1 INTRODUCTION

1.1 Background

This document and associated appendices constitute the Environmental Management Plan for Permit Reference EPR/AB3891FT. This relates to the CELSA Scrap Yard site at Graigola Wharf, Swansea Dock which is in place for the storage and processing of scrap metal prior to moving to the steelworks in Cardiff.

The Management Plan relates to the permitted operations of a scrap metal processing facility, which comprises receipt of incoming scrap metal, mobile shear treatment area plus storage areas for unprocessed and processed scrap metal.

The scrap yard has full planning permission for the operations and this was granted by City and County of Swansea Council on 29th January 2018 (Application Ref: 2017/2094/FUL).

1.2 Site Location and Setting

The Site is located approximately 1-km east of Swansea City centre at National Grid Reference (NGR) SS 67337 92377 (51.614539, -3.9174521):

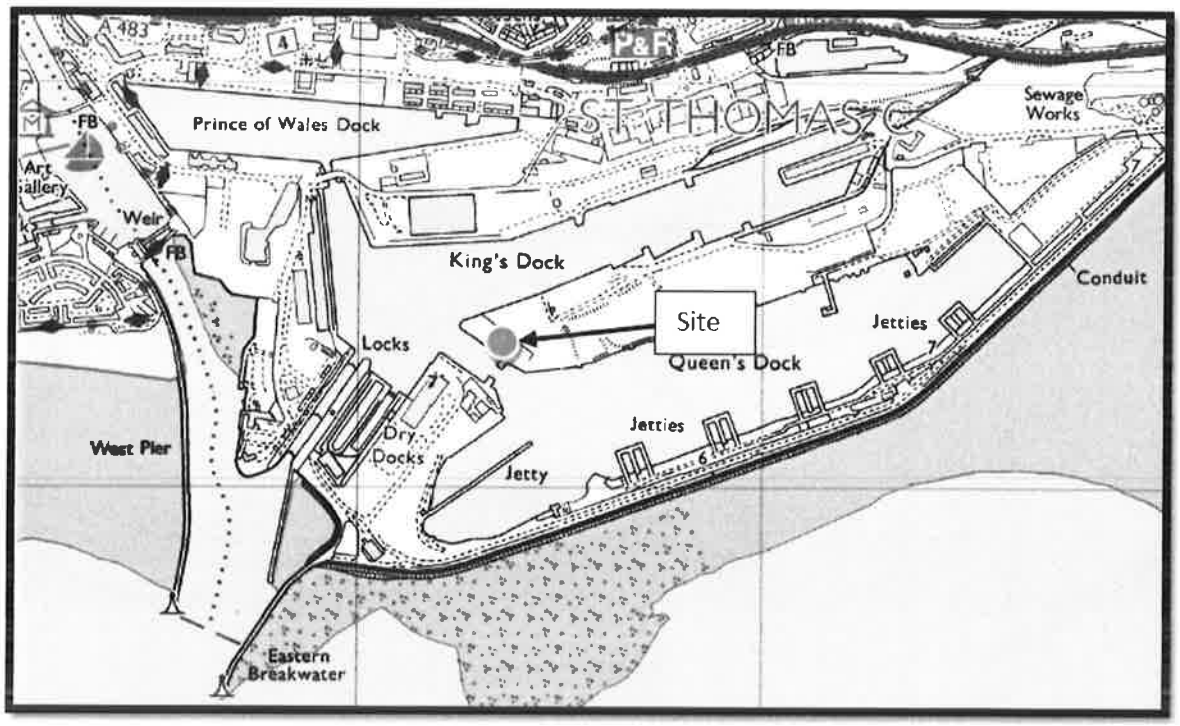

Figure 1 – *Site Location (1:25,000)*

The Site is located within Swansea docks (Port of Swansea) that are owned and operated by Associated British Ports (ABP).

The following current activities have been identified surrounding the Site:

- NORTH – King's Dock beyond which there are further operations associated with the Port of Swansea. Residential properties are located near the edge of the Prince of Wales Dock (500 metres north).
- EAST – Operations associated with the Port of Swansea. Northeast is King's Dock and southeast is Queen's Dock.
- SOUTH – Queen's Dock beyond which there are a series of disused oil jetties and the breakwater. Beyond the breakwater are mudflats and Swansea Bay.
- WEST – Passage between King's Dock and Queen's Dock (Scherzer Passage) beyond which are further operations associated with the Port of Swansea. Residential properties (associated with Swansea Marina) are located approximately 730 metres west.

The Site is in the jurisdiction of City and County of Swansea Council and site operations are regulated by Natural Resources Wales as per the Site's Environmental Permit.

The site layout is illustrated below:

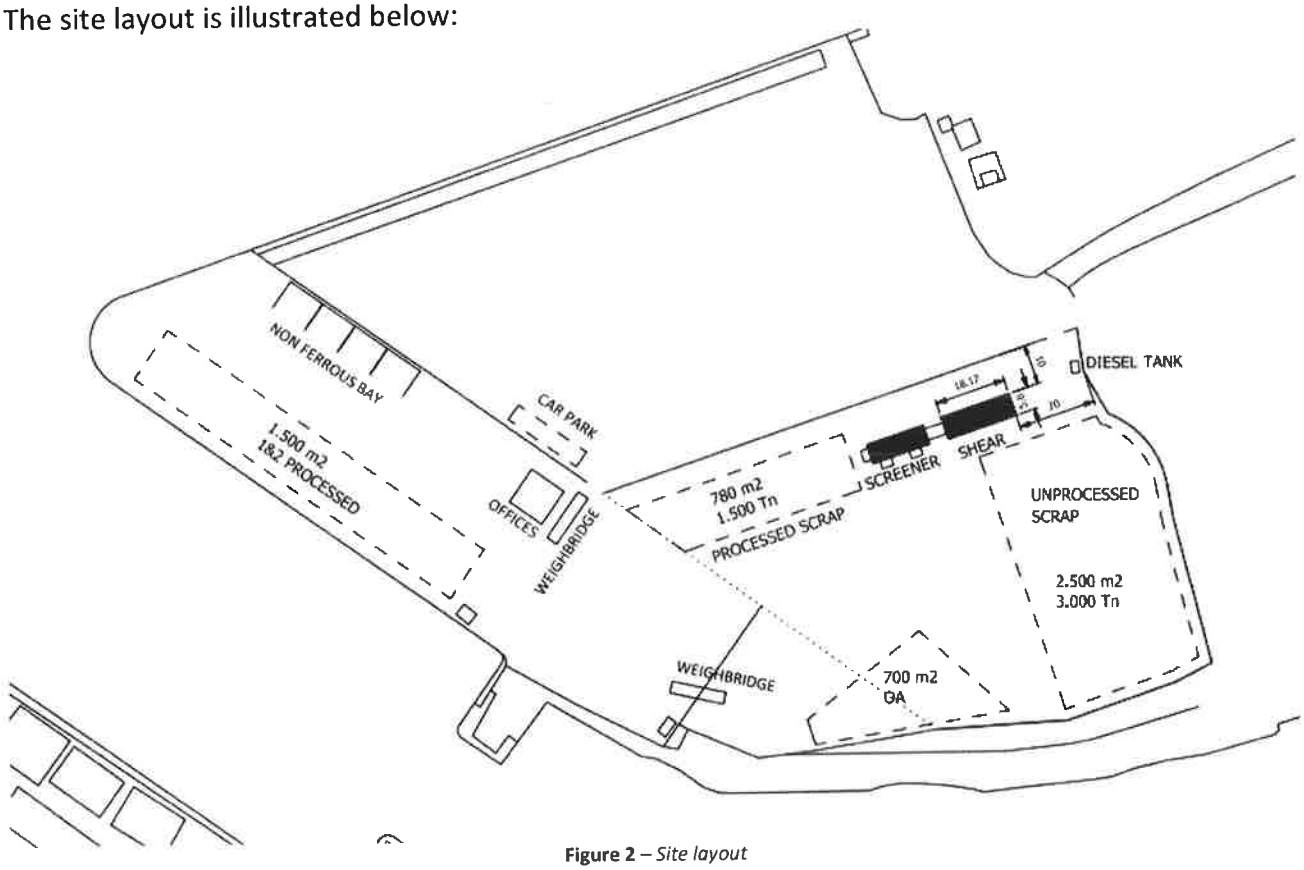

Figure 2 – *Site layout*

The Site occupies a total area of approximately 1.8 hectares (Figure 2). The Site topography is flat lying at approximately 6 metres Above Ordnance Datum (AOD). The Site is entirely hardstanding except for small areas of vegetation near to the southern, northern and eastern edges of the Site.

1.3 Site History

The key stages in the development of the Site are:

- **Port of Swansea** – Work began on the King's Dock (north of the Site) in 1905 to meet the growing demand of Tinplate exports from the local area. Construction was complete by 1909. At the same time, the King's dock was being built; a breakwater was constructed further south of the King's dock which enclosed a large body of water covering 61 ha. This body of water was opened in 1920 as the Queen's Dock after oil handling facilities were built to handle imports for the nearby BP oil refinery at Llandarcy and petrochemical plant at Baglan Bay. Usage of the Queen's Dock reached its peak in the 1950s when oil imports and exports reached around 8 million tonnes per year. Since the closure of the oil plants at Baglan Bay and Llandarcy, the Queen's Dock was rendered obsolete as an oil handling facility.

- **Graigola Merthyr Patent Fuel Works** – According to the Archives Network Wales3 Clydach Merthyr Colliery was situated near Clydach in the Swansea Valley. The mine was opened in 1863 by the Graigola Merthyr Company, a member of the Monmouthshire and South Wales Coal Owners' Association. The Graigola seam produced high quality coal which had a very low percentage of ash. This feature meant that 'Graigola Merthyr' patent coal fuel was used by many important foreign rail and steamship companies. The plant was closed in 19584. The plant was a maker of 'patent fuel', or 'preserved coal' - a mixture usually comprising small coal (preferable steam coal) mixed with distilled coal tar pitch and compressed into blocks via moulds (briquetting). According to published information the classic pitch bound block briquette made in South Wales consisted of blending coals. That is steam coal with bituminous, so that the block would tend to cake as it burned and minimised crumbling. A typical briquette would contain Bituminous coal - 25%, Steam coal – 45%, Dry Steam coal – 22% and Pitch – 8%.

- **Coal storage** – Available aerial photographs show that the Site was used for coal storage in 2002 and then again in 2005-2006. The area to the east continued to be used for coal storage until at least 2010/11.

- **Scrap metal storage** – According to the archive photographs from 2010-2011 the Site has previously been used for the storage of scrap metal. It is unclear whether processing of materials was undertaken on-site.

2 CURRENT OPERATIONS

2.1 Site Layout

The current layout of the site is shown in Figure 2.

The site is securely fenced and has a weigh-bridge at the site entrance. Access to the dock is controlled via a 24/7 security gate off Baldwin's Crescent road. Members of the public are not allowed onto the dock.

2.2 Receipt and Storage of Waste

All deliveries are weighed in at the site weighbridge by the Scrap Yard Manager.

The Scrap Yard Manager conducts an initial check of the load which, if found to be satisfactory, is allowed to be tipped and whereupon a thorough inspection is then made. In the event of any non-conforming items of waste being identified, these are stored in a clearly marked quarantine area for authorised disposal.

The scrap metal storage areas are as per the site layout in Figure 2.

- Area 1 – 2,500 m^2 of unprocessed Grade 1&2.
- Area 2 – 780 m^2 of processed Grade 1&2 scrap awaiting transfer to Celsa Cardiff.
- Area 3 – 700 m^2 of unprocessed Grade OA scrap. The decision whether to process using the shear or hand-held oxy-propane cutting kit will depend on material width.
- Area 4 – 1500 m^2 of processed scrap awaiting export to Spain.

2.3 Permitted (Scrap Metal) Waste Types

The permitted waste types and the maximum storage quantity specified by the permit are shown in Table 1 below:

Waste Type – Scrap Metal Grade	EWC Code	Maximum Storage Quantity (Tonnes)
Plate Iron	10 02 99	4,000
Steel Turnings	12 01 01	50
Merchant #1/2 Cast Iron, Incinerated, Fragmentised	19 12 02	6,000
New Production often factory scrap OA Demolition, Tin Cans	20 01 40	2,000

Table 1 – *Permitted Waste Types*

The waste materials received at the Site are dry and the operations do not give rise to any leachate.

Any loads delivered to the Site which are found to contain non-conforming wastes are returned to the supplier wherever possible. Should this not be practicable the waste is stored in a clearly marked quarantine area prior to authorised disposal. The Permit excludes the following waste types:

- hazardous wastes;
- liquids or sludges;
- liquefied petroleum gas cylinders;
- putrescible wastes (excluding wood, cardboard and paper);
- healthcare or clinical wastes; and
- wastes comprising solely or mainly of dusts, powders or loose fibres.

2.4 Treatment Operations

Any incoming (unprocessed) scrap metal received at the Site will be treated through the use of shear. The shearing process only changes the physical shape, particularly the length, and doesn't change any chemical properties of the material.

A material handler loads the shear's box with oversize material. The box then closes in a clam shell action and compresses the loaded material. A ram then pushes the material towards the shear blade and drops the processed material periodically, depending on the length of finished product that is required.

Any incoming (pre-processed) scrap metal received at the Site will not be treated through the shear.

Where oversized material is received at the Site a hand-held oxy-propane cutting kit will be utilised to cut the scrap metal to a suitable size.

3 ENVIRONMENTAL MANAGEMENT CONTROLS

3.1 Environmental Management System

CELSA operates a site wide Environmental Management System, certified to ISO14001:2015. The EMS covers the operations of the permitted Swansea Scrap Yard.

3.2 Site Drainage

The drainage arrangements for the site are described below:

- **Class 1 NSF200 – Full retention separator** – Supplied by Kingspan Environmental in November 2007 the Site benefits from a Class 1 NSF200 full retention separator with a nominal flow rate 200 litres/second. Class 1 separators are designed to achieve a discharge concentration of less than 5 mg/litre of oil.

- **Gulley along the edge of King's Dock** – A large gridded drainage gulley is present along the edge of King's Dock. The drainage from the King's Dock gulley also passes through the Class 1 Separator.

- **Gulley along the edge of the Site (Scherzer Passage)** – A large gridded drainage gulley is present along the edge of Scherzer Passage. The flow is towards the Class 1 full retention separator before discharging into King's Dock.

- **Discharge point** – The run-off from Site discharges directly into King's Dock (controlled via a tidal flap gate and emission point SW1).

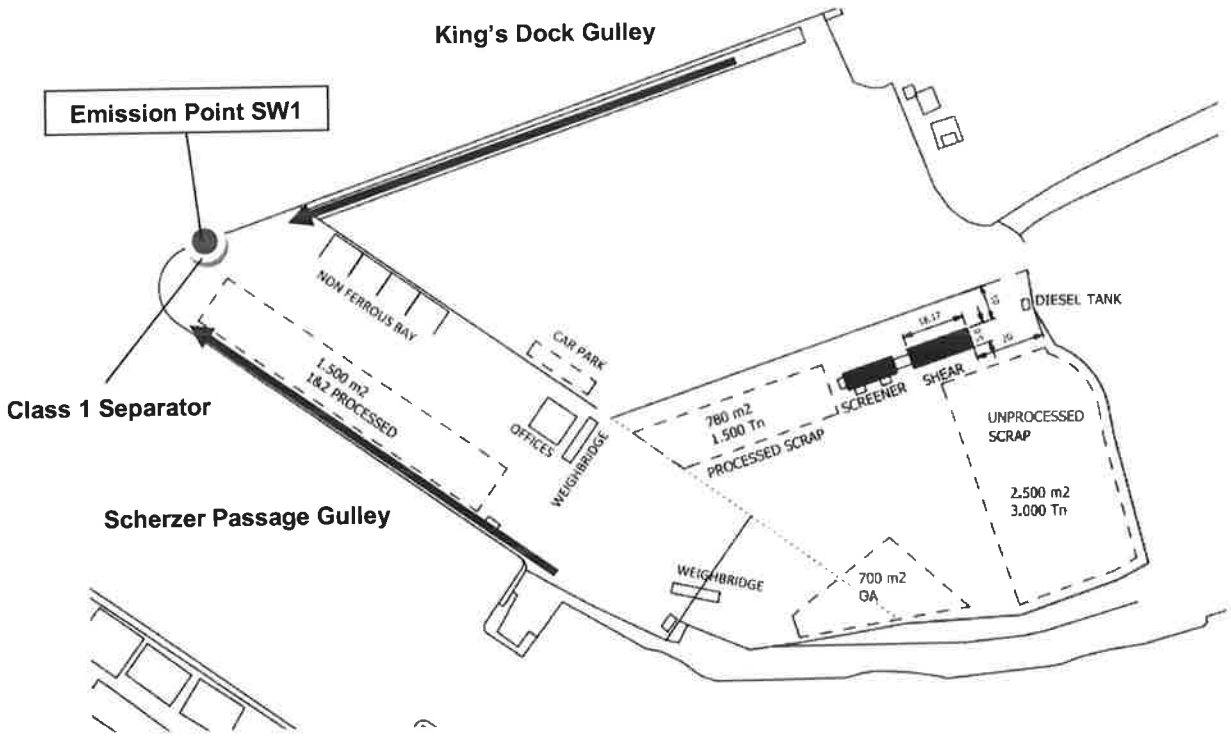

Figure 3 – *Site Drainage*

3.3 Monitoring and Maintenance of the Drainage Systems

The on-site drainage systems described above are inspected daily and after heavy rainfall. Comments on the findings are reported in the Site Diary.

Any maintenance or improvement works found to be necessary are undertaken in a timely manner. For example, if a blockage occurs immediate action would be taken to clear it. However,

should the problem be of a structural nature (infrastructure damage, failure or inadequacy) a temporary solution would be attempted immediately, and a more permanent solution undertaken within one working week. In the event of structural failure, the operations would be required to cease and the resident wastes removed or prevented in some other suitable way from adding to the drainage risks.

3.4 Odour Control

The permitted wastes handled at the site are not considered to generate odour.
Although the potential for odour nuisance is low, olfactory monitoring is undertaken by site staff as part of the routine site boundary inspections each week. The presence or otherwise of any offensive odours is noted and recorded in the Site Diary. If an odour is recorded, the possible source is investigated by site staff and any mitigation action taken noted in the Site Diary.

3.5 Dust and Particulate Control

There is little potential for fugitive dust and particulate emissions to be generated from the treatment and storage of scrap metal at the Site. The following control measures are employed at the site to minimise the generation of dust and particulates:

- The mobile shear plant (where used) is an enclosed operation with very little opportunity for dust release during operation.
- Hard surfaced areas are routinely swept to remove fines (with damping where appropriate).
- The lowest possible drop heights are used when loading material into vehicles and unnecessary disturbance of the stockpiles is avoided.

The site is not located in a sensitive setting with respect to dust and noise issues being located in an industrial dock area.

3.6 Noise Control

Plant and machinery is in use at the facility and has the potential to cause noise nuisance, however, the site setting is such that there are no noise receptors in the locality that could suffer from such nuisance.

The vehicles are only used when required to move materials around.

If any odour, noise and/or dust complaints are received the Complaints Procedure as set out in EMS procedure CP/B033 (EHS Communication - Internal and External) would be followed and the incident investigated and if found to be real, appropriate mitigation measures would be adopted and reported to Natural Resources Wales.

The site is only operated during normal daytime hours.

3.7 Monitoring

No emission limits are specified in the Permit and there are no monitoring requirements associated with the Permit.

The site is under the daily observation of the site management, particularly the nominated 'technically competent Manager.' A visual assessment of emissions is made and recorded in the site diary. In addition, an Operator performs a weekly site boundary check, which includes a record of any odours, dust or litter.

Furthermore, should any complaints arise from neighbours or other persons, these will be investigated and, as necessary, dealt with appropriately in accordance with CELSA's ISO14001 Environmental Management System.

3.8 Spillages

There are no liquid wastes as such stored at the facility, although there are small quantities of oils and fuels present for ongoing use of site plant and machinery. These are stored in containment areas and there are spill kits available to deal with any spillages.

Emergency response procedures are set out in the Environmental Management System and would be followed in the event of an incident.

3.9 Other Controls

No fires are permitted on the site and any accidental fires will be dealt with as an emergency.

The following controls will be utilised during the use of the hand-held oxy-propane cutting kit:

- only trained competent personnel shall undertake scrap metal processing using the hand-held oxy-propane cutting kit;
- all equipment shall be checked for leaks and/or damage before use;
- appropriate PPE and RPE shall be utilised during the processing in-line with the stated H&S risk assessment;
- all cylinders shall be fitted with flashback arresters;
- the scrap metal will be moved to a safe location for carrying out hot work;
- any combustible materials near to the processing operation shall be moved;
- after processing the cut materials shall be segregated from on-site stockpiles for up to 30 minutes after hot work finishes;
- suitable fire extinguishers shall be in the area of the hot work; and
- gas cylinders shall be appropriately stored (in-line with HSE Guidelines) upon completion of

the activity.

Any equipment malfunctions or breakdowns will be dealt with promptly and operations will cease where such breakdowns do not enable the above environmental controls to be applied.

There is an active preventative maintenance programme in place at CELSA which applies to all plant and equipment at the Site.

4 OPERATIONAL MANAGEMENT CONTROLS

All operations are controlled from the main site office which consists of:-

- weighbridge;
- record keeping systems (including IT);
- telephone/communication facilities;
- washing/toilet facilities; and
- canteen

All records of incoming and outgoing wastes are maintained in the main site office, together with a record on the company SAP system.

Duty of Care Transfer Notes are raised and kept at the site office; both for incoming and outgoing wastes where appropriate. Individual load weigh tickets are also retained at the office for a minimum period of 2 years.

The site only operates during daylight hours and in accordance with the planning consent.

The total manning of the site can vary dependent upon the level of activity being undertaken. Based on current activities there are generally between 2 and 8 people at any one time. These provide engineering, technical, transport, administration and environmental support.

The Scrap Yard Manager provides the necessary Technically Competent Management and is recognised by holding WAMITAB Certificates of Technical Competence.

All site Operatives have been made aware of the requirements of the EPR Permit and will be briefed as to the content of the Environmental Management Plan.

Any breakdown or malfunction of plant or equipment that could result in abnormal emissions of dust or odours are dealt with promptly and process operations adjusted until normal operations can resume. Any such events are recorded in the site diary and on the company ProSafety system.

The site diary records all significant operational and environmental events that take place at the facility.

5 Accident Risk Assessment and Management Plan

The potential hazards and associated risks with the site have been assessed and the required management mitigations can be seen in Appendix 1 – Accident Risk Assessment and Management Plan. The plan includes identifying the following risk areas:

- Fugitive dust emissions to air
- Fugitive odour emissions to air
- Fugitive emissions to water
- Fugitive noise emissions to air
- Loss of containment
- General amenity risks
- Fire
- Other e.g. flooding and vandalism

THIS CONCLUDES THE ENVIRONMENTAL MANAGEMENT PLAN

Appendix 1 – Accident Risk Assessment and Management Plan