

WARD

WARD

Fire Prevention and Mitigation Plan
Cardiff Dock

Cold Store Road, Cardiff, CF10 4LY

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1.0 INTRODUCTION

A Fire Prevention and Mitigation Plan (FPMP) is maintained as a standalone Management System to ensure that all interested parties can refer to it as and when required. The plan details the prevention measures and procedures as well as mitigation methods in place to protect against fire whilst carrying out day to day operations on site.

The FPMP identifies the possible causes of fire at the site and sets out the measures to address those fire risks. These measures will depend on the onsite activities and will take into account waste management activities as well as any other onsite activities that could be a fire risk.

This FPMP follows NRW's guidance for FPMP's and details the required mitigation and management methods to prevent a fire of combustible materials stored on site. The information contained within this FPMP is presented in accordance with the NRW's FPMP template published August 2019 and is designed to meet the 3 main objectives of the NRW FPMP Guidance:

- Minimise the likelihood of a fire happening.
- Aim for a fire to be extinguished within 4 hours; and
- Minimise the spread of fire within the site and to neighbouring sites.

This FPMP has been structured in accordance with the NRW's Fire Prevention and Mitigation Plan Guidance and considers the following relevant aspects of the facility:

- Managing common causes of fire
- Preventing self-combustion
- Managing waste piles
- Preventing fire spreading
- Quarantine area
- Detecting fires
- Suppressing fires
- Firefighting techniques
- Water supplies
- Managing fire water
- Actions during and after an incident

This FPMP is a 'live' document, and all monitoring procedures, responsibilities and compliance actions will be updated as and when required.

2.0 FIRE PREVENTION AND MITIGATION PLAN

The aim of this FPMP is to identify potential risks of fire arising from the activities undertaken at WARD's Cardiff Dock site. The plan aims to ensure adequate control measures are implemented to reduce the risk of fire, and in the unlikely event of a fire, that there are procedures in place to prevent harm to people and the environment.

The WARD Environment and Sustainability Dept. work closely with the Health and Safety Dept. to identify potential risks arising from the activities undertaken at the dock and the site benefits from an annual Fire Risk Assessment (see Appendix 1: Cardiff Dock Fire Risk Assessment).

2.1 Distribution

A copy of the Plan will be held on site in the Site Office. An electronic copy will also be held on the company server. The company server is located at their Head Office in Ilkeston, Derbyshire and is backed up by a third-party company. Copies of the plan will be made available to the Emergency Services upon request.

2.2 Roles and Responsibilities

Environmental & Sustainability Manager - The Environmental & Sustainability Manager is responsible for updating and maintaining the Fire Prevention Plan.

Site/Senior Management - Site and Senior Management are responsible for communicating to the Environmental Manager, any changes to the site or activities undertaken which may affect the Fire Prevention Plan.

2.3 Testing the Plan and Staff Training

A fire drill / test exercise will be undertaken annually. The FPMP will be updated following the fire drill if improvements are identified during the test exercise.

The FPMP will be reviewed biennially. The plan will also be reviewed and updated if there are any significant changes to activities on site or associated infrastructure.

Fire Marshall training is undertaken every three years and covers the following topics.

- Preserve life in emergency situations.
- What to do when you discover a fire or hear the fire alarm.
- Roll call and control of staff at the assembly point.
- Understanding the means of escape.
- Sweeping your area and door procedure.
- Identifying the correct extinguisher and how to use it.
- Practical use of a fire extinguisher on fire.

The FPMP will be communicated to key staff/contractors, and any associated training deemed necessary will be provided. A copy of the FPMP will be submitted to the NRW for approval. Any subsequent revised versions of the plan will be forwarded to the NRW for approval.

3.0 THE SITE

3.1 Activities

Cardiff Dock is a metal recycling and ELV depollution facility. The on-site activities fall into four categories.

- i. Uncontaminated furnace ready scrap metal (FRS) will arrive at site by either road or rail. FRS is free from contamination and meets customer/furnace specifications. FRS will be exported as either a waste or a product as the site has been accredited to the appropriate EoW standard.
- ii. Ferrous and non-ferrous grades that require further processing or sorting prior to export or sale within the UK will be directed to the appropriate area of the yard. Material may be sorted and graded or processing using the following methods: hot cutting, shearing, baling and snipping.
- iii. End-of-vehicles (ELVs) will arrive at site and be directed to the appropriate area of the yard to be stored prior to depollution and/or dismantling. Following treatment ELV's will be baled and transported by road to an appropriate license WARD facility for further recovery.
- iv. Screening of Ferrous and Non-Ferrous Metals contaminated with Incinerator Bottom Ash. The screening process will take place inside a building. The purpose of treatment is to recover ferrous and non-ferrous metal fractions.

All operations that involve hot cutting, baling, or depollution are recognised as potential sources of smoke, particulate or vapour emissions in the event of fire. These are therefore conducted only within the Hot Cutting Area, on impermeable surfacing and under supervision in accordance with the Fire Prevention Plan.

A breakdown of activities undertaken on site is included in Table 1 below.

Table 1 – Site Activities

STORAGE
<ul style="list-style-type: none">▪ Receipt and off-loading of metal scrap via vessel, road and rail▪ Loading and dispatch of metal scrap via vessel, road and rail▪ Storage of Furnace Ready Scarp▪ Storage of ELV's prior to depollution▪ Storage of Metals from IBA Treatment inside a building
TREATMENT
<ul style="list-style-type: none">▪ Manual sorting of scrap metal▪ Shearing of scrap metal (ferrous and non-ferrous)▪ Stripping of cable (by hand)▪ Flame cutting of scrap metal▪ Depollution of End-of-Life Vehicles▪ Baling of End-of-Life vehicles▪ Screening of Ferrous and Non-Ferrous Metals contaminated with Incinerator Bottom Ash
OTHER
<ul style="list-style-type: none">▪ HGV and plant (vehicle) movements▪ Vessel loading and unloading▪ Rail freight unloading at the onsite rail sidings▪ Weighbridge Operation▪ Loading containers for export▪ Refuelling of plant equipment▪ Repair of plant and equipment (Maintenance Area)
OTHER ACTIVITIES
<ul style="list-style-type: none">▪ General office operations (operation of IT equipment and storage of paper records)▪ Staff welfare activities (including hot food preparation)

3.2 Site Location

The Site is an approx. 9-acre plot located 2.5km southeast of Cardiff City Centre, on the southern edge of the Queen Alexander Dock, within the wider Associated British Port (ABP) of Cardiff. The

Site is located at National Grid Reference ST 2019 74018 and is leased from ABP Ports by Donald Ward Limited.

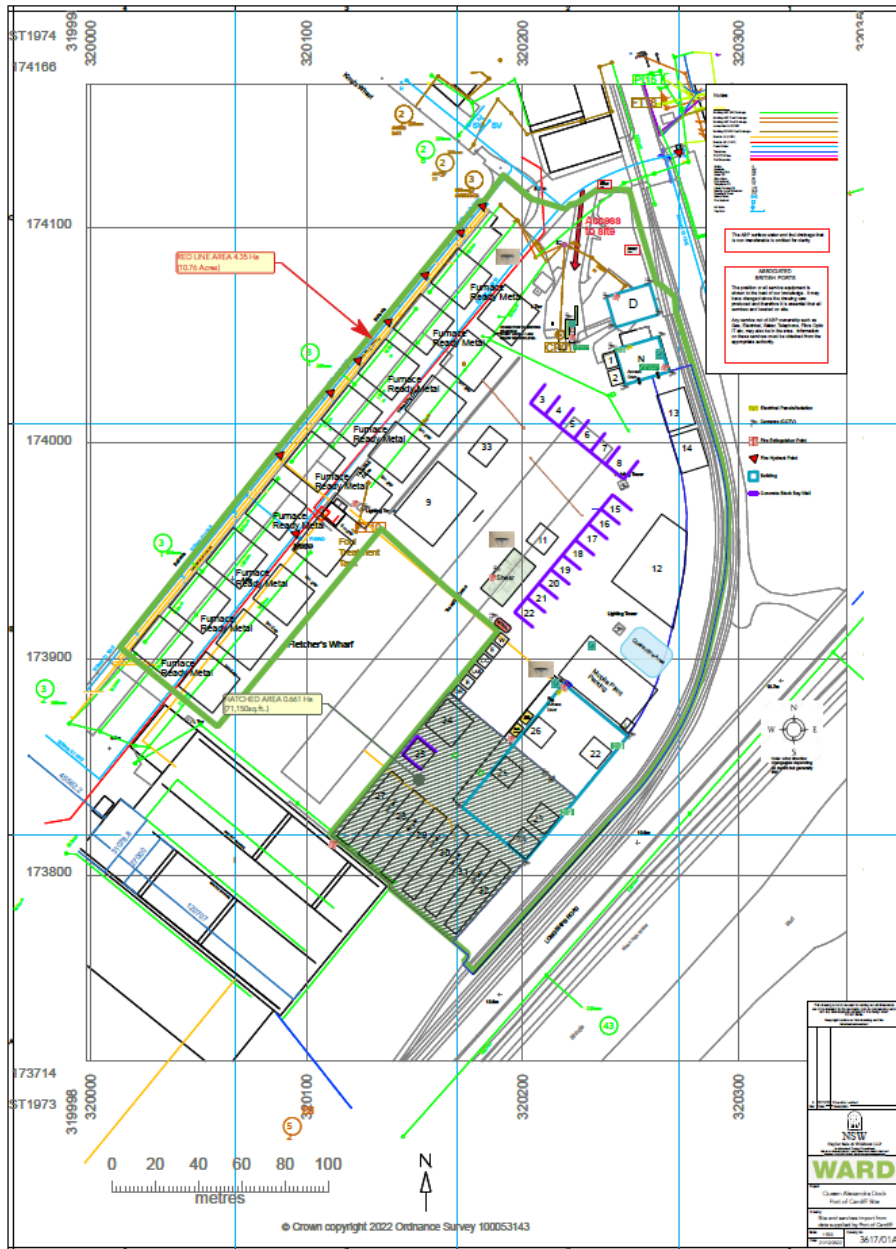
The Port of Cardiff is well connected by the rail network, and within easy reach of the M4 motorway. The Site is surrounded by other industrial sites and businesses within the Port of Cardiff and is adjacent to the Severn Estuary, which is a designated Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC), Special Protection Area (SAC) and Ramsar Site. Further information on sensitive receptors is provided in Section 2.0 of this report.

The activities undertaken on site will include the temporary storage and treatment of hazardous and non-hazardous waste. All activities will be undertaken on impermeable concrete surfacing with dedicated sealed Klargestor drainage system. The Klargestor drainage system is located on the Site Plan (Figure 1).

Waste will be delivered to the site and will undergo waste acceptance procedures (Please see Appendix 2) and checks and inspection by the Weighbridge Operator, furthermore, the Duty of Care documentation will be reviewed.

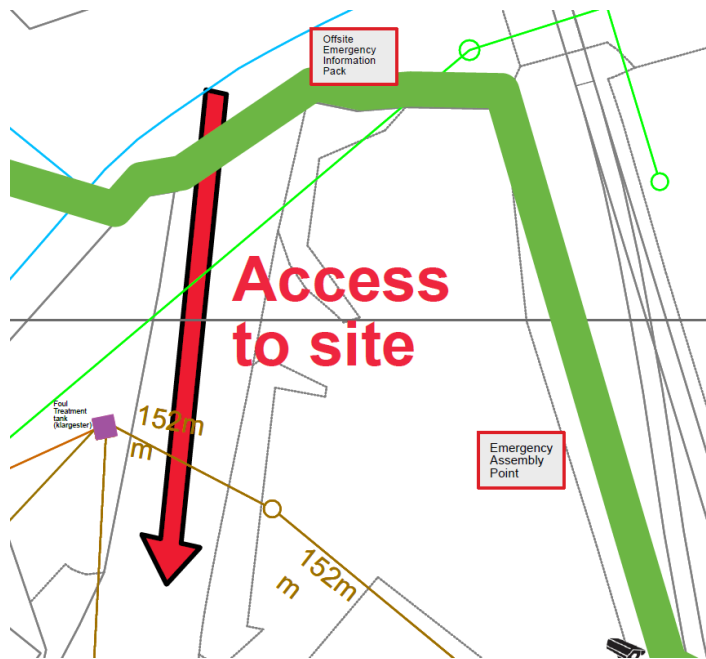
The sealed Klargestor drainage system provides full containment of surface water. In a fire event, drain isolation valves and drain mats will be deployed immediately to prevent firewater leaving the site. The system directs run-off to a contained interceptor where water can be sampled before release or off-site disposal. This ensures no discharge to Queen Alexandra Dock or the Severn Estuary unless quality standards set by NRW are met.

Figure 1 - Site Layout Plan



Please see below, Klargester drainage system highlighted in purple (Figure 2).

Figure 2 - Klargester drainage System Location



Sensitive Receptors

There are no Areas of Outstanding Natural Beauty or Sites of Special Scientific Interest within the site boundary. The site location is approximately 50m from the Severn Estuary (Wales) Special Protection Area and Special Area of Conservation.

A plan showing the sensitive receptors around the site has also been prepared, see Appendix 3 – Sensitive Receptors Map.

Emissions Pathways and Receptor Exposure

A westerly wind blows from the west toward the east; therefore, receptors to the east and northeast of the site are most likely to experience smoke or particulate dispersion during a fire. Receptors to the west are generally upwind and at lower immediate risk.

Key downwind and sensitive receptors include:

- Severn Estuary SPA/SAC/SSSI/Ramsar Site (≈ 50 m E–SE) – risk of particulate, dioxin and acid-gas deposition.
- Queen Alexandra Dock (10 m NW) – potential for contaminated firewater entry if containment fails.
- Greenergy Cardiff Tank Farm (480 m SW) – critical infrastructure; monitoring of radiant heat and plume direction required.
- Adventurers Key residential estate (660 m NW) – smoke/odour exposure under variable wind conditions.

Notification Protocol

Immediate notification to NRW, Public Health Wales, and neighbouring port operators will occur when:

- Visible smoke crosses the site boundary;
- Predicted or observed downwind impacts threaten sensitive habitats or populated areas;
- or
- Firewater threatens to escape the sealed drainage system.

Table 2: Summary of Sensitive Receptors within 1km of the site boundary

<u>Receptor</u>	<u>Type</u>	<u>Distance/ Direction</u>	<u>Contact Details</u>
Garden Tiger Butterfly	Protected Species	Within Boundary	-
Queen Alexandra Dock	Surface Water	10m NW	0870 609 6699
HDM Tubes / Pipe Manufacturing Solutions Ltd warehouses	Commercial/Industrial	20m SW	029 2049 4794
Beach Sidings	Local Wildlife Site	21m E	-
Dunnoch Bird	Priority Species	29m E	-
Severn Estuary SSSI and SAC	Protected Habitat/ Surface Water	36m SE	-
Visitors to storage units of Wild Water Group and Owens Group Cardiff	Recreational	50m NW	029 2048 1555
Herring Gull	Priority Species	55m W	-
Wild Water Group	Commercial	146m NW	029 2048 1555
UKprefulfillment - Densee	Commercial/Industrial	150m SW	07380 427172
Workers at other industrial sites off Cold Stores Rd in Cardiff Docks	Commercial/Industrial	220m NW	0870 609 6699
Severn Estuary SPA and Ramsar site	Protected Habitat	310m SE	-
Bob Martin Dispatch Warehouse	Commercial/Industrial	380m SW	029 2049 7792

Cargo Road	Public Road	413m NW	-
BBC Studios Roath Lock	Commercial	440m W	07976 265 011
HMS Cambria offices	Commercial / Residential	450m NW	029 2044 5200
Greenery Cardiff Tank Farm	Commercial/Industrial	480m SW	020 7404 7700
Tyneside Road	Public Road	519m NW	-
Pedal Power Bike Hire	Commercial	524m NW	-
Workers at Alexandra Docks container yard	Commercial/Industrial	560m W	0870 609 6699
Tiger Yard Food Court	Commercial/Recreational	574m NW	029 2022 0491
VANZA Motor vehicle dealer	Commercial	600m NE	029 2268 0646
Tiger Yard Street Food	Recreational	630m W	029 2022 0491
Coffi Co at Porth Teigr	Commercial	640m WNW	-
Adventurers Key housing estate	Residential	660m NW	-
Parker Plant Hire	Commercial/Industrial	710m SW	029 2045 2255
Norwegian Church Art Centre	Recreational / Commercial	727m NW	029 2049 2261
Workers at Valero Fuel Supplier	Commercial/Industrial	750m NE	029 2046 2624
The Waterguard Pub	Commercial/Recreational	760m NW	029 2049 9034
Business Park/Offices on northern side of Roach Basin	Commercial	760m NW	-
Norwegian Church Arts Centre	Recreational	770m WNW	029 2049 2261
ITV Cymru	Commercial	802m NW	0844 881 0200
Atradius Insurance Company offices	Commercial	805m NW	029 2082 4000
Associated British Ports of Cardiff Offices	Commercial/Industrial	825m SW	0870 609 6699
Atkin Trade Specialists	Commercial/Industrial	830m NE	029 2044 2060
Biffa Waste Management Cardiff	Commercial/Industrial	840m NE	0800 307307
Visitors to Cardiff Bay Trail Walk & Alexandra Head	Public Footpath/Recreational	850m SW	-
Cardiff Recreational Area inc. Cardiff Bay Sailing Centre, Skate Plaza, Basketball Court, Aqua Park and Playground	Recreational	870m SW	-
The Senedd government building	Commercial	900m NW	0300 200 6565
Cardiff Barrage Children's Playground	Recreational	960m SW	-
Cardiff Heliport Fields	Habitat / Commercial	975m NNE	029 2046 5880
Cardiff Bay Wetlands Reserve (LNR and LWS)	Habitat	995m W	-
Coop Food	Commercial	996m NW	029 2046 4324
Roald Dahl Plass (Plaza)	Commercial/Recreational	1km NW	-
Millenium Centre	Recreational	1km NW	029 2063 6464
St David's (VOCO) Hotel	Commercial / Recreational	1km WNW	029 2045 4045
Mount Stuart Graving Docks	Commercial / Recreational	1.1 km NW	029 2044 8000
Hamadryad Park Local Nature Reserve	Habitat	1.52 km WNW	-

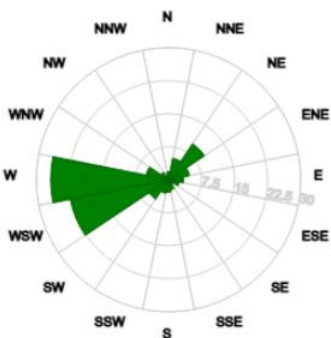
3.4 Wind Direction

A review of the data recorded monthly between November 2000 and September 2023 on the Windfinder.com3 website indicates that the most dominant wind direction is from the west, blowing towards the east.

The closest meteorological recording station to the site is St Athan Royal Air Force Base weather station located over 14km to the southwest of the site. The weather station is deemed the most appropriate for use in order to characterise the site due to its proximity to the site. Wind patterns at the Airbase are similar to those experienced at the site.

The prevailing wind is westerly, meaning it blows from the west toward the east. In the event of a fire, a westerly wind may carry smoke towards the east, potentially affecting the receptors identified in Table 2 – notably the Severn Estuary SPA/SAC and nearby port facilities.

Figure 3: Wind Rose for St Athan Royal Air Force Base



The prevailing wind is W. In the event of a fire a Westerly wind may carry smoke towards the West, this could impact upon the residents listed on the summary of Sensitive Receptors (Table 2).

Table 3 – Wind Direction Percentage

Direction	Percentage	Direction	Percentage
N	1.83%	S	2.81%
NNE	4.98%	SSW	3.13%
NE	9.82%	SW	5.28%
ENE	4.84%	WSW	22.72%
E	3.4%	W	26.72%
ESE	2.5%	WNW	5.19%

SE	1.36%	NW	2.04%
SSE	2.32%	NNW	1.05%

3.5 Impact of Fire Emissions & Receptor Impacts

The following table identifies emission types, their potential receptors, and specific mitigation measures. It reflects the principal pathways for air, water, and land contamination, and includes triggers for communication and containment.

Table 3.1 – Impact of Fire Emissions and Receptor Impacts

Type of Potential Hazard Emission	Potential Impact	Mitigation
Air Emissions	Smoke, particulates (PM ₁₀ , PM _{2.5}), CO, CO ₂ , NO _x , VOCs, dioxins.	Downwind communities (Adventurers Key estate, Tiger Yard, Senedd) could experience smoke inhalation. Sensitive habitats (Severn Estuary SPA/SAC, Cardiff Bay Wetlands) could be exposed to deposition of particulates and acidic gases.
Water Emissions	Contaminated firewater runoff may contain hydrocarbons, heavy metals, and oils.	Risk of pollution to Queen Alexandra Dock and the Severn Estuary if containment fails.
Soil / Land	Minimal due to impermeable surfacing and sealed drainage	If contaminated fire residues must be managed as hazardous waste.

To further minimise off-site impact:

- Drain isolation points (see Figure 2) shall be closed immediately upon alarm activation.
- Firewater containment volume provides > 125 % of worst-case flow for the site’s highest-risk stockpile.
- Air plume dispersion will be monitored by the Fire Service and reported to NRW if off-site travel is detected.
- The site will not recommence operations until containment integrity has been verified and all fire residues are removed by licensed contractors.

4.0 COMMON CAUSES OF FIRE AND PREVENTATIVE MEASURES

4.1 Potential Ignition Sources and Associated Control Measures

The table below identifies common causes of fire and the measures that WARD will take to reduce the risk.

Table 4: Control of Potential Causes of Fire

Source of Fire	Applicability to Site and Proposed Management Controls	Residue Risk
Electrical Faults	<p>The risk of damaged or exposed electrical cables is controlled via the regular inspection and maintenance programme.</p> <p>Any electricians on site are fully certified by a qualified electrician</p> <p>Electrical appliances PAT tested on a scheduled basis.</p>	VERY LOW
Visitors and Contractors	<p>All visitors to site will follow the correct safety and fire prevention procedures communicated to them in the Site Safety Induction.</p>	VERY LOW
Smoking	<p>Staff and visitors are only permitted to smoke within the designated area, which is located away from the waste transfer building.</p> <p>The site is a strictly no smoking site.</p>	VERY LOW
Hot Exhaust	<p>All site vehicles and mobile plant will be fitted with fire extinguishers and dust filters.</p> <p>The site is monitored remotely outside of operational hours via CCTV by a third-party contractor.</p> <p>There is a scheduled maintenance and inspection programme for all areas of the site. This process ensures that all plant is maintained at a sufficient level of cleanliness and housekeeping to ensure that the plant does not pose a fire risk.</p>	VERY LOW
Hot Works	<p>All staff and contractors will be required to operate under strict 'Permit to Work' systems and follow safe working practices when undertaking any hot working such as welding and cutting.</p> <p>As far as practical, wastes will be cleared away from the area of any hot work before hot work starts.</p> <p>All hot works including the flame cutting of metal is undertaken in a designated area at a safe distance from flammable/combustible materials. The area is monitored by CCTV. It is to be undertaken by trained staff only.</p> <p>A fire watch will be implemented for a suitable period of time after hot works have ended, particularly at the end of a working day.</p>	VERY LOW
Ignition Sources	<p>No routine aspect of the plant or processes requires the use of any naked flames.</p> <p>Any ignition sources as part of non-routine activities on site will be subject to permit to work. Any such works will be kept at least 6 metres away from the stored waste on site.</p>	VERY LOW

Portable/electric heaters	Not to be used on site.	N/A
Batteries in ELVs	Disconnect or remove batteries from un-polluted vehicles before they are stockpiled for de-pollution.	VERY LOW
Arson/Vandalism	The site has a perimeter fence which will be routinely inspected to ensure that site security has not been compromised. The site is well lit and secured and ABP Cardiff Dock benefits from 24/7 security patrols and a security gate to gain access to the dock. Extensive CCTV monitoring throughout the site. Any fire would be identified quickly by the site's visual detection procedure and fire detection equipment.	VERY LOW
Plant and Equipment	All plant equipment and vehicles are subject to scheduled maintenance and servicing which is undertaken in the onsite Maintenance Area. All mobile plant is maintained by the manufacturer to ensure it remains within the manufacturer's specification. Site vehicles are fitted with fire extinguishers and material handlers are fitted with automatic fire suppression equipment with manual extinguishers available Machinery will always be parked 6m+ away from stockpiles when not being used. Machinery will be regularly cleaned to remove any dust, wood etc to ensure that this does not accumulate on moving parts.	VERY LOW
Fuel/oil leaks and spills	The prevention of fuels and oil leaking out from site vehicles will be achieved by the regular inspection and maintenance programme. If there are any leaks, the regular inspections allow this to be dealt with straight away. Tank and bund integrity checked on a regular basis. All plant equipment and vehicles subject to scheduled maintenance and servicing.	VERY LOW
Hot loads	None accepted to site.	VERY LOW
Self-Combustion	The business model is to turn waste around as quickly as possible this will help reduce the likelihood of having piles which are prone to self-heating.	VERY LOW
Build-up of dust/fibres	Principles of good housekeeping are followed, hot surfaces such as exhausts are kept free from the build-up of dust/fibres. Documented procedures for regular inspection and cleaning of site to prevent build-up of loose combustible waste, dust and fluff	VERY LOW
Reaction Between Wastes	All waste streams are separated on site in avoiding 'reactions' that may cause self-heating to occur and later possible combustion.	VERY LOW
Self-Combustion	The business model is to turn waste around as quickly as possible this will help reduce the likelihood of having piles which are prone to self-heating.	VERY LOW

<p>Cylinders</p>	<p>Orphaned cylinders will be stored within a cage and disposed via an appropriately licensed disposal route.</p> <p>Where the manufacturer can be identified the cylinders e.g. calor they will be contact directly to arrange their collection via their take-back scheme.</p>	<p>VERY LOW</p>
<p>Baled Wastes</p>	<p>The only baled wastes on site will be that of ELV's and small amounts of non-ferrous.</p> <p>All ELV's will be de-polluted prior to being baled. The thorough de-pollution process will involve the removal of all flammable materials such as flammable fluids, for example, fuel, oil, brake fluid, and the removal of batteries. This will be undertaken by trained staff. Once ELV's have been de-polluted they will be baled and stored in designated bays.</p> <p>There will be no build-up of baled ELV's and baled ELV's will be sent to our Fragmentiser in Ilkeston.</p>	<p>VERY LOW</p>
<p>Tramp Metals</p>	<p>Prior to any processing, loads will be visual inspected by an Inspector and recorded on ENWIS with any tramp metals being intercepted before processing.</p> <p>Routine inspections of machinery inlets and critical components will be undertaken, including documentation of findings and actions.</p>	<p>VERY LOW</p>
<p>Batteries within Waste Deposits</p>	<p>Prior to any processing, loads will be visual inspected by an Inspector and recorded on ENWIS with any batteries being separated from waste stream before processing.</p> <p>Any batteries found in waste deposits will be placed in the Designated Battery Bin.</p>	<p>VERY LOW</p>
<p>Persistent Organic Pollutants (POPs) Waste</p>	<p>Waste streams containing POPs are segregated to prevent chemical interaction, cross-contamination, and increased fire risk.</p>	<p>VERY LOW</p>
<p>Lithium-ion batteries</p>	<p>Prior to any processing, loads will be visual inspected by an Inspector and recorded on ENWIS with any lithium-ion batteries being removed. Theses will then be stored in a designated battery container.</p>	<p>VERY LOW</p>

5.0 MANAGING WASTE MATERIAL STACKS AND SEPARATION DISTANCES

5.1 Fire Risk Assessment

In order to identify and minimise the risk of a fire on site, the Health and Safety Department have undertaken Fire Risk Assessment, see Appendix 1.

5.2 Pile Size and Storage Time

A summary of the maximum storage quantities and different storage times for wastes received is provided in Table 5 below.

All maximum dimensions (length, width, height) represent waste pile sizes only. Each bay has a 1 m freeboard at the top and sides.

Table 5: Summary of Waste Storage Quantities and Storage Times

Waste stream	Location (see site plan)	How it is stored	Max. length / m *	Max. width / m *	Max. height / m *	Max Volume / m ³	Max. time it will be stored	Combustible / Non-Combustible
Furnace Ready Scrap	FRS	18 Loose Stockpiles (Particle size in excess of 150mm)	20	20	8	Each Pile 3,200m ³	2 months	Non-Combustible
Scrap Metal (Particle size less than 150mm)	1-2	Blocked bays	5	5	4	100m ³	3 months	Non-Combustible
Scrap Metal (Particle size in excess of 150mm)	3-8	Blocked bays	10	8	4	320 m ³	3 months	Non-Combustible
Scrap Metal (Particle size in excess of 150mm)	9	Stockpile	20	7	4	560m ³	3 months	Non-Combustible
Scrap Metal (Particle size in excess of 150mm)	10	Stockpile	20	7	4	560m ³	3 months	Non-Combustible
Scrap Metal (Particle size in excess of 150mm)	11	Stockpile	10	10	4	400m ³	3 months	Non-Combustible
Oversized Scrap Metal (Particle size in excess of 150mm)	12	2 Loose Stockpiles (Particle size in excess of 150mm)	15	10	4	Each Pile 600	3 months	Non-Combustible
Scrap Metal (Particle size in excess of 150mm)	13	Blocked bays	15	7	4	420m ³	3 months	Non-Combustible

Scrap Metal (Particle size in excess of 150mm)	14	Blocked bays	15	7	4	420m ³	3 months	Non-Combustible
Scrap Metal (Particle size in excess of 150mm)	15-22	Blocked bays	10	8	4	320m ³	3 months	Non-Combustible
Metals from IBA Treatment	23-26 (Building M)	Blocked bays inside a building	10	10	4	400m ³	2 months	Non-Combustible
Depolluted Vehicles	27-29	Stockpile of shells per baled	7 units	2 units	3 units	One block could contain 28 vehicles	1 week	Non-Combustible
ELV waiting depollution	30-32	Incoming cars	7 units	2 units	2 units	One block could contain 20 vehicles	1 week	Combustible
Hot Cutting Area	33	Stockpile of Metal requiring Hot Cutting	15	10	4	600m ³	1 Weeks	Non-Combustible
Baling of ELV Wheels (ELV Depollution Area)	34	Depolluted Cars	15	15	4	600m ³		Combustible
Engines (ELV Depollution Area)	W	40 Yard Container	6.7	2.5	2.75	46m ³	1 month	Combustible
Metal Catalytic Convertors (ELV Depollution Area)	E	40 Yard Container	6.7	2.5	2.75	46m ³	1 month	Low Risk Combustible
Lead Acid Batteries (ELV Depollution Area)	CC	40 Yard Container	6.7	2.5	2.75	46m ³	1 month	Low Risk Combustible
Other Batteries (ELV Depollution Area)	LAB	Acid resistant containers	1.2	1	1.6	1m ³	1 month	Combustible
Oily Rags (Maintenance Activity)	B	Designated Battery Bin	1	1	1	1m ³	1 month	Combustible
Wheels (Maintenance Activity)	OR	240L Container	1	0.58	0.73	0.24m ³	1 month	Combustible
Batteries (Maintenance Activity)	OR	240L Container	1	0.58	0.73	0.24m ³	1 month	Combustible
General Office Waste	W	40 Yard Container	6.7	2.5	2.75	46m ³	1 month	Combustible
Batteries (Maintenance Activity)	Maintenance Area	40 Yard Container	6.7	2.5	2.75	46m ³	2 weeks	Non-Combustible
Batteries (Maintenance Activity)	B	Designated Battery Bin	1	1	1	1m ³	1 month	Combustible

Lithium-ion batteries	L	Designated Battery Bin	1	1	1	1m ³	1 month	Combustible
Oil Waste (Maintenance Activity)	OW	Double Skinned Container	1	1	1	1m ³	1 month	Low Risk Combustible
Welfare Canteen	D	N/A	N/A	N/A	N/A	N/A	N/A	Non-Combustible
Non-Ferrous Building	N	N/A	N/A	N/A	N/A	N/A	N/A	Non-Combustible
POPs-containing waste	35	40 Yard Container	15	15	4	600m ³	15	Combustible / Non-combustible (depending on matrix; managed as combustible for fire prevention purposes)

ELV'S

Through experience, we estimate that each ELV is an average of 1.4 tonnes. Vehicles will be weighed on the weighbridge and tracked on our Internal ENWIS System. Furthermore, daily stock inspections will take place to ensure we are within the limits.

5.3 Waste stored in Containers / Skips / Building

Where waste is stored in containers/skips, these will be positioned so that they are easily accessible and movable in the event of a fire. All skips are placed to ensure that they are accessible from at least one side. Fork-lift trucks, skip wagons, heavy plant and a trained driver will be readily available to move the containers in the event of a fire on site.

In the event of an emergency, if an HGV driver is not available, a material handler (crane or wheeled loader) can be used to move the container.

Where waste is stored in a building, waste will be stored in blocked bays constructed from Legioblocks. Each bay will be used for a single waste stream only. Storage quantities and maximum storage durations will be strictly limited in accordance with Table 5: Summary of Waste Storage Quantities and Storage Times and will not exceed permit or fire plan limits.

Waste will not be stored above the height of the bay walls, compacted, or stored in a manner that restricts air circulation or increases the potential for self-heating. A clear separation distance will be maintained between stored waste and the building structure, including walls, doors, and roof supports, to limit fire spread and facilitate firefighting access.

Commented [AS1]: I think they want a section specifically for wastes stored in a building

Commented [LF2R1]: Added a sentence

Good housekeeping will be always maintained within the building. Waste will be managed on a first-in, first-out basis to prevent prolonged storage.

The building and stored waste will be subject to routine inspections by trained site personnel to identify signs of fire risk, including smoke, heat, odour, or smouldering material.

Access routes within the building will be kept clear at all times to allow safe movement of plant and access for emergency services. Suitable mobile plant, fork-lift trucks, skip wagons, heavy plant and a trained driver will be readily available to move waste or containers in the event of a fire, where it is safe to do so.

In the event of a fire or suspected overheating, waste may be isolated, removed, or spread using mobile plant to reduce fire intensity and prevent escalation. Waste may be relocated to a designated external quarantine or fire-fighting area to support effective fire control and environmental protection.

Storage of POPs Waste

Any waste identified as containing Persistent Organic Pollutants (POPs) will be stored separately from all other combustible and non-combustible waste streams.

POPs waste will be:

- Stored in dedicated, clearly labelled containers or bays
- Kept on impermeable hardstanding with sealed drainage
- Located away from ignition sources and other combustible materials
- Managed to minimise storage time, with prompt removal off site

POPs waste will not be bulked, baled, or mixed with other waste streams. Storage quantities will be kept to the minimum necessary for operational continuity, in line with fire prevention objectives.

Lithium-Ion Batteries

Lithium-ion batteries are stored separately from all other wastes in a designated battery container.

- Storage controls include:

- Non-combustible containers or bins
- Location away from ignition sources and combustible materials
- Storage on impermeable hardstanding
- Clear labelling
- Minimisation of storage duration

Damaged or defective lithium-ion batteries are stored individually where practicable and monitored for signs of overheating, smoke, or thermal runaway.

The amount of waste received daily is detailed below;

Material	Maximum Daily Intake
Furnace Ready Scrap	1200 t/day
Scrap Metal (Particle size less than 150mm)	200 t/day
Scrap Metal (Particle size in excess of 150mm)	300 t/day
Oversized Scrap Metal (Particle size in excess of 150mm)	100 t/day
Metals from IBA Treatment	50 t/day
ELV waiting depollution	28 Cars per day

Commented [AS3]: is this typical or maximum, NRW may want to impose a maximum

Commented [AS4]: how does this relate to 25,000 tonnes of ELVs per year

Commented [AS5]: they will want a tonnage - I've put 45 tonnes per day in my supporting doc (30 cars per day)

Commented [LF6R5]: I've put 30 to shadow your supporting docs

The amount of waste received daily can vary dependant on the time of year and how the market can fluctuate.

With regards to ELV's, WARs will be collecting vehicles, and these collections will be pre-planned and booked in using the internal waste tracking system (ENWIS), therefore allowing WARs to ensure tonnages are not being exceeded.

5.4 Whole ELV Storage

The batteries of un-depolluted ELVs will be disconnected prior to storage pending depollution. This is to reduce the risk of batteries short circuiting and causing a fire.

Un-depolluted ELVs will be stored in rows to a maximum depth of 2 vehicles. Vehicles will not be stacked more than 3 high as whole cars – to meet the FPMP guidance.

Commented [AS7]: suggest you separate un depolluted from depolluted in description

Depolluted ELVs will be stored in rows to a maximum depth of 2 vehicles. Vehicles will not be stacked more than 5 high if the cars have been flattened.

ELVs will be accessible from at least one side at all times.

5.5 Waste Bale Storage

All ELV's will be depolluted manually. Once depolluted ELV's will be baled and transported by road to provide feed stock to the **Fragmentiser** at the permitted site in Ilkeston, Derbyshire for further recovery. WARD benefits from an in-house transport department and once operational daily collections of baled ELV's will be introduced to transport the bales between Cardiff Dock and Ilkeston.

There will be no build-up of baled ELV's they will not be stored on site for longer than 3 months. Within the Non-Ferrous Building ('N' located on the site plan), small quantities of high value non-ferrous grades will be baled. Due to the high value of these grades, they are kept inside the Non-Ferrous Building at all times.

5.6 Stock Rotation Policy

Arrangements on site ensure a 'first in first out' approach is adopted so that storage of waste does not exceed the prescribed duration. The SM is responsible for stock rotation on site.

The aim with all waste on site is to move it off site as soon as possible.

5.7 Monitor and Control Temperature

During warmer periods, temperature checks of stockpiles are carried out at least every 4 hours. Temperatures are taken using a 1m temperature probe and recorded in the Daily Occurrence Record Book.

The temperature trigger levels are 50°C and 70°C. Where a temperature more than 50°C is recorded further testing will be undertaken on the next patrol. If a temperature more than 70°C is recorded the SM will be notified immediately. |

During hot periods, the damping down of stockpiles to reduce the risk of fire but also minimise dust is carried out.

During particularly hot/dry periods temperature checks will be undertaken on stockpiles on a more regular basis. It is noted that our trigger temperature to undertake temperature checks is 28°C or above. When the trigger temperature has the potential to be reached, a Safety Bulletin

Commented [AS8]: is this relevant for the types of waste you propose to accept

Commented [LF9R8]: I'd keep it in. we've put this in for other FPPs

will be issued by the Health and Safety Department to ensure temperature checks are undertaken.

Where a temperature more than 50°C is recorded further testing will be undertaken on the next patrol. If a temperature more than 70°C is recorded Site Management will be notified immediately.

5.8 Compost Production

No composting is undertaken on site.

5.9 Waste Management Methodology

5.9.1 First in / First out

The main purpose of the activity generated at Cardiff Dock, is to bulk furnace ready scrap for export. For the majority of the time, quality scrap is slowly built up to a point where the yard is completely emptied after loading export vessels.

The site operates a first in first out policy whereby older waste is processed first. This this is managed by carefully tipping new loads so that the older loads can be accessed first for processing.

The 'first in first out' procedure will be followed for any material that is being processed on-site. This will ensure that stockpiles of historical material to not build up. When material arrives the Weighbridge Operative directs vehicles to the appropriate tipping area.

5.9.2 Acceptance

Acceptance procedures for ferrous scrap at the site is subject to strict acceptance procedures in operating a Quality Management System in accordance with End of Waste Regulations. For loads that are being accepted as material that will be classified as End of Waste, operatives will adhere to the following WARD procedures.

- E-PRO-210 Acceptance and Control of Waste Procedure
- E-PRO-233 Inspection of Incoming Scrap Metal
- E-PRO-241 Metal Supplier Status
- E-PRO-243 Waste Rejection
- QP-001 Quality Monitoring Iron and Steel Scrap

All other waste material accepted into Cardiff Dock will be in accordance with the WARD UK approved ISO 14001 Management System and relevant Environmental Procedures.

Persistent Organic Pollutants (POPs) Waste

All incoming waste streams are assessed as part of the waste acceptance process. Where waste is identified or suspected to contain POPs above relevant concentration limits, it will be segregated at the point of receipt and not mixed with other waste streams. POPs waste will be clearly labelled and directed to a designated POPs storage area, pending removal from site to an appropriately permitted facility for treatment or disposal.

Records of POPs waste identification, storage, and onward transfer will be maintained within the site waste tracking system (ENWIS).

Lithium-Ion Batteries

If lithium-ion batteries are found in loads, they will be removed and segregated from other waste streams as soon as possible and placed in a designated container.

Lithium-ion batteries are not accepted for processing and are not crushed, baled, or shredded on site.

5.9.3 Rejection of Waste Material

Any non-conforming wastes discovered will be isolated and stored in the appropriate bin. Efforts will be made to trace back to the supplier where possible. If the source cannot be determined then the wastes will be suitably quarantined under the direction of the SM until they can be removed and treated at an appropriately permitted facility. Records of all non-confirming waste will be stored in the internal waste tracking system (ENWIS), suppliers will be recharged accordingly and reviewed by the WARD Quality Manager. The non-conforming list will be reviewed at the monthly metal commercial meetings.

5.9.4 Treatment

Ferrous Metal

In general, scrap metal is accepted onto site as 'furnace ready' via rail and in compliance with strict criteria in quality of material required by the customer specification for direct feed into a furnace.

The site accepts large metal panels which are cut and reduced in size using a burner (hot cutting) or alternative shearing activity. This material grade is either Over Sized Burning (OSB), or Oversized Plate and Girder (OA). Once treatment is completed the quality scrap is then transferred to the furnace ready scrap piles (quayside) for shipment.

All furnace ready scrap on-site and within the furnace ready piles (and OSB/OA material awaiting treatment for inclusion in these piles) will be loose and more than 150mm in size. As a result of this and owing to strict customer specification (and EoW requirements) there will not be a significant proportion of contamination within this waste (<2%) which vastly limits the risk of self-combustion.

Treatments on site are designed to ensure that resulting materials are in compliance with strict criteria in quality of material required in in customer specification. Regular quality checks are undertaken to ensure that the amount of foreign material (such as organic matter) within a pile will be less than 2% by weight. Treatment procedures will vastly reduce any associated risk connected with the potential of self-heating/combustion.

Metal Processing

Some scrap metal grades will arrive on site and require treatment. Metal that requires treatment shall but cut / sheared. Processed ferrous metal will be loaded into the FRS stockpiles ready for export and the processed ferrous metal grades will be bulked and sold to a third party

- Flame Cutting - metal sections that are too large to be processed in the shear are cut to more manageable sizes using flame. This requires the use of oxygen and propane gasses, and the process generates heat.
- Control measures are in place to the manage the risk from this process. It is only undertaken by competent trained staff and operations are carried out in a designated area at a safe distance of at least 6 meters from stockpiles of combustible/flammable materials.
- Shearing - Heavy Melting Scrap Metal is then sheared to the specifications of HMS1 & HMS2 (HMS1 does not contain galvanized blackened steel whereas HMS2 does). This process generates minimal levels of heat at the output end. However, the motor/moving parts have the potential to generate heat. These must be well ventilated and kept free from the buildup of dust/debris to minimise the risk of fire. At the end of each shift the

areas are checked and cleaned down to prevent the build-up of dust, debris and litter. This is recorded on the Site Daily Check Sheet.

- Non-ferrous Metal (cutting & baling) - Non-ferrous metals such as copper and brass, are cut with a hand operated shear and baled using a baling machine. This process does not generate heat.
- The approximate time from receipt on site to treatment/processing is 0 to 2 days.

ELV

All ELV's are typically treated at the site within 24-48hrs, and this will be conducted manually. Batteries are disconnected prior to the depollution to prevent the risk of short-circuiting which could cause a fire. All incoming un-baled vehicles are depolluted. The treatment process includes:

- Removal of batteries and liquefied gas tanks.
- Removal or neutralisation of potentially explosive components e.g. air bags.
- Removal and separate collection and storage of fuel, motor oil, transmission oil, gearbox oil, hydraulic oil, cooling liquids, antifreeze, brake fluids, air conditioning system fluids and any other fluid contained in the 'end of life vehicle', unless they are necessary for the re-use of the part concerned.
- Removal, as far as feasible, of all components identified as containing mercury.

Fuel and fluids from the depollution process are stored in double skinned tanks pending removal from site. Baled ELV's are transported internal by road to a WARD permitted facility as feed stock to the fragmentiser.

ELV's will be accessible from at least on side at all times.

Fire extinguishers are located at the exit points to the depollution bay. Spill kits and absorbent granules are available in the Depollution Bay (Just outside of M Building) for dealing with leaks/spills. Depolluted vehicles will be baled and sent directly by WARD to the shredder at Ilkeston, Derbyshire.

Metals Originating from IBA Treatment

Metals previously recovered from IBA are not treated on site. The activity undertaken at Cardiff Dock is limited solely to the removal of residual ash and fines adhering to the metal fractions to

Commented [AS10]: need to make it clear that no IBA treatment on site. just emphasise that you are just removing residual ash from the metals to improve quality

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improve product quality. This process does not constitute IBA treatment. All material handling and screening take place within a fully enclosed building (Appendix 7: Site Layout Plan)

- Screening process shall take place inside a building.
- The purpose of treatment is to recover ferrous and non-ferrous metal fractions.

5.10 Separation Distances

Waste storage and separation distances at Cardiff Dock have been designed in accordance with Natural Resources Wales Fire Prevention and Mitigation Plan (FPMP) guidance and reflect the nature of the materials stored on site.

The majority of materials stored are non-combustible metal scrap, which presents a significantly reduced fire load and fire spread potential compared with combustible waste streams. However, appropriate separation distances and firefighting access routes are maintained to:

- Prevent fire spread between stockpiles;
- Ensure safe access for firefighting;
- Prevent escalation to adjacent operational areas;
- Protect sensitive receptors including the Severn Estuary.

Separation distances are determined based on:

- Waste type (combustible vs non-combustible);
- Stack height and footprint;
- Storage duration;
- Firefighting access requirements.

If material is not stored in Legioblocks bay walls, there will be minimum 6 metres separation distance from all other stored waste.

6.0 PREVENT FIRE SPREADING

6.1 Separation Distances

All plant and machinery will be parked at a minimum of 6m from the waste storage bays when not in use. The location of the internal storage area for plant and machinery is shown in Appendix 1 Site Plan.

6.2 Fire Walls Construction Standards

All waste on site will be stored in designated bays. The rear and sidewalls of each bay are constructed from pre-cast Legioblocks, designed to provide structural integrity and fire resistance. The walls between bays have been constructed to minimise the separation distance between waste piles while maintaining an adequate fire break.

Each bay has been built to the internal dimensions provided in Table 5. These dimensions represent the total internal size of each bay, not the usable waste storage volume. A freeboard space of 1 metre must be maintained at the top and sides of each bay. This freeboard is excluded from the dimensions in Table 3 and must be kept clear to account for potential flame height and to prevent fire spread to neighbouring bays.

The Legioblocks used in construction have a fire resistance rating of 240 minutes, as detailed in the manufacturer's specification provided in Appendix 4.

Waste must always be stored within the confines of the designated bays and must not overspill or merge with waste in adjacent bays. The freeboard space will be checked during daily site inspections and recorded on the Daily Environment, Health and Safety Check Sheet. Compliance will also be verified by Environmental and Health & Safety personnel during routine inspections.

Care must be taken to ensure that there are no gaps between bay walls, maintaining continuous containment and fire separation. The quantities of waste stored in bays are kept to a minimum, and stock rotation is managed through the careful scheduling of incoming and outgoing loads. The first-in, first-out (FIFO) approach is maintained using data from the site's computerised weighbridge system.

All bays are positioned for easy access in the event of a fire, and suitable mobile plant equipment will be available to move any waste as required. The combined fire resistance of the Legioblocks and the maintained freeboard space ensures that flame height and radiative heat will not ignite neighbouring waste piles.

7.0 SITE MONITORING AND INSPECTIONS

The site will be subject to continued monitoring and inspection to ensure early identification of fire risk and prompt intervention.

Routine visual inspections will be carried out by trained site personnel during operational hours. These inspections will include all waste storage areas, both internal and external, and will focus on identifying potential fire risks such as signs of overheating, smoke, smouldering material, unusual odours, damaged containers, poor housekeeping, or the presence of ignition sources. This will be recorded on the Site Daily Check Sheet.

All mobile plant is fitted with Fireward automatic fire suppression equipment and fire extinguishers. Fireward operates without the need for power or manual intervention, ensuring that machinery is safe day or night. Detection/ auto-suppression systems in the fixed plant and mobile plant are inspected regularly and serviced annually.

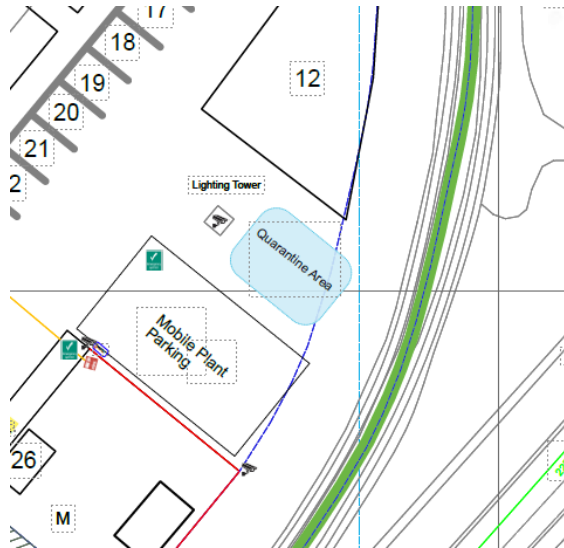
Outside of operational hours, site security monitors the site via CCTV to ensure security and condition of stockpiles. The CCTV is linked to an external monitoring station that will raise the alarm in the event of an incident.

Our CCTV detection systems can be accessed 24/7 by the Site Manager, Health and Safety Manger and Directors via smart devices and laptops.

8.0 DESIGNATED QUARANTINE AREA

The designated quarantine area is sized to hold at least 50% of the volume of our single largest combustible stockpile. An area the size of 240m³ is available within the site to provide a fire quarantine area to support fire-fighting capability. The area is concreted and provides an impermeable surface with sealed drainage. It is always maintained and clear and kept with a minimum separation distance of 6 m from other stored materials.

Figure 4 - Quarantine Area Map



Commented [AS13]: needs to show 6m clearance ?
Commented [LF14R13]: This is shown on the full plan with the scale

The largest combustible stockpile on site is the End-of-Life Vehicle (ELV) storage area, calculated at approximately 471 m³ (see Table 5). In accordance with the guidance, 50 % of this volume = 235.5 m³; therefore, a quarantine area capacity of ≥ 240 m³ satisfies the requirement.

The furnace-ready scrap pile (3 200 m³) is non-combustible and excluded from this calculation. Using this smaller combustible-only figure ensures compliance with guidance while aligning with the operational configuration of the site.

To maintain compliance with the 4 m maximum waste height, the quarantine pad provides a notional working area of 12 m × 5 m × 4 m = 240 m³ (usable volume). This falls well within the available 200 m² footprint, giving flexibility for vehicle access and separation.

In the event of a fire and if it is safe to do so, and if authorised by Site Management / the Fire Marshall, material may be moved to the quarantine area for dousing or to isolate it from burning material. This activity must be both undertaken and supervised by suitably trained and competent members of staff.

Any hot material moved to the quarantine area must be carefully monitored to prevent the spread of fire. Material may be moved to the quarantine area if the temperature trigger points described in Section 5.7 Monitoring are recorded, or if Site management determine this is the safest method of managing the material to minimize the risk/spread of fire.

The temperature will be monitored using a temperature gun or fixed monitoring camera and a written record of the results will be recorded. The quarantine area will also be monitored by 24/7 CCTV coverage.

All quarantine events will be logged, including the material type, volume moved, start and finish times, and temperature readings. Any use of the quarantine area will trigger notification to NRW as part of incident reporting.

Where practicable the quarantine area should be cordoned off and labelled. Staff and contractors should be made aware that the area is currently in use for quarantine purposes.

9.0 FIRE DETECTION

8.1 Detection Systems in Use

Daily visual inspection of the storage bays take place to ensure the early detection of fires in waste storage areas. Site staff are trained to raise the alarm in the event of a fire and there is a Fire Marshall(s) present on site at all times. Everyone on site has a site radio to communicate with each other, including the material handlers.

There is 24/7 CCTV based detection systems with 21 camera's covering all combustible waste piles and located within M Building and N Building. Out of hours, the site is monitored by CCTV which is linked to an external monitoring station that will raise the alarm in the event of an incident. When loading vessels the site will be manned 24hrs with site staff on-site loading the vessels.

8.2 Certification of systems

The automated fire alarm detection system is installed, inspected in accordance with BS 5839 and the system is regularly serviced in accordance with BS 5266. The infrared cameras comply with BS EN54-5.

10.0 FIRE SUPPRESSION SYSTEMS

The large storage shed, and maintenance / non-ferrous shed only contain small quantities of incinerator scrap and non-ferrous metals within the building. The areas have been risk assessed, and the installation of an automated suppression system is not considered necessary, however should this site experience a significant change in activities then this will be reviewed.

Both sheds are located in proximity to a fire hydrant which will be deployed in the event of a fire and are covered by the CCTV monitoring systems (see 8.1 Detection Systems in Use).

The site has 8 fire hydrants throughout which are annually serviced in accordance with BS 9990:2015 and handheld fire extinguishers which are inspected annually in accordance with BS 5306.

11.0 FIRE FIGHTING STRATEGY

In the event of a fire on site, preservation of life is the highest priority. The health and safety of employees, contractors, visitors and the public must take precedent. If a fire occurs on site, the standard evacuation procedure must be followed.

The following resources are available for dealing with a fire on site.

- Mobile Plant Equipment (loading shovels, cranes and various attachments, forklift trucks)
- HGV vehicles
- Trained load shovel and crane drivers
- Trained Fire Marshalls
- Fire extinguishers (including foam and CO₂)
- Supply of water (see Table 6 Water Supply)
- On site fire hydrant
- Additional permitted sites available for diverting incoming loads
- Waste Carrier License
- Sufficient finances for clean-up (e.g., tankering services)

Proportionate resources will be used to ensure a fire is extinguished within 4 hours.

Fires on site must only be tackled if it is safe to do so. Small fires may be tackled with a fire extinguisher; care will be taken to ensure the correct type is used.

Where metal is hot or burning it may be possible to move it carefully to the quarantine area. This will only be attempted where it is safe to do so and upon authorization of Site Management.

Our site maintains the following plant for active fire-fighting support, to be used in the event of a fire.

Loaders, Excavators, Material Handlers and Telehandlers are all fitted with fully enclosed ROPS/FOPS cab, heat-resistant glazing, and on-board extinguishers. They are capable of creating fire breaks, separating unburnt material, and lifting/relocating burning material into a designated quarantined area that is sized to hold 50% of the largest stack with a 6-meter separation.

Trained operators will deploy mobile plant equipment, to safely isolate and remove hot or burning materials.

All plant is maintained and serviced to manufacturer spec, with daily/weekly checks recorded. Plant is equipped with necessary safety systems, and operated under controlled, environmentally conscious procedures. This ensures minimal risk to personnel, infrastructure, and the environment while maintaining fire containment integrity.

This will only be undertaken by staff who are trained and competent in operating the relevant plant and equipment. The activity should be supervised and cordoned off where practicable. Care must be taken as exposing the core of the material to the air may increase the flame due to the addition of extra oxygen.

12.0 WATER SUPPLY

The site benefits from a dedicated high-volume fire-water main which runs along the dock. There are six hydrants on site and three additional hydrants to the NE and SW of the site. The hydrants meet relevant BS705 standards and as a result of this the fire services equipment would be compatible with it when attending site.

Under normal conditions the on-site fire hydrants are expected to provide approx. 12,000 liters per minute.

Should extra water be required, it has been confirmed by South Wales Fire & Rescue Service that the FRS would utilise water from the dock, and that all fire engines can pump from open water. Furthermore, it was advised that they have a high-volume pump that can deliver larger quantities of water.

The largest combustible waste on site is anticipated to be approximately 471m³. This has been calculated using the following method.

From Table 5: Summary of Waste Storage Quantities and Storage Times, the largest combustible pile would be that of the ELV waiting for depollution, that would not exceed 7 cars in length, 2 cars wide and 2 cars high. |

The average length of a typical passenger car is approximately 4.3 to 4.9 meters, therefore 4.9 x 8 = **39.2 meters**.

The average width of a modern passenger car (including mirrors) is approximately 1.8 to 2.0 meters, therefore 2 x 2 = **4 meters**.

The average height of a modern passenger car is approximately 1.4 to 1.5 meters, therefore 1.5 x 2 = **3 meters**.

Therefore, the maximum volume would equate to; 39.2m x 4m x 3m = **470.4**

Table 6 - Summary of Water Supply

Maximum pile volume (m ³)	Water supply needed (l/min)	Overall water supply needed over 3 hours (litres)	Total water available on site (l/min)
	Pile volume x 6.67	Water supply x 180	
471m ³	3,141.57	565,482.60	19,200 (8 fire hydrants)

The water network has advised only 2 bar of water pressure offers more than 2000 litres/minute of water. Therefore, as the site has 5.5 bar in a 90mm connection, it is confirmed over 12,000 litres of water is available per minute which is satisfactory to meet the guidance.

WARD are able to demonstrate that they meet the NRW's requirements.

Commented [AS15]: this equates to 32 cars which more than we said and could take you over 50 tonne limit.

Commented [LF16R15]: made it 7, that takes us 28 which is under

The site benefits from impermeable concrete hardstanding, and there is a natural flow to the centre of the site, therefore preventing fire water entering into the ground. In addition, secondary and tertiary containment facilities for fire water run-off include pollution control equipment such as fire water booms and drain mats to block drains or divert fire water. In the event we have contained fire water, this will be tankered from site by a licensed waste contractor and be taken to a licensed facility permitted to accept such waste. Prior to transfer off site, all spent firewater will be tested to ensure it is taken to the most appropriate facility for treatment and disposal.

The site is approximately 46,040.40m² and the site naturally pulls to the centre. In the event that fire water containment is required, a Poly Spill Boom will be deployed around the site. A Poly Spill Boom comes in 100 meters, and therefore WARDS will ensure there is always at least 12 on site, to ensure it can be deployed around the perimeter of the site. The height of the inflated Poly Spill Boom reaches 16cm.

It is estimated that the site can hold approximately **7,366,464** litres of firewater. This has been calculated using the following method; Volume (litres) = Area (m²) × Height (m) × 1,000.

As per calculations in Table 6 Summary of Water Supply, the site is sufficient to contain the amount of firewater that is required to fight a fire in our largest stockpile.

The Poly Spill Boom is located around the site (identified on the Site Plan). In the event the Poly Spill Boom will be required, it is estimated that it will typically take between 15 minutes and 30 minutes to deploy.

13.0 MANAGING WATER RUN-OFF

13.1 Containing the run-off from fire water

The site has been designed and is operated to ensure that firewater run-off can be fully contained to prevent pollution of surface water, groundwater, and controlled waters, with a sealed drainage system and extensive high volume drainage network (see Appendix 5: Site Services Map).

Measures to Contain Firewater Run-Off

- The site is fully surfaced with impermeable concrete hardstanding across all operational areas.

- Surface water drainage is via a sealed Klargestor drainage system, which provides full containment of run-off.
- All surface water drains can be isolated immediately using drain isolation valves and drain mats held on site.
- Poly spill booms are available to create secondary containment around the site perimeter where required.
- Firewater is directed toward the centre of the site, preventing uncontrolled migration off site.
- Any contained firewater will be retained on site until it can be removed by a licensed contractor.

These measures ensure that firewater is prevented from entering Queen Alexandra Dock, the Severn Estuary, or the wider surface water network.

Implementation Timescale and Compatibility with Fire & Rescue Service Operations

- Drain isolation points and drain mats will be deployed immediately upon fire alarm activation or Fire and Rescue Service (FRS) attendance.
- Poly spill booms can be deployed within 15–30 minutes by trained site staff, without interfering with firefighting activities.
- All containment measures are passive or peripheral and do not obstruct access routes, hydrants, or firefighting operations.
- The Fire and Rescue Service retains full operational control at all times; containment actions are undertaken only where safe and appropriate.
- These measures ensure rapid deployment while maintaining the effectiveness and safety of firefighting activities.

Firewater Containment Capacity (Calculations)

The total impermeable site area is approximately **46,040 m²**.

Using temporary containment (poly spill booms) with a retained depth of **0.16 m**, the maximum theoretical containment volume is:

$$\begin{aligned} \text{Volume (litres)} &= \text{Area (m}^2\text{)} \times \text{Height (m)} \times 1,000 \\ &= 46,040 \times 0.16 \times 1,000 \\ &= \mathbf{7,366,400 \text{ litres}} \end{aligned}$$

The worst-case firewater demand associated with the largest combustible stockpile (ELVs awaiting depollution, approx. **471 m³**) is calculated as:

- Required flow rate: **3,142 litres/min**
- Fire duration (3 hours): **565,483 litres**

The available containment capacity therefore exceeds the worst-case firewater volume by a significant margin, demonstrating compliance with NRW guidance.

Measures to Prevent Firewater Reaching Groundwater and Surface Water

- All operational areas are on impermeable hardstanding, preventing infiltration to ground. The sealed drainage system prevents uncontrolled discharge to surface waters.
- Firewater is either retained within the drainage system or secondary containment areas.
- Contaminated firewater will be tankered off site by a licensed waste contractor to a suitably permitted treatment facility.

These controls ensure no pollution pathway to groundwater or surface water receptors.

Protection of Water Supplies (Wells, Springs, Boreholes)

There are no wells, springs, or boreholes used for human consumption within 50 metres of the site boundary (see Appendix 3 – Sensitive Receptor Map).

The combination of impermeable surfacing, sealed drainage, and full containment measures ensures firewater cannot migrate off site to impact private or public water supplies.

14.0 DURING AND AFTER AN INCIDENT

14.1 Dealing with issues during a fire

This FPMP will be communicated to key staff to ensure that it is fully understood and that they are able to implement it in the event of a fire on site. A copy of the plan will be held at an

alternative location to ensure availability if the site office or whole site is inaccessible. An electronic copy is also held on the company server.

In the event of a fire on site, management must be notified immediately. Senior management must also be notified immediately. Prompt communication is paramount to facilitate the diverting of inbound waste where required.

This is done by WARD transport department who can re-route all WARD vehicles. All WARD account managers are informed of the incident and will notify all customers to re-route incoming material to alternative sites. This is done via phone and email communication.

If required, inbound waste will be diverted to one of the company's other permitted sites if the permit allows the site to accept the waste and there is enough capacity at that site. Where the waste cannot be accepted at a WARD site it will be diverted to an alternative facility permitted to accept such waste.

Staff must cooperate fully with the emergency services. Information such as the presence, location, and approximate quantities of hazardous materials such as asbestos, or flammable/explosive materials such as fuel and gas cylinders must be communicated to the FRS and MSDS made available if required.

14.2 Notifying residents and businesses

In accordance with the environmental permit, NRW must be notified immediately in the event of a significant fire on site. An emergency contact sheet is included within Appendix 6. In the event of a fire the following procedure will be followed.

- The SM will locate the emergency contact list.
- In the event of a large fire, 999 will be dialled first.
- The SM will ensure that all the neighbours are contacted.

Neighbours and businesses in close proximity of the site will be verbally notified of the fire. If the emergency services recommend that windows are kept closed this information will be conveyed. They will be kept updated of any key developments.

Where appropriate, residents will be informed of the incident via direct contact of via local council members.

14.3 Making the site operational after a fire

Once the fire has been extinguished and all areas cooled (check using a thermal imaging camera), any liquid waste arising from the fire will be tankered away from site by a licensed waste contractor and taken to a permitted treatment facility. Solid material will be sent for disposal to a licensed facility permitted to accept such waste. Once the areas have all been tidied and storage of material is back within compliance, the site will be allowed to reopen to accept/dispatch material.

APPENDIX 1 – FIRE RISK ASSESSMENT

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Fire Risk Assessment

Section 1 – General Information and Scope

Section 1a – General Information

Location	Cardiff	Date of Assessment	Sep-23		
Sub-location (if applicable)	n/a	Review Date	Sep-24		
Fire Risk Assessor	Natalie Wain				
Overall Risk Rating	Negligible <input type="checkbox"/>	Low <input type="checkbox"/>	Moderate <input checked="" type="checkbox"/>	High <input type="checkbox"/>	Unacceptable <input type="checkbox"/>

Section 1b – Organisation and Building / Premises Information

Responsible Person	Simon Plucknett – Regional Commercial Manager (South-West)
Building / Premises Use	The premises is used as a scrap metal recycling yard, with temporary cabins provided for welfare and administration purposes, in single occupation.
Maximum Occupancy	10-15 (Employees and Visitors)
Hours of Occupancy	07:00 – 17:00 Monday to Friday, 07:00 – 12:30 Saturdays, Closed on Sundays
Number of Floors	Single Story Weighbridge Cabin Single Story Welfare Cabin Single Story Warehouse Two-Story Workshop
Approximate Floor Area per Floor	Weighbridge Cabin 24.80 m ² Welfare Cabin 31.52 m ² Warehouse 2799.89 m ² Workshop (Ground Floor) 474.29 m ² Workshop (1 st Floor) 215.72 m ² Yard Floorspace 42,355.55 m ²
Construction and Layout	Site is accessible through ABP secured access gate (East and West), then via 50,000kg weighbridge and security barrier. To the right-hand side of the weighbridge is a small weighbridge cabin containing appropriate office equipment, storage area, and welfare area to include toilet and kitchenette (e.g., fridge, basin, kettle). After passing over the weighbridge and through the security barrier, to the left-hand side there is a large workshop, split into two, with additional first floor; this area is currently being used for storage only. In front of the weighbridge, slightly to the right-hand side is a large warehouse; this is currently empty, with the intention of installing processing equipment. In front of the warehouse is a large, bunded diesel tank. To the

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	<p>very right-hand side of the site, next to the quay is a car parking area next to the welfare cabin; this cabin currently contains two storage areas, a seating area, a shower room, toilets and a kitchen (e.g., basin, fridge, microwave, kettle).</p> <p>The yard itself is large and open plan, with a rail siding passing along the left-hand side border, and quayside on the right-hand side border. Material is stockpiled in various areas, with a LeFort Mobile Shear currently located in the main ferrous stockpiling area.</p> <p>The site is surrounded, on the external boundaries (to road) by permanent fencing, with temporary fencing between the neighbouring premises. (It is noted that a new boundary is due to be constructed here)</p>
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Section 1c – Building / Premises Occupants

Are there any of the following occupants	Yes	No	Additional comments
Sleeping Occupant(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There is no sleeping accommodation within the premises, its sole use is as a scrap metal recycling facility.
Person(s) with Disabilities (Workers and Others)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There are no known persons with disabilities working on the premises. The premises does accept visitors on a daily basis, predominantly visiting drivers for loading and unloading of scrap metals. Visitors to site are observed and / or supervised by responsible Ward personnel at all times. Any visible, or disclosed, disabilities are assessed on arrival.
Lone / Isolated Worker(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There is no lone working undertaken at this premises.
Young Person(s)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There are no young persons employed at this premises. However, in the event that a young person was required to be present on site (e.g., work experience or apprenticeship), the organisation does have an appropriate risk assessment template which could be used.
Other(s) (Including Visitors)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The premises does periodically accept visitors who are observed / supervised by Ward personnel at all times. After they have been granted access, visitors may have access to the welfare, administrative and yard areas – dependent on the purpose for their visit.

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Section 2 – Fire Safety Audit
Section 2a – Fire Hazards

Electrical Appliances and Installations	Yes	No	Additional comments
Does regular inspection and testing take place for electrical equipment (portable and fixed)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There is evidence of portable appliance testing (PAT) having been completed in August 2023 by The Compliance Group. This is compliant with the organisation procedure for undertaking PAT. It was not possible to confirm when fixed electrical testing was last completed at site. A review of company documentation confirms that a 3 yearly inspection is an insurance requirement. This poses a significant fire hazard and should be resolved as a priority.
Is there suitable management of trailing leads and adaptors?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The layout of the administrative offices and welfare area appear to have been well organised to ensure that appliances were located within a suitable distance of available sockets, with no trailing cable visible during the inspection.
Is there a suitable policy in place for use of personal electrical appliances (workers and visitors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There is an IT Use Policy and Mobile Phone Policy available in the current Employee Handbook. However, whilst the IT Use Policy does not make reference to the use of personal USB devices it is primarily focused on the transfer of company data and does not include reference to the charging of personal devices (e.g., tablets, mobile phones, ear phones, etc.) in the workplace. As these items typically contain lithium-ion batteries, consideration should be given to this.
Is the area surrounding the main electrical intake appliance clear of combustible materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	No combustible items were observed in the immediate area.
Smoking	Yes	No	Additional comments
Is smoking prohibited in the building?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	There is a 'No Smoking' Policy throughout the premises in accordance with current legislation; this includes the use of electronic cigarettes. This information is communicated as part of the site induction.
Are there designated areas where smoking is permitted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Smoking is permitted in the area.
Are there suitable arrangements for the extinguishing and disposal of cigarettes?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	A bin has been provided for the safe disposal of used cigarettes.
Arson	Yes	No	Additional comments
Are there basic security measures in place to protect against arson?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The site boundary is secured by a mixture of fencing and gates. CCTV is in place and visible, around the premises and the entrance gate; recordings are maintained for a minimum of 31 days.
Are there any potential fire load/combustibles near to the premises/boundary that are	<input type="checkbox"/>	<input checked="" type="checkbox"/>	For insurance purposes, no combustible materials are stored directly next to the premises or the boundary where accessible externally.

Heating, ventilation, and lighting	Yes	No	Additional comments
Are there fixed heating and ventilation installations within the premises?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There are no fixed heating and ventilation installations installed.
Are the fixed heating and ventilation installations regularly maintained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable – there are none installed.
Are there any portable heaters within the premises? If yes, are these adequately controlled?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	There are portable electric heaters installed in the welfare area. This building is not owned by Ward, and did not come with any heating installation.
Is there periodic inspection and testing in place for emergency lighting?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The site only contains temporary cabins which do not appear to be fitted with emergency lighting.
Cooking	Yes	No	Additional comments
Are there measures in place to prevent fires from cooking?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Cooking is only undertaken in the welfare area, which contains a small kitchenette area, including fridge, microwave, toaster, kettle, etc. These items were purchased at the time of site occupation and were included during PAT, August 2023. There are sufficient fire extinguishers available in the immediate area. Housekeeping in the welfare area is adequately maintained.
Are there suitable extinguishing appliances available? If yes, please list types in additional comments.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	There are several extinguishers located within the welfare area, including foam, water and CO2.
Are filters cleaned and changed and ductwork cleaned regularly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable
Lightning	Yes	No	Additional comments
Does the building have a lightning protection system in place?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable
Is the lightning protection system regularly tested and maintained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable
Housekeeping	Yes	No	Additional comments
Are combustible materials separated from ignition sources?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Combustible items are not stored in the vicinity of ignition sources.
Are hazardous materials stored appropriately?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Hazardous materials are stored in a bunded CoSHH area, within the workshops, to prevent ingress of rainwater.
Are there appropriate processes in place for the safe storage and disposal of waste?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Waste materials are stored in appropriate receptacles and removed from site on a regular basis.

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Are there procedures in place to prevent accumulation or inappropriate storage of combustible materials or waste? Please provide further information in the 'additional comments' box.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Combustible items are appropriately stored and kept away from ignition sources. Waste is stored in appropriate receptacles and is removed from site on a regular basis.
Are procedures in place to keep escape routes clear?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	There are documents available 'EHS Daily Checksheet2 (C-ORG-FM-04) and 'Monthly Office Inspection' (C-ORG-FM-01) which include the inspection of escape routes; these are being completed regularly by site.
Are routine fire safety inspections carried out?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	There are documents available 'EHS Daily Checksheet2 (C-ORG-FM-04) and 'Monthly Office Inspection' (C-ORG-FM-01) which include routine fire safety inspections; these are being completed regularly by site.
Construction and maintenance work	Yes	No	Additional comments
Are all external contractors made aware of all fire safety controls?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	There is an online induction in place, which is made available to contractors prior to arrival at site. This induction details the fire safety controls for the premises.
Are there suitable controls in place for hazardous activities carried out by in-house workers and external contractors such as a permit-to-work system for 'hot work' involving cutting, welding, use of blowlamps, etc?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	There is a permit to work system in place for all hot works undertaken on the premises; this is an insurance requirement.
Flammable/explosive substances	Yes	No	Additional comments
Is there appropriate storage and transportation for these substances within the workplace eg, flammable chemicals, liquids, solvents, and gases (including piped gas supply and in cylinders)? You must list in the additional comments box all relevant substances.	<input type="checkbox"/>	<input type="checkbox"/>	Hazardous substances are stored in a bunded area within the workshop to prevent ingress of rainwater; this is away from the main 'office / weighbridge area'. Such substances include AdBlue, Hydraulic Oil, Grease, etc. Diesel is stored in a double walled diesel tank, accessible in the yard area.
Are there appropriate controls in place for the safe handling and use and removal/disposal of these substances in the workplace?	<input type="checkbox"/>	<input type="checkbox"/>	CoSHH Assessments are available for hazardous substances stored and used on the premises. Substances are used for the operation of plant / machinery on-site – as such there is no requirement to remove waste products (unless maintenance undertaken by 3 rd party contractors), only their packaging via the appropriate waste stream. The premises is leased by a waste management company, who are able to make such arrangements.

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Combustible materials that could act as a source of fuel	Yes	No	Additional comments
Are there suitable controls in place for the safe use, storage, transport (within the workplace), and disposal of fuel sources? Fuel sources include: <ul style="list-style-type: none">paper and cardboard;plastics and rubber;textiles and soft furnishings;waste;furniture;fixtures and fittings;electrical insulation; andother combustible materials.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The premises is occupied by a waste management company, so waste is managed and collected at appropriate intervals. There is minimal storage and use of combustible items on the premises outside of expected stationary items and office furniture, which is stored and used, as recommended within the confines of the 'office areas' (cabins). Some other combustible materials (hazardous substances) are stored in the bunded CoSHH area, externally, in appropriate receptacles. It is not clear when the fixed wiring inspection (for the cabins) was last completed – this should be investigated and status confirmed as a priority.
Sources of oxygen	Yes	No	Additional comments
Have all potential sources of oxygen been identified? If yes, please list in additional comments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other than oxygen from the air, the only other known source of oxygen on the premises would come from compressed oxygen cylinders used for hot works.
Are there suitable controls in place for the safe use and storage of oxidising materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Compressed oxygen is only used by competent operators for the completion of oxy-propane cutting. The cylinders are appropriately stored in banks and exchanged from site, as required.
Other significant fire hazards			
Hazard	Control measures		
<i>You should consider other significant fire hazards relevant to your organisation such as oil and solvent soaked materials, overheating of machinery and equipment.</i>	<i>Control measures could include those related to safe handling, use, transport and disposal, as well as the use of warning devices and administrative measures.</i>		
No Additional Hazards	Not Applicable		
No Additional Hazards	Not Applicable		
No Additional Hazards	Not Applicable		
No Additional Hazards	Not Applicable		

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Section 2b – Fire Protection

Measures to Prevent Fire and Smoke Spread	Yes	No	Additional comments
Is compartmentation of a reasonable standard eg, are any holes or gaps in walls, ceilings and floors from ventilation ducts, electrical cabling appropriately sealed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No holes or gaps in the walls of the temporary cabins were identified; though it is noted that the welfare cabin is being demolished and replaced (owned by ABP). There are numerous holes and temporary repairs / patches to the walls of the workshops. These are currently being emptied and organised – please ensure that every effort is taken to improve compartmentation.
As far as can be ascertained, are fire dampers provided to protect critical means of escape against heat, fire and smoke spread?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	As far as could be determined, there were no fire dampers provided.
Are there any wall linings or coverings that would promote fire spread?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	As far as could be determined, there were no wall linings or coverings that would promote fire spread.
Emergency Lighting	Yes	No	Additional comments
Is the building used during periods of darkness?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The cabins are occupied between 07:00 – 17:00 Monday to Friday, 07:00 – 12:30 Saturdays. Therefore, during winter months, they will be occupied when dark during morning and early evening.
Is there enough emergency lighting to safely use escape routes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There is no evidence of emergency lighting in place.
Is there a backup power supply for emergency lighting?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable – there is no evidence of emergency lighting in place and no evidence of a back-up power supply.
Means of Escape	Yes	No	Additional comments
Is there an adequate provision of emergency exits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Each building / structure has sufficient emergency exits for the size and occupancy.
Are the escape routes suitable for the number and types of people that may need to use them (eg, workers, visitors, members of the public, people with disabilities or those that are at	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Each escape route is of a sufficient width and is suitable for those who might need to use them.

Are escape routes and emergency exits always kept clear?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Escape routes and emergency exits are the primary access and egress points at site – these are used daily and, as such, access is always kept clear.
Do emergency exit doors open in the direction of escape?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Several exit doors open inwards.
Are all final exit doors able to be opened easily and immediately in the event of an emergency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	All final exit doors move and open freely.
Do any revolving or sliding doors have suitable bypass doors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable
Are all fire-resisting doors self-closing, kept shut or only held open by suitable, correctly functioning, automatic door release mechanisms?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable – there are no fire resisting doors in place.
Are people who work in the building aware of the importance of maintaining the safety of escape routes?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	To a reasonable standard; there is an online induction in place for the premises, which all employees must undertake. Housekeeping and fire escape routes are topics covered in this induction.
Do escape routes have fire protection that is in a good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Fire protection is maintained regularly and exchanged as required.
Fire Safety Signs and Notices	Yes	No	Additional comments
Are escape routes, exits and the location of firefighting equipment all indicated by appropriate signage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There is currently no signage in place to indicate escape routes, exits and the location of firefighting equipment.
Is all signage maintained so that it is correct, legible and understood?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable – see above, no signage is in place.
Fire Detection and Warning Systems	Yes	No	Additional comments
Are there suitable fire warning systems in place eg, manual and automatic systems?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	There are no permanent buildings in place on the premises, as such, there is no fire alarm installed. Fire warning is undertaken by radio call / verbal notification to all personnel on site.
Are there fire/smoke detectors in place?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable – No fire alarm in place.
Is there a zoning system in place?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable – No fire alarm in place.
Can the alarm be heard and understood by everyone throughout the building?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable – No fire alarm in place.
Are there alternatives in place for people that cannot hear the alarm or for those in locations in the building where the alarm cannot be heard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable – No fire alarm in place.
If the fire detection system is electrically powered, does it have an emergency power supply?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable – No fire alarm in place.

Have there been any false alarm occurrences in the last 12 months?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable – No fire alarm in place.
Portable Fire Extinguishing Appliances	Yes	No	Additional comments
Are there enough extinguishers sited throughout the building? If yes, please confirm the number and types of extinguishers in additional comments.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	A number of fire extinguishers are available on the premises to include foam, powder, water and CO ₂ . An exchange point is available at the welfare area.
Are the extinguishers accessible or does their position need indicating?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The extinguishers are accessible, but would benefit from signage indicating which extinguishers are located where.
Are the correct types of extinguishers located close to any fire hazard and can users easily get to them?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Extinguishers provided are suitable for the hazards likely to encounter on the premises. They are easily accessible.
Are there controls in place to stop the misuse of extinguishers?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Tamper tags are in place on all extinguishers, these were seen to be unbroken.
Is there regular inspection and testing in place for the fire extinguishing equipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	There are documents available 'EHS Daily Checklist' (C-ORG-FM-04) and 'Monthly Office Inspection' (C-ORG-FM-01) which include routine fire safety inspections (e.g. extinguishers, escape routes, fire doors, etc.); there is evidence of these being completed regularly. A contract is in place with City Fire for the servicing of extinguishers
Are those that test and maintain the equipment competent to do so?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	City Fire employs fully qualified engineers who undertake inspection, testing and maintenance in accordance with appropriate British Standards.
Automatic Fire Extinguishing Systems	Yes	No	Additional comments
Are there any automatic fire extinguishing systems in place? If yes, please give the types in the 'additional comments' box.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable – none in place.
Has someone been assigned specific responsibility for the maintenance of the system <i>ie.</i> arranging inspections? (give details in the additional comments box)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable – none in place.
Are the systems regularly inspected and tested? Please give inspection and testing frequencies in the 'additional comments' box.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable – none in place.
Are there any known faults with the system(s)? If yes, please provide details of the fault(s) and	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable – none in place.

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actions to be taken to correct the fault(s) in the 'additional comments' box.			
Section 2c – Procedures and Arrangements			
Emergency Procedures / Arrangements	Yes	No	Additional comments
Have roles and responsibilities in the event of a fire been assigned <i>eg.</i> people trained to use extinguishing media, fire marshals, people to assist evacuation of disabled people etc? If yes, please detail these in the 'additional comments' box.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	There are fire marshals to provide an appropriate level of cover. All fire marshals receive refresher training every 3 years which includes, but is not limited to: - how to use fire-extinguishing media available at site. - the role and responsibilities of the fire marshal / site manager - means of escape and how to maintain it - evacuation procedures - clearing assigned zones
Is there an emergency plan in place and where necessary have all details been recorded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	There is an emergency action plan available on the company SharePoint system and is accessible to all personnel.
Is the plan available to the fire department on request?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The plan is available electronically and can be provided to the fire rescue service incident commander on arrival at site, if required.
Are there suitable arrangements for calling and liaising with the fire department?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Manual calls will be made using mobile phones. Fire marshals / site management are responsible for liaising with the fire rescue service on arrival.
Are there suitable arrangements for ensuring the building has been evacuated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Buildings will be cleared by fire marshals / site management during the evacuation process and are in close proximity to the site exit.
Are there adequate procedures in place for the evacuation of people at higher risk?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	There are no known personnel at high-risk currently, however, a PEEP would be developed for any personnel identified to be high-risk and appropriate evacuation plans communicated to fire marshals.
Are there suitable fire assembly points?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The fire assembly point is located outside the site entrance.
Are the fire assembly points clearly signposted and communicated to workers and visitors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The fire assembly point is not currently signposted and would benefit from having signage installed; this would need to be discussed with ABP prior to installation.
Are the premises shared with other organisations? If yes, what arrangements are in place to ensure cooperation and coordination of fire arrangements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The leased premises is not shared with other organisations, but the premises is within ABP Dock, which is occupied by a number of businesses – site management have a good working relationship with ABP and neighbouring businesses to ensure co-operation and co-ordination.
Training and Drills	Yes	No	Additional comments
Have all workers received fire emergency training as part of their induction?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Fire emergency training is provided to all personnel as part of the online induction process. This is recorded by GetOnSite via an online platform and data can be exported to the company training matrix.

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Is there regular refresher training provided to all workers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No refresher fire emergency training is provided to personnel with the exception of fire marshals.
Are any workers with additional responsibilities (eg. fire wardens/marshals) given additional training?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	All fire marshals are provided with full fire marshal training, including the use of fire extinguishing media. A refresher is provided every 3 years.
Is the content of training provided considered adequate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	The content provided is suitable for the environment and all fire marshals are aware of what action to take in the event of a fire.
Are fire drills carried out at appropriate intervals?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There was no evidence of site having completed fire drills.
Inspection, Testing and Maintenance	Yes	No	Additional comments
Is there regular testing and annual maintenance of the fire detection and alarm system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable – no alarm system in place.
Is there regular testing of emergency escape lighting?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable – no emergency lighting in place.
Is there regular maintenance of fire extinguishing equipment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Annual inspection completed by City Fire.
Is there regular inspection of escape staircases and walkways?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	There are documents available 'EHS Daily Checksheet' (C-ORG-FM-04) and 'Monthly Office Inspection' (C-ORG-FM-01) which include routine fire safety inspections (e.g. extinguishers, escape routes, fire doors, etc.); there is evidence of these being completed regularly.
Is there inspection and testing of rising mains/fire hydrants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable – none located within the immediate area.
Is there regular testing and annual inspection of sprinkler systems?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable – no sprinkler system in place.
Is there regular testing of firefighting lifts?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not Applicable – no lifts in place.
Are there routine checks of fire (final) exit doors and security fittings?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	There are documents available 'EHS Daily Checksheet' (C-ORG-FM-04) and 'Monthly Office Inspection' (C-ORG-FM-01) which include routine fire safety inspections (e.g. extinguishers, escape routes, fire doors, etc.); there is evidence of these being completed regularly.
Recording and Reporting	Yes	No	Additional comments
Are there adequate records made and held for training and tests such as: <ul style="list-style-type: none"> • Fire drills • Fire training • Fire alarm tests • Emergency escape lighting tests • Maintenance and testing of other fire protection systems and equipment? 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Records for fire training are available and current. There are no records of fire drills having been completed. There is no fire alarm or emergency lighting to test.

H-Ca-FRA-001 Revision 1 (September 2023)

APPENDIX 2 – WASTE ACCEPTANCE PROCEDURE

E-PRO-210 – Acceptance and Control of Waste



PURPOSE

To require that all WARD sites only accept appropriate waste types and that all the necessary checks are made prior to acceptance of the waste on site.

Procedure – General Rules

The Person in Charge is responsible for:

- Ensuring all waste material received is inspected on arrival.
- Ensuring that any nonconforming material is dealt with in accordance with the Non-conformance Procedure
- Ensuring that all relevant staff adhere to Q005 Scrap Metal Purchasing procedure
- Directing all site staff as appropriate
- Undertaking all necessary actions as described in SOP Radiation Detection Procedure if the radiation detector is activated
- Rejecting loads in accordance with EP/243 Waste Rejection Procedure where appropriate.

The Weighbridge Attendant is responsible for:

- Ensuring vehicle drivers provide all the relevant information and the vehicle is correctly located on the weighbridge.
- Undertaking all necessary actions as described in SOP Radiation Detection Procedure if the radiation detector is activated
- Updating Enwis with all the relevant information
- Ensuring the vehicle driver has the correct Personal Protective Equipment (PPE) when entering the site and issuing where necessary.
- Instructing the driver where to tip the load.
- Processing all paperwork relating to the waste material, including the Waste Transfer Note (Duty of Care).
- Visually inspecting all waste material, taking all the appropriate photographs using Enwis
- Rejecting loads in accordance with EP/243 Waste Rejection Procedure where appropriate.

The Load Inspector is responsible for:

- Ensuring the vehicle driver tips and loads in the correct location
- Dealing with non-conforming material in accordance with the Non-conformation Procedure
- Taking photos of nonconforming material and uploading on Enwis as appropriate.

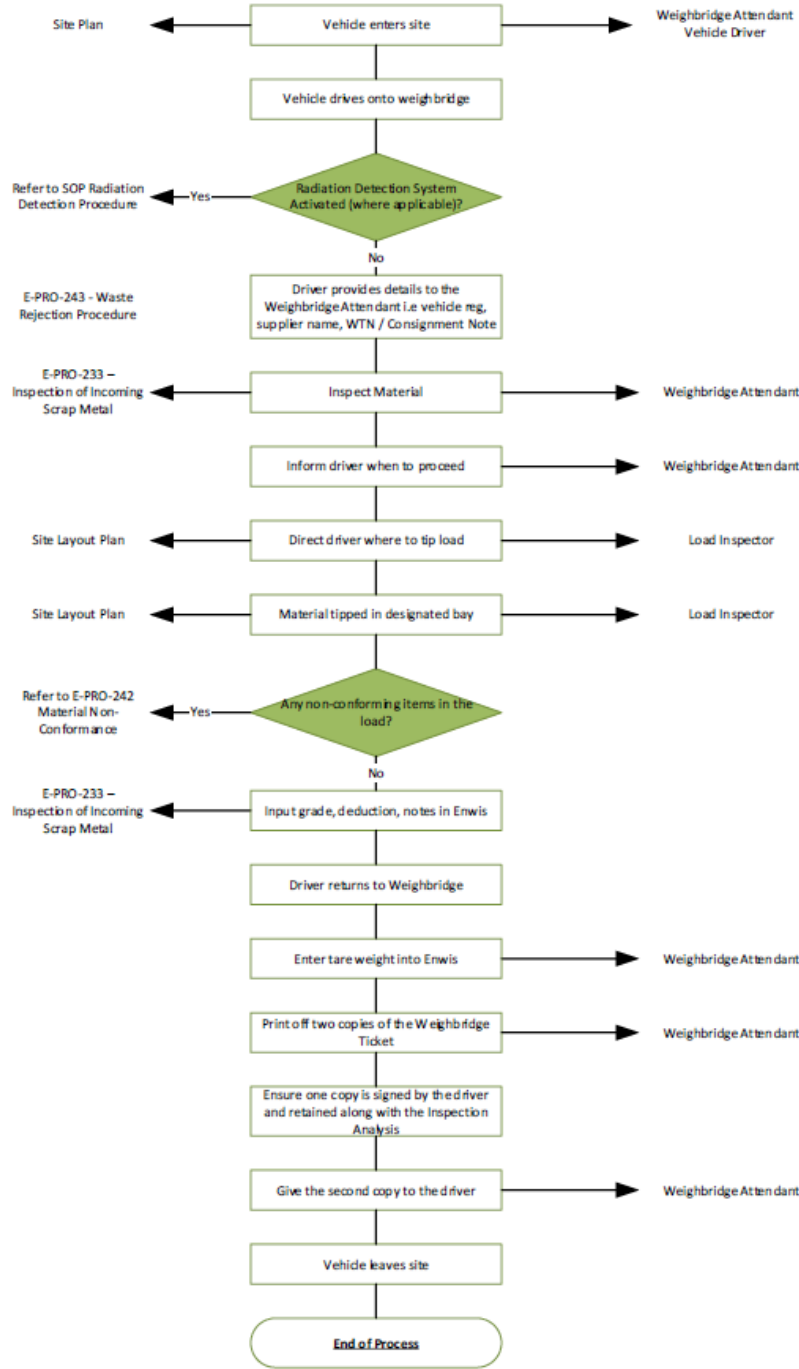
The Vehicle Drivers are responsible for:

- Ensuring the vehicle is located correctly on the weighbridge
- Following directions from Load Inspectors/Weighbridge Attendants
- Handing in, signing and collecting any documentation as appropriate.

Buyers are responsible for:

- Monitoring the amount of nonconforming material received as appropriate
- Dealing with suppliers of nonconforming material.

Process Flow



APPENDIX 3 – SENSITIVE RECEPTOR MAP



APPENDIX 4 - MANUFACTURERS DESIGN SPECIFICATION



Consulting engineers in:

- Acoustics
- Building physics

Kees Rijk BV
Watertorenweg 24
6571 CB Berg en Dal
The Netherlands
info@keesrijk.nl

Fire resistance REI 240 Legioblock



Kees Rijk BV confirms that Legioblock walls with a separating function have a fire resistance of 240 minutes, in accordance with the standards NEN 6069:2011 and EN 13501-2:2016.

This summary is based on the report 171404 "Legioblock concrete retaining walls; Fire resistance study". In the report, the application area and the limiting conditions are described.

Ir. C.A.E. (Kees) Rijk
17 April 2017

APPENDIX 6 – EMERGENCY CONTACT SHEET

EMERGENCY SERVICES		Office Hours	Out Of Hours
Ambulance, Fire & Police		999	999
REGULATORS		Office Hours	Out Of Hours
Natural Resource Wales		0300 065 3000	0300 065 3000
Health and Safety Executive (HSE)		0300 003 1747	0151 922 9235
UTILITY / KEY SERVICES	Name	Office Hours	Out Of Hours
Water (Supply & Sewerage)			
Electricity Supplier	National Grid	0800 6783 105	0800 6783 105
Electrician	Shane Leatherland	07894 063008	07894 063008
Electrical Emergency or Power Cut Call			
SECURITY		Office Hours	Out Of Hours
WARD - Security Alert U.K. Ltd. – Morgan Verne		01484 404 150 07766 758624	01484 404 150 07766 758624
Operations Director: Thomas Ward		07990 007166	07990 007166
Site Manager: Craig Fielding		07342 948097	07342 948097
Additional Site Contact: David Graham		07810 289540	07810 289540
Health & Safety Manager: Natalie Wain		07747 576758	07747 576758
Head of Environment and Sustainability: Victora Jones		07342 948328	07342 948328

APPENDIX 7 - SITE LAYOUT PLAN

