



## FIRE PREVENTION PLAN

Circular Waste Solutions Limited

Liquid Waste Treatment Facility  
Waunarlwydd, Swansea

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# 1 INTRODUCTION

## 1.1 Introduction

This document has been prepared by Sol Environment Ltd on the behalf of Circular Waste Solutions Limited ('CWS' hereafter) for the operation of their proposed hazardous liquid waste treatment facility in Waunarlwydd, Swansea.

The document provides a structured framework approach in effectively preventing potential fires associated with the processing and storage operations at the site.

This Fire Prevention Plan document (referred hereafter as the 'FPP') has been produced in accordance with the updated NRW Fire Prevention & Mitigation Plan Guidance – Waste Management (update August 2019).

As a hazardous waste treatment facility, an FPP is not a requirement to support the permit. However, this document has been written to account for non-hazardous waste storage and processing, as well any wastes that prevent a fire risk such as flammables and oxidisers. It does not apply to the whole site.

This Fire Prevention Plan meets the fundamental objective of the FPP Guidance as it demonstrates that the site can:

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

## 1.2 Structure of the Fire Prevention Plan

This FPP has been structured in accordance with the NRW Fire Prevention 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; and

- During and after an Incident.

### **1.3 Status of the Fire Prevention Plan**

The FPP is a “live” document and will form part of the key environmental management document for the facility. All monitoring procedures, responsibilities and compliance actions will be updated as and when required.

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## 2 SITE BACKGROUND

### 2.1 Site Setting

CWS intend to operate a hazardous liquid waste treatment facility at their site at Titanium Road, Westfield Industrial Park, Waunarlwydd, Swansea, SA5 4SF. The facility will be regulated in accordance with the requirements of the Environmental Permitting Regulations, under the conditions of the Environmental Permit once determined.

The Installation will accept and process approximately 32,000 tonnes per annum of both hazardous and non-hazardous liquid wastes, such as waste oils, interceptor wastes, and other hazardous liquids. The site will accept bulk transfers of liquid waste and/or packaged waste from several contracted third parties, prior to treatment and transfer of filter cake and other residues offsite to other licensed waste management facilities for further processing or disposal, and effluent discharged to sewer.

It is anticipated that over 10 tonnes per day will be accepted at the site which has a maximum capacity to store 250 tonnes in IBCs, approximately 588 tonnes within static tanks (of which 240 tonnes is final effluent storage), and 50 tonnes of processed filter cake at any one time.

All waste arriving at the facility will be accepted in accordance with stringent waste acceptance procedures and subject to verification testing.

All waste accepted by the facility will be stored on site before treatment, with resultant residues being exported off site for onward treatment, recovery, or recycling. Bulk loads of waste will be deposited directly into the treatment plant with no storage necessary.

The location of the subject Site is shown in *Annex A1*, centred at approximate National Grid Reference SS 60515 96118. The site layout is shown in *Annex A1*, and treatment plant layout in *Annex A2*. The site layout plans in *Annexes A1* and *A2* show bunded areas, fire hose points, water connection points, fire water tanks, and sewer connection point. The site drainage plan with capacities of bunded areas and firewater calculations is included in *Annex B*.

The application site is located within the Westfield Industrial Park as part of the former Alcoa aluminium manufacturing works, with industrial units to the east, south, and west and vacant scrubland to the north. The site is roughly rectangular in shape and is approximately 0.3ha. The site is bounded to the west by the wider CWS site, to the east and south by an earthen bund and walkway, and to north by Titanium Road which is access to the wider Industrial Estate.

Table 2.1 overleaf provides information regarding the surrounding site.

**Table 2.1: Site Setting**

Direction	Observations
North	Immediate Vicinity: Titanium Road Within 500m: Electricity Sub Station, Agricultural land, Drainage ditch, Green Frog Swansea (40 MW gas-fired Generation Plant), Afon Llan Beyond 500m: Agricultural Land, Swansea Road, Car Rental Facility, A484
North East	Immediate Vicinity: Titanium Road Within 500m: Agricultural Land, Drainage Ditch, Afon Llan. Beyond 500m: Agricultural Land, Swansea Road, Residential Dwellings
East	Immediate Vicinity: Cogent Passenger Seating Ltd (car park area) Within 500m: Electricity Distribution Station, Copse, Dwellings on Roseland Road Beyond 500m: Sewage Pumping Station, Disused Tip, Forest-Fach Industrial Estate
South East	Immediate Vicinity: Former Alcoa Industrial Building, occupied by Fiberight Within 500m: Cogent Passenger Seating Ltd (industrial building), Woodland Beyond 500m: Dwellings on Roseland Road, Waunarlwydd Rugby Football Club, Railway, School, Residential area of Waunarlwydd
South	Immediate Vicinity: Former Alcoa Industrial Building, occupied by Fiberight Within 500m: Playing Field, Cymru Coach Hire, Dwellings on Bridge Road Beyond 500m: Railway, Residential areas of Waunarlwydd.
South West	Immediate Vicinity: Former Alcoa Industrial Building, occupied by Fiberight Within 500m: Hill Insulation Ltd, Railway Beyond 500m: Residential areas of Waunarlwydd, Gors-Fawr Brook
West	Immediate Vicinity: Former Alcoa Industrial Building, occupied by Fiberight Within 500m: Driving School, Real Alloy Swansea Beyond 500m: Woodland, Gors-Fawr Brook, Railway, Gowerton
North West	Immediate Vicinity: Titanium Road Within 500m: Timet UK, Manmade pond/lake, Afon Llan Beyond 500m: Agricultural Land

The NRW Wales Flood Map indicates that the site is at low risk of flooding from rivers or seas, low risk of groundwater flooding and high risk of surface water flooding in the sites centre with a 1 in 30 year return period and depth of between 0.3 – 1.0 m.

Although the site is not considered to be highly sensitive in terms of proximity, the facility has been designed to prevent and mitigate the offsite impacts associated with fire as far as practically possible.

The wind direction is pre-dominantly from the southwest.

## 2.2 Wastes Covered in the FPP

The site accepts variety of both hazardous and non-hazardous liquid wastes. The wastes on site covered by this FPP are non-hazardous and wastes which present a fire risk such as oxidisers. These are listed in table 2.2 below.

Table 2.2: EWC Codes and Types covered in the FPP	
Waste Codes	Description
<b>05</b>	<b>WASTES FROM PETROLEUM / GAS PRODUCTION</b>
<b>05 01</b>	<b>wastes from petroleum refining</b>
05 01 05*	oil spills
05 01 09*	sludges from on-site effluent treatment containing hazardous substances
05 01 11*	wastes from cleaning of fuels with bases
05 01 12*	oil containing acids
05 01 14	wastes from cooling columns
05 01 16	sulphur-containing wastes from petroleum desulphurisation
<b>06</b>	<b>WASTES FROM INORGANIC CHEMICAL PROCESSING</b>
<b>06 03</b>	<b>wastes from the MFSU of salts and their solutions and metallic oxides</b>
06 03 14	solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13
06 03 16	metallic oxides other than those mentioned in 06 03 15
<b>07</b>	<b>WASTES FROM ORGANIC CHEMICAL PROCESSING</b>
<b>07 01</b>	<b>wastes from the MFSU of basic organic chemicals</b>
07 01 12	sludges from on-site effluent treatment other than those mentioned in 07 01 11
<b>07 02</b>	<b>wastes from the MFSU of plastics, synthetic rubber, and man-made fibres</b>
07 02 12	sludges from on-site effluent treatment other than those mentioned in 07 02 11
07 02 15	wastes from additives other than those mentioned in 07 02 14
07 02 17	wastes containing silicones other than those mentioned in 07 02 16
<b>07 03</b>	<b>wastes from the MFSU of organic dyes and pigments</b>
07 03 12	sludges from on-site effluent treatment other than those mentioned in 07 03 11
<b>07 04</b>	<b>wastes from the MFSU of organic plant protection products, wood preserving agents and other biocides</b>
07 04 12	sludges from on-site effluent treatment other than those mentioned in 07 04 11
<b>07 05</b>	<b>wastes from the MFSU of pharmaceuticals</b>
07 05 12	sludges from on-site effluent treatment other than those mentioned in 07 05 11
07 05 14	solid wastes other than those mentioned in 07 05 13
<b>07 06</b>	<b>wastes from the MFSU of fats, grease, soaps, detergents, disinfectants, and cosmetics</b>
07 06 12	sludges from on-site effluent treatment other than those mentioned in 07 06 11
<b>07 07</b>	<b>wastes from the MFSU of fine chemicals and chemical products not otherwise specified</b>
07 07 12	sludges from on-site effluent treatment other than those mentioned in 07 07 11
<b>08</b>	<b>WASTES FROM MFSU OF COATINGS / ADHESIVES / INKS</b>
<b>08 02</b>	<b>wastes from MFSU of other coatings (including ceramic materials)</b>
08 02 02	aqueous sludges containing ceramic materials
08 02 03	aqueous suspensions containing ceramic materials
<b>08 03</b>	<b>wastes from MFSU of printing inks</b>
08 03 07	aqueous sludges containing ink
08 03 08	aqueous liquid waste containing ink
08 03 13	waste ink other than those mentioned in 08 03 12
08 03 15	ink sludges other than those mentioned in 08 03 14
08 03 18	waste printing toner other than those mentioned in 08 03 17

<b>08 04</b>	<b>wastes from MFSU of adhesives and sealants (including waterproofing products)</b>
08 04 12	adhesive and sealant sludges other than those mentioned in 08 04 11
08 04 14	aqueous sludges containing adhesives or sealants other than those mentioned in 08 04 13
08 04 16	aqueous liquid waste containing adhesives or sealants other than those mentioned in 08 04 15
<b>11</b>	<b>WASTES FROM CHEMICAL SURFACE TREATMENT OF METALS / PLASTICS</b>
<b>11 01</b>	<b>wastes from chemical surface treatment and coating of metals and other materials</b>
11 01 09*	sludges and filter cakes containing hazardous substances
11 01 10	sludges and filter cakes other than those mentioned in 11 01 09
11 01 12	aqueous rinsing liquids other than those mentioned in 11 01 11
11 01 14	degreasing wastes other than those mentioned in 11 01 13
11 01 98*	other wastes containing hazardous substances
<b>11 02</b>	<b>wastes from non-ferrous hydrometallurgical processes</b>
11 02 06	wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05
11 02 07*	other wastes containing hazardous substances
<b>13</b>	<b>WASTES FROM OIL AND LIQUID FUELS</b>
<b>13 07</b>	<b>wastes of liquid fuels</b>
13 07 01*	fuel oil and diesel
13 07 03*	other fuels (including mixtures)
<b>16</b>	<b>OTHER WASTES FROM INDUSTRIAL PROCESSES</b>
<b>16 01</b>	<b>End-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance</b>
16 01 14*	antifreeze fluids containing hazardous substances
16 01 15	antifreeze fluids other than those mentioned in 16 01 14
<b>16 10</b>	<b>aqueous liquid wastes destined for off-site treatment</b>
16 10 02	aqueous liquid wastes other than those mentioned in 16 10 01
16 10 04	aqueous concentrates other than those mentioned in 16 10 03
<b>19</b>	<b>WASTE MATERIALS FROM WASTE AND WATER TREATMENT</b>
<b>19 07</b>	<b>landfill leachate</b>
19 07 03	landfill leachate other than those mentioned in 19 07 02
<b>19 08</b>	<b>wastes from wastewater treatment plants not otherwise specified</b>
19 08 09	grease and oil mixture from oil/water separation containing edible oil and fats
<b>19 13</b>	<b>wastes from soil and groundwater remediation</b>
19 13 08	aqueous liquid wastes and aqueous concentrates from groundwater remediation other than those mentioned in 19 13 07
<b>20</b>	<b>MUNICIPAL WASTE AND SIMILAR MATERIALS FROM COMMERCE AND INDUSTRY</b>
<b>20 01</b>	<b>separately collected fractions</b>
20 01 28	paint, inks, adhesives, and resins other than those mentioned in 20 01 27
20 01 30	detergents other than those mentioned in 20 01 29
<b>20 03</b>	<b>other municipal wastes</b>
20 03 03	street cleaning residues
<b>Total</b>	<b>Aggregate Quantity of all wastes including listed above will be less than 32,000 tonnes per annum</b>

## 2.3 Combustible Wastes

At any one time there will most likely be combustible waste onsite. These are stored in separate segregated sealed containers such as IBCs. Oxidisers, waste oil, and antifreeze each have their own separate storage areas.

All wastes are stored in separated storage areas depending on waste type. This ensures no mixing of incompatible waste types and is ensured by the pre-booking system and pre-acceptance and acceptance procedures.

The site does bring in non-hazardous waste, however, these are aqueous and highly unlikely to be a fire risk. In the unlikely scenario there are no available capacity for incoming wastes then these will not be accepted on site and diverted elsewhere.

Any wastes coming onto site are stored in sealed IBCs in their relevant storage areas. All flammable wastes, oxidisers, non-hazardous wastes, and the quarantine area are stored in a covered area to protect from adverse weather conditions. Incoming wastes are stored in IBCs, and bulk transfers are deposited directly into the treatment plant to avoid double handling.

Wastes can be used to mix and treat/balance other wastes in the reactor vessels. All mixing and reactions are controlled and modelled prior by suitably qualified chemists.

All waste storage and processing takes place within bunded areas.

## **2.4 Other Combustible Materials**

All fuel, oils, etc. associated with onsite equipment are stored offsite away from any waste.

Processed filter cake is stored in a covered storage area below the filter press prior to collection for offsite recovery/disposal.

### 3 FIRE PREVENTION PLAN

This Fire Prevention Plan has been developed to include an assessment of fire risk on site and the measures in place to prevent, detect, suppress, mitigate, and contain fires.

This plan forms part of CWS’s management system and sets out the fire prevention measures and procedures that will be put in place and used on site.

The FPP focuses on fire prevention techniques for non-hazardous, and combustible hazardous wastes, particularly where they are processed and stored.

All staff and contractors working on site will understand the contents of the Fire Prevention Plan and what they must do during a fire.

The Fire Prevention Plan will be kept in the Site Office and all staff will be aware of where it is kept.

Regular exercises will be carried out to test how well the plan works and that staff understand what to do. These exercises will take place every quarter.

#### 3.1 Control of Potential Causes of Fire

The following table identifies common causes of fire and the measures that GED take to reduce the risk.

Table 3.1 Control of Potential Causes of Fire		
Source of Fire	Applicability to Site and Proposed Management Controls	Residual Risk
Arson	24/7 CCTV monitoring of the installation and alarm system. Fully gated site.  Controlled access and 24/7 security of wider industrial estate.  Site perimeter is bound by 3m high concrete post and steel mesh fence.  Site is fully staffed during operating hours and any fire would be immediately identified by the site’s visual inspection checks.	<b>VERY LOW</b>
Plant and Equipment	The site has a regular inspection and maintenance programme which identifies any electrical or mechanical machinery faults which could result in fire, and the integrity of storage containers so any leaks or spillages can be identified before a fire can occur.  Mobile plant is parked away from the bunded treatment area and storage areas.  Site vehicles are fitted with fire extinguishers with the potential for sparks regularly being monitored by site staff.	<b>VERY LOW</b>

Electrical Faults Including Damaged or Exposed Electrical Cables	<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>	<b>VERY LOW</b>
Discarded Smoking Materials	<p>There is strictly no smoking in any location on site.</p>	<b>VERY LOW</b>
Hot Works	<p>Where possible, all maintenance and repair work will be undertaken offsite. Where this is not possible (i.e., mobile plant breakdown, etc.) the below procedures apply:</p> <ul style="list-style-type: none"> <li>• Fire extinguishers will be provided at the scene of any hot work so that they can be used immediately should a fire occur. The extinguishers will be stationed adjacent to the pathway of escape from the work area and not in a place where staff using them could be trapped by a fire.</li> <li>• Potentially combustible materials, including mobile plant hydraulic lines, will be covered by a fire blanket and/or damped down with water as appropriate before hot works start.</li> <li>• A safety report and permit to work will be completed by the site manager before any hot works.</li> <li>• A fire watch will be conducted at the scene of any hot work for at least one hour after hot work has finished as sparks from hot works can smoulder for a significant period.</li> </ul>	<b>VERY LOW</b>
Industrial Heaters	<p>No industrial heaters will be used on site.</p>	<b>N/A</b>
Hot Exhausts	<p>There is a daily check and monitoring programme for the site. This process will specifically ensure that all areas are maintained at a sufficient level of cleanliness and housekeeping to ensure that the site does not present a fire risk. It is highly unlikely that dust, loose fibres, and any other combustible materials on or around hot exhausts will be present due to the nature of the site operations.</p> <p>All site vehicles and mobile plant will be fitted with fire extinguishers.</p>	<b>VERY LOW</b>
Ignition Sources	<p>Any ignition sources on site will be kept separately from the stored waste on site.</p> <p>No plant or equipment is kept within the banded processing or storage areas.</p> <p>No aspect of the plant or processes requires the use of any naked flames.</p>	<b>N/A</b>

Batteries	Accepted wastes are predominantly liquid with the only solid wastes being single stream industrial wastes with no mixed collections.	<b>LOW</b>
Leaks and Spillages of Oil and Fuels	<p>The prevention of fuels and oil leaking out from storage containers or plant and equipment 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.</p> <p>The programme will specifically ensure that all site vehicles and mobile plant are maintained to an appropriate standard to prevent fuels and combustible liquids leaking or being tracked around the site. Any identified faults will be recorded and repaired by a fully certified mechanic.</p> <p>The bunded areas will keep any spills or leakages within the area where drainage is protected by an interceptor.</p> <p>No fuel or oils for the use of onsite equipment is stored in the permitted area.</p> <p>Spill kits will be provided throughout the site. All staff will be trained on how to use the spill kit as well as the procedures to carry out in the event of a spillage.</p>	<b>VERY LOW</b>
Build-up of Loose Combustible Waste and Dust	<p>The site has a regular inspection and maintenance programme which will identify any build-up of wastes and dust.</p> <p>This programme will specifically ensure that all areas of the site are maintained to a sufficient level of cleanliness and housekeeping to ensure that the plant does not present a fire risk. This programme will aim to keep levels of dust, loose fibre, and any other combustible materials to a minimum.</p> <p>Machinery is regularly cleaned to remove any dust to ensure that it does not accumulate on moving parts. The site is inspected during daily checks and any build-up of waste and dust would be identified during the inspection.</p> <p>All wastes accepted to site are liquid with no potential for dust generation.</p>	<b>VERY LOW</b>
Reactions Between Wastes	All waste is accepted on site in accordance with the sites Waste Acceptance Procedures. This ensures that incompatible wastes are segregated in separate storage areas.	<b>VERY LOW</b>

	<p>All wastes are stored in separate segregated containers with no mixing of waste types occurring.</p> <p>In the unlikely event of unacceptable wastes being on site, wastes will be transferred to the quarantine area before removed off site.</p>	
Waste acceptance and deposited hot loads	<p>CWS do not receive hot loads.</p> <p>Waste is inspected and tested on arrival at the site before storage in the appropriate area or direct deposition into the treatment plant.</p>	<b>LOW</b>
Hot and Dry Weather	<p>The site will be managed in the following ways during periods of hot and dry weather to minimise external heating:</p> <ul style="list-style-type: none"> <li>• All wastes subject to the FPP are stored in a covered area;</li> <li>• Minimising storage time;</li> <li>• Increasing the frequency of monitoring; and</li> <li>• Moving / covering any reflective surfaces to prevent sunlight concentration on waste.</li> </ul>	<b>LOW</b>

### 3.2 Preventing Self-Combustion

#### 3.2.1 Managing Storage Time

All incoming contained waste is transferred into the appropriate banded storage area upon arrival at the site. All bulk transfers are directly offloaded into the treatment plant.

Waste will be received and accepted in accordance with the established site waste acceptance and rejection procedures. Loads are then inspected in detail and moved to their appropriate storage area.

All waste is stored in the IBCs/drums they are collected within the appropriate storage area.

Combustible wastes are stored on site for no longer than 6 months in accordance with the latest guidance. However, it is highly unlikely waste will be on site for longer than 2 weeks before processing.

Each area is managed to ensure full stock rotation is achieved. The site manager will be responsible for managing the rotation of waste.

Waste flow through the site is tracked by labelling pallets and IBCs from when the first was loaded, and pallets are moved to the front of their respective storage areas in age order to ensure all material processed through the site is on a 'first in – first out' principle.

A daily review of the storage areas is made by the Site Manager in accordance with the onsite inspection procedures.

The filter cake storage area is covered to protect from adverse weather and material is stored for no longer than 7 days before collection. In normal operations, filter cake is collected at least every 2 days.

### *3.2.2 Monitor and Control Temperature*

A trained site operative will carry out a visual inspection on site daily in accordance with site procedures to ensure that the storage areas are being managed correctly and that all suppression equipment is working. CCTV across the site is used to monitor for signs of fire such as smoke or flame. This is monitored by staff throughout the day and alarms staff during closed hours.

Temperature monitoring is not practical on site due to the nature of materials and being stored in inert containers.

Ample supplies of water are available on site if needed to cool material containers.

Combustible wastes will be stored in the covered area to protect it during adverse or extremely hot weather.

Waste is unlikely to be stored on site for longer than the 6 months referenced in FPP guidance for heat control, with waste unlikely to be on site for more than 2 weeks. This minimises the requirement for heat control.

All the above measures meet the minimum expectations defined with the Fire Prevention Plan Guidance.

## **3.3 Manage Waste Piles**

### *3.3.1 Maximum Pile Sizes*

All waste is stored in containers, therefore maximum pile sizes do not apply. There is less than 1 t of waste per IBC.

The covered storage area for combustible and non-hazardous wastes has a capacity of up to 98 IBCs at any one time. This area has multiple waste types stored (segregated), with the largest 'stockpile' being 42t, far below the maximum pile size limit.

## **3.4 Prevent Fire Spreading**

### *3.4.1 Separation Distances*

All waste is stored in sealed containers such as IBCs, therefore the full 6m separation distances do not apply as they do for waste piles on other sites.

Different waste types are separated into different storage areas with a 0.7m separation distance between containers of different waste types as per SGN5.06.

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All plant machinery is kept outside the bunded storage area and treatment area when not in use.

### 3.4.2 Fire Walls and Bays

There are no fire walls in the storage areas.

## 3.5 Quarantine Area

A quarantine area is set aside for contaminated loads or, in the event of a fire, can be utilised to store at risk waste.

Contained wastes near or adjacent to an ignited waste, or particularly flammable wastes, will be moved into the quarantine area if it is safe to do so, minimising the risk of fire spreading.

The quarantine area is located within Storage Area B.

The quarantine area has capacity for 28 IBCs, and therefore meets the need to be capable of holding up to 50% of the largest pile size (42t).

The location of the quarantine area is identified on the site plan provided within *Annex A*.

## 3.6 Detecting Fires

A trained site operative will carry out a visual inspection on site daily in accordance with site procedures to ensure that all waste storage and processing areas are being managed correctly and that all suppression equipment is working.

The site is monitored 24/7 by CCTV.

Any member of site staff and site security will raise the alarm as soon as they become aware of a fire, including contacting emergency services.

## 3.7 Suppressing Fires

### *Access*

The only site access is via the main gate, with the access road and whole permitted area accessible by the FRS as the site is all outdoors.

### *Water*

The site has access to mains water around the treatment plant area, with hoses able to connect for firefighting purposes.

Further water supplies, if required, may be accessed from the public fire hydrant located across the road from the site on Titanium Road.

The hydrant has been tested and has a confirmed main line diameter of 230mm giving a flow rate in excess of 33l/s. This far exceeds the minimum standards for industrial estates of 150mm diameter and 20l/s for sites with an area less than 1 hectare.

#### *Fire Extinguishers*

Site mobile plant is equipped with suitable fire extinguishers, with more situated around the treatment plant area and storage areas. This ensures several fire extinguishers are located throughout the site at any time.

Refer to the site plans for locations.

A fire extinguisher schedule is kept on file to ensure that all extinguishers are regularly inspected.

#### *Training*

All site staff are being trained in reacting to fires which includes:

- Having an appointed and trained fire marshal;
- Fire extinguisher training for all staff; and
- Regular practice drills in relation to different scenarios and focus on “breaking the fire triangle” to control fire outbreaks.

### **3.8 Fire Fighting Techniques**

The site has been designed to allow active firefighting.

Upon identifying or being made aware of a fire, the site manager will raise the alarm, alert all present on site to the fire and its location and alert emergency services.

The site will be evacuated in accordance with the site evacuation plan with exception of those staff involved in active firefighting.

All staff, contractors and visitors would follow the Fire Evacuation procedure as included in Section 3.9 below.

Staff will only tackle the fire using the fire extinguishers if it is safe to do so. Mobile foam trolleys are available for use by site staff to control small fires, and the FLT with an enclosed cab may be used to remove and isolate any at risk wastes to an open area of the yard or to the quarantine area.

In the unlikely event of a fire which has unsuccessfully been extinguished by the sites suppression system, staff are to await the Fire and rescue Service (FRS), who would then take the appropriate actions.

Contact details for the local FRS, along with this FPP and site plans will be kept in a FRS Emergency Services Box located at the site entrance, with copies kept in the CWS offices near the site.

All personnel working on site will be provided training in the Fire Prevention Plan and all associated procedures and controls.

The FPP training will be provided to all new starters and temporary employees working at the site.

FPP refresher training will be carried out to all personnel at least annually.

### **3.9 Fire Evacuation**

Fire evacuation points are located at the site entrance and are clearly signposted.

Sites rules are reinforced via use of fire drills and planned response scenarios.

All personnel to follow the instructions of the Fire Wardens and the Site Manager.

The Fire Evacuation Procedure is provided to staff, contractors, and visitors which states:

- On discovery of a fire, immediately operate the fire alarm by using visual signals to ensure the alarm is raised;
- Fire Wardens and staff must only tackle to fire if they are trained to do so, the equipment is appropriate and if their safety or that of others is not compromised.
- Leave the work area by the nearest available exit / safe route and report directly to the assembly point located at the main office.
- Leave quickly but in a calm, controlled and orderly manner. Do not detour to collect personal items;
- Do not re-enter the work area for any reason until authorisation has been given by the Site Manager / Fire Brigade.
- The Site Manager will assess the situation and call the Fire and rescue Service if required.

This document is reviewed and updated annually, or sooner if required. The document details all hazards and the control measures that are in place and / or required to prevent fires.

### **3.10 Water Supplies**

In the event of a fire, water can be taken from the mains connection on site, or the fire hydrant located on Titanium Road as discussed in section 3.7.

Based on the FPP guidance stipulation that 2,000 litres per minute for at least 3 hours is required for 300m<sup>3</sup> of waste, and the worst-case scenario being a fire in the largest stockpile (approximately 42m<sup>3</sup>), then the site will require access to 50,400 litres of water (50.4m<sup>3</sup>). The mains and hydrant connections adequately cover this requirement.

### 3.11 Managing Fire Water

In the event of a fire, all contaminated run-off will be contained within the bunded storage area, or treatment plant area, whichever is at risk, drainage system closed by the penstock valve, before being pumped into the empty emergency fire water tank. This will prevent potentially contaminated water leaving the site.

Storage Area B has containment capacity of 11.4m<sup>3</sup>.

The OWP treatment plant area has dimensions of 10m x 15m x 0.5m + 1.1m<sup>3</sup> sump, giving a total capacity of 76.1m<sup>3</sup>.

The emergency empty fire water tank has a capacity of 120m<sup>3</sup>.

These are sufficient capacities to hold run-off created during firefighting activities. Site management will visually inspect the integrity of the kerbing and hardstanding daily as part of their site checks.

The fire water will be removed via tanker from the yard and fire water tank, which will transport the water offsite to an appropriate treatment facility.

### 3.12 During and After an Incident

#### *During*

During any firefighting or subsequent clear up operations, any incoming waste will be diverted to an alternative waste processing site.

All nearby residents, businesses and NRW will be notified during any firefighting taking place on site. Telephone numbers will be stored on site.

#### *After*

Any burnt material will be disposed at an appropriate facility as non-hazardous waste. It is anticipated that the clearing of burnt material will not take long, as the company are confident that any fires will be appropriately controlled and therefore will not result in significant volumes of burnt waste.

All fire water will be captured by the drainage system and transferred off site via tanker.

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## ANNEX A: SITE PLANS

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## ANNEX B: DRAINAGE PLAN