

This Document forms part of the Environmental Management System

# EMISSIONS MANAGAMENT PLAN

## Rotherham Scrap Yard

Celsa Manufacturing (UK) Limited

**November 2024**

Rotherham 1&2, Steel Terminal  
The Ickles  
Rotherham  
S60 1DG

This document will be reviewed and updated annually to ensure the strategies and actions remain relevant and effective.

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## Introduction

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### Report Context

This Emissions Management Plan (EMP) is to accompany a bespoke environmental permit application for transfer and treatment of metals at the Rotherham Celsa site, located at the Steel Terminal, Fullerton Road, Brinsworth, Rotherham, S60 1DG.

This EMP assesses potential risks of fugitive dust emissions from operations at the site, considers the impact of identified receptors and sets out the required mitigation measures for the management of any dust or other emissions arising.

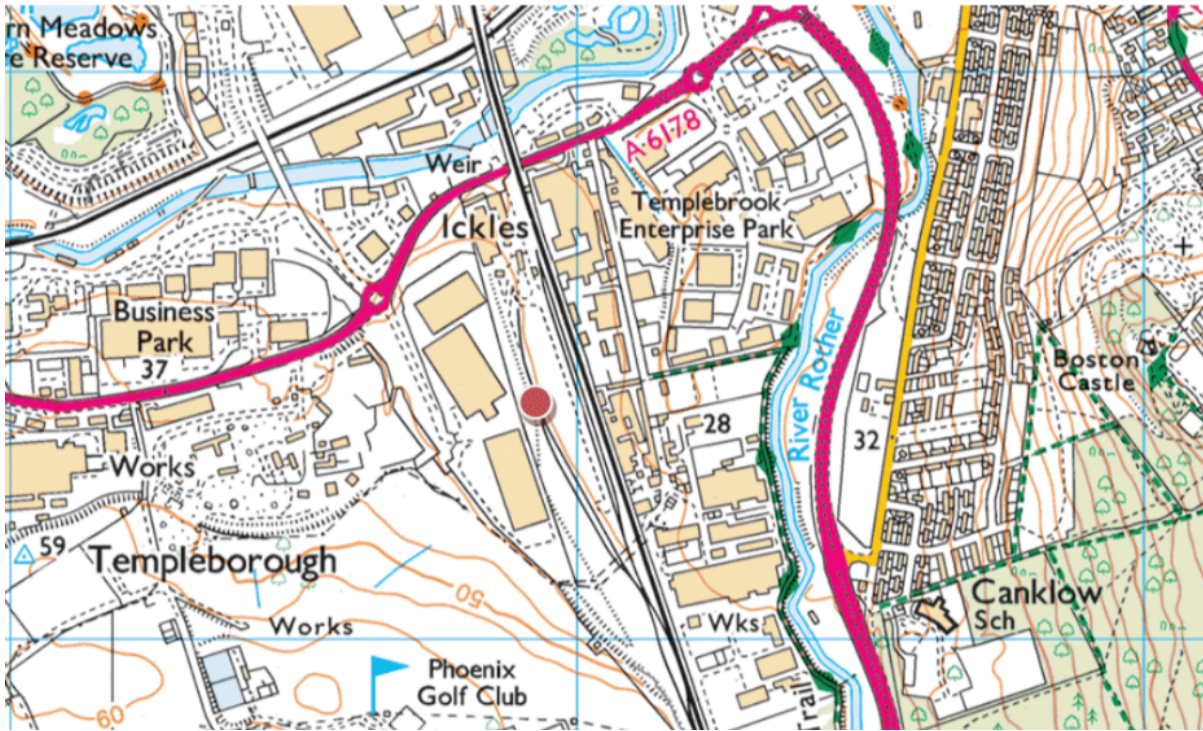
The EMP is part of the Environmental Management System (EMS) for the site and is for use by management and site operators. A copy will be located within the site office.

The EMP has been prepared using the following guidance:

- Environment Agency Risk Assessment for Environmental Permits  
(<https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit>)
- Institute of Air Quality Management (IAQM) (IAQM Guidance on the assessment of dust from demolition and construction, January 2014. Whilst this guidance is specifically for ‘construction dust’, in the absence of separate guidance for dust from waste or mineral sites, the IAQM guidance can be used as a starting point for waste dust assessment with appropriate modification or minor adjustments.)
- Control & Monitor Emissions for your Environmental Permit  
(<https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit>)

### Site Details

The site is located at the Steel Terminal within a highly industrial area in Brinsworth, Rotherham, approximately 1.5 miles from the Town Centre. The national grid reference for the site is SK 41988 91242 and the site location is shown in Figure 1 – Site Location.



**Figure 1** – Site Location (1:25,000)

The site is large covering an area of approximately (SK 41988 91242) is bound to one side by concrete retaining walls/greened slope (16ft) and trees/undergrowth, the opposite side is open to the trainline and DB Cargos container storage yard. The site is accessed via a long-tarmacked access road leading into DB's site furthering to lockable gates stood off from Fullerton Road.

Site features a small open fronted shed on the eastern boundary housing a small weigh scale, close to the shed is a two-storey office with a weighbridge cabin at the weighbridge. There is a concrete yard (Rotherham 1) for storing and transfer metal wastes.

An interceptor is in place to capture surface water prior to it being discharged to the sewer.

The proposed layout of the site is shown on the Site Layout Plan in Appendix A.

### **Surrounding Area**

The site is in a predominately industrial/commercial area. The following current activates have been identified surrounding the site.

**North** – Industrial land use (DB Schenker, WFE Hydraulics and South Yorkshire Springs and Coatings) beyond which is Sheffield Road (A6178), more light industrial land use and River Don.

**East** – Rotherham freight terminal, Midland Mainline beyond which is industrial land use.

**South** – Open land beyond which is residential housing (part of the Brinsworth area).

**West** – Industrial land use (Symphony) beyond which is Harsco SteelPhalt and Phoenix Gold Club.

The nearest residential property is located approximately 150 metres to the south.

The site is in the jurisdiction of Rotherham Metropolitan Borough Council (the “Council”).

### **AQMA Status**

Reference to the interactive DEFRA Air Quality Management Area (AQMA) mapping tool identifies that the site is not located within an AQMA for PM10.

Reference to the UK Ambient Air Quality Interactive Map identifies background annual mean PM10 concentration for the area in 2023 as < 13 µg m<sup>3</sup>, which is well below the annual mean Air Quality Objective of 40 µg m<sup>3</sup>.

### **Climate Details**

Information relating to wind speed and direction for the area has been obtained from IEM ([https://mesonet.agron.iastate.edu/sites/windrose.phtml?station=EGNC&network=GB\\_\\_ASOS](https://mesonet.agron.iastate.edu/sites/windrose.phtml?station=EGNC&network=GB__ASOS) ).

The closest wind stations to the site are Manchester station which is 66km to the West, and the Waddington station which is approximately 91km Southwest to the site. Windrose’s from both wind stations are provided in Figures 2 and 3.

The wind roses show that the prevailing wind direction in the area is predominantly from the South-west. Winds speeds are most frequent between 9-12mph; i.e. gentle to moderate breeze on the Beaufort scale. The strongest winds also typically come from the South-west are recorded at speeds greater than 20 knots; ie fresh breeze and above on the Beaufort scale.

With reference to the data it is considered that wind direction at the site will be variable but with the prevalence towards to West and the South.



Windrose Plot for [EGCC] Manchester  
Obs Between: 01 Jan 1973 12:00 AM - 07 Jun 2024 08:50 AM Europe/London

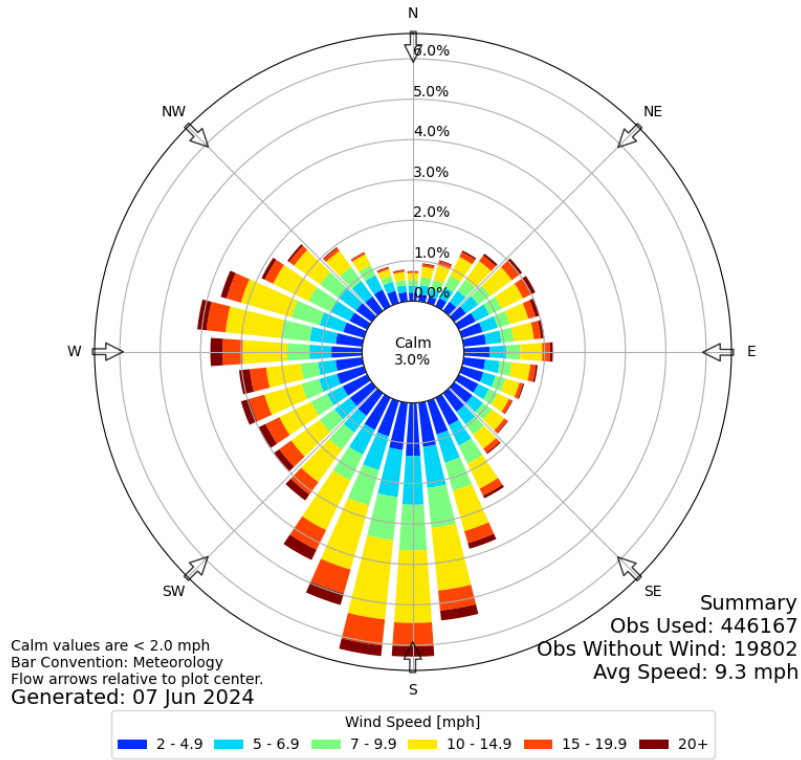


Figure 2 – Wind Rose (Manchester)



Windrose Plot for [EGXW] Waddington  
Obs Between: 01 Jan 1973 12:00 AM - 07 Jun 2024 08:50 AM Europe/London

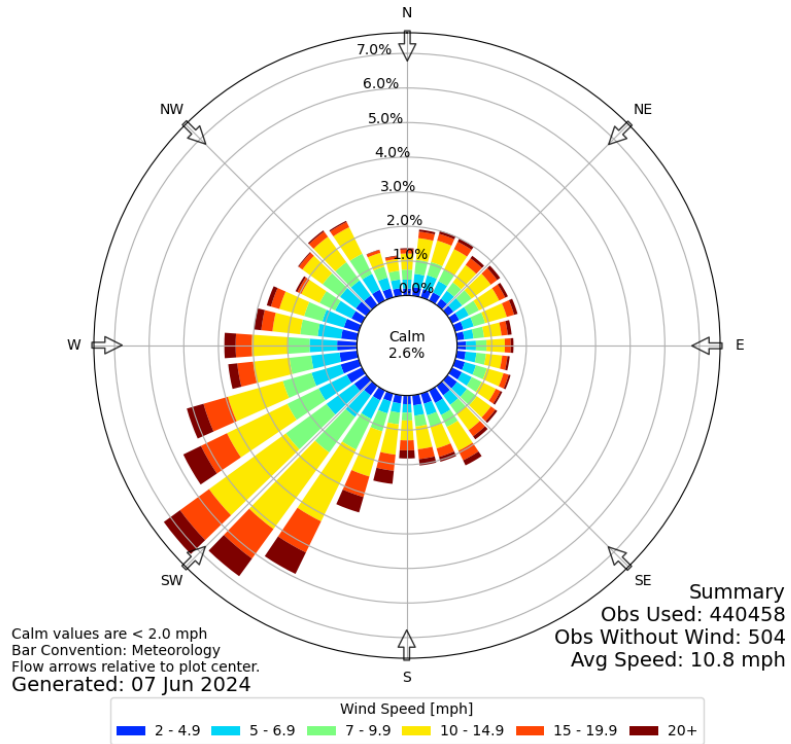


Figure 3 – Wind Rose (Waddington)

## Rainfall

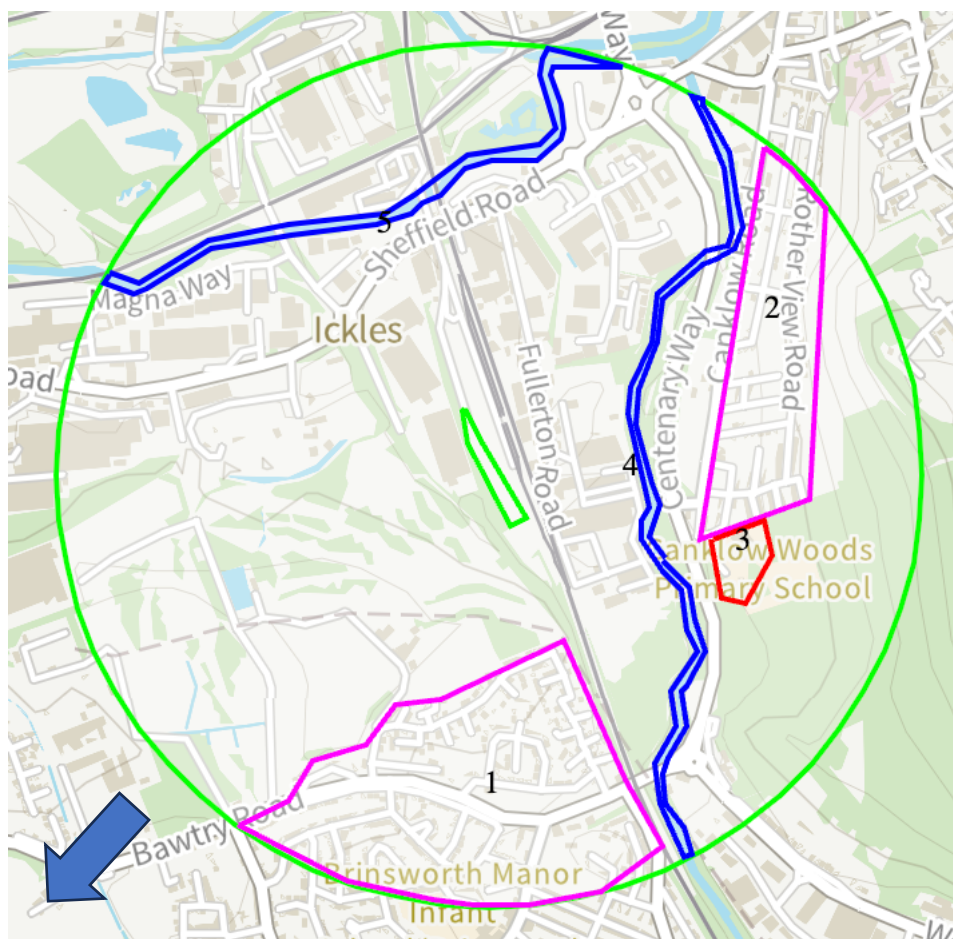
Reference has been made to the Met office for Sheffield available on the Met Office Website, which is the nearest climate recording station to the site at approximately 2.5km to the South-west. Total average annual rainfall during the period 1991-2020 was 831.55mm. The number of days greater than or equal to 1mm was 133 days on average each year, therefore providing natural dampening approximately 36% of the year.

(<https://www.metoffice.gov.uk/research/climate/maps-and-data/uk-climate-averages/gcqwq04e>)

## Assessment of Receptors

### Receptors

EA guidance requires within 1km of the site that may be impacted by dust or particulates are identified, and that a further assessment is made to identify which of these are 'dust sensitive'. Figure 4 below shows the site and surrounding area setting.



**Figure 4** – Site and Surrounding Area.

**Key**

Green Central – Site

Blue – Rivers/Water courses

Pink – Residential areas

Red – Schools

Arrow Wind direction

Table 1 below lists the receptors located within 1km of the site and their distance and direction from the site.

<i>Ref</i>	Receptor	Direction	Distance (m)	No of Receptors	Dust Soiling	Human Health Impacts	Ecological Impacts
1	Brimsworth residential area	S-SW	300	>100	Medium	Low	-
2	Moorgate residential area	E -NE	500	>100	Low	Low	-
3	Canklow Woods Primary School	E	650	>100	Low	Low	-
4	River Rother	E	250	-	Medium	-	Low
5	River Don	N	230	-	Medium	-	Low
6	DB	N	20	1-50	Medium	Low	-
7	The Ickles industrial area	NE-NW	<20	>100	Low	Low	-

**Table 1 – Sensitive Receptors**

## **Receptor Sensitivity Assessment**

The sensitivity of each receptor to dust soiling effects to people or property, human health effects of ambient PM10 and the ecological effects of dust deposition potentially generated at the site has been assessed using the IAQM guidance.

The sensitivity of surrounding receptors to human health effects from potential dust generated at the site has been assessed based on 2022 background annual mean PM10 concentration at <13.0 µg/m<sup>3</sup> which is well below the annual mean Air Quality Objective of 40 µg/m<sup>3</sup>.

### **Residential Receptors**

The IAQM consider domestic dwellings as being 'high sensitivity' receptors to both dust soiling and human health effects. The closest residences are in Brimsworth, approximately 300m to the South - Southwest. Based on the number of receptors in Brimsworth and the distance from the source, these receptors have been assessed as having medium sensitivity to dust soiling, and low sensitivity to human health impacts.

Residents in Moorgate have been assessed as having both low sensitivity to dust soiling and to human health impacts due to the distance from potential dust source.

### **Commercial/Industrial Receptors**

The site is in a highly industrial area of Rotherham with industrial or commercial premises immediately surrounding the site to the north, west and east. The IAQM consider places of work being 'medium sensitivity' receptors to both dust soiling and human health effects.

Based on the number of industrial/commercial receptors adjacent to and 20m of the site (DB), this receptor could be assessed as medium sensitivity to dust soiling, and high sensitivity to human health impacts, although it is noted that the surrounding industrial properties are predominately warehouses and container storage.

Industrial premises that are located 20m – 50m from the site have been assessed as having low sensitivity to dust soiling and medium sensitivity to human health effects.

All other places of work in the vicinity of the site are assessed as having low sensitivity to both dust soiling and human health impacts due to their distance from the source.

### **Water Features**

The Water Framework Directive (WFD) contains surface water environmental objectives, which aim to prevent a negative change to the status of the waterbody. Chemical Status is assessed for compliance with environmental standards for 33 priority substances originally listed in Annex X of the WFD, now superseded by the Environmental Quality Standards Directive (2008/105/EC). Chemical status is recorded as 'good' or 'fail' and is determined by the worst scoring chemical. Ecological status classification assesses a range of biological, physio-chemical or hydro-morphological.

According to the EA Catchment Explorer the is located within the Don and Rother Management catchment on the edge of the Rother and Doe Lea and Dom Middle Operational Catchment. The overall classification (2019) of the Don from River Don Works to River Rother is Fail (Chemical) and



Poor (Ecological) leading to an overall classification of Poor whilst downstream Dom from River Rother to River Dearne is classified as Moderate (2019). The Rother, Doe Lea to Don overall classification (2019) was Fail (Chemical) and Moderate (Ecological) leading to an overall classification of Moderate.

In accordance with the IAQM guidance, the Don and Rother are classified as a 'low sensitivity' receptor as it not a protected internationally or nationally designed habitat.

### **Transport Links**

In accordance with IQAM, receptors where human exposure is transient (eg. roads, railways) are considered as having 'low sensitivity' to both dust soiling and human health impacts.

### **Hospitals/Care Homes**

Hospitals or care homes are classified as 'high sensitivity' receptors to both dust soiling and human health impacts. There are no hospital or care homes within 1km of the site.

### **Schools/Colleges**

There is Canklow Woods Primary school approximately 650m to the east of the site. Whilst IAQM considers schools/colleges as being 'high sensitivity' receptors, based on the distance from the dust source, they have been assessed as having low sensitivity to both dust soiling and human health impacts from possible dust nuisance at the site.

### **Designated Sites/Ecological Receptors**

There are no locally or nationally designated sites or habitats within 1km of the site.

## **Site Operations**

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### **Waste Operations**

Delivery vehicles carrying scrap metal and car bails enter the site via the gated entrance and deposit loads in the yard. The material is graded and sorted into stockpile ready to be transferred onto a train to be moved to Celsa's Meltshop on Cardiff.

### **Overview of Waste Processing and Emissions Controls**

Based on the above waste processes, it is considered that dust or particulate emissions may arise from the:

- Rust or dirt within imported material.
- Diesel emissions from delivery vehicles and the plant used.
- Tracking of mud from haulage vehicles

To reduce the risk associated with the above the following controls will be in place:

- Any mud driving in via haulage will be checked upon arrival, the site benefits from a long private tarmacked access road of which will capture any falling debris/dust or mud that will be removed via the employment of a road sweeper.
- Daily inspections of the yard and sweepings when required.
- Materials will be inspected upon arrival, if deemed to be too dusty/dirty the load will be rejected.
- The yard will be brushed regularly, and dampening will be performed in periods of dry weather and when deemed necessary during daily site inspection.

### **Mobile Plant and Equipment**

Gaseous emissions will be produced by the internal combustion engines of the plant used on site. The operator will ensure that the plant has a higher tier emissions rating.

IAQM guidance states that mobile plant is 'unlikely to be a significant impact on local air quality', and would not need to be assessed as part of an Air Quality Assessment. It is therefore considered that the use of mobile plant at the site is highly unlikely to contribute to diminishing air quality in the area.

Regular servicing of the plant will be carried out according to applicable legislation, and any major service and repair required will be conducted off site, and daily checks are carried out by operatives.

Staff will be trained on the use of mobile plant to reduce emissions where possible, including anti-idling.

## **Dust and Particulate Management**

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### **Responsibility for Implementation Plan**

The Site Manager (SM) has overall responsibility for the control of the waste operations at the site and is responsible for ensuring that the procedures in the EMP are followed. The SM will:

- Ensure that the EMP is effectively communicated to all staff, and that any additional staff that may be required are competent to undertake their roles.
- Ensure that all operations and management procedures outlined in this document are implemented and complied with.
- Completion and storage of all required records for the EMP
- Ensure that the EMS is reviewed annually, or following;
  1. Permit variation
  2. Accident, complaint or breach of permit
  3. A new environmental issue
  4. Any major changes to site operations

The SM may delegate some mitigation tasks to site representatives (eg dust monitoring, training of other staff).

## Sources and Controls of Dust/Particulates

Potential dust/particulates emissions that may be generated from the transfer of waste and car bales at the site have been identified as the following:

- Rust or dirt within imported material.
- Diesel emissions from delivery vehicles and the plant used.
- Tracking of mud from haulage vehicles

As the site is located in a highly industrialised area of Rotherham, surrounding Industrial/commercial land use may also be a source of dust/particulates.

To reduce risks associated with the above the following controls will be in place:

- Any mud driving in via haulage will be checked upon arrival, the site benefits from a long private tarmacked access road of which will capture any falling debris/dust or mud that will be removed via the employment of a road sweeper.
- Daily inspections of the yard and sweepings when required.
- Materials will be inspected upon arrival, if deemed to be too dusty/dirty the load will be rejected.
- The yard will be brushed regularly, and dampening will be performed in periods of dry weather and when deemed necessary during daily site inspection.

Table 2 below details the potential sources of emissions at the site and includes the pathways to identified receptors. Proposed mitigation control measures are provided for each source-pathway-receptor linkage, and an assessment of overall risk is provided for each emission source.

<b>Source</b>	<b>Pathway</b>	<b>Receptor</b>	<b>Type of Impact</b>	<b>Mitigation and Control Measures</b>	<b>Overall Risk</b>
<i>Mud</i>	Wheels and Vehicles with excessive mud/sediment which drops when dry and in transit, then resuspension as airborne particles.	Local residents Surrounding workplaces River Don and Rother	Dust deposition soiling surfaces Visible dust plumes Elevated PM10 and associated health impacts Ecological impacts	Avoidance/Containment: <ul style="list-style-type: none"><li>- Waste pre-acceptance to ensure delivery vehicles are clean.</li><li>- Inspection of waste and rejection of dirty loads.</li><li>- High retaining wall/green spaces along on side of the site.</li><li>- Dust dampening</li></ul> Management Controls (EMS): <ul style="list-style-type: none"><li>- Daily inspection of yard and sweeping if required.</li><li>- Visual dust monitoring during daily checks.</li></ul>	Low
<i>Gaseous pollutants: Delivery Vehicles and plant exhaust emissions</i>	Atmospheric dispersion		Increase in airborne particles and in nitrogen dioxide, sulphur dioxide and associated human health impacts.	Avoidance/Contamination: <ul style="list-style-type: none"><li>- Regulatory controls and best practice measures are in place.</li></ul> Management Controls (EMS): <ul style="list-style-type: none"><li>- Ensure all vehicles switch off engines – no idling</li><li>- Regular inspection and maintenance</li><li>- Use of higher tier emission standard machinery/plant where available.</li></ul>	

## **Monitoring and Inspections**

The SM or delegated representative will undertake daily on and off site inspections including dust soiling checks of surfaces around the site to monitor compliance with the EMP. Inspection results will be recorded in the site diary, and a record kept detailing weather conditions.

In effect, visual assessment of dust will be undertaken by site operatives throughout the day, as they will be trained with the EMP.

Quantitative monitoring of particulates (PM10) is not considered to be warranted at this site due to the low likelihood of dust/particulates being generated during transfer of waste metals and car bales.

## **Contingency and Action Plan**

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In the event that dust/particulates or excessive vehicle emissions are perceived as a concern by site operatives or as the result of a complaint, the source will be investigated immediately by the SM.

When investigating any such report, the following factors will be considered:

- Location of the source relative to receptors
- Prevailing wind direction on site
- Possible dust/particulates and vehicles emissions from external sources.

Remedial actions will be undertaken immediately where possible. Appropriate actions will be taken on an escalating basis and include the following as appropriate:

- Simple repair or modification to plant
- Inspection of all stockpiles for mud/sediment
- Sweeping of site

The SM with the support of higher management will coordinate more complex responses, which could include, the review of customers at the pre-acceptance stage if certain hauliers continue to use dusty/muddy vehicles or have excessive exhaust emissions; or liaising with regulators.

Any incident, their outcomes and details of any remedial actions taken related to emissions will be recorded in the site diary.

## **Reporting and Complaints Procedures**

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### **Reporting of Complaints**

Any complaints relating to the site will be recorded in the site diary as detailed in the EMS. This includes complaints relating to dust and air quality.

All complaints received will be recorded and investigated by the SM. A response will be reported back to the complainant.

A record of incidents, accidents or non-conformances will be kept including the following information:

- Date and time of incident
- What happened
- What cause it
- Details of any contamination
- Who was involved
- What action was taken
- Were external agencies involved
- Any changes that have been made to the procedures/EMS to ensure the incident does not reoccur.

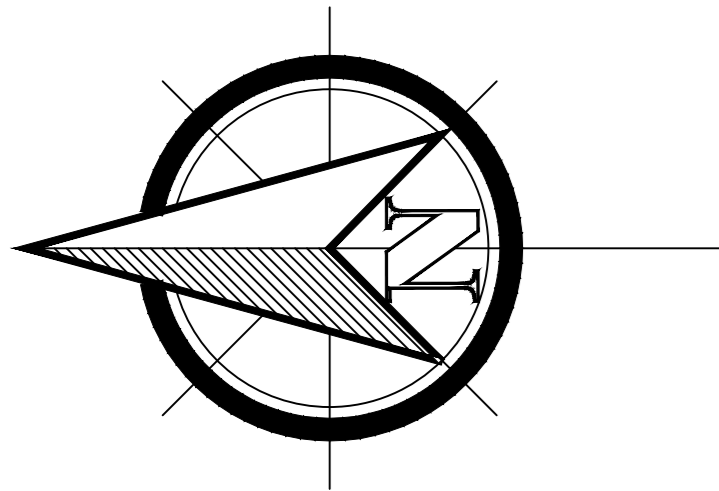
### **Management Responsibilities**

The responsibility of handling complaint is with the SM with support from higher management. Incidents are investigated by the SM whereby rectifying action is determined.

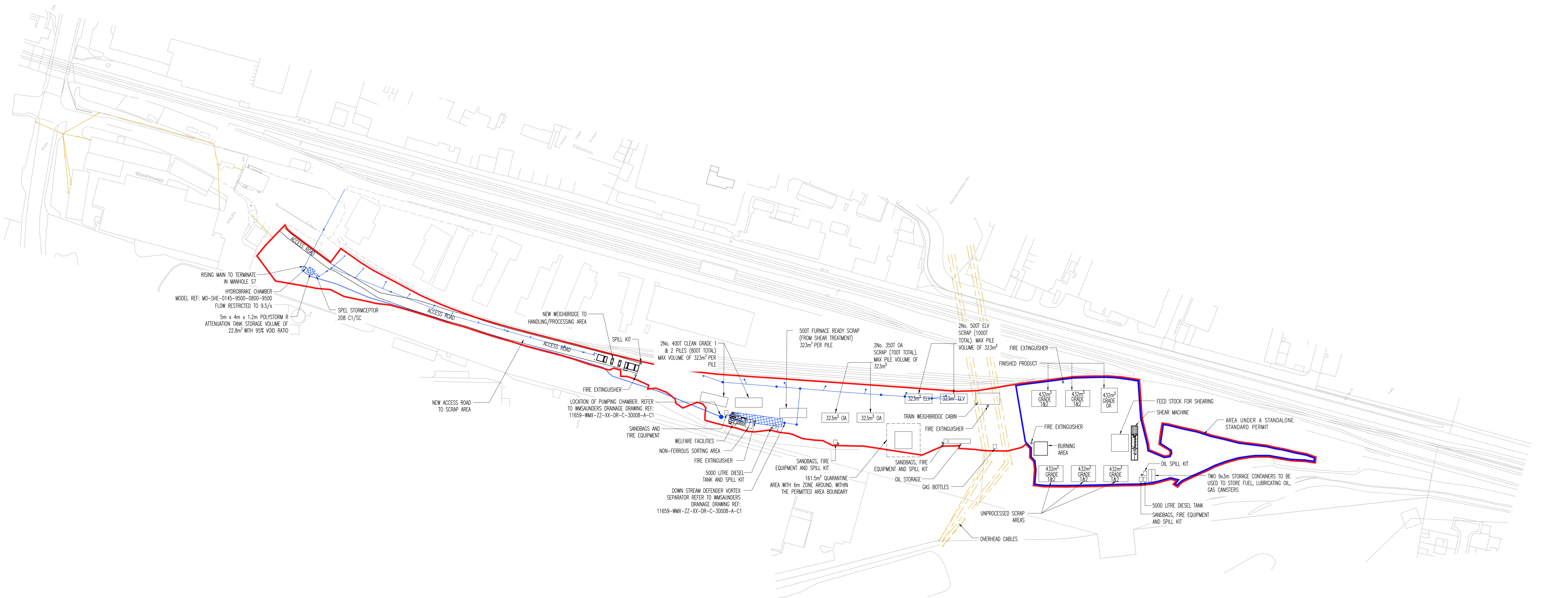
## [Appendix](#)

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### **Appendix A: Site Layout Plan**



**KEY**  
 RED LINE BOUNDARY  
 UNDER A STANDALONE STANDARD PERMIT



RISING MAIN TO TERMINATE IN MANHOLE ST  
 HYDROBROME CHAMBER  
 MODEL REF: MD-SHE-0145-9500-0000-9500  
 FLOW RESTRICTED TO 9.5/s  
 5m x 4m x 1.2m POLYSTORM R ATTENUATION TANK STORAGE VOLUME OF 22.8m³ WITH 95% VOID RATIO

SPEL STORMCEPTOR Z08 C1/SC

NEW WEIGHBRIDGE TO HANDLING/PROCESSING AREA

SPILL KIT

2No. 400T CLEAN GRADE 1 & 2 PILES (800T TOTAL) MAX VOLUME OF 323m³ PER PILE

500T FURNACE READY SCRAP (FROM SHEAR TREATMENT) 323m³ PER PILE

2No. 350T OA SCRAP (700T TOTAL) MAX PILE VOLUME OF 323m³

2No. 500T ELV SCRAP (1000T TOTAL) MAX PILE VOLUME OF 323m³

FINISHED PRODUCT

432m³ GRADE 1&2

432m³ GRADE 1&2

432m³ GRADE OA

FEED STOCK FOR SHEARING

SHEAR MACHINE

AREA UNDER A STANDALONE STANDARD PERMIT

FIRE EXTINGUISHER

FIRE EXTINGUISHER

432m³ GRADE 1&2

432m³ GRADE 1&2

432m³ GRADE 1&2

OIL SPILL KIT

TWO 9x3m STORAGE CONTAINERS TO BE USED TO STORE FUEL, LUBRICATING OIL, GAS CANISTERS

5000 LITRE DIESEL TANK

SANDBAGS, FIRE EQUIPMENT AND SPILL KIT

NEW ACCESS ROAD TO SCRAP AREA

LOCATION OF PUMPING CHAMBER REFER TO WMSAUNDERS DRAINAGE DRAWING REF: 11659-WMX-ZZ-XX-DR-C-30008-A-C1

SANDBAGS AND FIRE EQUIPMENT

WELFARE FACILITIES

NON-FERROUS SORTING AREA

FIRE EXTINGUISHER

5000 LITRE DIESEL TANK AND SPILL KIT

DOWN STREAM DEFENDER VORTEX SEPARATOR REFER TO WMSAUNDERS DRAINAGE DRAWING REF: 11659-WMX-ZZ-XX-DR-C-30008-A-C1

SANDBAGS, FIRE EQUIPMENT AND SPILL KIT

161.5m² QUARANTINE AREA WITH 6m ZONE AROUND THE PERMITTED AREA BOUNDARY

SANDBAGS, FIRE EQUIPMENT AND SPILL KIT

OIL STORAGE

GAS BOTTLES

TRAIN WEIGHBRIDGE CABIN

FIRE EXTINGUISHER

323m³ ELV

323m³ ELV

UNPROCESSED SCRAP AREAS

OVERHEAD CABLES

**NOTES**  
 1. Do not scale from this drawing  
 2. All dimensions to be checked on site  
 3. As built drawings are prepared, in part, based upon information furnished by others. While this information is believed to be reliable, James & Nicholas LLP assume no responsibility for the accuracy of its built drawings or for any errors or omissions that may have been incorporated into them as a result of incorrect information provided to us by others. Those relying on an 'As built' drawing are advised to obtain independent verification of its accuracy.

**REFER ALSO TO THE FOLLOWING:**  
 Drawings:  
 Blending Schedules:

**CLIENT**  
 CELSA GROUP  
 CELSA STEEL UK

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 Job title:  
 SCRAP HANDLING AREA, SHEFFIELD ROAD, ROTHERHAM  
 Drawing title:  
 OVERALL SITE LAYOUT  
 scales: 1:1000 @ A0

No.	REVISION	by	date	No.	REVISION	by	date	No.	REVISION	by	date
A	PILE SIZES WITHIN PROCESSING AREA CORRECTED. AREA UNDER SEPARATE PERMIT ADDED.	BP	14.04.24								
B	SITE DRAINAGE ADDED.	BP	17.04.24								
C	ADDITIONAL SPILL KITS AND FIRE EXTINGUISHERS ADDED.	BP	29.04.24								
D	PILE NAME AND SIZING UPDATED	KJ	28.05.24								

STAGE AS-BUILT

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Rev	date
001	28.03.24
002	28.03.24
003	28.03.24

Job No: 24.21  
 Drawing No: C03  
 Rev: D  
 scales: 1:1000 @ A0