

EMR Limited

Non-Technical Summary



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1.2	09/05/2024	Update with EMR business name after acquisition

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CONTENTS

1.0	INTRODUCTION	. 1
1.1	Site Address	. 1
1.2	Operational Location	. 1
1.3	Site Description	. 1
1.4	Plans	. 1
1.5	Permits and Licenses	. 1
1.6	Reason for Application	. 1
2.0	OVERVIEW OF PROPOSED OPERATION	. 3
2.1	Current Operations	. 3
2.2	Proposed Operation	. 3
2.3	Operational Layout	. 3
2.4	Material to be processed	. 3
2.5	Calculated Capacity	. 3
2.6	Directly Associated Activities	. 4
3.0	OPERATING PROCEDURES	. 5
3.1	Waste Acceptance	. 5
3.2	Waste Processing	. 5
3.3	Operational Hours	. 6
3.4	Technical Standards and Control Measures	. 6
4.0	ENVIRONMENTAL AND IMPACT CONTROL MEASURES	. 7
4.1	Dust and Odour	. 7
4.2	Ground/Surface Water	. 7
4.3	Noise and Vibration	. 7
4.4	Sensitive Receptors	. 7
ΔNNE.	Y A -TECHNICAL STANDARDS SUMMARY	R

1.0 INTRODUCTION

1.1 Site Address

EMR Middlesbrough Granulation

1 Gould Avenue Tees Advanced Manufacturing Park Riverside Park West Middlesbrough TS2 1EQ

1.2 Operational Location

NGR - NZ 48006 20273

1.3 Site Description

The site is situated on Gould Avenue on the Tees AMP business park, which is itself located off the A66 in Middlesbrough. The site is located immediately east of the River Tees, approximately 1.5km west of Middlesbrough town centre. The site measures approximately 160 metres by 45 metres.

The waste cable and metal processing facility consists of a large building in which the majority of the waste processing takes place, a loading bay, waste storage bays, a weighbridge and a portakabin gatehouse. There are also 27 car parking spaces located immediately east of the processing building. There is a dust extraction system located in the processing building for the removal of dust generated during the processing of waste cables and metal.

The site is situated within a mixed-use industrial area. Immediately north and east of the site are several industrial units. To the immediate west of the site is the River Tees and to the south of the site is a small patch of green land with bushes with a railway line and residential are beyond. The nearest residential properties are approximately 550m to the south and southeast of the site boundary. There are a number of sensitive receptors within 250m of the site boundary.

1.4 Plans

Site Location Plan – CUP_001 Site Layout Plan – CUP_002

1.5 Permits and Licenses

At the time of writing, European Metal Recycling Limited (hereon referred to as EMR) do not currently possess an environmental permit to operate the facility. However, EMR are registered for a T9 waste exemption and are operating in line with the conditions of this exemption.

1.6 Reason for Application

EMR are seeking a Bespoke Installation Environmental Permit to operate as a non-hazardous waste treatment installation. It is the intention of EMR to process mainly waste cables and other metal waste through a series of shredders, magnets and granulators to separate the copper in the cables from the plastic. The separated component parts will then be transferred

off site for onward treatment at a suitably licenced facility. The waste activity to be applied for is as follows:

- Section 5.4 Part A (1) Disposal, recovery or a mix of disposal and recovery of nonhazardous waste
 - b) Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving one or more of the following activities—
 - (iv) treatment in shredders of metal waste including electrical and electronic equipment and end-of-life vehicles and their components.

2.0 OVERVIEW OF PROPOSED OPERATION

2.1 Current Operations

EMR do not currently hold an environmental permit to store or process any waste on site. However, EMR are registered for a T9 waste exemption and are operating in line with the conditions of this exemption.

2.2 Proposed Operation

EMR are seeking permission to accept and process up to 57,000 tonnes of non-hazardous waste per year. The waste will mainly consist of redundant cables, from domestic and industrial sources e.g. flexible cables from appliances, off-cuts from cable manufacturing lines etc and other metal waste from differing sources such as construction and demolition waste and municipal waste. Processing will consist of a combination of chopping, granulation and separation including magnets and density screen, conveyors and pneumatic systems. The separated copper and polymer insulation waste is removed from site for onward use, recycling or disposal.

2.3 Operational Layout

The operational layout of the facility is shown on the Site Layout Plans (CUP_002). The development consists of a weighbridge and gatehouse at the southern access to the site. The rest of the southern portion of the site consists of 20 waste storage bays constructed of duo interlocking concrete blocks. The northern portion of the site is where the waste processing takes place, most of which is located within a large industrial building. The only elements of the processing which are not located within the building are the initial super chopper, electro overband magnet, vibratory discharge feed and a small portion of a conveyor which takes the material inside the building for further processing. A car park is located to the north of the building with space for up to 27 vehicles. The site has a drainage system in place for the management of surface water generated on site. All surface waters are directed via built falls into surface drains which drain via an oil interceptor into the foul sewer. Rainwater falling on building roofs is collected via gullies, spouting and down-pipes and is then directed to the business parks local surface water drainage network which discharges clean water into the River Tees.

All vehicles carrying waste enter and exit the site via the weighbridge and adhere to the traffic routing system. Following visual inspection, the vehicles are directed to the waste unloading area to tip the waste.

2.4 Material to be processed

The site proposes to accept waste cables and other metal waste onto site for processing which will see the ferrous and non-ferrous metals separated from the plastics. A full itemised list of materials to be processed on site, including EWC codes is provided within *OPO2 – Waste Acceptance*.

2.5 Calculated Capacity

In order to determine the maximum viable annual tonnage that could be processed on site, a site capacity assessment (CUP-A03) has been undertaken. The site capacity assessment has

determined that no more than 56,940 tonnes of waste will be accepted and processed on site per annum which equates to 6.5 tonnes per hour.

2.6 Directly Associated Activities

The associated activities with the waste cable treatment processes are:

- Receipt and Inspection of waste materials.
- Storage of non-hazardous waste pending treatment or collection.
- Dust extraction system.

3.0 OPERATING PROCEDURES

The following sections include an overview of the proposed procedures for cable treatment (non-hazardous waste).

3.1 Waste Acceptance

The incoming load will enter the site and follow the directional signage to the weighbridge. On entering the weighbridge area, the driver must have the appropriate waste transfer documentation (plus consignment notice for hazardous waste) with the correct details of the waste on board.

The site operative will inspect the supplied waste transfer documentation at the weighbridge. An initial visual check of the waste is also carried out at this location to ensure that the waste code supplied on the documentation matches the waste being received. When the site operative is satisfied that the documentation is in order, the weight of the waste load will be documented.

The driver is then be instructed to proceed to the waste unloading area, located in the yard in which the weighbridge sits. The site is also be equipped with CCTV which will be oriented to focus on the load before tipping takes place. Once a load arrives at the waste unloading area, the waste shall be unloaded into one of the twenty designated waste storage bays which are 4.8m wide by 9.6m long and up to 5.6m high. At this point another visual inspection of the waste is carried out by an appropriately trained site operative to confirm the content and ensure that the waste meets the description given and to make sure that the site does not breach permit conditions by accepting any wastes not featured in the permit. The driver will then proceed back to the weighbridge to be weighed out and provided with a copy of the weighbridge ticket, and waste transfer note or consignment note for their records. Any waste that is rejected will be loaded back into the vehicle where possible for immediate removal from site. Should the vehicle have already left site, the waste will be stored in the quarantine area (demarcated in reception areas) and arrangements will be made for the waste to be removed.

Please refer to CUP-OP02 - Waste Acceptance for full details of the waste acceptance procedure.

3.2 Waste Processing

The process at the EMR plant serves to separate copper, non-ferrous metals and polymer insulation from the wastes that are received on site.

Initially, the waste is passed through a super chopper which reduces the particle size down to 6" before being passed through an electro overband magnet to remove some ferrous metal. The remaining chopped waste the undergoes some manual sorting before travelling on a conveyor belt to a multi-purpose rasper which reduces the particle size down to 25mm to 80mm. Following this, the waste stream is passed through another magnet and a stainless steel separator. The remaining material then passes through a pair of granulators and over a series of separation tables. This removes a significant proportion of non-ferrous metals from the waste stream. The remaining waste in the waste stream passes through a pair of classifiers and turbo mill to further separate the metals from the plastics. Approximately 60% of the waste stream is made of plastic with 40% being metal. All separated materials are stored in dry woven bulk bags.

A full process description for the treatment of waste is presented in CUP-OP02-Waste Treatment Procedure.

3.3 Operational Hours

Site operational hours for the facility will typically be as identified below:

Table 1 – Typical Site Operational Hours

Weekday	Waste Acceptance	Waste Treatment
Monday to Friday	06:00 – 18:00	00:00-24:00
Saturday	06:00 – 13:00	00:00-24:00
Sunday	Closed	00:00-24:00
Bank Holiday	Closed	00:00-24:00

3.4 Technical Standards and Control Measures

EMR will be operating to industry best standards. A documented list of technical standards that the site will be operating to is provided in Annex A.

4.0 ENVIRONMENTAL AND IMPACT CONTROL MEASURES

It is recognised that all facilities have an impact on the environment around them. Consequently, EMR will be employing process management and monitoring techniques which will mitigate the environmental impact within the following areas.

4.1 Dust and Odour

There are commercial/industrial properties within the immediate vicinity of the facility. Dust is controlled through the process via a localised dust extraction system with filter, cyclone and ventilator. Odour is not considered to present a significant risk due to the types of materials accepted (metal and cable waste) and the types of treatment activities undertaken within enclosed processing buildings.

4.2 Ground/Surface Water

The site is not located inside any Source Protection Zones or Nitrate Vulnerable Zones.

The vast majority of the cable processing activities are undertaken in a fully enclosed building, although there are 20 waste storage bays located outside. All operational areas are constructed from impermeable concrete to prevent contamination to surface and groundwater. The site has a drainage system in place for the management of surface water generated on site. All surface waters are directed via built falls into surface drains which drain via an oil interceptor into foul sewer. Rainwater falling on building roofs is collected via gullies, spouting and down-pipes and is then directed to the business parks local surface water drainage network which discharges clean water into the River Tees. A Drainage Management Plan has been provided in support of the application (CUP-CO4).

4.3 Noise and Vibration

A Noise Impact Assessment has been carried out with no adverse impact from the site. There are other commercial/industrial properties in the immediate vicinity of the facility.

4.4 Sensitive Receptors

There are a number of sensitive receptors within 250m of the site boundary. The nearest ecological receptor is the River Tees Site of Special Scientific Interest which is located immediately west of the site. The nearest commercial/industrial sensitive receptor to the site is located at plot 8 and 9 of the Tees AMP business park which is approximately 65m north of the site. The nearest residential receptor is located on Newport Road, approximately 530 metres south of the development.

ANNEX A -TECHNICAL STANDARDS SUMMARY

EMR accept non-hazardous waste cables for processing through the onsite waste treatment system. The table below presents a list of technical documents, with reference, for the process of treating non-hazardous and hazardous wastes. These documents have been utilised in order to fulfil the requirements of the bespoke permit application and will continue to be in use as point of reference during the operational life of the permitted site. Documents have been sourced from both regulatory agencies and industry led organisations.

Non-Hazardous and Hazardous Treatment - Technical Standards		
Technical Guidance Note	Document Reference	
Develop a management system: environmental permits	DEFRA and EA Guidance	
Controlling and monitor emissions for your environmental permit	DEFRA and EA Guidance	
General guide to pollution prevention	EA Pollution Prevention Guidance	
Guidance for the Recovery and Disposal of Hazardous and Non-Hazardous Waste	EA SGN IPPC S5.06	
Best Available Techniques (BAT) Reference Document for Waste Treatment	European Guidance	



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