OPERATING TECHNIQUES

Installation and Waste Operation

Metal Recycling

At

Harrimans Lane
Dunkirk
Nottingham
NG7 2SD

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Operator and Applicant:

Donald Ward Limited
Donald Ward House
East Street
Ilkeston
DE7 5JB

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APPENDICES

1. GENERAL INTRODUCTION

1.1. This Metal Recycling facility is operated by Donald Ward 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 both in UK and abroad.

1.3. Appendix 1 shows the location of the facility.

1.4. Appendix 2 shows all key features of the facility including principal storage and treatment locations.

1.5. The site is a metal shredder site. It undertakes 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 End of Life Vehicles.
- Storage of Batteries
- Storage of Tyres

1.6 Relevant Regulations, Technical Guidance Notes and other documentation

In accordance with the Environmental Permitting (England and Wales) Regulations 2010 (as amended), operators are required to confirm whether their proposed operation takes place in line with standards set by any relevant Environment Agency Sector Guidance Note and legislation. Where the proposed operations 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 takes place at the site
2. Justification of the measures that are used to control emissions from the processes.

The Environment Agency have issued the following guidance that applies:

- Treating metal waste in shredders: appropriate measures for permitted facilities
- Waste electrical and electronic equipment (WEEE): appropriate measures for permitted facilities
- End of life vehicles (ELVs): appropriate measures for permitted facilities

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

The site may also use physical processes to recover hazardous waste with a capacity exceeding 10 tonnes per day

5.3 A(1) a) (ii) 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;

2. SPECIFIED WASTE MANAGEMENT OPERATIONS

2.1. Description of the Site

The location of the site, its boundaries and surrounding features are highlighted in Appendix 1. The site has a frontage to Harrimans Lane and the rear boundary of the site, as viewed from Harrimans lane, adjoins the railway. The surrounding area is predominantly of industrial use. The site is approximately 6 acres. It is secured by a mixture of high security chain link fencing, brick and sleeper walls, and steel panelling and is accessed from Harrimans Lane via security gates. Access also exists from the adjacent railway line.

Access is via the site gates, and these are locked at all times when the site is non-operational. Visitors may only gain access if escorted or with specific permission.

2.2 Classification of the Waste Management Operations – Waste Directive Codes

In accordance with Annex IIB of the Waste Framework Directive the site activities fall 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) and 5.3 A (1) a) (ii)

STU (Standalone Technical Unit) – 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

Brief description S5.4 activity: Treatment consisting only of the shredding and granulation of waste containing ferrous and non-ferrous metals for recovery. Continuous treatment of non-hazardous wastes containing metal. Non-hazardous waste is treated separately from hazardous waste (in batches)

Brief description S5.3 activity: Treatment consisting only of the shredding and granulation of hazardous waste containing ferrous and non-ferrous metals for recovery. Continuous treatment of hazardous wastes containing metal. Hazardous waste is treated separately from non-hazardous waste (in batches). Treatment of hazardous waste includes for example pre-treated SMW / residues from mechanical treatment / shredding that require further separation to recover metallic and non-metallic recyclables.

Directly Associated Activities (DAA):

Upstream – pre-treatment (DAA to S5.4 activity)

Pre-shredding: Pre-shredding via pre-shredder serving main shredder. If necessary, the pre-shredder processes (low speed, high torque action tears) materials prior to such material entering the shredding process.

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

Brief description: Pre-shredding of non-hazardous waste prior to treatment in Shredder Installation (Section 5.4 A (1) b) (iv)).

Upstream – pre-treatment (DAA to S5.3 activity)

The manual pre-treatment of SMW.

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

Brief description: The manual pre-treatment of SMW is a waste activity, which is also a DAA to S5.3 activity. The manual removal of components that require removal before mechanical treatment.

Downstream Separation - Further separation of fragmentised waste following shredding (DAA to both S5.3 and S5.4 activities):

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 – storage prior to treatment and immediately post shredding (DAA to S5.3 and S5.4 activities):

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)

Note: storage of hazardous waste associated with treatment in S5.3 activity is a S5.6 activity and detailed below.

Extent of Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes (Section 5.6 A (1) (a)) Installation Activity -_Hazardous waste storage prior to treatment.

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)

Temporary storage of hazardous waste from receipt to dispatch from site for treatment at a suitably authorised facility (e.g. storage of waste pending treatment in S5.3 activity or post treatment in 5.3 activity, or for example storage of ELF pending transfer and treatment at an ELF treatment Plant).

Other Waste Activities

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

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

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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)

2.3 Locations of the Waste Management Operations

Appendices 1 and 2 show the entire area of the site and detail key features of the facility including infrastructure, drainage and storage and treatment locations.

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 always is that the operations

are carried out in such a manner to prevent any harm or risk to the environment and that the facility is operated in a way that minimises waste handling.

2.4 Operations

The principal activities at the site are 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 a shredder site, 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 depolluted scrap vehicles and white goods etc. from scrap suppliers or members of the public.

Mixed non-ferrous metals that form a part of the shredder (aka fragmentiser) feed are separated from the fragmented flow by a combination of air extraction, magnetic, and eddy current separation. A shredder process description and flow are provided in appendix 3 and 4.

Recovered secondary metals are similarly sold for re-smelting into new materials.

Residual mixed metals / residues from the fragmentation process are transported to another Ward 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 recovery (‘shredder waste / frag waste’) are transported from site to another Ward authorized facility for further recovery or to appropriately authorised external facilities for recovery or disposal.

Non-ferrous metals are received at the site for sorting, separation, grading, shearing, screening, baling, compacting, crushing, bulking and storage prior to being sold on as feed material for smelting. This process includes both manual sorting and sorting with the aid of mechanical plant. The facility also permits the shredding of non-ferrous materials.

The site will be an Authorised Treatment Facility (ATF) for the depollution of End of Life Vehicles. End of Life Vehicles are depolluted in accordance with ELV Regulations and applicable legislation. Relevant site operatives are trained in Ward internal Safe Working Procedures for the depollution of ELVs.

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

Tyres may be accepted on site for storage prior to removal for processing at a suitably authorised facility.

Batteries are accepted on site for storage prior to removal for processing at a suitably authorised facility. Lead acid batteries are stored in leak proof battery boxes.

Li-ion batteries from electric vehicles are not currently stored at site.

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

Waste Refrigeration units and CRT/ Monitors are stored separately for specialist treatment and recovery elsewhere.

No wastes are disposed of at the site.

2.5 Permitted Waste Types

Shredder Installation (Section 5.4 A (1) b) (iv) & Infeed Storage DAA	
Material	EWC code
Waste Metal from Agriculture	02 01 10
Ferrous metal filings and turnings	12 01 01
Non- Ferrous metal filings and turnings	12 01 03
Metallic Packaging	15 01 04
Mixed Packaging	15 01 06
End of Life Vehicles (depolluted)	16 01 06
Ferrous metal from ELV	16 01 17
Non-ferrous metal from ELV	16 01 18
Non Hazardous components from ELV	16 01 22
Non Hazardous WEEE	16 02 14
Non Hazardous components removed from WEEE	16 02 16

Copper, Bronze, Brass from construction and demolition waste	17 04 01
Aluminium from construction and demolition	17 04 02
Lead from construction and demolition	17 04 03
Zinc from C&D wastes	17 04 04
Iron & Steel from construction and demolition	17 04 05
Tin from construction and demolition	17 04 06
Mixed metal from construction and demolition	17 04 07
Cables	17 04 11
Ferrous metal from bottom ash	19 01 02
Iron & Steel from Shredding	19 10 01
Non-ferrous from Shredding	19 10 02
Fluff-light fraction and dust other than those mentioned in 19 10 03	19 10 04(1)
Other fractions other than those mentioned in 19 10 05	
Ferrous metal from other waste facilities (mechanical treatment)	19 10 06(1)
Non-ferrous metal from other waste facilities (mechanical treatment)	19 12 02
	19 12 03
Mixtures of materials (mechanical treatment)	
	19 12 12
Non Hazardous WEEE – household/ local authority	20 01 36
Metals – household/ local authority	20 01 40

1) wastes consisting solely of dusts, powders or loose fibres will not be accepted

Hazardous Waste treatment (& DAA) Section 5.3 A (1) a) (ii)	
Material	EWC code
Other wastes (including mixtures of materials) from mechanical treatment of waste containing dangerous substances	19 12 11*
Discarded equipment containing hazardous components other than those mentioned in 16 02 09 to 16 02 12	16 02 13*
Hazardous components removed from discarded equipment	16 02 15*
Discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components e.g. Pre-treated hazardous WEEE	20 01 35*
Premixed wastes composed of at least one hazardous waste	19 02 04*
Fluff-light fraction and dust containing dangerous substances	19 10 03*
Other fractions containing dangerous substances	19 10 05*
Hazardous components from ELV (e.g. cables)	16 01 21*
Hazardous cables (e.g. non WEEE or ELV)	17 04 10*
Storage of hazardous waste Section 5.6 A (1) (a)	
Material	EWC code
Ferrous metal filings and turnings/ swarf containing free-flowing machining fluid	12 01 07*/ 12 01 09*/ 12 01 10*/

	12 01 19*
Non- Ferrous metal filings and turnings/ swarf containing free-flowing machining fluid	12 01 07*/ 12 01 09*/ 12 01 10*/ 12 01 19*
End-of-life vehicles	16 01 04*
Hazardous components removed from ELV	16 01 21*

ELV Activity (Waste Activity)	
Material	EWC code
End of life tyres	16 01 03
End-of-life vehicles	16 01 04*
End-of life vehicles (containing neither liquids nor other hazardous components)	16 01 06
Ferrous metal	16 01 17
Non-ferrous metal	16 01 18
Plastic	16 01 19
Glass	16 01 20
Hazardous components other than those mentioned in 16 01 07 to 16 01 11 and 16 01 13 and 16 01 14	16 01 21*
Components not otherwise specified	16 01 22
Lead batteries	16 06 01*
Other batteries and accumulators	16 06 05
Spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 07)	16 08 01
Spent catalysts containing hazardous transition metals or hazardous transition metal compounds	16 08 02*

WEEE Activity (Waste Activity)	
Waste Refrigeration with ODS/ WEEE containing CFC, HCFC, HFC	16 02 11*
Hazardous WEEE	16 02 13*
Non-Hazardous WEEE	16 02 14
Hazardous components removed from WEEE	16 02 15*
Non-Hazardous components removed from WEEE	16 02 16
Lead batteries	16 06 01*
Other batteries	16 06 05
Waste refrigeration equip containing ODS	20 01 23*
Hazardous Batteries and accumulators	20 01 33*
Batteries and accumulators	20 01 34
Hazardous WEEE	20 01 35*
Non Hazardous WEEE	20 01 36

Metal Recycling Activities (aka Non DAA / STU Activities)	
Material	EWC code
Waste Metal from Agriculture	02 01 10
Ferrous metal filings and turnings	12 01 01
Non- Ferrous metal filings and turnings	12 01 03
Metallic Packaging	15 01 04
Mixed Packaging	15 01 06
End of Life Vehicles (depolluted)	16 01 06
Ferrous metal from ELV	16 01 17
Non-ferrous metal from ELV	16 01 18
Plastic	16 01 19
Glass	16 01 20
Hazardous components	16 01 21*
Non Hazardous components from ELV	16 01 22
Non Hazardous WEEE	16 02 14
Hazardous components removed from discarded equipment	16 02 15*
Non Hazardous components removed from WEEE	16 02 16
Lead batteries	16 06 01*
Other batteries and accumulators	16 06 05
Spent Catalysts containing Au, Ag, Re, Rh, Pd, Ir,Pt	16 08 01
Spent catalysts containing hazardous transition metals	16 08 02*
Copper, Bronze, Brass from construction and demolition waste	17 04 01
Aluminium from construction and demolition	17 04 02
Lead from construction and demolition	17 04 03
Zinc from C&D wastes	17 04 04
Iron & Steel from construction and demolition	17 04 05
Tin from construction and demolition	17 04 06
Mixed metal from construction and demolition	17 04 07
Hazardous cables	17 04 10*
Cables	17 04 11

Ferrous metal from bottom ash	19 01 02
Iron & Steel from Shredding	19 10 01
Non-ferrous from Shredding	19 10 02
Fluff-light fraction (mechanical treatment)	19 10 04
Ferrous metal from other waste facilities (mechanical treatment)	19 12 02
Non-ferrous metal from other waste facilities (mechanical treatment)	19 12 03
Other wastes from the mechanical treatment of waste	19 12 11*
Mixtures of materials (mechanical treatment)	19 12 12
Batteries	20 01 33*
Non Hazardous WEEE	20 01 36
Metals	20 01 40

2.6 Waste Quantities

The total tonnage accepted per annum is a maximum of 480,000 tonnes.

Total storage for site in aggregate (hazardous and non-hazardous) shall not exceed 23,850 tonnes at any one time.

Total hazardous waste storage capacity (on site at any one time, aggregated) shall not exceed 6000 tonnes

Total non-hazardous waste storage capacity (on site at any one time, aggregated) shall not exceed 17,850 tonnes

Treatment Capacity (Section 5.4 A (1) b) (iv) and 5.3 A (1) a) (ii)

The ‘daily treatment capacity’ of the shredder STU is 3,000 tonnes, based on 24 hour operation. Additionally, the site permit restricts annual throughput to 480,000 tonnes.

The actual daily treatment capacity for 5.3 A (1) a) (ii) is likely to be in region of approx. 500 tonnes.

2.7 Hours of Operation

No limitations are imposed upon the hours of operation by the planning consent. The Company in normal circumstances operates during normal working day hours. However, due to some operational requirements, in particular to ensure

that the plant is working to its maximum capacity and efficiency, the site is manned and operated to accept and process waste, carry out maintenance and services as and when necessary.

Lighting is provided in all areas. This lighting is activated from dusk to dawn each day irrespective of operations, thus facilitating safe working of all employees including security personnel.

The location and type of all lighting stands is detailed on the Site Layout Plan in Appendix 2.

2.8 Waste Acceptance Procedures

Ward Environment Management System includes a Waste Acceptance Procedure. This procedure details pre-acceptance procedure, inspection procedure and a specific bale inspection procedure.

These procedures ensure, so far as is reasonably practicable, that waste can be tracked from reception to storage (and for baled wastes through treatment) so that any unacceptable wastes can be tracked back to the supplier to facilitate communications and prevent reoccurrences.

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

Wastes are only accepted where there is sufficient storage space available to safely receive the incoming load.

The procedure includes processes for the identification, confiscation and repatriation of gas cylinders and other prohibited items.

The dedicated waste reception area is operated by suitably trained employees who control the inspection, reception and validation of wastes.

Any wastes that are unsuitable for the installation are dealt with as per the non-conforming waste procedure detailed in the Waste Acceptance Procedure, or the Quarantine procedure specified below. These procedures include processes for identification, confiscation and repatriation of gas cylinders and other prohibited items.

Quarantine

There are two types of quarantine:

Temporary Quarantine

The temporary quarantine area is separate from the waste reception and/or main stockpile or infeed areas and is identified on the Site Layout Plan in Appendix 2. Items identified as requiring further inspection are segregated here. Following inspection, temporary quarantined waste is either 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 is labelled, and the following is available: 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 is identified on the Site Layout Plan in Appendix 2.

Orphaned cylinders are moved without delay to storage in the appropriate cage pending repatriation to the owner. Orphaned gas cylinders are repatriated to the owners (e.g. BOC / Calor etc.) or where the owner cannot be located, they are removed by an appropriate company as per advice on BCGA website (e.g. Synergy or other service provider)

Other non-conforming wastes are placed immediately in an appropriate container in the designated quarantine area until suitable disposal arrangements can be made.

There is no mixing of non-conforming (quarantined) wastes with authorised wastes. Non-conforming wastes are stored separately where possible and when legislation requires. Any non-conforming wastes that are defined as hazardous under the Hazardous Waste Directive are 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 is engaged to identify it.

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

Where operationally practicable, deliveries of incoming shredder feedstock are processed as soon as possible and often on the same day. In turn, this eases 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.

The static radiation detection equipment is located at the weighbridge and screening of the waste for radioactivity takes place here. Radiation detectors are maintained, calibrated and tested in accordance with the manufacturer's specification. There is a procedure for responding to radiation detector alarms.

A dedicated store for radioactive finds is available onsite.

2.9 Waste Storage & Infrastructure

Wastes are 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 and lawful discharges.

Wastes are treated on impermeable pavement with sealed drainage system.

The impermeable pavement is constructed of concrete and the drainage system collects all surface waters from the concreted areas as shown on the Site Layout Plan in Appendix 2 and in the Infrastructure plan in appendix 5.

There is an interceptor located to the east of the yard adjacent to the entrance, draining 12,381m^2 of surfaced area, and discharging to surface water drainage on Harrimans Lane, which ultimately discharges to controlled watercourse, Tottle Brook.

The second interceptor is located at the southern tip of the yard adjacent to Harrimans lane boundary, draining 13,099m^2 of surfaced area and discharging to

the foul sewer on Harrimans Lane, which discharges to sewer and is treated by Severn Trent Water Company.

These are the two point source emissions to water detailed in section 3.

Clean uncontaminated scrap may be stored on areas of hardstanding.

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

To prevent pollution to land and groundwater, site surfacing and drainage are visually inspected on a regular basis. Surfacing is inspected on a fortnightly basis, Interceptors weekly and manholes monthly. Interceptors are inspected and cleaned out by an external contractor on a 6 monthly basis. Such inspections and any issues noted are recorded in the EHS Compliance Software. Any areas of surfacing showing wear are monitored and repaired as soon as reasonably practicable. Any repair works are recorded in the EHS Compliance Software.

The swarf bay drains via a covered gully to a dedicated sump. The fluids collected are automatically raised to a bunded catchment tank by means of an electric pump controlled by a float switch. The pump & control mechanism and the level of fluid in the catchment tank are inspected weekly, and disposal to an authorised facility arranged when the level reaches 80% of the tank capacity. Records are kept in the EHS Compliance Softward.

Hazardous wastes are stored on impermeable pavement linked to a sealed drainage system with additional containment where appropriate.

Hazardous wastes are stored separately from non-hazardous wastes.

Wastes that may contain POPs e.g. SMW / SMW residues are stored separately from other wastes.

Measures are in place to prevent pollution from the on-site storage, handling and use of oils and fuels.

All fluids whose spillage could be harmful to the environment are stored in above ground tanks or containers with appropriate secondary containment measures capable of holding at least 110% of the volume of the primary containment vessel or 25% of the total tankage. The bunds are impermeable and resistant to the stored materials. They have no outlets (that is, no drains or taps) and are

designed to catch leaks from the tanks or fittings. The fittings and pipework are routed within bunded areas or provided with containment.

Tanker connection points are within the bunded area.

Secondary containment is frequently inspected and emptied of rainwater regularly to maintain their containment capacity. Contaminated surface waters shall be disposed of via an authorised treatment facility, as necessary.

There is a visual inspection regime in place to detect and repair leaks from any tanks or containers used for storing oils / fuels etc. that could contaminate site drainage if spilled. There is a visual inspection regime in place to detect and, if required, repair leaks.

Ward minimises underground equipment and infrastructure. There are no underground storage tanks on site.

Appropriate buffer storage capacity is provided at the facility in the event of other than normal operating conditions e.g. a fire incident. Please see the Fire Prevention Plan.

Measures are in place to prevent emissions from washing and cleaning activities, including:

- detergents are not used for washing activities.
- where possible dry cleaning techniques are used e.g. using air to remove debris.
- plant and equipment are washed in an area that drains to foul sewer

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

The routing of all site drains is shown on the Site Layout Plan in Appendix 2.

Batteries are stored in leak-proof containers with lids to prevent the ingress of water.

Shredder non-metallic fractions will be stored under cover. Please see section 3.4 for details of current situation and improvement plan.

Maximum storage capacity of the site and the designated storage areas are specified in the Fire Prevention Plan (FPP). The plan includes capacity in tonnage and volume and also specifies stockpile dimensions where wastes are combustible. These maximum capacities are not exceeded.

The quantity of waste stored on site is regularly monitored and checked against the limits specified in the FPP.

Guidance states that you must not accumulate waste. You must treat wastes, or remove them from the site, as soon as possible. Wastes will be stored for a maximum of 6 months.

Combustible wastes are stored for durations as detailed in the Fire Prevention Plan.

Storage areas are accessible for inspection and inspected daily. Combustible waste storage areas are inspected as detailed in the FPP.

2.10 Waste Treatment

Waste treatment has the clear and defined benefit of separating recoverable fractions and minimising waste to landfill. Waste is not treated to deliberately dilute it.

Pre Shredder

The site has a pre-shredder, Lindemann pre-shredder ETARIP, 250KW electric operated, continuous operation, 110 tonnes per hr (1540 tonnes per day based on 14 hr operation) capacity for treating non-hazardous waste in advance of (5.4 A (1) b) (iv)) installation activity.

Shredder

Consists of one dry process (with water injection) hammer mill fragmentiser, Texas 98/104 NG 4000HP electric operated, continuous operation, 125 tonnes per hr (3000 tonnes per day based on 24 hr operation) capacity for treating non-hazardous (5.4 A (1) b) (iv)) & hazardous wastes for recovery (5.3 A (1) a) (ii)). Re Hazardous waste for recovery the actual daily treatment capacity for 5.3 A (1) a) (ii) is likely to be in region of approx. 500 tonnes.

Please see Appendix 3 and 4 for process descriptions of installation activity. Please see section 3 and Appendix 3 for abatement/ control measures. These are also detailed in the environment risk assessment.

ELV Wastes

The site will be an Authorised Treatment Facility (ATF).

The site's End of Life Vehicle (ELV) depollution treatment consists of two ELV prep stands and two treatment rigs, with a maximum daily treatment capacity of 100 tonnes. This is a waste activity for treatment of hazardous ELV for recovery. The process is powered by electricity.

The total quantity stored on site at any one time is 100 ELVs, and these are typically stored on site for one week, but not for longer than 3 months. Further restrictions that apply to the storage of wastes can be found in the FPP.

ELVs are accepted on site with Duty of Care / Hazardous Waste paperwork, which is checked to verify their status and condition.

Movements and storage of ELVs on site is dependent on their status and is as follows:

- ELVs delivered to site without the necessary documentation to state they have been depolluted in accordance with the ELV Regulations 2003 are stored on an area of the site constructed of impermeable pavement linked to the site's sealed drainage system. They are taken to the depollution rig for depollution in accordance with the ELV Regulations 2003. Once depolluted, the ELV is removed from the depollution rig and stored in the Pre-shredder feed area.

- ELVs delivered to site from an ATF, with all necessary documentation to demonstrate that depollution has been undertaken, are stored in the Pre-shredder feed area.

- The site may at times have an Abandoned Vehicle Contract with the Local Authority / Police. Abandoned vehicles that are being held under Abandoned Vehicle Contracts are not ELVs at this stage. These vehicles are stored on the area of hardstanding until either their owner reclaims them, or authorisation is given from the Local Authority to scrap the vehicle. If instruction is given to scrap the vehicle, it is taken directly to the

undepolluted ELV storage area detailed on the Site Layout Plan in Appendix 2 and depolluted in accordance with the ELV Regulations 2003.

WEEE Wastes

The site will be an Approved Authorised Treatment Facility (AATF).

Waste Electrical and Electronic Equipment (WEEE) wastes are generally received via contracted suppliers, hence the type of WEEE material to be stored on site is already known prior to its arrival. This lessens the likelihood of receiving non-conforming wastes.

WEEE Wastes are stored and dealt with in accordance with relevant legislative requirements of the WEEE Regulations 2006.

WEEE wastes are stored in the locations shown on the Site Layout Plan in Appendix 2.

All WEEE wastes are stored on areas with impermeable pavement with sealed drainage system.

TVs and monitors are stored on impermeable pavement with a sealed drainage system, stored separately from all other waste material and provided with weatherproof covering, where appropriate.

Fridges (ELF's) are stored on impermeable pavement with a sealed drainage system, stored separately from all other waste material.

Storage areas are inspected daily.

Any spillages are dealt with immediately following the procedure for spillages as detailed in the Emergency Contingency Plan.

Small Mixed WEEE (SMW) is treated on site. SMW may contain POPs.

Pre-treatment either takes place on site or pre-treated WEEE may be delivered to site from other facilities.

All SMW material is delivered and stored separately to other waste piles, in areas allocated as SMW storage on the Site Layout Plan in Appendix 2.

SMW is stored and manually pre-treated on site to remove components that require removal prior to mechanical treatment. Manual pre-treatment of SMW takes place undercover. Storage of pre-treated WEEE is separate to other waste types. Storage and pre-treatment areas are shown on the Site Layout Plan in Appendix 2.

SMW treatment consists of one treatment plant line, with a continuous mode of operation. The maximum daily treatment capacity is 500 tonnes. This process is for the treatment of hazardous SMW for recovery and is a waste activity powered by electricity.

The SMW treatment plant consists of a feed hopper, infeed conveyor, picking conveyor with output storage containers for items manually removed, output conveyor and output storage.

The total quantity of untreated SMW stored on site at any one time, along with further restrictions that apply to the storage of wastes can be found in the FPP.

Pre-Treatment involves the manual removal and separate storage of the following required items:

- SMW/ components containing fluids,
- Toner cartridges,
- CFCs, HFCs, HFCs and HCs,
- TVs and monitors,
- Fluorescent Lamps and switches containing mercury,
- Hazardous batteries,
- Asbestos,
- Refractory ceramic fibres,
- Radioactive substances, and
- Other non WEEE hazardous items (e.g. gas cylinders).

These items are stored in appropriate sealed and/ or leak proof containers, with cover where appropriate, prior to removal to suitably authorised facility.

There are minimal SMW items that contain asbestos, refractory ceramic fibres (RCF) or radioactive substances and hence we do not expect to find these in the SMW. Asbestos has not been used in WEEE since 1985, and RCFs were only used in high temperature industrial applications e.g. furnace/ kiln linings. WEEE containing radioactive substances is also unlikely to be present, but any radioactive items that are present are detected by our radiation detection process at the weighbridge. Operatives are trained to be vigilant for these items as for all non-conforming items.

We do not expect WEEE items containing CFCs, HFCs or fluorescent lamps to be present in the SMW stream as these WEEE wastes are required to be separately collected, hence should be segregated from other WEEE streams at source (e.g. at CA sites). Operatives are trained to be vigilant for these items as for all non-conforming items.

Operatives are trained to identify SMW wastes likely to contain batteries and to remove these at the pre-treatment stage. Batteries removed are stored appropriately, separated by hazard and in leak proof containers with lids or undercover.

Treatment of Pre-treated SMW

There is a final visual inspection of pre-treated SMW prior to it being treated through the shredder. Any items requiring further pre-treatment are removed to the pre-treatment area.

All material is delivered and stored separately to other waste in feed piles. The location of the pre-treated WEEE storage is as per as per SMW storage in areas adjacent to the shredder in feed conveyor as noted on the Site Layout Plan in Appendix 2.

Pre-treated SMW is treated as discrete batches of material. The equipment used / process route is the same as for other waste streams; a continuous process. After shredding, the metal is recovered by magnets and the remaining waste streams are sent to Ward facilities for further treatment and refining.

This process generates separated waste streams of plastic, non-ferrous, printed circuit board rich and waste.

Please see Treatment Process Routing in Appendix 6.

TAPO Plant

Fragmentised scrap from the treatment of pre-treated WEEE is processed in the TAPO Plant. The plant consists of an infeed hopper, conveyors, overband magnet and output bays. The capacity is 150 tonnes per day, based on current treatment throughput of circa 15 tonnes per hour over a 10hr day.

Residue Management Plan / Outputs from the treatment process ensures that:

- the generation of residues arising from waste treatment is minimised by maximising the separation of recoverable fractions;
- the waste hierarchy is implemented regarding recovery and disposal options for residues by sending residues to Ward sites for further treatment where recovery of recyclables is undertaken in the Off Line Recovery Plant and other associated plant, or to other suitably authorised permitted facilities. Subsequently, using third parties to optimise further downstream recycling or energy recovery of outlets. Where disposal of waste is required (in the event recovery is technically or economically impractical), Ward completes a detailed assessment identifying the best environmental options for waste disposal and ensures proper disposal of residues to landfill.
- options for recovering and disposing of waste produced at the facility are regularly reviewed as part of EMS to make sure the best environmental options are in use, promoting the recovery of waste.

Shredder Residues

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

Residues are characterised by the nature of the infeed, the separation process equipment/ downstream technologies employed, which produce products that are standard and defined. The characterisation is confirmed by visual inspection. The treated output material is inspected to check it visually meets expectations and is suitable for its intended disposal or recovery route.

Material flow analysis is used for relevant contaminants in the waste to help identify their flow and fate. The analysis is used to determine the appropriate

treatment for the waste either directly at the site or at any subsequent treatment site.

The analysis and knowledge of the fate of the contaminants ensures the correct treatment or, in the case of POPs, destruction route (see SMW residues below).

Residues

MSR is the light fraction that has been removed from the shredded non-hazardous waste stream by the air cleaning system on the plant. Non-ferrous residue is the non-magnetic material that is not part of the light fraction removed by the air cleaning system. Both of the above, under normal circumstances, go for onwards treatment at Ward dedicated treatment facilities where suitable processes are available to accommodate the fractions. 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, shredder residues are, under normal circumstances, destined for further treatment at Ward dedicated facilities or other suitably authorised facility.

In extenuating circumstances, should disposal of the shredder waste /residues be required, an appropriately authorised landfill will be used.

The nature of the separation process ensures ferrous output from the shredder meets 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 is confirmed visually.

SMW Residues

The SMW residues from the batch treatment of pre-treated SMW are classified as premixed wastes composed of at least one hazardous waste 19 02 04* following EA Guidance.

Residues that contain SMW plastics may contain POPs and are consigned (EWC 190204*) to suitably authorised facilities for further treatment and subsequent destruction of the POPs, as detailed below.

Article 7 of the Regulation (EU) 2019/1021 of the European Parliament and of the Council on persistent organic pollutants (the POPs Regulation) requires that any POPs in waste plastic is destroyed or irreversibly transformed. Destruction of

POPs in the waste plastic fraction is achieved by off-site third-party facilities that accept this residue and destruction of POPs is achieved by incineration, consumed/ destroyed in the metal smelting process, or pyrolysis.

2.11 Process Efficiency

Ward monitors and reviews once per year, the annual quantity of:

- water, energy and raw materials used
- residues and waste water produced

Energy Usage

Energy efficiency

Ward endeavours to ensure that energy is used efficiently at the site and will identify energy consumption and methods of saving energy at the site.

Operating measures are in place to avoid gross energy inefficiencies. These include, for example:

- keeping the infeed stable
- insulation, where appropriate
- Consideration of energy efficient motors and variable speed conveyors/ drives, where appropriate.

Maintenance and housekeeping measures are in place to maximise efficiency and minimise energy losses, for example:

- compressed air systems (minimising leaks, procedures for use)
- lubrication to avoid high friction losses
- other maintenance relevant to the activities within the facility
- replacement of wear parts as required

a) Energy Efficiency Plan

Ward have an energy efficiency plan which:

- defines and calculates the specific energy consumption of the activity carried out and the waste streams treated
- sets annual key performance indicators – energy consumption (expressed in kWh/tonne of waste processed)
- plans regular improvement targets and related actions
- is regularly reviewed and updated as part of the facility's EMS

and

(b) Energy Balance Record.

Ward maintains an energy balance for the facility which:

- will provide a breakdown of the energy consumption (there is no energy or heat generation / exportation) by the type of source (i.e. electricity, gas, conventional liquid fuels, conventional solid fuels, and waste).
- will have and maintain energy flow information (e.g. energy balances) showing how the energy is used throughout the process.
- will be regularly reviewed and updated as part of the facility's management system, alongside the energy efficiency plan.

In relation to the shredder; measures are in place to avoid gross energy efficiencies. 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).

- Measures are in place to keep the shredder infeed stable as possible. Pre-shredding equipment has been added, which is used to pre-shred baled wastes, depolluted ELV, logged, flattened and baled depolluted ELV, and help to keep infeed stable.

Ward has operating, maintenance and housekeeping measures in place in relevant areas.

<u>Raw Materials</u>

Ward maintains a list of the raw materials used and their properties are detailed in Safety Data Sheets (SDS). Hydraulic oil is the only raw material used directly in the installation.

Ward regularly reviews the availability of alternative raw materials and considers use of any suitable ones that are less hazardous or polluting, or, where possible, substituting raw materials with waste or waste-derived products.

<u>Water</u>

Ward monitors water consumption annually.

Ward optimises water consumption to:

- reduce the volume of waste water generated
    - the shredder plant water injection is monitored and is adjustable so there is no waste water / process water generated by this process.

    - use of water for dust suppression is managed so there is no waste water generated from this management practice.
- prevent or, where that is not practicable, reduce emissions to soil and water
    - the site surface is concrete, and the site has a sealed drainage system and lawful discharges. This reduces risk to soil.
    - there is no waste water generated by the process so risk of emissions to water are reduced.

Ward will implement a water saving plan. It will consider the following:

- use of water efficient techniques at source where possible
- optimise the use of washing water (for example, dry cleaning, vacuuming, scraping, or sweeping instead of hosing down, mopping instead of hosing, using trigger control on all washing equipment e.g. hoses, hand lances)
- recirculate and reuse water streams within the plant or facility, where practicable, if necessary, after treatment. If not practicable, use it in another part of the process or facility that has a lower water quality requirement
- reduce the use of water for vacuum generation (for example, using liquid ring pumps with high boiling point liquids) where relevant (not applicable)
- reuse in a closed circuit water injected into the mill (Not applicable, there is no run off from water injected into the mill to collect in a closed loop system)
- collect run off water and damping water for dust suppression (not applicable, there is no run off from water used for dust suppression).
- use of uncontaminated roof water is being considered
- establish the water quality requirements associated with each activity and identify whether potable / abstracted water can be substituted with water from recycled sources. Where possible, this will be included in an improvement plan.

It will include the following:

- flow diagrams and water mass balances for the activities
- water efficiency objectives and identify constraints on reducing water use
- identify the opportunities for maximising reuse and minimising use of water
- have a timetabled improvement plan for implementing additional water reduction measures

Water use is monitored annually and the water saving plan will be reviewed every four years.

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

2.12 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.

Security measures are in place to prevent entry by unauthorised persons.

All visitors are required to report to the site office.

The site is surrounded by a variable composition wall of concrete, steel, timber sleepers and chain link fences, with four sets of secure lockable gates serving the entire complex. Gates are securely locked at all times when the site is non-operational. All fencing, gates and other security measures are inspected on a regular basis (daily) and maintained in sound condition to prevent unauthorised access. Temporary repairs are carried out by the end of the working day; and repaired to original standard within fifteen working days of the damage being noted.

Security cameras cover the entire open yard of the facility. These are routinely maintained. Signs are posted informing that cameras are in operation.

An on-site night watchman plus overnight maintenance crew provide overnight security. Any issues noted are reported to Site Management and recorded in the Site Diary.

3 EMISSION CONTROL AND MONITORING

3.1 Point Source & Ambient Emissions

Where emissions are required to be monitored, suitable monitoring points are installed.

Point source emissions to water

There are two point source emissions to water, one to surface water and one to sewer. The discharges consist of rainfall dependent run off from site surface (storage and treatment areas). There are no waste process water streams generated at the facility.

Surface Water

The site has an impermeable surface with a sealed drainage system and a lawful discharge. The surface water drainage system flows via abatement technique class 1 full retention oil water separator aka interceptor located to the east of the yard discharges (W1) to surface water drainage on Harrimans Lane, which ultimately discharges to controlled watercourse, Tottle Brook.

Sewer

The site has an impermeable surface with a sealed drainage system and a lawful discharge. The surface water drainage system flows via abatement technique class 1 full retention oil water separator aka interceptor located at the southern tip of the yard discharges (S1) to the foul sewer on Harrimans Lane, which is collected and treated by Severn Trent Water Company.

Samples are taken and analysed in accordance with 'Sampling Protocol' as agreed provided in Appendix 7. Monitoring points are shown on plan in Appendix 2.

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

Point source emission to Air from Air Cleaning System A1a.

Point source emissions to air is monitored in accordance with a 'Point Source Emissions to Air Monitoring Protocol'.

Ambient Emissions to air

Ambient Emissions to air will be monitored in accordance with an 'Ambient Emissions Monitoring Protocol'.

Emissions inventory summary

Emission Point reference	Nature of emission	Abatement Technology	Emission type
W1	Rainfall dependant site run off potentially containing oil, metals, solids	Oil water separator	Point source emission to surface water, Tottle Brook
S1	Rainfall dependant site run off potentially containing oil, metals, solids	Oil water separator	Point source emission to sewer (STW)
A1a	Air from cleaning system of shredding of metal containing waste containing particulates (TSP)	Water injection on shredder mill / Cyclone / Baghouse filter	Point source emission to air

3.2 Odour

Ward designs, operates and maintains storage and treatment plant in a way that prevents, or where that is not possible, minimises fugitive emissions to air, including odour.

The site does not pose a risk of odour related impact due to the nature of the waste and activities carried out. Nevertheless, during daily inspections the presence of any offensive odours is noted and recorded in the EHS Management Software. The source of any problem is investigated and dealt with as necessary to remove the problem. Any complaints received are recorded in the EHS Management Software 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.

During oxy propane size reduction operations, there is the potential that some types of scrap metal may give rise to an odour.

3.3 Noise and Vibration

Activities on site are managed to minimise the risk of noise related impact. Nevertheless, during daily inspections the presence of nuisance noise is noted and recorded in the EHS Management Software. The source of any problem is investigated and dealt with as necessary to remove the problem.

Any complaints received are recorded in the EHS Management Software and actioned where appropriate.

The following procedure ensures emissions of noise are kept to a practical minimum, preventing or where that is not practicable, minimising the likelihood of noise pollution outside the site.

Waste Acceptance

- Ward undertakes proactive education of suppliers to prevent or, where that is not practicable, to minimise the presence of non-conforming wastes likely to be the cause of sudden noise events (deflagrations).

- Ward controls and monitors waste acceptance procedures to ensure, so far as is reasonably practicable, that wastes likely to cause sudden noise events (deflagrations) are identified before the treatment process, logged and repatriated to the supplier or quarantined pending repatriation to owner, or for removal to a suitably authorised facility.

- Ward maintains procedures for logging, monitoring and responding to sudden noise events (deflagrations) where they do occur and for informing suppliers, which prevent or, where that is not practicable, minimise potential for recurrence.

Site Traffic

- Ward undertakes proactive and responsive communications with third party hauliers and site users, which include information about times for deliveries and collections, and requests consideration of the neighbours when accessing and egressing the site.

- Delivery vehicles are processed as quickly as possible to minimise noise from engines, reversing warning signals etc.

Hours of Operation

- Noisy activities are avoided at night or early in the morning. Operations are not normally conducted during ‘unsociable’ hours.

Mobile Plant

- All plant is to 'industrial standard' as used in the materials handling sectors and is inspected and maintained to manufacturers specification. Adequately maintaining plant or equipment parts reduces the risk that the plant may become noisier as they deteriorate.

- 360 material handlers, loading shovels and site fork lift trucks (FLT’s) are fitted with white noise reversing alarms to eliminate any noise associated with conventional safety alert systems.

- Revving of plant and vehicle engines is kept to an operational minimum and idling plant is switched off when not in use, where practicable.

Fixed Plant

- A pre-shredder has been installed. This machine processes baled materials and depolluted ELVs before they enter the shredder, greatly reducing the possibility of sudden noise events from deflagrations.

- A sight barrier / acoustic wall is located along the northern side behind the fragmentation plant. Whilst primarily designed to mask the operation from the rail boundary, this barrier also has some noise limiting effect.

- Plans to enclose the shredder plant in an acoustic enclosure are being considered. Plans for installation TBC.

Material Handling

- Drop heights - the distance between the grab and the stockpile “the drop” (deliveries and products) - are kept to the practical minimum in line with company best practice (i.e. grab lowers material onto stockpiles or into containers).

- The movement of waste and containers is minimised. The unnecessary handling / double handling of scrap and movement of skips / containers is avoided, where practicable.

- When moving grab loads of material around site, operators ensure that the grab only collects enough material that can be easily contained within the grab as material is transported around the site. FLT operators ensure the load is stable before moving. This reduces the likelihood that material is dropped.

- If the ground needs to be swept, a skid steer / bobcat vehicle with brush attachment is used. A ball of wire may be used to sweep. Ward will avoid scraping as a method of housekeeping.

Training

- All relevant employees have been comprehensively trained in respect of the use of the plant and machinery associated with the loading, handling and treatment activities.

- Site operatives are trained in these operating techniques, and they are available in the weighbridge & offices to all Ward employees for reference.

- All relevant Ward employees and relevant contractors are aware of the details of the procedure for noise management and control.

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

- Operational feedback is communicated to site employees at regular morning meetings / SHEQ meetings if earlier notice or discussion is not required. The site manager discusses the NMP with operatives, daily at morning meetings.

Additional Noise Mitigation Measures

- Noise awareness signs are visible at the site weighbridge and in site plant and machinery.

- Noise is controlled through the on-going monitoring of site operations by the site management team using the management system tools.

- Daily site observations are 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 are recorded in the Site Diary.

- Significant changes to operational practices are subject to discussions and to investigation to assess their potential impact on the noise 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.

Complaints

- Ward contact details are readily available to neighbouring residents. Neighbours are encouraged to contact site directly to discuss any concerns they may have.

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

- Any complaints received direct to site or via the Environment Agency are recorded in the EHS Management Software and complaints log and investigated.

3.4 Dust and Emissions management

Ward designs, operates and maintains storage and treatment plant in a way that prevents, or where that is not possible, minimises fugitive emissions to air, including dust.

Activities on site are managed to minimise the risk of dust related impact. During daily inspections, the presence of any nuisance dusts is noted and recorded in the EHS Management Software. The source of any problem is investigated and dealt with as necessary to remove the problem.

Any complaints received are recorded in the EHS Management Software and actioned where appropriate.

The following procedure ensures emissions of dust are kept to a practical minimum, preventing or where that is not practicable, minimising the number of potential diffuse dust and particulates emission sources. The controls on the shredder plant form the major body of dust control on site and are shown on schematic in Appendix 3.

Waste Acceptance

- Waste pre-acceptance, waste acceptance and site inspection checks and procedures identify and manage wastes that could cause, or are causing, fugitive emissions to air. For example, identifying gas cylinders, or poorly depolluted ELVs minimises the likelihood of deflagrations.

Site Traffic

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

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

- Vehicles are sheeted before they leave the loading area. Drivers completing the sheeting process check for any debris on the vehicle before leaving this area. Automatic sheeted vehicles are checked at the weighbridge before leaving site.

Site Infrastructure

- All treatment activities take place on impermeable surface with sealed drainage system, minimising the risk of generation of dusts from site surfacing. Integrity of the surfacing is maintained.

- The fence line along the boundary with the rail line is topped with a fine net to minimise risk of emissions. The netting is inspected daily and maintained in a good state of repair.

- The fence line along the boundary with Boots / the cycle path has been extended in height. This affords some protection from wind (wind barrier) and minimises the potential for windblown debris.

- Dust suppressing equipment by means of a fixed spray system is installed along the boundary with the rail head.

Mobile Plant

- When in use, the mobile trommel is positioned in the waste bay area where there are sprinkler systems. Mobile suppression units are available and would be deployed should additional mitigation be required.

Fixed Plant

- The pre-shredder has a misting system comprising of a spray bar on the discharge.

- The shredder system has water injection in the form of water injection / spray suppression on top of the mill. Each waste stream has its own tailored rate of internal water suppression. This system is active when the shredder is operational. It can be adjusted as required, and in response to visual observations made during operations.

- Rubber flaps are fitted to the inlet and outlet of the shredder mill.

- The shredding activity is carried out using partially enclosed equipment to minimise the escape of dusts in windy conditions. Details are provided below.

- There are misting system/water sprays at various locations on the plant to further assist in minimising the escape of dust in dry/windy conditions. These consist of a spray bar with nozzles on to dispense water in a mist across the general area. The fines bay has mid-length flaps to further

contain any airborne particles from the conveyor. This is shown on the plan in appendix 3.

- The misting system is fed by water tanks that auto-fill and have markers on so operatives can visually check they are full.

- Particulates are collected from the transfer conveyor and directed to an appropriate abatement system providing cyclonic filtration removal of dust from cleaning plant airstream and fabric filter / bag house prior to emission to air at A1a. See Appendix 4 for detail.

- The drop point from the waste stacker conveyor has flaps to effectively reduce the drop height.

- The wastes are transported to the bays by conveyors which are either currently covered or will be covered during Phase 1-3 of the site's planned improvement works. The current status of the conveyors on site are shown in Appendix 3.

- Pre-treatment of Small Mixed WEEE (SMW) is undertaken by manual means within a building minimising the potential for any dust emissions.

Material Storage

- The shredder non-metallic fractions i.e. shredder waste and residue bays are on impermeable surface with sealed drainage system. The shredder non-metallic fractions i.e. shredder waste and residue bays are enclosed to varying extents to prevent or, where that is not practicable, minimise the potential for windblown emissions.
    - The SDA/SMW residue and SDA / SMW waste bays are enclosed on 3 sides and covered.
    - Non ferrous light fraction bay is enclosed on 3 sides and covered with netting.
    - The shredder waste output bay is not currently covered and the shredder residue bay is enclosed on 3 sides and not currently covered, although these are planned to be covered within the planned site improvement works.

Material Handling

- Shredder waste and residue is transported to output bays by conveyors. It is moved from output area to storage bay using a loading shovel. The bucket is not overfilled to minimise risk of dropping material.

- Shredder waste and residue loading takes place adjacent to the storage bay to minimise the risk of dust escaping during transport in shovel bucket and to minimise the distance travelled. The bucket is not overfilled to minimise the risk of dropping wastes. A misting system is activated on waste bays when operating. The rate of water dispensed can be adjusted based on meteorological conditions and observations during the loading process.

- Drop heights the distance between the grab and the stockpile “the drop” (deliveries and products) are kept to a minimum in line with company best practice (i.e. grab lowers material onto stockpiles or into containers) to prevent the generation of fugitive emissions of dusts.

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

Training

- All relevant Ward employees and relevant contractors are aware of the details of the procedure for dust management and control.

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

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

- Operatives are trained to identify and report any issues. Designated employees have radios to communicate to the Site Supervisor or Site Manager in the event of identifying any issues. This would trigger an investigation and response as required. Examples of actions that could be taken in response to such reports include increasing the water on the mill or turning on suppression at additional locations, moving a mobile water supply to an area, repairing damage to a control measure.

Additional Dust Mitigation Measures

- Should temporary storage be required elsewhere on the site for potentially dusty material, sprinkler systems are available to ensure that the escape of dust is minimised. Mobile water misting systems e.g. ‘dust layer’ or equivalent, are available for such purposes.

- Visual inspections are undertaken regularly throughout the day, using the windsock to determine wind strength and direction, and by making observations of the plant and equipment. These inspections allow for adequate monitoring of how the dust suppression systems and procedures are performing regarding the presence of any fugitive emissions.

- A visual material spillage / leak detection and repair programme is used to promptly identify and mitigate any fugitive emissions from the treatment plant and associated infrastructure. This includes visual inspections of conveyors, covers and enclosures for damage/ holes areas of corrosion of plant and equipment that could lead to fugitive emissions.

- Meteorological conditions are checked regularly throughout the day using weather forecasts. This information is used to plan activity in periods of prolonged dry or warm weather.

- Operatives are aware that loading lighter grades in certain meteorological conditions, such as windy conditions, may give rise to emissions. Additional monitoring and vigilance are employed during these conditions. In windier conditions, heavier grades of scrap metal e.g. cuttings or iron can be preferentially processed. These materials have lower dust generating potential than some lighter grades.

- Waste storage, treatment areas and equipment are regularly inspected and cleaned. Good housekeeping is employed daily to reduce quantities of particulates, dust accumulating on the site, and alleviate any waste leaving the site. This occurs daily after each operational shift and throughout the operation, as required. This is also undertaken as part of the routine maintenance activity. This regular housekeeping avoids the need for large-scale decontamination activities. Residues collected during cleaning are contained so they do not cause emissions.

- Dust suppression techniques such as dampening and the use of both manual and mechanical sweeping are employed as necessary to prevent emissions. The sweeper is when required, and additional

sweeping takes place using a Bobcat and brush. Visual monitoring by the site manager or appointed representative in his absence is undertaken throughout the day to determine when such equipment should be utilised.

- A hose, IBC or bowser of water is available to suppress dust on site surfacing and roadways. 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.

- The site management team carries out monitoring of site operations and undertakes 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.

- Dust is controlled through the on-going monitoring of site operations by the site management team using the management system tools. Daily site observations are 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 are recorded in the EHS Management Software.

- Operational Feedback is communicated to site operatives at morning meetings or regular SHEQ meetings if earlier notice or discussion is not required.

- Significant changes to operational practices are 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.

Improvement Plan

- Shredder non-metallic fractions are not currently all stored in covered bays or treated under cover. BAT did not specifically require this. An improvement programme is in place. We will work towards covering all non-metallic fraction storage bays and conveyors. Timescales TBD

- The remainder of the non-metallic fraction process equipment will be covered as follows:

    - the 2nd waste (dirt) conveyor. This will be covered in Phase 1 of the improvement plan, along with the shredder waste bay.

    - the (M21) non-ferrous conveyor (55) This will be covered in Phase 2 along with non-ferrous residue bay.

    - the final 1/3 of the 4th waste belt (DC16) will be covered in phase 3.

    - The configuration of equipment on the waste line that consists the DC19 drum magnet / shaker, DC18 overband magnet & DC23 conveyor will be covered in phase 3.

    - the DC24 waste (dirt) stacking conveyor will be covered by the waste output bay cover work Phase 1.

Other improvements:

- Trommel (DC6) is predominantly enclosed, but improvements to the enclosure will be implemented during phase 3.

Complaints

- Ward contact details are readily available to neighbouring residents. Neighbours are encouraged to contact site directly to discuss any concerns they may have.

- The site office contact details (postal address and telephone number) are available on the site identification board at the site entrance, the Ward company website, yellow pages and business listing services, and internet search engines.

- Any complaints received direct to site or via the Environment Agency are recorded in the EHS Management Software and complaints log and responded to.

3.5 Litter

The nature of wastes dealt with minimises the risk of litter related problems. Nevertheless, the site entrance and adjacent highways are inspected daily and any escape of litter beyond the boundary of the site is cleared up as soon as it is

practicable and safe to do so. Any complaints received are recorded in the EHS Management Software and actioned where appropriate.

3.6 Pests

Wastes handled do not attract vermin. A contractor is used to control vermin and records of actions kept.

3.7 Fires on Site

No deliberate burning of waste occurs at the site and all necessary steps are taken to safeguard against accidental fires. Any fire is treated as an emergency and appropriate measures are taken in accordance with Emergency Contingency Plan and Fire Prevention Plan.

Site personnel are trained in the site's Emergency Contingency Plan and Fire Prevention Plan. Firefighting equipment is readily available and maintained as per legal requirements. The Environment Agency will be informed without delay should a fire occur.

3.8 Control of Mud & Debris

It is uncommon for the operations to give rise to problems associated with the tracking of mud and debris out onto the public highway. Wastes usually arrive secure in metal-sided lorries, and the treated products and residues are dispatched in a similar manner or by rail. Nevertheless, any escape beyond the boundary of the site is cleared up as soon as it is practicable and safe to do so.

Site surfaces and access roads are swept mechanically regularly using a commercial road sweeper. Additional sweeping takes place using a Bobcat and brush. The entrances to the site and the adjacent highways are inspected on a daily schedule and, if any fouling from the site operations is apparent, this is

rectified before the end of that working day. Records of any such incidents and of any resulting clean-up are maintained in the EHS Management Software.

3.9 Deflagration Management Plan

Please see the Deflagration Management Plan.

4 MANAGEMENT

See EMS Summary in Appendix 8. This system includes consideration of Climate Change Risk Assessment and Adaptation – see Climate Change Adaptation Appendix 9.

5 SITE RECORDS

The operator ensures the following information is recorded:

- Site inspections by the operator or other body and any subsequent issues and corrective actions taken;
- Construction Work;
- Emergencies;
- Fire;
- Explosions;
- Complaints and actions taken;
- Plant/equipment failure;
- A record of any rejection of waste;
- Technically competent manager – times on site;
- Security failures;
- Severe weather conditions.

All records are held in the site office and are available on request. All records, which are required under the conditions of the Environmental Permit, are maintained and kept secure from loss, damage or deterioration. Any records held

electronically are backed up on a regular basis. Back-up copies of computer records are stored on a server off site.

As required by permit conditions, records are kept for at least 6 years, or in the case of records relating to off-site environmental effects and matters that affect the condition of the land or groundwater, until permit surrender.

Waste acceptance / dispatch records are kept for a minimum of 2 years after the waste has been received or removed it off site.

Hazardous waste consignment notes are kept for minimum 5 years.

APPENDICES 1 – 8
Provided as separate documents

End of Operating Techniques