniques specified in the BAT conclusion document.**	
SIMS Justification / Evidence	Not applicable to site operations as no physico-chemical treatment of waste with calorific value.
Compliant / Not Compliant	N/A
Action	No action required.

BAT conclusions for the regeneration of spent solvents:

BAT 46 **In order to improve the overall environmental performance of the regeneration of spent solvents, BAT is to use one or both of the following techniques: Material recovery and/or energy recovery.**	
SIMS Justification / Evidence	Not applicable to site operations as no processing of spent solvents.
Compliant / Not Compliant	N/A
Action	No action required.

BAT 47 **In order to reduce emissions of organic compounds to air, BAT is to apply BAT 14d and to use a combination of the techniques specified within the BAT conclusion document.**	
SIMS Justification / Evidence	Not applicable to site operations as no processing of spent solvents.
Compliant / Not Compliant	N/A
Action	No action required.

BAT conclusions for the thermal treatment of spent activated carbon, waste catalysts and excavated contaminated soil:

BAT 48 **In order to improve the overall environmental performance of the thermal treatment of spent activated carbon, waste catalysts and excavated contaminated soil, BAT is to use all of the techniques specified within the BAT conclusion document.**	
SIMS Justification / Evidence	Not applicable to site operations as no thermal treatment of spent activated carbon, waste catalysts and/or excavated contaminated soil.
Compliant / Not Compliant	N/A
Action	No action required.

BAT 49 In order to reduce emissions of HCl, HF, dust and organic compounds to air, BAT is to apply BAT 14d and to use one or a combination of the techniques specified within the BAT conclusion document.	
SIMS Justification / Evidence	Not applicable to site operations as no thermal treatment of spent activated carbon, waste catalysts and/or excavated contaminated soil.
Compliant / Not Compliant	N/A
Action	No action required.

BAT conclusions for the water washing of excavated contaminated soil:

BAT 50 In order to reduce emissions of dust and organic compounds to air from the storage, handling, and washing steps, BAT is to apply BAT 14d and to use one or a combination of the following techniques: Adsorption; fabric filter; and wet scrubbing.	
SIMS Justification / Evidence	Not applicable as no water washing of excavated contaminated soil.
Compliant / Not Compliant	N/A
Action	No action required.

BAT conclusions for the decontamination of equipment containing PCBs:

BAT 51 In order to improve the overall environmental performance and to reduce channelled emissions of PCBs and organic compounds to air, BAT is to use all of the techniques specified in the BAT conclusion document.	
SIMS Justification / Evidence	Not applicable to site operations as no decontamination of equipment containing PCBs.
Compliant / Not Compliant	N/A
Action	No action required.

2.6 BAT Conclusions for the Treatment of Water-based Liquid Waste

Overall environmental performance:

BAT 52

In order to improve the overall environmental performance, BAT is to monitor the waste input as part of the waste pre-acceptance and acceptance procedures (see BAT 2).	
SIMS Justification / Evidence	Not applicable to site operations as no treatment of water-based liquid waste.
Compliant / Not Compliant	N/A
Action	No action required.

Emissions:

BAT 53 In order to reduce emissions of HCl, NH3 and organic compounds to air, BAT is to apply BAT 14d and to use one or a combination of the of the following techniques: Adsorption, biofilter, thermal oxidation and wet scrubbing.	
SIMS Justification / Evidence	Not applicable to site operations as no treatment of water-based liquid waste.
Compliant / Not Compliant	N/A
Action	No action required.

3 CONCLUSIONS

3.1.1 The table below shows the outcomes of the BAT conclusions assessment:

Table 4-1 BAT Conclusions Assessment Outcomes

BAT Conclusion	Compliance Status
BAT 1: EMS/IMS	Not Currently Compliant
BAT 2: Environmental Performance	Compliant
BAT 3: Reduction of Emissions	Compliant
BAT 4: Storage of Waste Risk Reduction	Compliant
BAT 5: Handling & Transfer of Waste Risk Reduction	Compliant
BAT 6: Inventory of Wastewater Streams	Not Currently Compliant
BAT 7: Monitoring Emissions to Water	Not Currently Compliant
BAT 8: Monitoring Channelled Emissions to Air	Not Applicable
BAT 9: Monitoring Diffuse Emissions to Air	Not Applicable
BAT 10: Monitoring Odour Emissions	Not Applicable
BAT 11: Monitor Annual Consumption of Water, Energy and Raw Materials	Compliant
BAT 12: Reduce odour emissions	Compliant
BAT 13: Reduce odour emissions	Compliant
BAT 14: Reduce diffuse emissions to air	Compliant
BAT 15: Appropriate use of flaring	Not Applicable
BAT 16: Reduce emissions from flares	Not Applicable
BAT 17: Implement and Review a Noise and Vibration Management Plan	Compliant
BAT 18: Reduce Noise and Vibration Emissions	Compliant
BAT 19: Optimise and Reduce Wastewater	Compliant
BAT 20: Treatment of Wastewater	Compliant
BAT 21: Prevent or Limit Environmental Consequences of Accidents and Incidents	Compliant
BAT 22: Material Efficiency	Compliant
BAT 23: Energy Efficiency	Not Currently Compliant
BAT 24: Reuse Packaging	Compliant
BAT 25: Reduce emissions of mechanical treatment of waste	Compliant
BAT 26: Overall Environmental Performance	Compliant
BAT 27: Prevent Deflagrations and Reduce Emissions	Not Applicable
BAT 28: Keep Shredder Feed Stable	Compliant
BAT 29: Reduce organic compounds to air.	Not Applicable
BAT 30: Prevent emissions when treating WEEE	Not Applicable

BAT Conclusion	Compliance Status
BAT 31: Reduce emissions when treating waste with calorific value	Not Applicable
BAT 32: Reduce emissions of mercury when treating WEEE	Not Applicable
BAT 33: Select Waste Input	Not Applicable
BAT 34: Reduce Channelled Emissions	Not Applicable
BAT 35: Reduce Wastewater and Water Usage	Not Applicable
BAT 36: Reduce emissions to air from aerobic treatment of waste	Not Applicable
BAT 37: Reduce emissions to air of dust, odour and bioaerosols from aerobic treatment of waste	Not Applicable
BAT 38: Reduce emissions to air from anaerobic treatment of waste	Not Applicable
BAT 39: Reduce emissions to air from the biological treatment of waste	Not Applicable
BAT 40: Acceptance procedures for the physico-chemical treatment of solid waste	Not Applicable
BAT 41: Reduce emissions for the physico-chemical treatment of solid waste	Not Applicable
BAT 42: Acceptance procedures for the re-refining of waste oil	Not Applicable
BAT 43: Reduce waste oil disposal	Not Applicable
BAT 44: Reduce emissions of waste oil emissions to air	Not Applicable
BAT 45: Reduce emissions to air from the physio-chemical treatment of waste with calorific value.	Not Applicable
BAT 46: Improve environmental performance of spent solvents	Not Applicable
BAT 47: Reduce emissions of organic compounds to air from spent solvents	Not Applicable
BAT 48: Improve the overall environmental performance of the thermal treatment of spent activated carbon, waste catalysts and excavated contaminated soil	Not Applicable
BAT 49: Reduce emissions of the thermal treatment of spent activated carbon, waste catalysts and excavated contaminated soil	Not Applicable
BAT 50: Reduce the emission of dust and organic compounds to air from the washing of excavated contaminated soil	Not Applicable
BAT 51: Improve performance and reduce emissions of PCBs	Not Applicable
BAT 52: Monitor Waste Input	Not Applicable
BAT 53: Reduce emissions of HCL, NH_3 and organic compounds to air.	Not Applicable

3.1.2 Based on a review of the available information it has been assessed the site/operator is compliant with most of the requirements of the above applicable BAT conclusions.

3.1.3 The following BAT conclusions have not yet been met and the site has until 17/08/2022 to implement improvements to become fully compliant. The outstanding non-compliant BAT conclusions and updates/measures to put in place to be compliant are outlined below:

- **BAT 1 EMS/IMS**: Update EMS to include sectoral benchmarking and following the development of cleaner technologies;
- **BAT 6 Monitoring**: Agree scope with EA and implement monitoring programme for emission to water;
- **BAT 7 Monitoring**: Agree scope with EA and implement monitoring programme for emission to water; and

- **BAT 23 Energy Efficiency**: Produce an energy efficiency plan and energy balance record. Update EMS once the above document has been produced.

3.1.4 There are no BAT conclusions that the operator requires derogation from at this point in time.

GLOSSARY

AMP	Accident Management Plan
BAT	Best Available Techniques
BOD	Biochemical Oxygen Demand
DAF	Dissolved Air Flotation
DMP	Dust Management Plan
EA	Environment Agency
EMS	Environmental Management System
ERA	Environmental Risk Assessment
IMS	Integrated Management System
NMP	Noise Management Plan
OMP	Odour Management Plan
PCT	Physico-Chemical Treatment
SSOW	Safe System of Work

REFERENCES

1. Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control) https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32010L0075&from=EN
2. Environmental Permitting (England and Wales) Regulations 2016 http://www.legislation.gov.uk/uksi/2016/1154/pdfs/uksi_20161154_en.pdf
3. Best Available Techniques (BAT) Reference Document for Waste Treatment, JCR Science for Policy Report, 2018 https://eippcb.jrc.ec.europa.eu/reference/BREF/WT/JRC113018_WT_Bref.pdf
4. Waste Treatment BAT Conclusions https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018D1147&from=EN