OPERATING TECHNIQUES

For

SIMS METAL MANAGEMENT

Metal Recycling Facility

At

Royal Edward Dock
St Andrews Road
Avonmouth

EPR/PP3099FM (EAWML 27202)

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Permit Holder:

Sims Group UK Limited
Long Marston
Stratford-upon-Avon
Warwickshire
CV37 8AQ

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1. GENERAL INTRODUCTION

1.1. This Metal Recycling facility is operated by Sims Group UK Limited. It forms a major strategic component of a network of recycling facilities operated by the company throughout England and Wales.

1.2. The site receives processes and recovers ferrous and non ferrous metals from scrap and acts primarily as a source of ferrous feedstock for the steel manufacturing industry in the UK and abroad.

1.3. A Fragmentiser is installed at the facility that produces fragmentised steel and a number of other products. In addition, ferrous metals are treated by sorting, grading, hot, and cold cutting. Storage of fragmentised scrap and other ferrous grades at Q Berth.

1.4. The yard and dock site is leased from First Corporate Shipping LTD T/A The Bristol Port Co. and comprises of an area of approximately 8.6 acres. Access onto dock property is via port police controlled port security gates. Visitors may only gain access if escorted or with specific permission.

1.5. The site will undertake a range of waste management activities including;

- Storage and treatment of ferrous and non ferrous metals;
- Storage and treatment of general mixed scrap metal;
- Storage and treatment of Waste Electrical and Electronic Equipment (WEEE);
- Storage and treatment of depolluted ELVs;
- Storage of polluted ELV (not currently undertaken);
- Storage of tyres (not currently undertaken)
- Storage of hazardous wastes (not currently undertaken)
- Storage and treatment of wastes consisting solely or mainly of dusts, powders or loose fibres e.g. 12 01 02 and 12 01 04 (not currently undertaken)

1.6 Relevant Regulations, Technical Guidance Notes and other documentation

In accordance with the new Environmental Permitting (England and Wales) Regulations, operators are required to confirm whether their proposed operation will take place in line with standards set by any relevant Environment Agency Sector Guidance Note and legislation. Where the proposed operations will deviate from the relevant Guidance Note or where there is no guidance for the operation, the permit supporting information must include:

1. Description of the operation that will take place at the site
2. Justification of the measures that will be used to control emissions from the processes.

There is no specific Sector or Technical Guidance Note for all the operations at Avonmouth. However, a number of documents are relevant to the operations and Sims operates in accordance with these:

- Guidance on the Best Available Treatment Recovery and Recycling Techniques (BATRRT) and treatment of Waste Electrical and Electronic Equipment Directive, DEFRA
- Environmental Permitting Guidance Waste Electrical and Electronic Equipment Directive, DEFRA
- Environmental Permitting Guidance, the Waste Framework Directive, DEFRA

- Sector Guidance Note EPR5.06: Guidance on the recovery and Disposal of Hazardous and Non-hazardous Waste, Environment Agency

Relevant legislation covering the activities on site is as follows:

- Waste Framework Directive
- WEEE Directive
- Hazardous Waste Directive
- ELV Directive

The facility is a 'Newly Prescribed Activity' that was in operation on 7th January 2013. The facility undertakes the recovery of non hazardous waste with a capacity exceeding 75 tonnes per day involving the treatment via shredding of metal waste.

Section 5.4 A (1) b) (iv) Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving the treatment in shredders of metal waste, including waste electrical and electronic equipment and end - of - life vehicles and their components.

The site also has the capacity to store more than 50 tonnes of hazardous waste at any one time.

Section 5.6 A (1) (a) Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes pending any of the activities listed in Sections 5.1, 5.2, 5.3 and paragraph (b) of this Section, except-
(i) temporary storage, pending collection, on the site where the waste is generated, or
(ii) activities falling within Section 5.2

This 'Operating Techniques' document accompanies a permit variation to increase the site footprint and supersedes all previous Working Plans and Operating Techniques associated with EAWML27202.

2. SPECIFIED WASTE MANAGEMENT OPERATIONS

2.1 Description of the Site

The site located in an essentially industrial area, comprising the Shredder Yard a 3.2 acre site, and Q Berth a 5.308 acre site. The two parts of the site are separated by a dock access road and connected by an overhead conveyor.

Site drainage is via oil interceptors to the Bristol Port Company sewer which flows to the Wessex Water pumping station located within the Port area.

2.2 Classification of Operations – Waste Directive Codes

In accordance with Annex IIB of the Waste Framework Directive the site activities falls into the following:

R3: Recycling/reclamation of organic substances which are not used as solvents
R4: Recycling/reclamation of metals and metal compounds
R5: Recycling/reclamation of other inorganic compounds
R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)

Extent of the Shredder Installation (Section 5.4 A (1) b) (iv)

STU – Shredder:

Annex II (R codes)
R3: Recycling/reclamation of organic substances which are not used as solvents

R4: Recycling/reclamation of metals and metal compounds

R5: Recycling/reclamation of other inorganic compounds

DAA:

Downstream Separation - Further separation of fragmentised waste following shredding:

Annex II (R codes)
R3: Recycling/reclamation of organic substances which are not used as solvents

R4: Recycling/reclamation of metals and metal compounds

R5: Recycling/reclamation of other inorganic compounds

Shredder infeed storage and immediate output:

Annex II (R codes):

R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)

2.3 Other Waste Activities Remaining Under the Permit

Other permitted treatment activities include the manual sorting of scrap, separation, grading, shearing, screening, shredding, baling, compacting, crushing and hot cutting and treatment of WEEE. These activities may be carried out with the aid of mechanical plant.

No wastes are disposed of at the site.

Classification of the Waste Management Operations – Waste Directive Codes:

Annex II (R codes):

R3: Recycling/reclamation of organic substances which are not used as solvents

R4: Recycling/reclamation of metals and metal compounds

R5: Recycling/reclamation of other inorganic compounds

R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)

2.4 Locations of the Waste Management Operations

Due to the constantly changing operational and commercial pressures of the metal industry, a degree of flexibility with regard to the storage locations is required. Depending on operational demands at any one time, it may be necessary to relocate specified activities within the overall licensed area. However, in the event of such demand, the overriding principle will always be that the operation will be carried out in such a manner to prevent any harm or risk to the environment.

2.5 Operations

The principle activities at the site will be the processing of ferrous and non-ferrous metal scrap for supply as feedstock to the steel making industry in the UK and abroad.

The facility is designed for the specialist recovery of ferrous metals; these may be light or heavy off-cut from manufacturing, obsolete machinery or other equipment from industry, bulky metal-based discards from commercial sector or scrap vehicles and white goods etc. from scrap suppliers or members of the public.

WEEE wastes will be managed in accordance with the WEEE Directive and relevant legislative requirements.

End of Life Vehicles will only be processed through the fragmentiser if they have been depolluted in accordance with ELV Regulations and applicable legislation.

Mixed non-ferrous metals that form a part of the frag feed are separated from the fragmented flow by a combination of air extraction, magnetic, and eddy current separation.

Recovered secondary metals will be similarly sold for resmelting into new materials.

Residual mixed metals from the fragmentation process will be transported to another Sims authorised facility for specialist treatment to recover the individual secondary metals.

Wastes from the process that are currently incapable of further viable treatment for metals recover ('frag waste') will be transported from site for authorised disposal or further recovery.

No wastes will be disposed of at the site.

The site is permitted, but will not currently undertake the following activities:

- Storage of polluted ELV*;
- Storage of tyres*
- Storage of hazardous wastes*
- Storage and treatment of wastes consisting solely or mainly of dusts, powders or loose fibres* e.g. 12 01 02 and 12 01 04

*other than those found as non-conforming items

2.6 Permitted Waste Types

Shredding STU & Infeed Storage DAA	
Material	EWC code
Waste Metal from Agriculture	02 01 10
Ferrous metal filings and turnings Non- Ferrous metal filings and turnings	12 01 01 12 01 03
Metallic Packaging Mixed Packaging	15 01 04 15 01 06
End of Life Vehicles (depolluted) Ferrous metal from ELV Non-ferrous metal from ELV Plastic from ELV Non Hazardous components from ELV	16 01 06 16 01 17 16 01 18 16 01 19 16 01 22
Non Hazardous WEEE Non Hazardous components removed from WEEE	16 02 14 16 02 16
Copper, Bronze, Brass from construction and demolition waste Aluminium from construction and demolition Lead from construction and demolition Zinc from C&D wastes Iron & Steel from construction and demolition Tin from construction and demolition Mixed metal from construction and demolition Cables	17 04 01 17 04 02 17 04 03 17 04 04 17 04 05 17 04 06 17 04 07 17 04 11
Ferrous metal from bottom ash Iron & Steel from Shredding Non-ferrous from Shredding Fluff-light fraction and dust other than those mentioned in 19 10 03 Other fractions other than those mentioned in 19 10 05 Ferrous metal from other waste facilities (mechanical treatment) Non-ferrous metal from other waste facilities (mechanical treatment) Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	19 01 02 19 10 01 19 10 02 19 10 04 19 10 06 19 12 02 19 12 03 19 12 12
Non Hazardous WEEE – household/ local authority	20 01 36

Metals – household/ local authority	20 01 40

Output Storage DAA	
Iron & Steel from Shredding Non-ferrous from Shredding	19 10 01 19 10 02
Fluff-light fraction and dust other than those mentioned in 19 10 03 Other fractions other than those mentioned in 19 10 05	19 10 04 19 10 06
Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	19 12 12

Non DAA / STU Waste Activities	
Material	EWC code
Waste Metal from Agriculture	02 01 10
Waste printing toner containing dangerous substances Waste printing toner other than those mentioned in 08 03 17 08 03	08 03 17* 08 03 18
Single-use cameras containing hazardous batteries Single-use cameras containing non hazardous batteries	09 01 11* 09 01 12
Ferrous metal filings and turnings Ferrous metal dust and particles Non- Ferrous metal filings and turnings Non-ferrous metal dust and particles	12 01 01 12 01 02 12 01 03 12 01 04
Metallic Packaging Mixed Packaging	15 01 04 15 01 06
Tyres End of Life Vehicles (polluted) Hazardous components from ELV Non Hazardous components from ELV	16 01 03 16 01 04* 16 01 21* 16 01 22
Transformers and capacitors containing PCBs Discarded equipment containing or contaminated by PCBs other than those mentioned in 16 02 09 Discarded equipment containing chlorofluorocarbons, HCFC, HFC Discarded equipment containing hazardous components other than those mentioned in 16 02 09 to 16 02 12 Non Hazardous WEEE Hazardous components removed from discarded equipment Non Hazardous components removed from WEEE	16 02 09* 16 02 10* 16 02 11* 16 02 13* 16 02 14 16 02 15* 16 02 16
Lead batteries Ni-Cd batteries Mercury containing batteries Alkaline batteries Other batteries and accumulators	16 06 01* 16 06 02* 16 06 03* 16 06 04 16 06 05
Copper, Bronze, Brass from construction and demolition Aluminium from construction and demolition Lead from construction and demolition Zinc from construction and demolition Iron & Steel from construction and demolition Tin from construction and demolition Mixed metal from construction and demolition Metal waste contaminated with dangerous substances Cables containing oil, coal tar and other dangerous substances Cables	17 04 01 17 04 02 17 04 03 17 04 04 17 04 05 17 04 06 17 04 07 17 04 09* 17 04 10* 17 04 11
Ferrous metal from bottom ash Iron & Steel from Shredding Non-ferrous from Shredding	19 01 02 19 10 01 19 10 02

Other fractions containing dangerous substances Ferrous metal from other waste facilities (mechanical treatment) Non-ferrous metal from other waste facilities (mechanical treatment) Other wastes (including mixtures of materials) from mechanical treatment of waste containing dangerous substances	19 10 05* 19 12 02 19 12 03 19 12 11*
Fluorescent tubes and other mercury-containing waste Discarded equipment containing chlorofluorocarbons Batteries and accumulators Batteries and accumulators Discarded electrical and electronic equipment containing hazardous components Non Hazardous WEEE – household/ local authority Metals – household/ local authority	20 01 21* 20 01 23* 20 01 33* 20 01 34 20 01 35* 20 01 36 20 01 40

2.7 Waste Quantities and Treatment Capacity Calculation (Section 5.4 A (1) b) (iv)

The 'daily treatment capacity' of the shredder STU is 3,080 tonnes, based on 07:00 – 21:00 operation (maximum operational hours). Saturday shredder operational hours are limited to 07:00 – 17:00.

Maximum quantities of waste will be specified in the Fire Prevention Plan.

The total aggregated throughput of the site will not exceed 790,400 tonnes per year.

2.8 Hours of Operation

The shredder operates 07:00 – 21:00 Monday to Friday and 07:00 – 17:00 Saturdays.

Ship loading/ unloading operations are a 24hr operation, subject to tidal conditions.

Lighting is provided in all areas, thus facilitating safe working of all employees including security personnel.

2.9 Waste Acceptance & Pre Acceptance Procedure

Sims Environment Management System will include a Waste Acceptance Procedure. This procedure will detail pre-acceptance procedure, inspection procedure and a specific bale inspection procedure.

Once it has been determined that the waste is suitable for the installation, the systems and procedures will ensure that wastes will be transferred safely to appropriate storage areas.

The procedure will include procedures for the identification, confiscation and repatriation of gas cylinders and other prohibited items.

The dedicated waste reception area will be operated by suitably trained employees who will control the inspection, reception and validation of wastes. Any wastes that are unsuitable for the installation will be dealt with as per the non-conforming waste procedure detailed in the Waste Acceptance Procedure or Quarantine Procedure specified below.

Please see the Waste Acceptance Procedure and the Bale Supplier Management and Bale Inspection Procedure for further information.

The Avonmouth Improvement Programme will include installation of a new 'pre-shredder'. This will process baled materials before they enter the shredder and greatly reduce the possibility of explosions.

The Explosion log

Explosions will be recorded real time by the fragmentiser operator on the system as a delay occurrence/ energy release. A further record will be made rating the energy release 1 – 10, listing the type of waste that caused the explosion and naming the supplier of the waste. A spreadsheet will be maintained allowing explosions to be monitored. As detailed in the Waste Acceptance Procedure, the supplier will be contacted to inform that their waste caused an event and to obtain feedback regarding measures taken to prevent a recurrence.

The Environment Agency will be informed of explosions via the incident hotline - 0800 807060 and via email to the EPR Installations Officer as per the agreed procedure.

Explosion prevention log

Finally, a record will be made of any Orphaned gas cylinders, LPG tanks or sealed cylinders that are identified and removed prior to fragmentising as a record of potential explosions prevented.

Where these are identified at the initial waste acceptance/ inspection stages, it will be possible to identify the supplier, the waste will be photographed and the supplier will be named on the log and contacted to inform and prevent a recurrence.

Where these items are found but the supplier cannot be identified they will be recorded as supplier not identified and the waste inspection process will be revisited with site operatives to ensure it is robust.

A site visit by a senior commercial representative will be made to suppliers repeatedly providing wastes causing explosion or with the potential to cause explosions and information provided about correct disposal of LPG tanks for example.

Quarantine

There will be three types of quarantine:

Temporary Quarantine

The temporary quarantine area will be separate from the waste reception and/or main stockpile or infeed areas and will be identified on the site layout plan. Items identified as requiring further inspection will be segregated here. Following inspection, temporary quarantined waste will either be determined suitable for treatment and moved to the relevant storage area, or determined unsuitable and moved without delay to the quarantine area.

Quarantine

The quarantine area will be labelled and will include appropriate containment for quarantined wastes e.g. cages for orphaned cylinders, polyethylene sacks for asbestos or damaged RCF containing catalytic converters, a battery box or other leak-proof & lidded container for containment of potentially leaking non-conforming wastes and a skip or designated area for other non-conforming items. The location of the quarantine area will be identified on the site layout plan.

Orphaned cylinders will be moved without delay to storage in the appropriate cage pending repatriation to the owner. Other non-conforming wastes will be placed immediately in an appropriate container if required in the designated quarantine area until suitable disposal arrangements can be made.

There will be no mixing of non-conforming (quarantined) wastes with authorized 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.

Where the nature of a quarantined waste is not known, a specialist contractor will be engaged to identify it.

The producer/customer will be informed and all details relating to the load recorded.

Where operationally practicable deliveries of incoming shredder feedstock will be processed as soon as possible and often on the same day. In turn this will ease identification of producer when shredding loads. Due to the constantly changing operational and commercial pressures of the metal industry, a degree of flexibility with regard to storage times is required.

A dedicated store for radioactive finds is available onsite. The Environment Agency will be informed of radioactive finds without delay via the incident hotline - 0800 807060.

Hot Load Quarantine

Please see Fire Prevention Plan for details of Hot Load Quarantine.

2.10 Waste Storage and Infrastructure

Wastes will be moved from the vehicle unloading / dedicated waste reception area to the relevant storage area without delay following inspection.

The installation storage and treatment activities take place on an impermeable surface with a sealed drainage system.

Waste will be treated on impermeable pavement with sealed drainage system.

Clean uncontaminated furnace ready scrap may be stored on areas of hardstanding.

Procedures will be in place for the regular inspection of storage areas, storage containers and infrastructure.

The Avonmouth Improvement Programme will include installation of covered storage bays within the ‘Downstream’. These will cover outgoing materials, improve dust management and improve the visual appearance of the site.

In order to prevent pollution to land and groundwater, site surfacing and drainage will be visually inspected on a regular basis and at least weekly. Drainage will be thoroughly inspected by an external contractor 6 monthly to ensure that there are no internal blockages. Such inspections and any issues noted will be recorded in the Site Diary. Any areas of surfacing showing wear will be monitored and repaired as soon as reasonably practicable. Any repair works will be recorded in the site diary.

Hazardous wastes (not currently accepted, but may be found as non-conforming items) will be stored on impermeable pavement linked to a sealed drainage system with additional containment where appropriate for example: batteries will be stored in leak-proof containers with lids to prevent the ingress of water.

Fluids will be stored in containers with appropriate secondary containment measures capable of holding at least 110% of the volume of the primary containment vessel.

All storage areas will be provided with spillage collection facilities including spill kits. The locations of such spill kits and instructions on their use will be specified in the site's Emergency Contingency and Accident Management Plan. All employees will be trained in the Emergency Contingency and Accident Management Plan. Copies of the plan are distributed to all employees and contractors. Use of spill kits will be reported to site management to ensure regular restocking as required.

Surface waters drain via the site drainage system linked to interceptors which discharge to the Bristol Port Company sewer. Records of drainage maintenance will be held on site and made available to the Environment Agency on request.

2.11 Waste Treatment

Please see appendix 3 for process descriptions of installation activity.

All residues from the shredder treatment process will be characterised and assessed for appropriate further processing, recovery or disposal.

Residues will be characterised by the nature of the infeed, the separation process equipment/ downstream technologies employed, which will produce products that are standard and defined. The characterisation will be confirmed by visual inspection.

Residues
ASR Waste is the non metallic light fraction that has been removed from the shredded stream by the air cleaning system on the plant. Non-ferrous residue is a metal rich, non-magnetic material that is not part of the light fraction removed by the air cleaning system. Non ferrous residue will under normal circumstances go for onwards treatment at Sims dedicated treatment facilities. Other suitably authorised facilities may be used and this would be subject to confirmation of appropriate authorisations and the suitability of the material for the process.

As detailed above,non ferrous shredder residues will under normal circumstances be destined for further treatment at Sims dedicated facilities or other suitably authorised facility.

The shredder residues from the process will be classified as per the Environment Agency Statement on Shredder Residue issued 01 Feb 2005.

The nature of the separation process ensures ferrous output from the shredder will meet Institute of Scrap Recycling Industries ISRI Ferrous Scrap specification 211 & UK equivalent 3b Frag for Shredded Iron and Steel Scrap suitable for recovery in Steelworks. This will be confirmed visually.

Copper armatures & copper wire will be handpicked to meet ISRI Non-Ferrous Scrap Specfication Shelmo suitable for recovery in coper smelters/refineries. This will be confirmed visually.

Shipping process

Generally, all material produced or stored at the Avonmouth site will be exported via bulk carrier shipping at Q berth. Materials will be stored in allocated storage areas on Q berth and are handled with plant such as mobile scrap handlers, loading shovels and a dedicated 20T portal dockside crane. Typically the portal crane will be used to load ships with cargos ranging from around 4kT to 30kT.

If necessary materials could also be loaded into 20' or 40' shipping containers using portable loading equipment.

Scrap cutting and breaking

Oversize scrap metal may be size reduced by a variety of methods at Avonmouth. In general these may be:

- Manual gas cutting with an oxygen / propane lamp.
- Breaking of rail line in a controlled manner using a portable 'rail breaking' rig.
- Shearing of material by the use of 'mobile' hydraulic shear.

2.12 Energy Usage

Sims has an Energy Policy to ensure that energy is used efficiently at the site. This scope of the policy is extended to include this facility and to identify the energy consumption and methods of saving energy at the site.

In relation to the shredder STU; In order to improve energy efficiency the site minimises start up and ensures shredding at maximum efficiency to reduce hours run, the downstream is turned down when the machine is idling and maintenance procedures are adhered to (including electrical systems).

2.13 Raw Materials and water

The set-up of plant and equipment will minimise the consumption of raw materials and water at the site.

2.14 Security

This is an area of vital concern to our business, not only in relation to the value of the materials in store, but also in relation to the protection of the environment and human health. All visitors will be required to report to the site office and sign the visitor's book. Security measures are inspected on a regular basis and maintained in sound condition. The site is operated in accordance with the Port Facility Security Plan (PFSP) which has been approved by the Department for Transport.

3 EMISSION CONTROL AND MONITORING

3.1 Point Source & Ambient Emissions

Point source emissions from the installation will be limited to those detailed below:

Point Source emission to air from Air Cleaning

Point source emissions to air will be monitored in accordance with a 'Point Source Emissions to Air Monitoring Protocol' as agreed in writing with the Environment Agency.

The location of the point source emission to air, (ref point A1 within Schedule 7) will move as part of the improvement programme, the design of which is currently being determined. The current permit limit will be complied with.

A new point source emission from the proposed non ferrous treatment building dust extraction system (ref A6 on site plan) will be installed as part of the improvement programme. The current permit limit will be complied with.

Point Source Emissions to Water

Point source emissions to sewer will be monitored in accordance with a Point Source Emissions to Sewer Protocol' as agreed in writing with the Environment Agency.

As a result of the improvement programme additional point source emissions to sewer will result (e.g. ref A5 on site plan), the details of which will be provided once the design has been confirmed.

Ambient Emissions to air

Ambient Emissions to air will be monitored in accordance with an 'Ambient Emissions Monitoring Protocol' as agreed in writing with the Environment Agency.

3.2 Odour

As identified in the risk assessment the site will not pose a risk of odour related impact due to the nature of the waste and activities carried out. Nevertheless, during inspections the presence of any offensive odours will be noted and recorded in the Site Diary. The source of any problem will be investigated and dealt with as necessary to remove the problem. Any complaints received will be recorded in the Site Diary and actioned where appropriate. Additionally, an Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan has been carried out and includes the assessment of odour. This Risk Assessment and Management Plan forms an integral part of the site's Environment Management System.

3.3 Noise and Vibration

Activities on site are managed in accordance with the Risk Assessment & Noise Management Plan and the Soft Loading Policy to minimize the risk of noise related impact. Nevertheless, during inspections the presence of nuisance noise will be noted and recorded in the Site Diary. The source of any problem will be investigated and dealt with as necessary to remove the problem. Any complaints received will be recorded in the Site Diary and actioned where appropriate.

Vibration will be assessed via routine site inspections. Site operatives and maintenance employees will be experienced and know what constitutes normal operation in respect of vibrations. Any vibrations identified to be abnormal would be investigated without delay and the necessary plant and machinery maintenance undertaken to resolve the source of the vibration.

Please refer to the Noise Management Plan for details.

The Avonmouth Improvement Programme will include the following proposals that will minimise the potential for emissions of noise and vibration:

- Installation of a new 'pre-shredder'. This will process baled materials before they enter the shredder and greatly reduce the possibility of loud bangs.
- Development of a replacement 'Downstream' plant, including a new conveyor and stacker at the dockside. This will improve efficiency of the onsite processes, provide a much improved visual appearance, alongside noise and dust mitigation enhancements. On completion the old plant will be removed.
- The new 'Downstream' plant and existing shredder will be housed in acoustic enclosures.

The completion of the site works is scheduled for Mid 2019, dependent on planning and permitting, with removal of the existing (old) downstream plant by end 2019.

The Environment Agency will be kept informed and relevant documents updated as appropriate.

3.4 Dust

Activities on site will be managed to minimise the risk of dust related impact. Nevertheless, during inspections the presence of any nuisance dusts will be noted and recorded in the Site Diary. The source of any problem will be investigated and dealt with as necessary to remove the problem.

Additionally, an Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan will be carried out and will be maintained. This will include the assessment of dust. This Risk Assessment and Management Plan will form an integral part of the site's Environment Management System.

The following procedure will ensure emissions of dust are kept to a practical minimum, preventing or where that is not practicable, minimising the likelihood of dust emissions from site.

The measures taken to control dust at the facility will be as follows:

Wastes consisting solely or mainly of dusts, powders or loose fibres* e.g. 12 01 02 and 12 01 04 will not be received. If a decision is made to accept these wastes, procedures will be submitted to and agreed with the Environment Agency.

The site management team will 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 will be taken if dust/particulates are identified as a potential problem.

The site has a fire prevention plan which aims to keep feedstock and fragmentiser waste to a minimal level. In addition to minimising risk of fire, this will help to minimise the risk

of dust generation from stockpiles by keeping stockpile heights to a practicable minimum to minimise potential for windblown emissions.

Where appropriate and reasonably practicable, the parts of the mechanical Shredder Treatment process with the potential to give rise to dusts will be fitted with dust suppressing technology.

The fragmentiser shredding box itself incorporates a water injection system which has a variable flow that is adjusted depending on the environmental conditions at the time.

Shredder Plant/ Stack Emissions – Currently, the shredder plant has a cyclone system consisting of air cleaning plant. Heavy fraction falls to the bottom of cyclone 1, lighter fraction to cyclone 2, which following treatment through the air cleaning plant drops to a waste bay.
As part of the improvement programme – the air system will consist of a single plenum chamber to drop denser material, and twin cyclone separators to separate lighter materials. The dense and light materials will be further processed to remove any metallic fraction. The plant will be inspected daily, maintenance will be carried out on the air cleaning plant on a weekly basis to ensure effective operation.

Shredder Residue – These covered bays will be on impermeable surface with sealed drainage system and will be enclosed on 3 sides to prevent or where that is not practicable, minimise the potential for windblown emissions.

Dust suppressing equipment will be installed and available on bays as required.

A portable dust buster will be available to suppress dust in areas not covered by fixed spray systems.

Drop heights the distance between the grab and the stockpile “the drop” (deliveries and products) will be 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.

The wastes and process residues will be adequately stored and treated in a manner so as to prevent the potential release of dusts and particulates. Storage and containment may include managed stockpiles, bays, bins, skips, containers, stillages, sacks or drums.

All treatment activities will take place on impermeable surface with sealed drainage system, minimising the risk of generation of dusts from site surfacing. The integrity of the surfacing will be maintained.

Good housekeeping will be employed daily to reduce quantities of particulates and dust accumulating on the site and alleviate any waste leaving the site. This will occur for 1 hour at the end of each operational shift / throughout the operation as required and may also be undertaken as part of the routine maintenance activity.

Manual sweeping will be employed on plant and equipment to minimise build-up of dust and debris.

Dust suppression techniques such as dampening and the use of both manual and mechanical sweeping will be employed as necessary to prevent unacceptable emissions. A hose or IBC/bowsers of water will be available to suppress dust on site surfacing and roadways. The mechanical sweeper attachment will be 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 will be undertaken throughout the day to determine the frequency such equipment should be utilised.

Distances that material has to travel will be kept to a minimum with due care and consideration being given to unloading and loading areas and distance from storage area.

Traffic speed including vehicles and mobile plant will be limited to 5mph to minimise dust generation by vehicle movement on site. Visible signage informing of the speed limit will be displayed on site.

Where appropriate (e.g. fragmentiser waste / residues) vehicles will be sheeted to minimise the risk of windblown emissions during transport.

All relevant Sims Metal Management employees and relevant contractors will be aware of the details of the procedure for dust management and control as appropriate.

Tool Box Talks will be used to communicate the policies & plans and will be a record of training.

All employees will have comprehensive training in respect of the use of the plant and machinery associated with the loading and handling activities.

Dust will be controlled through the on-going monitoring of site operations by the site management team using the management system tools. Daily site observations will be conducted by site management and verbal reminders of best practice provided at the time if operational procedures are not in accordance with best practice. Observations with regard to improvements made to the working environment will be recorded in the Site Diary.

Operational Feedback will be communicated to site operatives at morning meetings or regular SHEC meetings if earlier notice or discussion is not required.

Sims contact details will be readily available to neighbouring residents. Neighbours will be encouraged to contact site directly to discuss any concerns they may have.

The site office contact details (postal address and telephone number) will be available on the site identification board at the site entrance, the Sims company website and business listing services, and internet search engines.

Any complaints received direct to site or via the Environment Agency will be recorded in the 'Site Diary' and complaints log and responded to expeditiously.

Significant changes to operational practices will be subject to discussions and to investigation to assess their potential emissions and the 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.

A review of conveyor systems has been undertaken to ensure that the potential for emissions from those parts of the process will be prevented or minimised so far as is reasonably practicable.

The Avonmouth Improvement Programme will include the following proposals that will minimize the potential for emissions of dust:

- The shredder will be housed in an acoustic enclosure that surrounds the plant on four sides, which in addition to improving noise mitigation, will also serve to minimise fugitive dust emissions.
- The existing 'Downstream' plant and old over road conveyor will be replaced with new 'Downstream' plant and over road conveyor. This will improve efficiency of the onsite processes, and provide dust mitigation enhancements as a result of the enclosure of 'Downstream' plant, fully enclosed conveyors to transport materials to and from the downstream buildings and the enclosed over road conveyor. On completion of the works the old plant will be removed.
- The proposal also includes installation of covered storage bays within the 'Downstream'. These will cover outgoing materials, improve dust management and improve the visual appearance of the site.
- In terms of timescales, the completion of the site works is scheduled for Mid 2019, subject to planning and permitting with removal of the existing (old) downstream plant by end 2019.

The Environment Agency will be kept informed and relevant documents updated as appropriate.

3.5 Pests

Wastes handled do not attract vermin. Contractor will be used to control vermin and records of actions kept. Additionally, an Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan will be carried out and include the assessment of pests. This Risk Assessment and Management Plan will form an integral part of the site's Environment Management System.

3.6 Fires on Site

Site personnel will be trained in the site's Fire Prevention Plan and the Emergency Contingency Plan. Firefighting equipment will be readily available and maintained as per legal requirements. The Environment Agency will be informed without delay should a fire occur. Additionally, an Environment, Fugitive Emissions & Accidents Risk Assessment and Management Plan will be carried out and include the assessment of fire. This Risk Assessment and Management Plan will form an integral part of the site's Environment Management System.

Please see Fire prevention plan and Emergency Contingency Plan for further information

4 MANAGEMENT

Sims Group UK Limited currently operates 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, accidents etc. These include procedures relating to waste acceptance and environmental monitoring.

A planned programme of maintenance for all infrastructure, plant and equipment is specified in the management system. All plant is inspected and maintained in line with the manufacturer's instructions or other appropriate regime.

A planned programme of maintenance for all plant and equipment will be specified in the management system. All plant will be inspected and maintained in line with the manufacturer's instructions or other appropriate regime.

Sims Group UK Limited will have a training and development programme designed to ensure that employees are suitably trained to undertake their duties. The roles and responsibilities of employees on site will be clearly defined and training records for each employee will be maintained and reviewed regularly to ensure competence is maintained and up to date.

Training and development will be both practical and theory. All employees will receive an induction, training in the form of training presentations, internal work instructions and Tool Box Talks (TBT) for example and practical on the job training, as applicable to their roles and responsibilities.

Key employees will have completed relevant competence assessment & Continuing Competence Assessment (Wamitab) as applicable. Such employees will be available on site for at least the minimum period of time (25% as determined by OPRA Waste Facility complexity etc.) or as otherwise agreed with the Environment agency, to ensure that operations are undertaken in line with Sims Policy and Processes.

Plant operatives will have comprehensive training in respect of the use of the plant and machinery associated with the loading, handling and treatment activities, and be subject to periodic external assessment.

A training matrix will be maintained.

The effectiveness of training is monitored regularly via site inspection / observations, Safety Conversations, Job Cycle Checks and performance reviews.

The site will be appropriately manned to ensure that the site operates with due regard to the prevention of environmental pollution and harm to human health and ensure that the licence requirements are fulfilled. Sufficient personnel on site will include a weighbridge operator, operational personnel including banksman, plant and machinery operators, supervisors and or site management, maintenance operatives as required and drivers.

All contractors visiting the site will receive an induction to ensure that they are aware of the scope of their work, the accident management/emergency procedures for the site and any other management systems appropriate to their role.

Sims Group UK Limited will have an Emergency Contingency and Accident Management Plan that together with the other Environmental Management System documentation

such as Operational Techniques for the site, Environment Risk Assessment and Stockpile Management and Fire Prevention Protocol, will meet the requirements of the Environment Agency Guidance.

Sims Group UK Limited will have a Hazard Reporting Policy. The objective of this policy is to reduce the likelihood of future accidents, injuries and damages by reporting and acting upon all Near Misses and Hazards. The Management Team will ensure 'Hazrep pads' are readily available to all employees and will be placed in easily accessible locations. All employees will be trained in the Hazard reporting process.

In the event of an incident, details will be recorded and a full review undertaken. This review will include the following:

- Cause of the incident;
- Effectiveness of management technique
- Effectiveness of Emergency Contingency Plan and Procedures; and
- Recommendations for management technique and/or emergency procedure to reduce risk of future incidents.

5 SITE RECORDS

Sims will ensure the following information is recorded:

- Internal site inspections or those carried out by other bodies and any subsequent issues and corrective actions taken;
- Emergencies;
- Complaints and actions taken;
- Plant/equipment failure;
- A record of any rejection of waste;
- Technically competent manager – times on site;
- Any incidents/accidents on site and actions taken;
- Security failures;
- Severe weather conditions.

All records will be held in the site office and will be available on request. All records, which are required under the conditions of the Environmental Permit, shall be maintained and kept secure from loss, damage or deterioration. Any records held electronically will be backed up on a regular basis.

APPENDIX 1

APPENDIX 2

APPENDIX 3