Dust Management Overview for Archimedes Metals Ltd for Environmental Permit Application.

1. Introduction

This Dust Management overview outlines the measures to prevent or minimise emissions of dust and particulates from operations at Archimedes Metals Ltd (hereafter referred to as the Site), a permitted scrap metal processing site operating under the Environmental Permitting (England and Wales) Regulations 2016 (as amended).

The Site has been operating under exemptions from environmental permitting and previous regulatory waste management controls since 1987 and has never had a complaint regarding dust. It is a small family run business with long-serving members of staff who are familiar with site rules, procedures and operations.

2. Site Description

- Site Name: Archimedes Metals Ltd.

- Operator: Archimedes Metals Ltd.

- Permit Number: CP3926ST

- Site Location: 9-10 Ackworth Road, Hilsea, Portsmouth PO3 5NS

- Site Activities: Reception, storage, sorting, and processing scrap metals.

3. Dust Sources and Risk Assessment

The following activities and site conditions are identified as potential sources of dust:

Activity/Source	Dust Risk Level	Dust Type
Vehicle movements	Very low	Fine particles, road dust
Unloading/loading metals	Low	Light metal fines, rust
Mechanical processing	Very low	Metal particulates

Stockpile storage	Very low	Wind-blown dust
Site surfaces (yard)	Low	Particulate resuspension

To add information to the above risk assessment, the site activities which have the greatest risk of causing dust and particulate emissions have been noted in the above table. These risks have been assessed using the source-pathway-receptor model and the information below gives context to the site operations and activities listed:

Vehicle Movements

Due to the size of the site customers are only permitted on site 2 vehicles at a time. This is for health and safety reasons to control the movement of traffic on site and to keep pedestrians within the site safe when unloading. Most of the vehicles that come onto site are vans or tipper lorries. There is one bay where tippers unload. Vans can manually unload by the smaller weighing scales to the right of the entrance. Once unloaded that vehicle exits across the weighbridge and another customer can drive in. There is a maximum speed limit of 10mph but in reality the average speed is much lower than this as customers drive no more than 15 -20 meters from the weighbridge to unload. This helps control any surface dust.

Unloading/Loading of Metals

Unloading of scrap metal from customers is done manually in most cases or by tipping from the flat bed tipper vehicles. The metals which are unloaded manually are placed beside the respective ROROs.. Smaller pieces of scrap, once weighed are placed in midi skips which can be loaded manually. The larger items of scrap which are placed on the floor by the ROROs are then loaded into the RORO using the forklift truck or the grab. This is done as soon as it is safe to do so after the customer has left to ensure the site stays safe by keeping the impermeable paving clear of waste. The larger items of scrap metal waste which go into the purpose-built bay are bulked up until there is enough to warrant a load going off site for further processing. When the lorry/bulker arrives to remove this waste, it is loaded by the grab.

Mechanical Processing

There is no large mechanical processing as such on site but there are 3 hand shears, 1 small baler and 2 manually operated cable strippers all contained within the processing building. The dust emitted from these operations is very low and protected by the building.

Stockpile Storage

All scrap metal delivered to site is kept in ROROs, skips or inside the building. There is only 1 bay for the ferrous bulky items of scrap. The scrap metal waste which is bulked up and stored in this bay is removed from site at least 3-4 times per week. All ROROs and skips are removed when full which again is very regular depending on the metals contained and what

has come into site. Due to the size of the site, it is important to remove these containers when full as quickly as possible to allow the continuous receipt of scrap on site. The company operates 2 skip lorries to be able to remove the skips themselves when required.

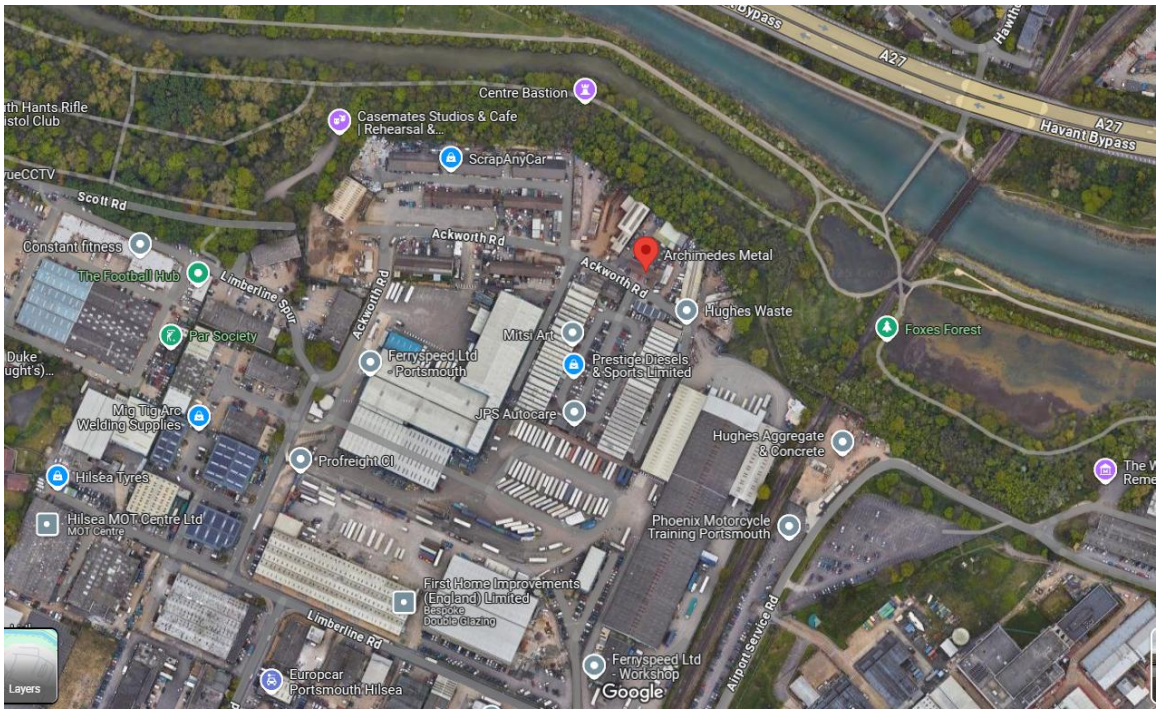
Site Surfaces (yard)

The site surface is fully paved with impermeable concrete. The yard drains to a central drainage gully and through an interceptor joins the main foul sewerage system on the industrial estate. The gully is regularly cleared as part of the site maintenance schedule and this is noted in the site diary. The roads leading to the site are fully tarmacked. The site is surrounded on all four sides (apart from the entrance gates) by brick or sleeper walls.

4. Sensitive receptors

The information below is taken from the site's fire prevention plan where sensitive receptors within a 1km radius were recorded. The site (identified by the drop pin below) is situated within a busy industrial estate with a number of large 24 hour freight operations due to its proximity to Portsmouth International Port which is a major UK port.

Figure 1 site location (source:googlemaps.com).



North

100m	Portsbridge Creek – Tidal waterway
200m	A27/M27 main trunk road
208m +	Residential dwellings
274m	Redwood Park School

447m NW	Highbury College
515m NW	Highbury Primary and Nursery School

West

710m	MPTC – military college
500m +	Residential dwellings

South

553m	Residential dwellings

East

509m	Chichester and Langstone Harbour RAMSAR site, Special Protected Area & Langstone Harbour SSSI
509m	Solent Maritime Special Area of Conservation
600m	Residential dwellings

- There are no groundwater, boreholes, springs or wells used for human consumption within 1km
- There are no nursing homes, hospitals or care homes within 1km of the site.

5. Control Measures

To mitigate dust emissions, the following measures are implemented:

5.1 Site Design and Surfacing

- All operational areas surfaced with concrete or hardstanding to prevent dust generation from loose materials.

- Drainage system maintained to prevent pooling, which can create dust when dried.

5.2 Vehicle and Traffic Control

- Speed limit of 10 mph enforced onsite.

- Site yard is swept regularly (at least twice a day) or more frequently during dry periods.

5.3 Operational Controls

- Handling of dusty materials minimised during dry/windy conditions.

- Drop heights for loading/unloading minimised.

- Outside hosepipe is permanently fixed in the main yard for use when required or instructed to be to dampen down piles or yard surfaces. Staff also use their initiative and can dampen down with the hose at any time and don't need to be instructed to do this.

5.4 Processing and Equipment

- Enclosed processing areas.

- Maintenance of equipment including cleaning to ensure efficient operation and reduce particulate emissions.

5.5 Stockpile Management

- Maximum height limit of 3m for loose material stockpiles.

- Stockpiles watered during dry periods.

- Boundary walls on all 4 sides reaching 4m high in parts

5.6 Monitoring

- Recorded daily visual inspections of the site and perimeter for dust emissions and accumulation.

- Meteorological conditions monitored daily and recorded on the daily checksheet including wind direction and speed.

- Complaints recorded and investigated immediately.

5.7 Housekeeping

- Regular sweeping of paved areas.

- Prompt clean-up of any spilled or accumulated material.

- Staff trained to follow dust suppression procedures.

6. Responsibilities and Training

The Site Manager is responsible for ensuring compliance with this document.

All site staff trained on dust control procedures and reporting requirements.

Toolbox talks are conducted at regular intervals to reinforce good practices.

7. Complaints and Incident Response

Complaints log maintained and made available to the EA upon request (see appendices)

All dust-related complaints investigated and logged within 24 hours.

Appropriate corrective actions implemented and documented.

8. Review and Improvement

This document will be reviewed if there are any significant changes to the site infrastructure or operations or following any dust-related incident or complaint.

Updated procedures will be communicated to all relevant staff.

Appendices

- A -Site layout plan showing potential dust sources and sensitive receptors

- B -Inspection log template

- C -Complaint log template

Appendix A Site Plan

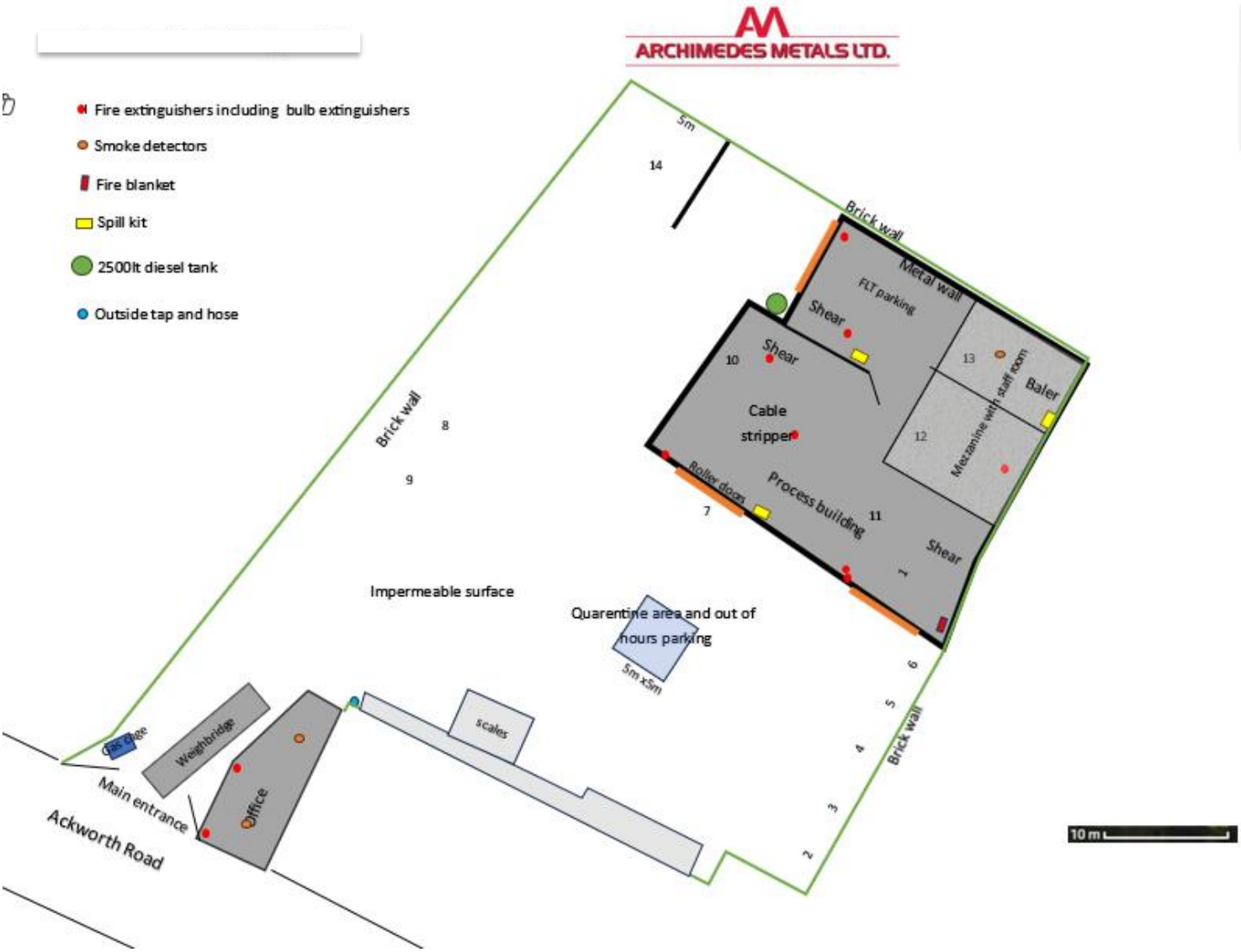


Table 1.0 Waste types and volumes

Waste type	Number on site plan	Container type
Household cable	1	RORO
Ali Swarf	2	RORO
Ali	3	RORO
Ali re-fines	4	20 yard skip
Stainless steel	5	20 yard skip
Lead	6	20 yard skip
Single cable	7	12 yard skip
SWA Cable	8	20 yard skip
Batteries	10	Battery boxes
Copper	11	Hippo bags
Brass	12	Metal 'bins'
Catalytic converters	13	Battery box
Mixed steel	14	Bay
General waste	9	12 yard skip

Appendix B Complaints Form.

Complaint Form

Customer Name:	**Address:**
Customer Contact:	
Tel. No.:	

Complaint Ref. No.	**Date:**

Complaint Details & Root Cause
Signed: .....
Date

Investigation Details:	
Investigation by: _____	**Position:** _____
Times Start: _____	**Finish:** _____

Weather Conditions: _____

Environment Agency Feedback:
Public Recommendation / Feedback

Preventative Action:
Signed: …… **Date**

Does this require the dust management plan to be updated? Yes / No

If yes who is responsible for doing this?

Name: …… Position: ……

Date that the update was completed:…… / …… / ……

Appendix C Site Check.

Site Check

Date:	
Time:	
Weather (wind direction/mph/temp):	
Check carried out by:	

Number	Aspect of the permit checked & other legislative requirements.	Score
1.	TCM attendance	
2.	PPE	
3.	Site boundary secure	
4.	Odour outside boundary	
5.	Litter outside boundary	
6.	Noise outside boundary	
7.	Visible dust	
8.	Site entrance clear	
9.	Vermin	
10.	CCTV working	
11.	Fire detection	
12.	Fire suppression – extinguishers as per FPP	
13.	Quarantine area for incidental waste	
14.	Impermeable pavement in good state of repair	
15.	External condition of buildings	
16.	Condition of waste storage bays	
17.	Waste storage	
18.	Waste labelling	
19.	Waste treatment	
20.	Hazardous waste storage	
21.	Waste acceptance: Correct EWC and description Registered carrier's checks Transfer notes Consignment notes	
22.	Tyres	
23.	Gas canisters locked cage	

24.	Lead acid batteries	
25.	Spill kit full	
26.	Leaks and spills dealt with and recorded	
27.	Waste Hierarchy complied with	
28.	Breakdowns (machinery and equipment)	
29.	Staff shortages (enough staff on site for tasks/H&S/environmental compliance)	
30.	Compliants	

Scoring guide

1	2	3	4	5	X
Full compliance	Broadly compliant	Some compliance	Limited compliance	No compliance	Not checked

Number	Notes.