European Metal Recycling Ltd.

Application for Environmental Permit
Non-Technical Summary & Supporting Information

Permit no. EPR/KP3625ST

Document Ref: B5c Non-Technical Summary
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European Metal Recycling Ltd.
4 Transport Avenue
Brentford
Middlesex
TW8 9HF

CONTENTS

1 INTRODUCTION

1.1 Overview

European Metal Recycling (EMR) currently operates a (permit exempt) non-ferrous metal recycling facility at 4 Transport Avenue, Brentford, Middlesex, TW8 9HF. The activities, which include the operation of a baler and shear, are currently authorised by the Environment Agency (EA) under S2, T4 and T9 permit exemptions. The provisional (pre-app.) site permit number is: EPR/KP3625ST.

The current and proposed processes on site mainly comprise the processing (shearing & baling), segregation and storage of **non-ferrous metal** wastes, for example sorting, baling, stripping, cutting, shearing, dismantling, separation, breaking and which mainly includes the different grades of the metals and their alloys: aluminium, copper, brass, lead, zinc and stainless steel. Materials also include plastic insulated copper cables (which will include potentially POPs containing plastics) but **excludes ferrous metals** (apart from stainless steels).

The site also accepts lead acid battery wastes (either individual batteries or in bulk) from both trade customers and householders. These batteries are sorted, segregated and stored in battery bins prior to transfer to an approved and permitted battery treatment and recycling facility. No treatment of batteries takes place (or is planned to take place) at Brentford (and no treatment is proposed in this application).

Metal recycling on site will comprise of physical treatment only: sorting, separation, bulking and storage of non-hazardous wastes (non-ferrous metals). The hazardous waste transfer operation involves receipt, storage and transfer of waste (e.g. lead acid batteries, catalytic convertors) to other sites (without treatment).

In addition to the above, due to the recent regulatory focus on the composition of cables, both from WEEE (Waste Electrical and Electronic Equipment) and non-WEEE sources, and their potential to contain Persistent Organic Pollutants (POPs) and other hazardous substances, EMR has applied for a bespoke permit so as to also enable the acceptance, sorting, segregating and storage of hazardous (potentially POPs containing) plastic insulated copper cables prior to transfer to a permitted treatment site.

The proposed activities relating to the processing and storage of hazardous cables will include:

- Identification, acceptance and segregated storage of the hazardous cables
- Testing of suspected incoming hazardous cable to confirm their correct classification, storage and treatment
- Bulking the segregated cables prior to export to a permitted treatment facility

The only **point source emission** on site is (and will only be) the surface water discharge of rainwater runoff over impermeable concrete surface, falling to drains and discharged to

sewer (via an interceptor to the outfall), regulated and consented by Thames Water (TMOG1517; issued: 25/07/2006).

This permit application is for a **Metal Recycling Site - mixed metals** (1.16.16) type bespoke permit, will also include the acceptance, storage and bulking of (potentially) hazardous POPs containing plastic insulated copper cables (hence a bespoke permit has been applied for to facilitate the acceptance of this hazardous waste material) and additionally catalytic convertors (storage and transfer only).

1.2 Scope of Document

This Non-Technical Summary (NTS) provides supporting information relevant to the application for a permit at the Brentford (non-ferrous) facility. The NTS includes a description of the proposed changes and details of the proposed operations. The documented proposals are based on the information available to date but may be subject to change as the processes are developed and trialled. Any changes to the proposals, or additional information which become available, will be provided to the EA during the application process.

The following documents have been used to ensure that the proposed changes to the operations meet the appropriate standards:

- Environment Agency 'Guidance for waste operators and exporters on classifying some waste electrical and electronic equipment (WEEE) devices, components, and wastes from their treatment' (https://www.gov.uk/guidance/classify-some-waste-electrical-devices-components-and-wastes-from-their-treatment)
- Identify and dispose of waste containing persistent organic pollutants – GOV.UK (www.gov.uk)
- Storing persistent organic pollutants (POPs)– GOV.UK (www.gov.uk)
- Classify some waste electrical devices, components and wastes from their treatment – GOV.UK (www.gov.uk).
- Regulation (EU) 2019/1021 on persistent organic pollutants

2 NON-TECHNICAL SUMMARY OF ACCEPTANCE AND STORAGE NON-HAZARDOUS WASTES AND HAZARDOUS WASTE CABLES

2.1 List of Waste (LoW) Coding

Non-hazardous wastes (non-ferrous metals).

The processes on site mainly comprise the waste acceptance, processing (shearing and baling), segregation and storage of **non-ferrous metal** wastes by sorting, baling, stripping, cutting, shearing, dismantling, separation, breaking methods as outlined in 1.1. These processes currently take place under permit exemptions (S2, T4 and T9) but is proposed that these non-hazardous waste operations will be performed under a bespoke permit as per the permit application.

The proposed wastes to be accepted into the Brentford (non-ferrous) site are as described in Table 1 below:

Table 1. Wastes and LoW Codes for wastes that permitted for acceptance onto Brentford (non-ferrous) site

Chapter From List of Waste that codes have been selected	Sub-section	Code
02 – WASTES FROM AGRICULTURE, HORTICULTURE, AQUICULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING	None	02 01 10 waste metal
10 – WASTES FROM THERMAL PROCESSES	10 02 Wastes from the iron and steel industry	10 02 10 Mill Scales (ferrous and non-ferrous)
	10 03 wastes from aluminium thermal metallurgy	10 03 02 anode scraps
	10 08 wastes from other non-ferrous thermal metallurgy	10 08 14 anode scrap
11 – WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY	11 05 wastes from hot galvanising processes	11 05 01 hard zinc
12 – WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS	12 01 wastes from shaping and physical and mechanical surface treatment of metals and plastics	12 01 01 ferrous metal filings and turnings
		12 01 03 non-ferrous metal filings and turnings
		12 01 13 welding wastes
15 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED	15 01 packaging (including separately collected municipal packaging waste)	15 01 04 metallic packaging
		15 01 05 Composite packaging

16 WASTES NOT OTHERWISE SPECIFIED IN THE LISTS	**16 01 Non-ferrous metal**	**16 01 18 non-ferrous metal**
	16 01 Catalytic convertors	**16 01 21* hazardous components other than those mentioned in 16 01 07 to 16 01 11 and 16 01 13 and 16 01 14**
		16 01 22 components not otherwise specified.
	16 02 wastes from electrical and electronic equipment	**16 02 16 components removed from discarded equipment other than those mentioned in 16 02 15; 16 01 17 ferrous metal;16 01 16 tanks for liquefied gas 16 02 15* hazardous components removed from discarded equipment (A)16 02 14 discarded equipment other than those mentioned in 16 02 09 to 16 02 13**
	16 06 batteries and accumulators	**16 06 01* lead batteries (A)**
		16 06 02* Ni-Cd batteries
		16 06 04 alkaline batteries (except 16 06 03)
	16 06 batteries and accumulators	**16 06 05 other batteries and accumulators 16 02 16 components removed from discarded equipment other than those mentioned in 16 02 15* hazardous components removed from discarded equipment (A)**
17 CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMAINATED SITES)	**17 04 metals (including their alloys)**	**17 04 01 copper, bronze, brass**
		17 04 02 aluminium
		17 04 03 lead
		17 04 04 zinc
		17 04 05 iron and steel
		17 04 06 tin
		17 04 07 mixed metals
		17 04 10* cables containing oil, coal tar and other hazardous substances
		17 04 11 cables other than those mentioned in 17 04 10
19 WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER	**19 01 wastes from incineration or pyrolysis of waste**	**19 01 02 ferrous materials removed from bottom ash**
	19 10 wastes from shredding of metal-containing wastes	**19 10 01 iron and steel waste**
		19 10 02 non-ferrous

FOR INDUSTRIAL USE		**19 10 06 other fractions other than those mentioned in 19 10 05**
	19 12 wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified	**19 12 02 ferrous metal**
		19 12 03 non-ferrous metal
		19 12 04 plastic and rubber
		19 12 11* other wastes (including mixtures of materials) from mechanical treatment of waste containing hazardous substances **19 12 12 other wastes (including mixtures of materials) from mechanical treatment of waste other than those mentioned in 19 12 11**
20 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	**20 01 separately collected fractions (except 15 01)**	**20 01 36 discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23, and 20 01 35**
		20 01 33* batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries
		20 01 34 batteries and accumulators other than those mentioned in 20 01 33
		20 01 40 metals

Hazardous wastes (plastic insulated cables, potentially containing POPs)

Plastic insulated copper cables are present in many categories of WEEE and are commonly separately collected. The plastic insulation on the cables may contain high levels of hazardous substances including compounds such as POPs (Persistent Organic Pollutants) typically, as brominated flame retardants. Under new and amended legislation and guidance these materials are to be characterised and classified as hazardous wastes (see POPs Guidance in Appendix 3 of the Environmental Management Plan – document ref. 'B3 EMS', dated May 21). Depending on the outcome of ongoing research, other substances present in the plastic insulation may also be present at sufficient concentrations to classify the cable as hazardous.

In accordance with EA guidance, hazardous WEEE cables accepted at the EMR Brentford (non-ferrous) site will be classified under the following two List of Waste (LoW) codes:

16 02 15 hazardous components removed from discarded equipment*

Hazardous non-WEEE cables will be classified under the following LOW code:

17 04 10 cables containing oil, coal tar and **other hazardous substances** or*

19 12 11 other wastes (including mixtures of materials) from mechanical treatment of waste containing hazardous substances.*

Note: It is proposed that only wastes such as cables *containing POPS* (i.e. 'other hazardous substances')_from construction activities assigned the EWC code 17 04 10* will be accepted at the Brentford non-ferrous site, cables containing oil and coal tar will NOT be accepted.

Any hazardous cables identified would be stored and managed as separate waste streams.

2.2 Pre-Acceptance Procedures

Pre-acceptance procedures will be applied to all contracted incoming cable (both hazardous and non-hazardous) facilitated by the completion of a Pre-acceptance form (see Appendix 4 of the Environmental Management Plan – document ref. B3 EMS, dated May 21) to determine whether cable plastic are hazardous and potentially POPs containing. If required, laboratory analyses may be performed on representative samples of cable to determine if, and at what concentrations, POPs or other hazardous substances are present in the cable. Waste characterisation and classification will be conducted in accordance with Environment Agency document 'Guidance on the classification and assessment of waste', (1st Edition v1.2.GB) Technical Guidance WM3, October 2021.

Once the pre-acceptance process has been completed the waste plastic cable will be classified as either hazardous cable (using the relevant LoW code) or non-hazardous cable and the relevant LoW code will be applied, (based on the WM3 classification outlined above) and stored as the two separate streams (in separately labelled bays).

2.3 Waste Acceptance Procedures

On arrival at the Brentford site all non-ferrous metal and cable loads will be weighed in on the weighbridge and pass through radiation detectors. All loads are inspected and checked against the waste description as shown on the accompanying 'duty of care' Waste Transfer Note (WTN) or Hazardous Waste Consignment note as part of waste acceptance procedures (see full index of Environmental Protection Procedures or EPPs in Appendix 1 of the Environmental Management Plan – ref. 'B3 EMS', dated May 21). The details of the wastes and the weights will be recorded on the electronic Trade 2 weighbridge system.

For incoming loads of suspected POPs containing cable will be assessed, characterised and classified as hazardous plastic cables. Representative samples may be taken and analysed (in a laboratory) to check whether there are potential POPs present in the cable (e.g. through determination of bromine content in some flame retardants).

If cable is suspected of containing hazardous POPs, the cable will be quarantined, the customer informed and a sample taken and sent to an approved UKAS accredited laboratory to be analysed for the full suite of likely POPs contaminants present in the cable. If POPs are shown to be present, then the cable will be transferred to the hazardous cable bay for storage until it is transferred to a permitted treatment facility. An incident Event log will then be raised on the TCM (Total Compliance Management) SHE software system.

No further treatment of the cable fractions will take place other than segregation into non-hazardous non-POPs loads and hazardous (potentially) POPs containing loads.

Grade (s) for BT cable with non-hazardous EWC code & description (grades agreed with BT).

Currently:

TELC1 - BT Cable Recovery (EWC 17 04 11)
TELC1G - BT Contract Greasy Cable (EWC 17 04 11)

Grade (s) for ELV wiring with hazardous code and mixed hazardous /non-hazardous waste description.

The current grades in use are the following:

CBWRL1 - Wiring Looms (EWC 19 12 03)
LGW2 - Shredder Copper Cable (EWC 19 12 03) separation cable processed at EMR IES facility.

Grade (s) for Non WEEE derived cable with hazardous code and mixed haz/non-haz. waste description.

May apply to the following CABL Grades (all used in the last 12 months):

CABLP (3 pin Cable)	CABL0 (Sorted NO2 Cable)	CABL5 (ALUMINIUM CABLE)
CABLPR (Cable Production)	CABL0LG (LG SORTED NO 2 CABLE)	CABL5BU (ALI CABLE BU)
CABLR (Cable with attachments)	CABL1 (HOUSEHOLD CABLE)	CABL5LG (LG Aluminium Cable)
CABLXBU (CABLE EXCHANGE BU)	CABL1BU (HOUSEHOLD CABLE BU)	CABL6 (GREASY PRODUCTION CABLE)
GRCAB0 (Sorted NO2 Cable GRANULATION)	CABL2 (LOW GRADE CABLE)	CABL6BU (GREASY CABLE BU)
GRCAB1 (HOUSEHOLD CABLE GRANULATION)	CABL2BU (LOW GRADE CABLE BU)	CABL9 (Steel BX)
GRCAB2 (LOWGRADE CABLE GRANULATION)	CABL2LG (LG LOW GRADE CABLE)	CABL10 (Antenna Wire / Coax Cable)
GRCAB3 (LEAD COPPER CABLE GRAN)	CABL3 (LEAD COPPER CABLE)	CABL12 (Harness Wire)
GRCAB3 (LEAD COPPER CABLE GRANULATION)	CABL3BU (LEAD COPPER CABLE BU)	CABL21 (Cu cable with Fe)
GRCAB4 (HIGH GRADE CABLE GRANULATION)	CABL4 (HIGH GRADE CABLE)	CABLDBU (DROP WIRE BU)
GRCAB5 (ALUMINIUM CABLE GRANULATION)	CABL4BU (POLY CABLE BU)	

Grade (s) for WEEE derived cable with hazardous POPs EWC code and description.

CABLHP - Haz & POPs Cable – EWC 16 02 15*
POPWEWR - POPs containing hazardous wire – EWC 19 02 04*

2.4 Treatment and processing of non-ferrous metals

The main (large scale physical) treatment at the Brentford non-ferrous metal site will comprise the shearing and baling of aluminium in the site's Lefort shear and baler; following treatment the material which will be stored and bulked for export and smelting.

2.5 Storage of Hazardous cables

Segregated hazardous and non-hazardous POPs cable will be stored in separate, appropriately labelled bays within the main non-ferrous building as shown in the EMR Brentford Site Plan (document ref. YHOL Brentford Site Plan) prior to bulking and transfer to a permitted granulating site. The XRF analyser (as described in section 2.3) will used to check non-hazardous cable for the presence of POPs as required.

2.6 LoW codes for POPs plastic covered cables

The following wastes, listed by List of Waste (LoW) code, will be received for POPs plastic covered cables:

16	**WASTES NOT OTHERWISE SPECIFIED IN THE LIST**
16 02	**wastes from electrical and electronic equipment**
16 02 15*	hazardous components removed from discarded equipment
17	**CONSTRUCTION AND DEMOLITION WASTES…**
17 04	**metals (including their alloys)**
17 04 10*	cables containing oil, coal tar and other hazardous substances
19	**WASTES FROM WASTE MANAGEMENT FACILITIES…**
19 12	**wastes from the mechanical treatment of waste….**
19 12 11*	other wastes (including mixtures of materials) from mechanical treatment of waste containing hazardous substances

2.7 Activities (including WFD Annex I and II Operation Codes)

The non-ferrous metals and hazardous cables will be submitted to the following activities:

Sorting, separation, screening, grading or cutting of wastes into different components for recovery.

The relevant Recycling Codes taken from the Waste Framework Directive (WFD) Annex I and II are:

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 materials

Only sorting, segregation, shearing (aluminium), bulking and export by road of non-ferrous

metals, stainless steels and associated waste materials (cables) will take place at the Brentford (non-ferrous site); no granulation of materials is proposed.

2.8 Size of Operation

The total maximum annual throughput for permit for all waste / scrap metal materials will be < 75,000 tonnes per annum. The maximum storage of all scrap metals wastes will never be more than 1,200 tonnes at any one time.

The total annual throughput of the hazardous waste treatment activity authorised will be a maximum of 10,000 tonnes per annum. The maximum storage limit for hazardous cable will be <50 tonnes on site at any one time.

3 ADDITIONAL APPLICATION DOCUMENTS

3.1 Risk Assessment and Fire Prevention Plan

An environmental risk assessment (reference B6) and Fire Prevention Plan (reference B5d FPP) for non-ferrous metal and hazardous storage and processing has been provided and submitted as part of this permit application.

3.2 Site Plan

An updated site plan has been provided separatel and as Appendix 5 of the Environmental Management Plan also submitted with the application, identifying the locations for the reception and segregated storage of hazardous cables, and the storage of the outputs post-granulation. The plan also shows the relevant environmental protection measures. The storage locations have been marked on based on current understanding, however their exact location may be subject to change.

3.3 Management System Summary

A copy of the amended Environmental Management Plan (EMS) (ref. B3 EMS) has been submitted with the application – additions made in relation to the acceptance, storage and treatment of hazardous cables is highlighted in blue text. The flow chart for the acceptance, storage and processing of hazardous waste (amended to include hazardous cables) has also been provided (ref. B5c33 Hazardous Waste Acceptance & Storage).

3.4 Proof of Operator Competence

A copy of the WAMITAB certificates (ref.B3b) for the proposed provider of operator competence (Gregor Connon) have been provided with the application (due to the recent award of the Wamitab certificate a continuing competency test and certificate has not been required yet).