SIMS SMETHWICK BAT ASSESSMENT

EPR/ZP3691ET – Sims Group UK Limited

JER9144
Sims Smethwick BAT
Assessment
2
1
24 March 2023

rpsgroup.com

Quality Management

Version	Revision	Authored by	Reviewed by	Approved by	Date
1	0	Joanna Bruce	n/a	n/a	10 March 2023
1	1	Joanna Bruce	Jennifer Stringer	n/a	21 March 2023
2	0	Joanna Bruce	Clare Haste	n/a	23 March 2023
2	1	Joanna Bruce	Jennifer Stringer	Jennifer Stringer	24 March 2023

Approval for issue

Jennifer Stringer	Technical Director		24 March 2023

File Name

230323 R JER9144 JB Sims Smethwick BAT Assessment V2 R1

Prepared by:

RPS

Joanna Bruce

Graduate Environmental Consultant

6-7 Lovers Walk
Brighton, East Sussex BN1 6AH

T +44 1273 546 800

E joanna.bruce@rpsgroup.com

Prepared for:

Sims Group UK Limited

Contents

Tables

1 INTRODUCTION

1.1.1 Sims Group UK Limited (Sims) is applying to vary their environmental permit (EPR/ZP3691ET) due to a change in classification of certain WEEE waste from non - hazardous to hazardous. The permitted facility is a metals recycling site at Rabone Lane, Smethwick, B66 2LF. This document provides a review of the additional installation activities against relevant Best Available Techniques (BAT) as set out in the revised Waste Treatment BREF[1] and associated implementing decision[2].

1.1.2 Details of the nature of the proposed changes including details of the wastes being reclassified have been set out in the permit application. The new activities to be included via the variation are:

- Section 5.3, Part A (1) (a) disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving one or more of the following activities:

  (ii) physico-chemical treatment

- Section 5.3, Part A(1) (a) temporary storage of hazardous waste with a total capacity exceeding 50 tonnes can trigger a Section 5.6 activity where it is subsequently landfilled, incinerated/co-incinerated or disposed or recovered by any of the following activities:

  (i) biological treatment;

  (ii) physico-chemical treatment;

  (iii) blending or mixing prior to submission to any of the other activities listed in this section of section 5.1;

  (iv) repackaging prior to submissions to any of the other activities in this section or in section 5.1;

  (v) solvent reclamation or regeneration;

  (vi) recycling or reclamation of inorganic materials other than metals or metal compounds;

  (vii) regeneration of acids or basis;

  (viii) recovery of components used for pollution abatement;

  (ix) recovery of components from catalysts;

  (x) oil refining or other re-uses of oil;

  (xi) surface impoundment.

1.1.3 This report compares the installation activities against the relevant BAT requirements that relate to the variation. It does not seek to provide a wider review for the existing activities as this has already been separately addressed via the response to the Environment Agencies Regulation 61 Notice.

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

1.1.5 Section 3 summarises 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;
- The submitted permit application;
- Operational techniques;
- Environmental management system, including operating procedures, management plans and facility description;
- Regulation 61 response;
- 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.

General BAT conclusions:

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 operates under an existing environmental management system (EMS). The EMS is maintained and continually improved as necessary.

The EMS includes standard operating procedures and safe working practices that minimise the environmental risks and impacts of the normal operations and include contingency plans to minimise the effect of breakdown, accidents etc. These include procedures relating to waste acceptance and environmental monitoring.

The EMS contains the following sections/procedures:

- EMS Summary
- Environment, Health & Safety (EHS) policy
- Operating Techniques
- Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan
- Complaints Log and Investigation Procedure
- Environment Audit Procedure
- Emergency Contingency & Accident Management Plan (EC&AMP)
- Fire Prevention Plan (FPP)
- Safe Working Procedure
- Maintenance and Training Records
- Site Closure 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.	EHS 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) covered by EMS Summary
(a) structure and responsibility;	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 reco are kept by site management
(b) recruitment, training, awareness and competence;	
(c) communication;	c) Operating Techniques, training and maintenance records
(d) employee involvement;	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) documentation;	
(f) effective process control;	
(g) maintenance programmes;	e) EMS Summary, Training and Maintenance Records, Environment Aud

(h) emergency preparedness and response; (i) safeguarding compliance with environmental legislation.	Procedure f) Operating Techniques and Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan g) maintenance records h) EC&AMP, Fire Prevention Plan (FPP) i) Environment Audit Procedure
V. checking performance and taking corrective action, paying particular attention to: (a) monitoring and measurement (see also the JRC Reference Report on Monitoring of emissions to air and water from IED installations – 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.	a) Operating Techniques, Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan, CARs, returns. b) Operating Techniques, Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan, CARs c) Maintenance Records d) Environment 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.	Operating Techniques
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.	Operating Techniques
X. waste stream management.	See BAT 2 of this document.
XI. an inventory of waste water 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 residues 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
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
Compliant / Not Compliant	Compliant
Action	No action required.
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. As set out in the permit variation application letter these procedures will be applied to the reclassified waste and are considered appropriate. The 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 Environment Audit Procedure. These documents describe the processes and procedures that have been designed and implemented to ensure that all waste materials accepted and produced by Sims meet the necessary relevant criteria and all other legal requirements to which they subscribe (BAT 2 technique d). As set out in the permit variation letter waste reclassified as hazardous will be stored separately to non-hazardous wastes. Separate waste storage areas (BAT 2 e) are shown on Sims Smethwick Rabone Lane Site Layout Plan. 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). As described in the permit variation letter treatment of waste is in batches and hazardous waste treatment batches will be undertaken separately to non-hazardous waste treatment. Relevant documents: • Operating Techniques, Section 2.9 and 2.10 • Waste Acceptance Procedure • Operating Techniques, Section 2.2 - Operations

	• Sims Smethwick, Rabone Lane Site Layout Plan • Environment Audit Procedure • Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan
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 nature of the variation is not changing the composition or volumes of the discharge to water or the discharge to air. The metals recycling facility includes two point source emissions to air; one emission point is associated with air from the waste metal shredder cleaning system, and a second point source emission to air from air cleaning system. No new emission points will be introduced as a result of the variation. Emissions from the shredding of hazardous waste will discharge via the current emission point associated with the shredder unit. There is a single discharge of rainfall dependant surface water run off which drains via the site drainage system linked to an interceptor prior to discharge to foul sewer on Foundry Lane. As this discharge is rainfall dependant it is not practicable to maintain a detailed inventory in order to facilitate the reduction of this emission. Wastewater is not generated by any waste treatment activities at the site. Small quantities of water are used as required for dust suppression. **Relevant documents:** • Operating Techniques
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	The reclassified wastes will be stored in line with the requirements of the relevant Regulations and Directives and as per the site's Environment Management Systems. Dedicated areas for storage of hazardous waste have been identified and these are shown on the Sims Smethwick Rabone Lane Site Layout Plan. The selected locations have been sized to ensure sufficient capacity is provided to store both incoming and processed hazardous materials.

	To ensure that waste storage arrangements are being adhered to, the new storage areas will be subject to the same checks of the stockpiles that are conducted for the existing waste stored at the site. If issues are identified, then records would be 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) for the hazardous wastes. Hazardous packaged wastes are not handled at the site. **Relevant IMS documents:** • Operating Techniques • Sims Smethwick Rabone Lane Site Layout 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. As set out in the permit variation application letter these procedures will be applied to the reclassified waste and are considered appropriate. The Operating Techniques document outlines that the handling and transfer of waste is carried out by competent staff. Section 4 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) – 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. Further training of staff in the management of the hazardous wastes has been carried out. 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. Details of the competent person for hazardous waste management at the site have been provided in support of the permit application. This person will be responsible for ensuring hazardous wastes are effectively managed by site personnel and procedures to control environmental risks are followed. 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
Compliant / Not Compliant	Compliant with BAT 5.
Action	No action required.
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	The nature of the variation will not change the emissions to water. The only releases to water are associated with site run-off and this has previously been monitored, assessed and reported to the Environment Agency. The releases do not pass directly to surface water but discharge to sewer via an interceptor, under a Trade Effluent Consent (TEC). At the time of the previous monitoring and assessment the wastes to be reclassified were permitted to be handled and stored at the site, albeit at that time under a non-hazardous EWC code. Given the discharge is to sewer the monitoring of flow, pH, temperature and BOD is not as relevant as a direct discharge to surface waters. The discharge is not at elevated temperature and parameters such as BOD would be subject to offsite treatment at the Wastewater Treatment Works.

	Given the diffuse source of the discharge (comprising site run-off) monitoring of emissions as currently undertaken and as required by the TEC is considered appropriate for the discharges to sewer. Given the variation will not affect this discharge it is proposed to continue with the current monitoring and any modifications to the monitoring will be handled via the Regulation 61 response.
Compliant / Not Compliant	N/A
Action	No action required.
BAT 7	**BAT is to monitor emissions to water with at least the frequency given in BAT 7, 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	BAT 7 specifies monthly monitoring of heavy metals including arsenic, cadmium, chromium, copper, nickel, lead, mercury, zinc, total organic carbon (TOC), chemical oxygen demand (COD), total suspended solids (TSS) and hydrocarbon oil index (HOI) for activities including the mechanical treatment in shredders of metal waste. The facility currently monitors for these heavy metals quarterly. Given the variation will not affect these discharges it is proposed to continue with the current monitoring and any modifications to the monitoring will be handled via the Regulation 61 response.
Compliant / Not Compliant	N/A
Action	No action required.
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 variation is to include the operation of a hazardous WEEE activity, which is processing batches of hazardous WEEE within the shredder and has an associated emission point to air. This shredder is an existing plant, and the emission point is an existing emission point. The variation will not affect this discharge, there is an agreed sampling protocol in place. It is proposed to continue with the current monitoring, which includes monitoring of particulates to demonstrate compliance with the BAT AEL for particulates, and any modifications to the monitoring will be handled via the Regulation 61 response.
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 variation will not change the risk of odour from the site, which is low. 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:** • Operating Techniques • 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 waste water, with a frequency of at least once per year.**
Sims justification/evidence	Water, energy and raw material consumption at the waste metal recycling facility is monitored via utility bills and reported annually to EA using Environment Performance Reporting forms. This will not change as a result of the proposed variation. Sims has a team to monitor and review the site energy / water consumption.

	Waste returns are submitted to the EA for all wastes received and dispatched. Hydraulic oil is the only raw material used directly in the installation this will not change as a result of this variation. Monitoring of raw water and energy use on site is carried out via supplier invoices and records of these are maintained. Use of hydraulic oils is monitored via purchase invoices. Sims monitor water consumption annually. A full description of the process techniques can be found in the Operating Techniques document. **Relevant documents:** • Operating Techniques
Compliant / Not Compliant	Compliant with BAT 11.
Action	No action required.
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. Odour risk will not change as a result of this variation to accept the reclassified wastes. These wastes have historically been accepted at the site (prior to being reclassified) and no odour issues have arisen. Odour management measures are detailed in the Operating Techniques, as set out in response to BAT 10. Should odour complaints be received they would be investigated in accordance with the complaint's procedures. Complaints will be monitored and reviewed. See BAT 10 for details of the odour management measures in place at the Sims plant, as set out in the Operating Techniques. **Relevant documents:** • Operating Techniques
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	As previously stated, odour risk will not change as a result of this variation. The nature of the waste accepted at the site presents a low risk of odour nuisance and there have been no complaints to date and wastes accepted at the metals recycling facility have included the reclassified wastes (albeit prior to the reclassification). Odour management measures are detailed

	in the Operating Techniques, as set out in response to BAT 10. 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. See BAT 10 for details of the odour management measures in place at the Sims plant, as set out in the Operating Techniques. **Relevant documents:** • Operating Techniques
Compliant / Not Compliant	Compliant – 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 variation is to include the operation of a hazardous WEEE activity, which is processing batches of hazardous WEEE within the shredder and has an associated emission point to air. This emission point is an existing emission point. The Operating Techniques document set out the measures in place to reduce diffuse emissions to air. These measures remain appropriate to the control of emissions from the reclassified wastes. Sims have a series of dust mitigation measures implemented on site to ensure dust emissions are controlled as far as is practically possible. These measures will be applied to the reclassified wastes and include: • The site operates in accordance with the dust management measures specified in the Operating Techniques document. • The waste materials handled will under normal circumstances be of macro solid form. The reclassified wastes are not inherently dusty and the potential for dust generation is therefore low. (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 (Bat 14f) • 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. The shredder plant has a cyclone system consisting of dust suppression and a series of wet 'scrubbers. Additionally, a separate dousing system can be operated in an emergency which floods the shredder exit belt with water.

- Drop heights are minimised - the distance between the grab and the stockpile “the drop” 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).
- The wastes and processed outputs 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 on plant and equipment 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. A hose or IBC/bowsers of water is available to suppress dust on site surfacing and roadways. The mechanical sweeper attachment is used at least daily and recorded in the Site Diary. During dry weather spells it is likely that the frequency of use of both dampening equipment and the sweeper will increase. Visual monitoring by the site manager or appointed representative in their absence is undertaken throughout the day to determine the frequency such equipment should be utilised. (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.
- 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.
- All plant and machinery associated with the site operations and used for the prevention of fugitive emissions will be subject to a preventative maintenance programme where they will be inspected and cleaned on a regular basis (BAT 14f, 14g).

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. However, these relate predominantly to the storage of petroleum which is not specifically relevant to this variation. These include:

- Insignificant source of fugitive emissions of VOC. Storage / treatment of petroleum products and petroleum combustion processes on are not carried out on the site. Vehicles/plant used on site are diesel (BAT 14a).
- The integrity of diesel tanks and function of gauges are checked regularly.
- Spillages of petroleum products is therefore will be 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.

	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 and these existing procedures will be applied to the reclassified wastes. 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). • 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, this will not change as a result of the variation to include the reclassified waste codes.
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, this will not change as a result of the variation to include the reclassified waste codes.
Compliant / Not Compliant	N/A
Action	No further action
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 vibration exposure, to characterise the contributions of the sources and to implement prevention and/or reduction measures.**
Sims justification/evidence	Given there are no new plant or machinery introduced as a result of this variation and no increase in the amounts of waste accepted at the site, noise and vibrations emissions risk will not change as a result of this variation. The measures taken to control noise levels at the facility and to minimise the effect of any such noise outside the site are outlined in the Operating Techniques and will be applied to site activities related to the reclassified wastes. The Environment Risk Assessment and Operating Techniques 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 and operating techniques – sets out measures taken at the site to minimise any potential noise and vibration emissions (BAT 17a). • Complaints Log and Investigation Procedure – 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). The installation activities currently undertaken by Sims are not considered to represent a significant risk of noise or vibration and there have been no noise complaints to date and the site has not been required to submit a noise and vibration management plan. As no significant change to noise from the site is expected these measures should remain appropriate. Should noise issues become apparent and ongoing; a specific noise management plan would be produced for the site that includes the protocols outlined in BAT 17.
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	Noise and vibration emissions risk will not change as a result of this variation. The measures taken to control noise levels at the facility and to minimise the effect of any such noise outside the site are outlined in the Operating Techniques and Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan. The installation activities currently undertaken by Sims at the site are not considered to represent a significant risk of noise or vibration. However, the Operating Techniques and 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. The shredder is located central to the site. (Bat 18a). • 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. There are no noisy activities undertaken at night as the site operates between 07:00hrs to 17:00hrs Monday to Friday and 07:00hrs to 12:00hrs Saturday (BAT 18b). • Drop heights (for deliveries and products) will be kept to the practical minimum in line with company best practice plus sympathetic handling of material will reduce potential for noise emissions (BAT 18b). 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. These measures demonstrate the use of appropriate location of equipment and buildings (BAT 18 technique a) and operational measures (BAT 18 technique b). Relevant documents: • Operating Techniques • Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan • Complaints Log and investigation Procedure
Compliant / Not Compliant	Compliant with BAT 18.
Action	No action required.
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	Water consumption will not change as a result of this variation. The operating techniques includes an objective to have in place a water management plan. Manual sweeping is used to minimise build-up of dust and debris, using dry cleaning techniques is consistent with BAT 19 (a).

	The shredder plant water injection in form of spray suppression on top of the mill. The rate of internal water suppression can be tailored by waste type / conditions and is monitored and is adjustable so there is no process water / waste water generated by this process. Use of water for dust suppression is managed and monitored. There is no waste water run off generated from this management practice. Optimising the management of water is in line with BAT 19(a). Water usage is monitored annually. All operational areas within the site are covered with impermeable concrete (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 waste water using an appropriate combination of the techniques given in the BAT conclusions document.**
Sims justification/evidence	BAT 20 specifies monthly monitoring of heavy metals including arsenic, cadmium, chromium, copper, nickel, mercury, lead, zinc, total organic carbon (TOC), chemical oxygen demand (COD), total suspended solids (TSS) and hydrocarbon oil index (HOI) for activities including the mechanical treatment in shredders of metal waste. The facility currently monitors for these heavy metals quarterly. Given the variation will not affect these discharges it is proposed to continue with the current monitoring and any modifications to the monitoring will be handled via the Regulation 61 response. There is no wastewater generated from site installation processes and therefore techniques to reduce emissions are not relevant. The site has a rainfall dependent discharge to surface water, which passes through an interceptor prior to discharge (BAT 20c). Monitoring of the discharge has been undertaken and a screening assessment completed which concluded that the releases screened as insignificant. 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	N/A

Action	No action required.
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 Company's 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 • Flooding • Escape from containment • Emergency procedures for liquid spillages or leaks including drill requirements 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 is inspected and maintained in accordance with legal requirements and the manufacturer's 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). **Relevant documents:** • Emergency Contingency and Accident Management Plan
Compliant / Not Compliant	Compliant with BAT 21.
Action	No action required.
BAT 22	**In order to use materials efficiently, BAT is to substitute materials with waste.**

Sims justification/evidence	Whilst the reclassification of wastes received at the site will change the EWC code and mean they're hazardous, the wastes will still be the same wastes that have always been accepted at the site. There are no new raw materials required. Hydraulic oil will remain the only raw material used directly in the installation. At present, it is not considered possible to substitute the raw materials used by the process with waste.
Compliant / Not Compliant	Compliant with BAT 22.
Action	No action required.
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	The reclassification of waste will not change energy requirements or impact on energy efficiency. The site has a team to monitor and review the site energy consumption.
Compliant / Not Compliant	N/A
Action	No action required.
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 reclassified wastes will not be delivered in packaging, the waste will be delivered in bulk trucks.
Compliant / Not Compliant	N/A
Action	No action required.

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	The reclassified wastes will be treated by existing plant, so this will not change as a result of the variation. The shredder plant has a cyclone system consisting of dust suppression (Bat 25a). After passing through the cyclone on the shredder all other small / light dusts are passed to the wet scrubber system, by adding water it drops the dust in to the wet scrubber and reduce the dust emissions from the stack (Bat 25c). The shredder system has water injection in form of spray suppression on top of the mill (Bat 25d). These systems will be applied to dusts from the shredding of the reclassified wastes. The permit includes point source emissions limits of 20 mg/m^3 for total suspended particulates which is monitored quarterly. However, the BAT AEL for channelled dust emissions where fabric filters are not applicable, which is the case for this site is 10 mg/Nm^3. Historically the emission

	levels have been capable of meeting 10 mg/m^{3}.Some recent results have been above the BAT AEL, but significant repairs to the system have been made and further repairs are required to ensure results will be compliant going forward.
Compliant / Not Compliant	Compliant with BAT.
Action	No action required.

BAT conclusions for 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 odour emissions and alleviate any waste leaving the site. • Manual sweeping is employed on plant and equipment 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. • Site employees will undertake regular inspections and undertake remedial action if odour is identified as a problem. 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 (BAT 26a). The operating techniques details the in-process controls for pre-acceptance procedures to assess wastes, waste acceptance procedures and the installation treatment processes. As set out in the permit variation application letter these procedures will be applied to the reclassified waste and are considered appropriate. 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. As set out in the permit variation letter waste reclassified as hazardous will be stored separately to non-hazardous wastes. 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 as the variation does not include containers for treatment. **Relevant documents:** • Operating Techniques • EC&AMP • Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan
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	Not applicable to the variation to include the reclassified waste codes, as these will not result in deflagrations.
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	Not applicable as the reclassified waste codes included in this variation will not result in an unstable feed.
Compliant / Not Compliant	N/A
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, this will not change as a result of the variation to include the reclassified waste codes.
Compliant / Not Compliant	N/A
Action	No action required.

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, this will not change as a result of the variation to include the reclassified waste codes.
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, this will not change as a result of the variation to include the reclassified waste codes.
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, this will not change as a result of the variation to include the reclassified waste codes.
Compliant / Not Compliant	N/A
Action	No action required.

BAT conclusions for 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	Not applicable as no biological treatment of the waste is carried out, this will not change as a result of the variation to include the reclassified waste codes.

justification/evidence	
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, this will not change as a result of the variation to include the reclassified waste codes.
Compliant / Not Compliant	N/A
Action	No action required.
BAT 35	**In order to reduce the generation of waste water 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, this will not change as a result of the variation to include the reclassified waste codes.
Compliant / Not Compliant	N/A
Action	No action required.
BAT conclusions for 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, this will not change as a result of the variation to include the reclassified waste codes.
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	Not applicable as no aerobic treatment of the waste is carried out, this will not change as a result of the variation to include the reclassified waste codes.

justification/evidence	
Compliant / Not Compliant	N/A
Action	No action required.

BAT conclusions for 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, this will not change as a result of the variation to include the reclassified waste codes.
Compliant / Not Compliant	N/A
Action	No action required.

BAT conclusions for 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, this will not change as a result of the variation to include the reclassified waste codes.
Compliant / Not Compliant	N/A
Action	No action required.

BAT conclusions for 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	Not applicable as no physico-chemical treatment of solid and/or pasty waste is carried out, this will not change as a result of the variation to include the reclassified waste codes.
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, this will not change as a result of the variation to include the reclassified waste codes.
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, this will not change as a result of the variation to include the reclassified waste codes.
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, this will not change as a result of the variation to include the reclassified waste codes.
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, this will not change as a result of the variation to include the reclassified waste codes.
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, this will not change as a result of the variation to include the reclassified waste codes.
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, this will not change as a result of the variation to include the reclassified waste codes.
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, this will not change as a result of the variation to include the reclassified waste codes.
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, this will not change as a result of the variation to include the reclassified waste codes.
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, this will not change as a result of the variation to include the reclassified waste codes.
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, this will not change as a result of the variation to include the reclassified waste codes.
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, this will not change as a result of the variation to include the reclassified waste codes.
Compliant / Not Compliant	N/A
Action	No action required.
BAT Conclusions for the treatment of water-based liquid waste:	

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, this will not change as a result of the variation to include the reclassified waste codes.
Compliant / Not Compliant	N/A
Action	No action required.
BAT 53	**In order to reduce emissions of HCl, NH_3 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, this will not change as a result of the variation to include the reclassified waste codes.
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 3-1 BAT Conclusions Assessment Outcomes

BAT Conclusion	Compliance Status
BAT 1: EMS/IMS	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 Waste Water Streams	N/A
BAT 7: Monitoring of Emissions to Water	N/A
BAT 8: Monitoring Channelled Emissions to Air	N/A
BAT 9: Monitoring Diffuse Emissions to Air	N/A
BAT 10: Monitoring Odour Emissions	N/A
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	N/A
BAT 16: Reduce Emissions from Flares	N/A
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 Waste Water	Compliant
BAT 20: Treatment of Waste Water	N/A
BAT 21: Prevent or Limit Environmental Consequences of Accidents and Incidents	Compliant
BAT 22: Material Efficiency	Compliant
BAT 23: Energy Efficiency	N/A
BAT 24: Reuse Packaging	N/A
BAT 25: Reduce Emissions of Mechanical Treatment of Waste	Compliant
BAT 26: Overall Environmental Performance	Compliant
BAT 27: Prevent Deflagrations and Reduce Emissions	N/A
BAT 28: Keep Shredder Feed Stable	N/A
BAT 29: Reduce Organic Compounds to Air	N/A

BAT Conclusion	Compliance Status
BAT 30: Prevent Emissions when Treating WEEE	N/A
BAT 31: Reduce Emissions when Treating Waste with Calorific Value	N/A
BAT 32: Reduce Emissions of Mercury when Treating WEEE	N/A
BAT 33: Select Waste Input	N/A
BAT 34: Reduce Channelled Emissions	N/A
BAT 35: Reduce Waste Water and Water Usage	N/A
BAT 36: Reduce Emissions to Air from Aerobic Treatment of Waste	N/A
BAT 37: Reduce Emissions to Air of Dust, Odour and Bioaerosols from Aerobic Treatment of Waste	N/A
BAT 38: Reduce Emissions to Air from Anaerobic Treatment of Waste	N/A
BAT 39: Reduce Emissions to Air from the Biological Treatment of Waste	N/A
BAT 40: Acceptance Procedures for the Physico-Chemical Treatment of Solid/Pasty Waste	N/A
BAT 41: Reduce Emissions for the Physico-Chemical Treatment of Solid/Pasty Waste	N/A
BAT 42: Acceptance Procedures for the Re-refining of Waste Oil	N/A
BAT 43: Reduce Waste Oil Disposal	N/A
BAT 44: Reduce Emissions of Waste Oil Emissions to Air	N/A
BAT 45: Reduce Emissions to Air from the Physico-Chemical Treatment of Waste with Calorific Value	N/A
BAT 46: Improve Environmental Performance of Spent Solvents	N/A
BAT 47: Reduce Emissions of Organic Compounds to Air of Spent Solvents	N/A
BAT 48: Improve the Overall Environmental Performance of the Thermal Treatment of Spent Activated Carbon, Waste Catalysts and Excavated Contaminated Soil	N/A
BAT 49: Reduce Emissions of the Thermal Treatment of Spent Activated Carbon, Waste Catalysts and Excavated Contaminated Soil	N/A
BAT 50: Reduce the Emissions of Dust and Organic Compounds to Air from the Washing of Excavated Contaminated Soil	N/A
BAT 51: Improve Performance and Reduce Emissions of PCBs	N/A
BAT 52: Monitor Waste Input	N/A
BAT 53: Reduce Emissions of HCl, NH_3 and Organic Compounds to Air	N/A

3.1.2 Based on a review of all the available information, it has been assessed the site/operator is compliant with the requirements of the above BAT conclusions applicable as a result of the variation to include the reclassified waste codes.

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