PAPERBACK COLLECTION & RECYCLING LTD

FIRE PREVENTION & MITIGATION PLAN

PENRHOS STORAGE

Version 1.9 February 2018

Revision Schedule

Rev	Date	Details	Prepared by	Approved by
Version 1.0	17/5/2017	Draft	Ceri Environmental Consulting Ltd	Drafted by Clare Walters
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Version 1.7	16/10/2017	Changes made to incorporate SPA and cSAC as receptors and also clarify quarantine areas	Ceri Environmental Consulting Ltd	Drafted by Clare Walters
Version 1.7.1	Nov 17	Draft -Amendments to take account of NRW guidance document Fire Prevention & Mitigation Plan Guidance - Waste Management Version 2 Dated August 2017	Ceri Environmental Consulting Ltd	Drafted by Clare Walters
Version 1.8	20/12/17	Final - minor typo errors and addition of appendices	Ceri Environmental Consulting Ltd	Approved by Gordon Anderson
Version 1.9	10/02/2018	Amended to take account of NRW comments	Ceri Environmental Consulting Ltd	Approved by Gordon Anderson

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Table of Contents

1.0 INTRODUCTION

This Fire Prevention and Mitigation Plan has been developed by Ceri Environmental Consulting Ltd, using Natural Resources Wales, Fire prevention and mitigation plan guidance - Waste Management, Version 2, August 2017 and other relevant industry guidance, on behalf of Paperback Collection & Recycling Ltd (PCR Ltd).

It should be noted that the company has recently engaged the services of a fire specialist to advise on fire prevention and control measures within the company. As this Fire Prevention and Mitigation Plan (FPMP) is a live document it will be reviewed regularly and will be reviewed to take account of any advice given.

The FPMP does not seek to address Health and Safety issues and it will not replace any statutory requirements under the Regulatory Reform (Fire Safety) Order 2005 or any other applicable legislation. Advice on these matters should be sought from a competent person.

The Environmental Management System for the Site will include a separate written fire risk assessment in accordance with the Regulatory Reform (Fire Safety) Order 2005. This will be undertaken before the Site is operational. It is not appropriate to undertake this at the present time as the Site is still under development.

The main emphasis of this plan is to prevent a fire happening but also to ensure that the course of action taken, if there is a fire, will reduce the impacts on the environment and sensitive receptors as far as possible. This Fire Prevention and Mitigation Plan forms part of the Environmental Management System (EMS) for the Site (meaning the permitted site as applied for) which has been developed by the operator, Paperback Collection & Recycling Ltd.

The Environmental Management System (EMS) includes monitoring, inspections, record keeping requirements, procedures and training requirements.

1.1 Paperback Collection & Recycling Ltd

Paperback Collection & Recycling Ltd (PCR Ltd) propose to operate a plastics storage facility (material recycling facility) facility at Penrhos Storage, Penrhos Works, Anglesey, LL65 2UX, grid ref SH 26215 81132.

PCR Ltd also has a processing facility on Deeside which takes in a limited range of plastics which are sorted and separated for recycling. One of the outputs from that facility is baled plastics, EWC 19 12 04. It is these waste baled plastics which are to be stored at the Penrhos facility.

1.2 Roles and Responsibilities

The overall responsibility for the operations at the Site lies with Paperback Collection & Recycling Ltd. Gordon Anderson, MD of PCR Ltd, will, along with its EMS & H&S Manager, Tony Whittaker, be responsible for liaising with North Wales Fire Service and ensuring that Site operatives are suitably trained and made aware of the need to prevent fires from occurring and the measures in place to ensure that any fires are dealt with in an safe and effective manner.

2.0 SITE SETTING AND LOCATION

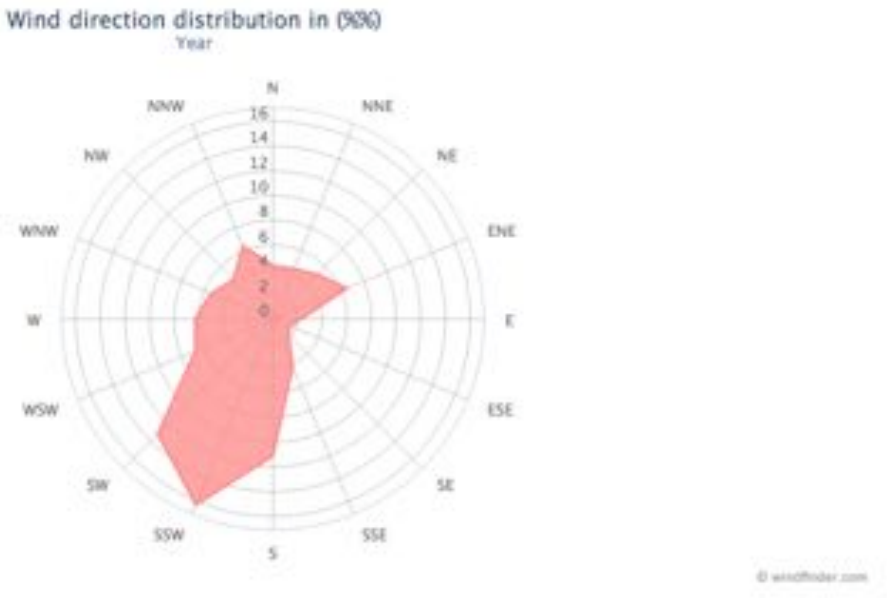
2.1 Site Layout

Storage of baled plastics will be carried out inside the A Frame building which makes up most of the proposed permitted Site. Within the Site there will be no further processing and the primary and only use of the building will be for storage. The permitted area around the building consists of an access road, unloading areas in front of the two main doors to the building and quarantine areas outside the building in case of emergencies. See drawing no CEC/PCR/007.

The local topography is shown below :

As can be seen the land surrounding the site is generally fairly flat.

The prevailing wind direction is shown below :



This windrose is from RAF Valley.

2.2 Sensitive Receptors

An assessment of sensitive receptors has been carried out as part of the Risk Assessment for the application for the Environmental Permit. The location of the receptors is shown on the receptor plan CEC/PA/002.

An online search and a site visit identified the following receptors :-

Receptor	**Distance from site metres**
Businesses and potential office accommodation within the site complex	Adjacent the site and further away
Commercial and retail area	approx 330m to WNW
Local Housing – house by Penrhos beach	approx 230m to NNE
Local Housing - main residential area	approx 630m to NW of
Hospital- Ysbyty Penrhos Stanley	approx 600m to NW of
Care Home	non found
Schools - Ysgol Morswyn	approx 850m to NW
Railway line	approx 355m to SW
A55	approx 400m to SW
Surface waters	approx 24m to N
Groundwaters	No Source Protection Zones or ground water designations in bedrock or superficial deposits. Groundwater vulnerability zone (Minor aquifer high) at Penrhos beach at approx 260m
Beddmanarch-Cymyran SSSI	approx 950m to NE

Anglesey Terns SPA	approx 275m to N
North Anglesey Marine cSAC	approx 500m to N

Surrounding businesses and housing may be impacted by fire smoke, subject to prevailing wind conditions on the day. There is a hospital approximately 600m from the site and a school at approximately 850m which may also be affected by fire smoke, depending upon prevailing wind conditions. The main A55 road and railway to Holyhead could also be affected. There is also the potential (without any mitigation measures) for surface waters to be affected to the north east of the site and hence also the Anglesey Terns SPA and North Anglesey Marine cSAC.

The windrose for Valley Airfield (approximately 6.5km from the Site to the SE), (see section 2.1 above), shows that the prevailing winds are from the South South West.

Likely impacts assessment

Fire hazards

Fires involving combustible wastes can cause significant harm to people and the environment. There is the risk of death and/or serious injury and health damage associated with high thermal energy and smoke inhalation.

Combustion products release airborne pollutants which can cause both short and long term effects on human health and the environment. The combustion products generated by plastic wastes will vary depending upon the material burning and also the conditions of the burn. The cleanest burn will result if there is an intense burning phase with a minimised smouldering phase.

Firewater run-off can transport pollutants into drainage systems, rivers and lakes, groundwater and soil, threatening water supplies, public health, wildlife and recreational use. However, there would be no direct run off of water from the Site, during a fire, if firewater were contained. Firewater containment, therefore, forms a key part of this FPMP.

Ash from a fire may contain contaminants which, if left in situ, could result in land contamination.

Explosions, sparks and projectiles can harm people and spread any fire to unaffected areas.

Assessment of hazard – risk - receptor

In order to assess the risks posed by fire a consideration of potential receptors has been made. These are detailed above and are considered individually below :

a) Local residential properties
A fire would potentially release smoke and airborne pollutants which could affect human health and cause nuisance.

The principal air quality concerns regarding the combustion of all types of plastics and their associated effects on health and the environment are summarised below :
Table 1

Potential Pollutant	**Health Effects**	**Environmental Effects**
Carbon Monoxide	Headache, nausea, tiredness, confusion. Prolonged exposure can lead to death.	Oxidises to carbon dioxide in the atmosphere.
Dioxins & Furans	Carcinogenic; causes growth defects; affects DNA, affects immune and reproductive systems.	Increased toxic loading on environment; leads to contaminated water/ land, affects animal health.
Polycyclic Aromatic Hydrocarbons (PAHs)	Carcinogenic in most animal species including mammals, fish and birds.	Increased toxic loading on environment; leads to contaminated water/ land, affects animal health.
Volatile Organic Compounds (VOC)	Dependant on VOC species. Potentially directly toxic including problems ranging from carcinogens to nervous disorders. Respiratory irritation, chronic lung disease.	Contributes to low level ozone, causes vegetative damage. leads to contaminated water/ land, affects animal health.
Semi-Volatile Organic Compounds (SVOC)	Species can include animal carcinogens. Causes eye and respiratory illness and headaches.	Increased toxic loading on environment; leads to contaminated water/ land, affects animal health.
Particulate Matter (PM)	Irritation of respiratory tract, aggravated asthma, contributes to chronic obstructive pulmonary disease (COPD).	Increased toxic loading on environment; leads to contaminated water/ land, affects animal health.

The nearest residential property is approximately 230m from the Site. There are also a number of other properties in this vicinity.

Taking account of prevailing wind directions these receptors are most likely to be impacted upon in the event of a fire.

If the wind speed is significant it is likely to take any pollutants out towards the sea and may potentially impact some residential properties on the north west coast of Anglesey.

This FPMP addresses the important fire prevention and mitigation measures which will be put in place to address the risks identified.

b) Ysbyty Penrhos Stanley Hospital
A fire would potentially release smoke and airborne pollutants which could affect human health and cause nuisance.

Principal air quality concerns regarding the combustion of plastics and their associated effects on health and the environment are detailed in Table 1.

It is understood that the hospital has a minor injuries unit and also approximately 43 inpatient beds including a care of the elderly unit. Staff, patients and visitors could potentially be impacted as a result of aerial emissions from a fire at the site. Some of the patients could be sensitive to smoke emissions.

However, the hospital is not downwind of the prevailing wind direction.

c) Ysgol Morswyn
A fire may potentially release smoke and airborne pollutants which may affect human health and cause nuisance.

Principal air quality concerns regarding the combustion of plastics and their associated effects on health and the environment are detailed in Table 1.

The school is not downwind of the prevailing wind direction.

d) Main residential area
A fire may potentially release smoke and airborne pollutants which may affect human health and cause nuisance.

Principal air quality concerns regarding the combustion of plastics and their associated effects on health and the environment are detailed in Table 1.

The main residential area is not downwind of the prevailing wind direction.

e) Potential Office accommodation
A fire may potentially release smoke and airborne pollutants which may affect human health and cause nuisance. The principal air quality concerns are detailed in Table 1.

Office accommodation is close to the storage building and so thermal heat issues may also impact people within the accommodation. We understand that the office accommodation is to remain unoccupied for the foreseeable future.

If the office accommodation becomes occupied it will be included in the Communication and evacuation procedures which are in place within the EMS if any fire alarm is triggered for the Site.

f) On Site Industrial area
A fire may potentially release smoke and airborne pollutants which may affect human health and cause nuisance. The principal air quality concerns are detailed in Table 1.

Within the overall industrial site parts of the industrial area are close to the proposed permitted area and there is shared access. A fire may impact upon any people within this area and access to and from the site may be disrupted. There is a second access to the overall industrial site from the south east (East Gate Entrance) which could be used in an emergency for access and evacuation purposes.

Communication and evacuation protocols and procedures which are in place if any fire alarm is triggered for the Site.

g) Railway line and A55
There is a main railway line and the A55 runs close to the eastern boundary of the main industrial site, furthest from the proposed permitted area itself. There is some potential for smoke to possibly cause problems for trains or vehicles using the A55 in the event of a fire. Smoke impairs visibility and fires may damage signaling equipment. However, it is unlikely that a fire on the Site would spread to the railway line and cause any damage to signaling or property. Visibility may be an issue subject to prevailing conditions at the time.

Due to the prevailing wind direction these receptors are less likely to be impacted in the event of a fire.

h) Local businesses in commercial and retail area
There are some local businesses on the industrial and retail area to the north west of the Site, in the direction WNW, at an approximate distance of 330m. A fire may release smoke and airborne pollutants which may affect human health and cause nuisance.

The prevailing wind direction is away from these receptors and so the likelihood for impact is reduced. These receptors are also likely to be less sensitive than the residential receptors due to their light industrial nature.

i) Surface and ground water features
There are surface water ditches to the north of the main site, shown on drawing number CEC/PCR/007. Under normal operating conditions there should be no discharge of water from the building, which will be used for storing all of the waste. The site surface water drainage (rainfall) from the outside of the building (non waste areas) combines with surface water drainage from the larger overall industrial complex and outfalls to an isolation penstock controlled discharge point. This point then discharges to the Penrhos beach (see drawing numbers CEC/PCR/007 and 53-1570-P. Please note that the latter plan contains details of buildings and features within the larger Orthios Eco Parks (Anglesey) Limited site which are outside the proposed permitted area). In the event of a fire at the storage site, firewater

run off will be initially contained within the building. There is a concrete bund wall around the inside of the building which will contain firewater within the building and there is also an internal drainage system within the building consisting of gullies down the internal centre line of the building which drain to a below floor water storage chamber (see drawing CEC/PCR/007). In order to prevent firewater escaping from the building via the two main entrance doors the Site will be equipped with inflatable booms and sand bags which will be deployed across these doors to contain fire water within the building and its drainage system if needed.

Pedestrian fire exit and access points from the building will be outside of the internal bund wall so fire water run off will not be able to escape from this area.

If the building and internal drainage capacity were overwhelmed, firewater would be allowed to escape to the external surface water drainage system (see drawing no CEC/PCR/007). As this area discharges via a system of penstock isolation valves to surface water, in the event of a fire, the penstock valves would be closed to ensure containment of firewater within the site. The firewater could then be re-circulated for use in tackling the fire, if the fire command approved its re-use.

In addition to containment of firewater on these two fronts, a fire protocol/procedure is in place to provide mobile tankers for removal of firewater from the drainage systems both inside and outside of the building. This method of firewater management would add a third containment measure with mobile removal and treatment at an off-site water treatment facility. As a result of the above measures surface and ground water receptors will be protected and should not be impacted in the event of a fire.

j) BEDDMANARCH-CYMYRAN SSSI

The BEDDMANARCH-CYMYRAN SSSI citation states :

"This site, which includes a variety of coastal habitats between Holy Island 'mainland' Anglesey is selected primarily for its ornithological and botanical interest. There are large areas of sandbank, mudflat and saltmarsh, as well as two stands of dune heath. The site also has marine biological interest. A wide range of water-birds, both on passage and in winter, are attracted to the area which is especially important for overwintering ringed plover, greenshank, red-breasted merganser and goldeneye. A number of coastal bird species also breed in the area, but the former importance of the rocky islands in the Inland Sea for their tern breeding colonies has diminished considerably in recent years.

On the mudflats there are beds of eelgrass Zostera spp and all three British species have been recorded. Saltmarsh vegetation fringes most of the site but only forms extensive stands in sheltered bays and estuaries; among the more abundant saltmarsh species present are common saltmarsh-grass Puccinellia maritima, thrift Armeria maritima, lax-flowered sea-lavendar Limonium humile, sea rush Juncus maritimus and the invasive cord-grass Spartina anglica; the uncommon golden samphire Inula crithmoides occurs in both saltmarsh

communities and on parts of the rocky shoreline. The coastal dune heath at both Traeth y Gribin and Cymyran are interesting examples of this locally uncommon habitat type. "

The Anglesey Tern SPA has been designated as an area which should contribute to the breeding tern population. Issues which could result in risk to the tern population could include disturbance, predation, loss of supporting habitat and loss of food supply.

The qualifying feature of the The Angelsey Marine cSAC is the presence of Harbour Porpoises. The Joint Nature Conservation Council tells us in their Draft Conservation Objectives & Advice on Activities (January 2016) that Conservation Objectives for harbour porpoise sites is on addressing pressures that affect site integrity and would include:

- killing or injuring significant numbers of harbour porpoise (directly or indirectly);
- preventing their use of significant parts of the site (disturbance / displacement);
- significantly damaging relevant habitats; or
- significantly reducing the prey base.

In assessing the potential risk to the SSSI, SPA and cSAC the possible effects of a fire at the site will be considered in terms of :

• Toxic contamination from	toxic leachate toxic wastes contaminated dusts
• Habitat loss from	land encroachment explosive wastes
• Siltation	suspended solids
• Smothering	dust/particles
• Disturbance	visual human presence noise/vibration

<u>Toxic contamination from air emissions and firewater run off</u>

The storage facility is non hazardous in nature. However, in the event of a fire there would be emissions to air which may potentially impact the environment.

Table 1 details potential impacts on animal and plant life and the potential for toxic substances to build up in the event of a fire.

The scale of the impact can be assessed by a consideration of the likely exposure of the SSSI, SPA and cSAC to the potential emissions. The SSSI is

not downwind of the prevailing wind direction and is approximately 950m from the proposed permitted site. The cSAC and SPA are at approximately 500m and 275m, respectively, to the north of the site and so are potentialy downwind of the site.

There are fire prevention and control measures in place and so a fire should be an unlikely event. A fire would be an emergency situation and action taken to extinguish it immediately. It would be a restricted and short term event and air emissions would dilute and disperse depending upon the weather conditions.

In addition to these mitigating factors, the size and nature of the cSAC and SPA sites mean that localised and diluted toxic air emissions are unlikely to significantly impact upon the sites as a whole.

Polluted fire fighting water run off should not escape from the site due to the firewater containment measures and so is unlikely to impact the SSSI, SPA or cSAC (see assessment above in terms of surface water risk). The facility has an engineered containment and drainage system which has been designed to prevent the escape of firewater from the site. There is an inspection and maintenance system for this containment system within the EMS which should ensure that its integrity is maintained.

Habitat Loss

Habitats loss could result from the physical take up of habitat or buffer zone. However, there will be no encroachment resulting from the Site and no potential for explosive wastes which could impact the site.

Siltation

Siltation may potentially result from suspended solids from fire ash being discharged from the site to the receptor site. The likelihood of this is low and the potential impact insignificant as the pathway would be the same as that for toxic contamination via fire water run off (see above). There is a penstock control on the outfall of the surface water system from the site and this would be closed in the event of a fire to prevent fire water run off to the SPA, cSAC and SSSI.

Smothering

Smothering may potentially occur from dust and airborne particulates being generated at the site in the event of a fire and being deposited on the receptor sites. There are fire prevention and control measures in place and any fire would be an emergency situation which would be short lived and unlikely.

Smothering could potentially result in damage to habitat or loss of prey base or food supply. However, due to the fire prevention and mitigation measures, the unlikely event of a fire and the size and nature of the cSAC and SPA sites,

localised airborne particulate emissions are unlikely to significantly impact upon the designated sites as a whole.

Due to a combination of distance from the facility and prevailing wind direction it can be concluded that there is no significant risk posed to the SSSI from smothering

Disturbance

There should be no impact on the SSSI, SPA or cSAC from disturbance. Human presence, noise and light from the site should not affect the SSSI, SPA or cSAC due to distance from the site and the nature of the activities on Site.

Scavengers and pests which could result in disturbance and predation are not a significant hazard at the Site due to the waste types accepted at the site. There will obviously be no direct killing or injury to harbour porpoises from the proposed site activities nor would there be disturbance or displacement.

3.0 WASTE OPERATIONS

3.1 Baled Plastic Waste Deliveries

The Site will only accept processed baled plastic from its sister site at Deeside, also operated by Paperback Collection & Recycling Ltd. All baled plastic waste delivered to the Site is Quality Control checked before it leaves the Deeside site to ensure that it is as specified for the Penrhos Storage facility. Each consignment will be checked/recorded to ensure that it corresponds to the description on the waste transfer note and to ensure that the materials are acceptable under the terms of the Environmental Permit.

Baled plastic waste will also be checked at the point of delivery at the Penrhos site to ensure that compliance with the waste transfer note requirements and acceptance for storage.

Consignments containing only materials listed in the Permitted Waste List (ie only 19 12 04), will be unloaded and the bales placed within the storage building. The bales will be stored in accordance with the layout specified in drawing number CEC/PA/004 revised Feb 2018.

If there is any waste which should not be in the load (ie not compliant with) then this will be removed by the same delivery vehicle and returned to the Deeside facility or taken to another suitably permitted facility.

The building and surrounding permitted area will be kept clean to reduce the risk of fire spread in the storage area or outside the building.

3.2 Throughput of Waste and Storage Duration

The site will have a maximum storage capacity of 15,000 tonnes and a maximum annual throughput of 45,000 tonnes. It is unlikely that the maximum capacity will be reached in any twelve month period of storage.

3.3 Storage Areas

The storage areas are shown on Drawing No CEC/PA/004 revised Feb 2018.

Baled plastic waste will be stored in the building and so is under cover unless in an emergency fire situation it is stored outside in one of the quarantine areas on a temporary basis.

The building is approximately 190m long x 60m wide. The building will be accessible to fire fighters in the event of a fire via two main entrances at the front of the building and also via pedestrian access points to the building (see drawing no CEC/PCR/007). The entire external perimeter of the building will also be accessible to fire fighting tenders either via roadways or on wide well compacted hardcored access areas around the sides and rear of the A frame building.

The storage building and outside areas should not contain any loose materials. However, if any bales break or materials become loose, the building and outside areas will be cleared of loose debris to prevent the build up of potentially combustible material and to prevent litter. This clearing is carried out in accordance with the EMS inspection and recording procedure (Appendix 2).

The layout of the storage building has been carefully considered with maximum allowance of fire breaks, access areas and storage pods set out in accordance with the Drawing no. CEC/PA/004 revised Feb 2018. Fire breaks, along with limitations on total capacity and access afforded within and outside the building, will reduce the risk of a fire spreading from storage stack to stack. The layout of the internal and external areas will also provide the added opportunity for removal and quarantining of non-burning baled materials to the quarantine areas (as shown on drawing no. CEC/PCR/007). The quarantine areas would only be used for the storage of unburnt baled plastic on a temporary basis to aid fire fighting. The quarantine areas would only be used to store materials which would not give rise to pollution. As soon as practicable after a fire incident any materials stored within the quarantine areas would be removed either to within the A frame building or off site

In addition the bales will, whenever possible, be stacked in a brick pattern rather than simply on top of each other. This will have the effect of reducing the "vertical tunnel" effect of any fire spread.

4.0 SITE PLAN

The proposed permitted Site is located within a large industrial area (which was originally the Anglesey Aluminum site and is now owned by Ortios Eco Parks (Anglesey) Ltd. The main entrance off the A5 London Road. Site access is via a 24 hour security gated and manned access road. The site location is shown on Plan CEC/PCR/007 and the Receptor Plan CEC/PA/ 002 (Appendix 2).

A number of plans have been used in this FPMP (Appendix 2) to identify the features of the site and the surrounding receptors as it is not possible to include all receptors (within 1km radius) as well as all site features at a suitable scale on one plan.

5.0 COMMON CAUSES OF FIRE AND PREVENTATIVE MEASURES

5.1 Potential Causes of a Fire and Sources of Ignition

There are a number of common causes of fire at industrial sites which should be considered on a site specific basis :

i) Arson or vandalism
There is always the potential for arson or vandalism from intruders at a site. In order to reduce the risk of arson or vandalism at the Penrhos Site the overall site and its main entrance has a 24 hour manned security gatehouse. This gatehouse provides security as visitors and staff can only enter the Penrhos Storage Site via this gatehouse and there is a signing in and fob key entry system. In addition, the perimeter of the entire site complex is fenced. All waste stored at the permitted Site will be stored inside the A Frame site building which has roller shutter doors which will be locked at night.

To add to these security measures the A Frame storage building will be linked by CCTV to the gatehouse security building and the 24 hour manned site security. Any intruders would be identified by the security staff and the security staff would investigate.

ii)Visitors and contractors
All visitors and contractors must enter the Site via the manned gatehouse. All visitors and contractors undergo an induction process at the gatehouse involving health and safety matters and fire safety issues and must pass an assessment of their understanding of the induction before they have access to the Site.

Visitors to the Site will always be supervised and any contractors will be informed of fire prevention and control measures applicable to their activities on site in accordance with the Environmental Management System (Appendix 2 Contractor Instructions).

There are no office areas within the building.

iii) Ignition sources
The Site storage area will, by nature, have very few potential sources of ignition or other activities taking place which may cause a fire. One potential ignition source could be electrical faults resulting in sparks. To reduce the risk of electrical faults causing a fire all electrical wiring will be fully tested and certified by a qualified electrician and will be tested at regular intervals with the results recorded in the EMS.

iv) Self combustion
The risk of self combustion of the waste stored at the Site is considered to be extremely low.

The type of baled plastic waste being stored is dry, does not contain foodstuffs, biodegradable or putrescible items and since it is not RDF or its equivalent there is an extremely low risk of self heating and self combustion.

In addition the waste is baled to a density of approximately 580-650kg/m^3.
This will reduce the possibility of self heating further.

Self heating is also related to the height of a stockpile and so the stockpiles will be kept to maximum of 4m.

The operator currently has many years experience of the type of waste it is proposed to store at the Penrhos site. Bales are stored at the PCR Ltd's sister Deeside facility and temperature probing of this material, over some period of time, has shown that the temperature of the bales is stable and self heating does not occur. In addition, storage within the building will remove any significant effects of the sun on the temperature of the bales

No baled plastic waste shall be stored for longer than 12 months.

Given the nature of the waste operations and the volumes stored, temperature monitoring of the stored materials is not considered vital but will nonetheless form part of the standard storage protocols/procedures within the A Frame building (see Appendix 2, SOP No 13).

The building will not be heated.

v) Plant or equipment failure
There is a robust plant maintenance and inspection programme in place for all plant on Site. Vehicles and plant are fitted with fire extinguishers, dust filters and spark arrestors. There will be no bucket loaders on the Site. When plant is not in use it will be stored away from the baled plastic, at the inside of the buildings main doors (see Appendix 2 Site Check List).

vi) Discarded smoking materials
The Site is a no smoking area so there will be no discarded smoking materials on Site.

vii) Hot works (eg welding or cutting)
Hot works are not routinely or likely to be carried out within the building. In case they are (for example for building maintenance purposes), there is a hot works procedure (see Appendix 2, SOP No 12) within the EMS to reduce the risk of sparks or other ignition sources.

viii) Industrial heaters, fuel and cylinders etc
There will be **no** naked flames, furnaces, incinerators, or industrial heaters permitted or used at the permitted Site. There will be ***no*** fuel or gas cylinders stored at the Site.

ix) Plant and hot exhausts
There will be a visual check at the end of any day when works have taken place on Site to detect any signs of fire caused by dust settling on hot exhausts or engine parts. These checks will be made by the last person to leave the site on any day when works have taken place at the site or plant has been used. The check will be recorded in accordance with the EMS see Appendix 2, Site Check List.

x) Damaged or exposed electrical cables
To reduce the risk of electrical faults causing a fire all electrical wiring will be fully tested and certified by a qualified electrician and will be tested at regular intervals with the results recorded in the EMS.

xi) Hot loads deposited at the site
No hot loads will be deposited at the Site. Waste plastic will originate from the PCR Ltd's sister site at Deeside and so complete control will be retained over wastes entering the site.

xii) Build up of loose combustible waste, dust and fluff.
As the Site will be used for storage only there will be no significant build up of dust and fluff at the site. The site will be inspected in accordance with the EMS (Appendix 2, Site Check List) and the inspection recorded. Any loose material will be tidied and removed from the facility.

xiii) Tramp Metal and batteries within waste
There is no possibility of reaction between incompatible or unstable wastes and there should be no batteries or metals in the waste accepted due to the treatment processes which have taken place at the company's sister site at Deeside. In addition there is a Waste Acceptance Procedure in place within the EMS see Appendix 2, SOP No. 1.

xiv) Leaks and spillages of oils or fuels
To reduce the risk of leaks or spillages contributing to fire risk all equipment will be maintained and inspected in accordance with the requirements of the EMS and the results recorded. In addition the EMS contains a spillage procedure (Appendix 2).

xv) Hazardous wastes will ***not*** be permitted at the Site.
Hazardous wastes will ***not*** be permitted at the Site

5.2 Storage Times and Self Combustion factors

As stated in section 5.1(iv) above the risk of self combustion is considered to be extremely low.

The intention is to store material for up to 12 months although in reality this length of time is likely to be much shorter. As there is no risk of self combustion and the stacks will be monitored (see Appendix 2, SOP 13 & 14) it is considered that 12 months will not present any increased fire of fire at the Site.

The primary outlet for the waste from the Site will be plants which convert plastics into energy for recovery as liquid fuels or a power generation which are being developed in the UK and overseas. In particular at the Orthios Eco Park site on Anglesey.

PCR Ltd deal with light mixed plastics which are a valuable resource. This material is refined, cleaned and sorted at PCR Ltd's sister site on Deeside.
PCR Ltd are working with Innovate UK (an executive non-departmental public body sponsored by Department for Business, Energy and Industrial Strategy) to develop a newly formulated fuel briquette becoming part of a fuel supply chain to cement and CHP industries in the UK and Europe as well as being suitable for use in UK gasifiers as supplied by Refgas Sandycroft. The grant has been awarded to PCR Ltd and the grant project runs until April 2019. PCR Ltd already have interest in this prototype fuel from Geocycle who have agreed to place trial orders with PCR Ltd in Q1 2018. Geocycle (A Dutch supply company) are responsible for fuels for CHP and Cement plants around the world and actively seek high content and clean mixed plastics for conversion and fuels use.

If the anticipated outlets are not in place within 12 months material will be exported to other facilities within Europe or further afield.

The aim is for UK waste plastic to be recycled and recovered within the UK.

5.3 Fire prevention principles

The following fire prevention principles and measures will be undertaken at the site :

1) Reducing risk factors eg exposed metal content, proportion of fines, mixed materials and heat generation during treatment

As stated in section 5.1 there should be no metal content in the plastic bales and the materials will consist of various plastics. There will be no incompatibility between materials which would cause heating. The plastics are processed elsewhere and so no heat will be generated during treatment at the Site.

2) Minimisation of stack sizes .

The layout of the site is detailed on plan No CEC/PA/004 Revision 2018. The stack sizes and layout have been designed by taking account of good fire prevention principles as detailed in Natural Resources Wales, Fire prevention and mitigation plan guidance - Waste Management, Version 2, August 2017, the Environment Agency's document Guidance Fire prevention plans: Environmental Permits, updated 9 November 2016 and the European Guideline - Treatment and storage of waste and combustible secondary raw materials (CFPA-E No 32:2014 F) document produced by The Confederation of Fire Protection Associations in Europe and the WISH (Waste Industry Safety and Health Forum) document - Reducing Fire Risk at Waste Management Sites.

The stack size will be 4m high x 5m wide x 20m long. Each stack will be separated from the next by a 6m gap and will also be separated from the base of the sidewalls of the building by 6m.

The 6m gap will enable access for fire fighting tenders or high reach vehicles (NRW guidance states that the minimum width of road for access of fire equipment should be 3.7m). In addition there are two 10m access / separation areas in front of the two main entrances to the A frame building. This provides additional separation between stacks and also gives increases access to the stacks.

The stack height of 4m is generally accepted as a suitable height for baled waste.

The guidance on the separation distance between stacks appears to vary widely.

The EA suggest that a 6m gap is sufficient between stacks. NRW provides two graphs which are to be used to determine separation distances between stacks for various types of waste materials. NRW state that these graphs are based upon the WISH guidance. We understand that the WISH guidance was prepared after various burn tests.

As the material to be stored at the Penrhos site and its baled properties is different to those materials used for the burn tests it is considered that these graphs are not directly applicable to the Penrhos site.

The 6m gap is therefore considered to provide good access to all stacks and is adequate in light of current knowledge and practice in other parts of the UK.

3) Moisture Levels

The baled material has very low moisture levels as it consists of dry plastic waste without putrescible elements. The material has been pretreated and sorted to a high standard. The material at Penrhos will be stored in a dry building. It is considered therefore that moisture levels are low and are not a

significant issue in relation to fire prevention as the plastic is unlikely to self heat. Nevertheless moisture levels will be monitored in accordance with the EMS (see Appendix 2, SOP No. 14) .

4) Stock rotation

Although it is considered that, due to the nature of the material to be stored and its dry condition, there will be no significant, if any, risk of self heating, the management of stock inside the storage building will be structured on the first in first out basis. This will reduce storage time, aid rotation of stock and assist in maintaining the best materials handling principles whilst avoiding build-up of loose litter and debris within the A frame storage area.

The FIFO principle will be implemented by ensuring that the A Frame building is stocked from one end and adding stock in stacks as the building is filled. When material is removed from the site, clearance will always start at the end of the building which was filled first. At this site this will be a simple procedure as the site is simply used for storage. The bale stacks will be numbered and dated and recorded so monitoring of this procedure can take place. The EMS will include a procedure to ensure the FIFO principle is maintained (see Appendix 2, SOP no. 13).

As stated above the primary outlet for the waste will be plants which convert plastics into energy for recovery as liquid fuels or a power generation which are being developed in the UK and overseas. In particular at the Orthios Eco Park site on Anglesey.

5) Storage of materials in largest form

Waste plastic accepted at the site will already have been processed and baled at PCR's sister site at Deeside. The material is not shredded and it will not contain fines or significant dust.

The prior processing consists of pre selected light fraction waste passing through a trommel with subsequent handpicking, eddy current aluminium separation, ferrous separation with a magnet followed by further handpicking prior to final baling.

6) Monitor and control sub surface temperature and moisture content

Monitoring of the stored materials is not considered vital but will nonetheless form part of the standard storage protocols/procedures within the A Frame building (see Appendix 2 , SOP No. 13 and 14 for methodology).

7) Stack turning

In the unlikely event of temperature readings over 48 degrees this will be reported immediately to a Supervisor for remediation in accordance with the EMS (see Appendix 2, SOP No. 13) .

Baled materials above 48 degrees will be split and the contents windrow cooled to reduce the temperature to 30 degrees when materials are safe for re-baling.

8) Detection and Control of hot spots

Not only will hot spots be detected and controlled as detailed in (6) above, there will be visual assessment by operatives on an ongoing basis. Any visual smoke or steam emissions will immediately be reported to a Supervisor.

9) Max storage times, monitoring and control

See above section 5.2

10) External heating

The A Frame building provides protection of the sun. The building is not heated and it is unlikely that the changes in ambient temperature will have any significant impact on the temperature of the bales.

6.0 FIRE FIGHTING WATER

6.1 Water Supply

There is a 11,000 m^3 concrete chamber below the A Frame building. The chamber is being converted into a water reservoir and will be maintained in a full capacity, to be utilized as firewater. The configuration is such that any water released into the A Frame building will immediately drain back into this chamber where it can then be recirculated to the fire pumps (via a filter). This closed loop system affords the A Frame an almost limitless supply of fire fighting water.

There is no requirement for personnel to enter this chamber or the building to access the water in this chamber as there are two fire water sumps, one at either end of the building (shown on Drawing no CEC/PCR/007), as well as a sump area at the penstock valve, which allows pumps to be used to extract the water without entering the chamber or the building.

In addition, there is a fire hydrant system within the main industrial site and the fire hydrant points are in close proximity to the A Frame storage building (see drawing 53-1560-P and CEC/PCR/007). There is extensive firewater capacity on site as part of the overall industrial site and this will be available for use by the proposed facility. PCR Ltd has authorisation from their landlord to use these hydrants.

Reducing the amount of fire water run off generated has been considered but it is considered that the use of sprays are unlikely to be effective except in the role of cooling bales and the building. However, it is understood that there have been recent tests undertaken by WISH relating to the use of additives to fire fighting water which have resulted in fires being extinguished very rapidly.

This would of course reduce the quantity of fire water run off. Following further investigation into this additive and further discussions with the fire service and a specialist fire engineer the operator will store sufficient supplies of this additive on site if considered appropriate by the fire service.

6.2 Volume of Water Required

NRW guidance states that there must be sufficient water supplies available on site to manage a worst case scenario.

At the maximum storage capacity there will be 34 pods each at 400m^3 = 13,600m^3

The NRW guidance states that 300m^3 will require a water supply of at least 2,000litres a minute for a minimum of 3 hours.

Therefore 13,600m^3 will require 90,700litres per minute = 16,326,000litres over three hours. This equals 16,326m^3 of water.

The layout of the building has been designed to place the storage pods into three separate sections. There is a separation distance of over 10m between these three areas.

The worst case scenario is, therefore, likely to be that the largest central area of stacks is on fire. This consists of 16 stacks at 400m^3 = 6400m^3.

6400m^3 will require 7,680,000litres over three hours. This equals 7,680m^3 of water.

As the water chamber holds approximately 11,000 m^3 this should be ample for the worst case scenario without the need for recirculation. If further water supplies are needed recirculation can be considered or the hydrant system on site utilised.

7.0 SITE ACCESS

7.1 Site entrance points

The overall site complex is accessed by an entrance off the A5 London Road. There is a second emergency access point to the south east of the overall industrial complex (The East Gate Entrance see drawing no 53-1570-P) which the emergency services can use if needed. The A Frame building has two vehicular access doors at the front of the building and two emergency exits for personnel (see plan no CEC/PCR/007).

7.2 Emergency Services Access and Egress to site and around site.

All escape routes, fire exits, alarm call points and fire extinguishers and hoses will be kept clear and free from waste and obstruction at all times.

The site has roller shutter doors which, when open, will assist in clearing smoke from the building. This will aid fire-fighting. The roller shutter doors can be opened by chain even if there is no power.

7.3 Ground Conditions

Plan CEC/PCR/007 details concreted site roads and areas near to the Site. Other areas are hardstanding areas. All roads on the overall industrial site are of a good standard and size and will enable fire tenders to access the A frame building. There are areas of hardstanding to the rear and sides of the A frame building which are constructed of compacted hardcore and are accessible by vehicles (see photo below of rear of building)

All baled plastic waste stored on site will be within the A Frame storage building, which has a slightly sloped concreted floor, provides good access to vehicles.

The outside areas are used only for access to the building and are clear areas around the outside of the building.

All surfaces ensure that vehicles and plant can move around all areas of the site easily.

8.0 BALED WASTE STORAGE

8.1 Reducing risk of fire occurring in the bales

The risk of fire occurring on the site has been reduced by reducing the potential ignition sources on site and by introducing a number of control measures as follows :

- limiting activities at the Site to simply storage
- no heaters on Site
- no smoking Site
- no office or canteen on Site
- no fuel storage on Site
- no hazardous waste on Site
- no incompatible waste on Site
- no self heating waste on Site
- no gas cylinders are kept on Site
- implementing security measures (as detailed in 5.1(i)) to reduce the risk of arson
- ensuring that all electrical equipment is tested regularly (see section 5.1(iii))
- maintenance of machinery and plant (see section 5.1(v))
- housekeeping of site (in accordance with EMS) and plant (see section 5.1 (xii))
- controlling hot works if any need to take place (see 5.1(vii))
- monitoring for temperature and moisture levels in stacks (see section 5.1 (iv)
- visual monitoring of stacks for emissions (see section 11.1 and 5.3(8))
- layout of bales to prevent spread of fire if started with limited stack sizes and maximum separation distances (see section 5.3(2))

8.2 Prevention of fire spread

The use of fire walls has been considered for the building but it was decided that they would hinder access to the individual stacks in the event of a fire both for fire fighting purposes and also if unburnt bales were to be removed from the building.

Instead the layout as detailed in drawing no CEC/PA/004, revised Feb 2018 has been designed to prevent spread of fire if a fire is started by limiting stack sizes and maximising separation distance from both other stacks and the building structure.

There are regular inspections of the site (in accordance with the EMS see Appendix 2, SOP No. 3 and Site Check List) to ensure that all escape routes, fire exits and fire fighting equipment are kept free from waste at all times.

8.3 Locational context of Site

There is no high asset value equipment on Site.

There are currently no occupied buildings near to the A frame building. Details of local receptors are provided in section 2.2 of this FPMP.

Fire escape doors and fire assembly point are detailed on drawing no CEC/PCR/007. The escape doors are not compromised by stack layout within the building as there are wide (10m) separation and access routes in front of the two main fire exit doors.

There are no major power lines above or adjacent to the Site. The A5 is located to the south west of the Site and there is a railway line running to the south west of the site as shown on drawing no CEC/PA/02.

8.4 Quarantine Areas

Quarantine areas will be established outside of the A Frame building maintaining a break between the quarantine areas and the building. These areas are shown on drawing no CEC/PCR/007.

The largest stack size is 5mx20mx4m with an area of 100m^2. As there are two quarantine areas :

- one of 30m x 30m minus 6m standoff from edge of permit boundary = 24m x 24m = 576m^2

- one of 40m x 10m minus 6m stand off from edge of permit boundary = 34m x 4m = 136m^2

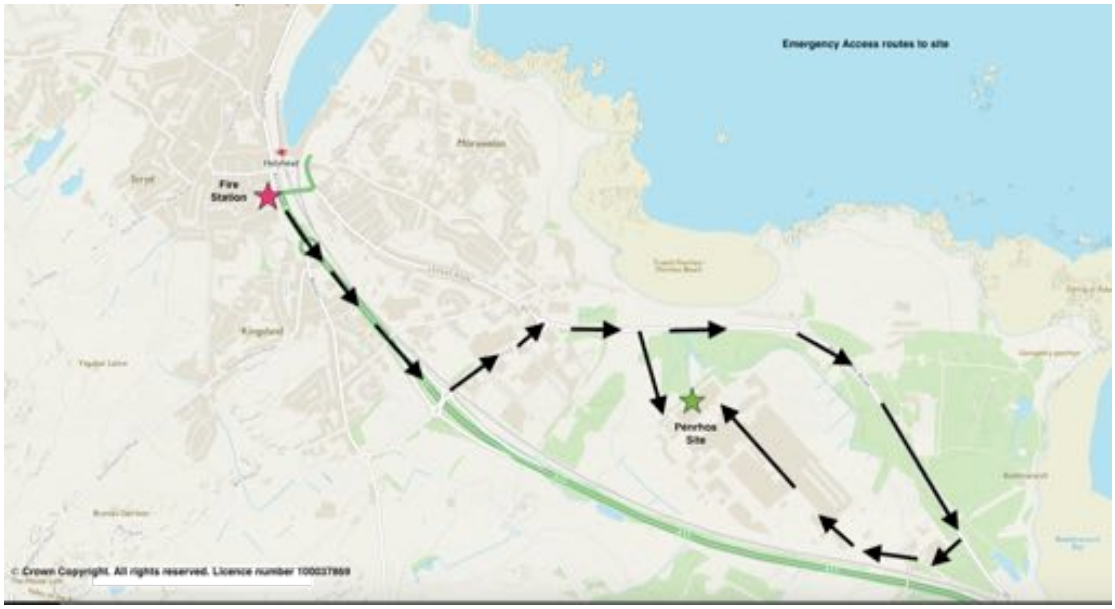
These areas will be able to hold in excess of 50% of the volume of the largest stack.

The quarantine areas are within the permit boundary. They are large enough that a 6m stand off from the permitted boundary of the site can be maintained whilst still maintaining the capacity needed as stated above.

8.5 Movement of emergency vehicles and designated routes

The overall site complex is accessed by an entrance off the A5 London Road. There is a second emergency access point to the south east of the overall industrial complex (The East Gate Entrance see drawing no 53-1570-P) which the emergency services can use if needed. The A Frame building has two vehicular access doors at the front of the building and two emergency exits for personnel (see plan no CEC/PCR/007).

The site would be accessed as shown below :



9.0 FIREWATER MANAGEMENT

In the event of a fire at the storage Site firewater run off will be initially contained within the building. There is a concrete floor and bund wall around the inside of the building which will contain firewater within the building and within the internal drainage system and chamber below the building (see section 2.2(i)) .

In order to prevent firewater escaping from the building via the two main entrance doors, the site will be equipped with inflatable booms and sand bags which will be deployed, as needed, to contain water used in tackling a fire. Pedestrian fire exit and access points from the building will be outside of the internal bund wall so firewater will not be able to escape from this area

The building is 190m x 60m and has a 1m bund = 11,400m^3 containment capacity and floor slope of in excess of 1,800m^3. In addition there is the capacity via the underground chamber to remove water from the building for recirculation or for disposal off site.

This would provide sufficient containment for the proposed worst case of the middle section of stored pods being on fire.

As firewater is used for fire fighting from the chamber below the A frame building firewater will flow back into this system. If the entire building drainage and bunding capacity were overwhelmed fire water would be allowed to escape to the surface drainage system external to the building (see drawing no CEC/PCR/007). It would flow into the road surface water gullies as shown on the plan. As this area discharges via a system of penstock isolation valves to surface water, the penstock valves would be closed in the event of a fire to ensure containment of firewater within the site. This water could then, if

needed, be re-circulated for use in tackling the fire if the Fire Command approved its re-use.

A fire protocol/procedure is also in place to provide mobile tankers for removal of fire water from the drainage systems both inside and outside of the building. This method of further firewater management would add a third measure of containment, ie mobile removal and treatment at an off-site water treatment facility. As a result of the above measures surface and ground water receptors will be protected and should not be impacted in the event of a fire.

All used firewater will be classed as contaminated so will ultimately need to be tankered off Site for disposal at a suitable facility.

10.0 SEASONALITY AND WASTE STACK MANAGEMENT

There is no seasonality relating to the plastics to be stored at the Penrhos Site.

The material will come from PCR Ltd's won sister facility on Deeside where the waste is sorted and processed.

The primary outlet for the waste will be plants which convert plastics into energy for recovery as liquid fuels or a power generation which are being developed in the UK and overseas. In particular at the Orthios Eco Park site on Anglesey.

PCR deal with light mixed plastics which are a valuable resource. This material is refined, cleaned and sorted to a very the degree that PCR sister site on Deeside.

PCR are working with Innovate UK (an executive non-departmental public body sponsored by Department for Business, Energy and Industrial Strategy) to develop a newly formulated fuel briquette becoming part of a fuel supply chain to cement and CHP industries in the UK and Europe as well as being suitable for use in UK gasifiers as supplied by Refgas Sandycroft. PCR Ltd already have interest in this prototype fuel from Geocycle who have agreed to place trial orders with PCR Ltd in Q1 2018. Geocycle (A Dutch supply company) are responsible for fuels for CHP and Cement plants around the world and actively seek high content and clean mixed plastics for conversion and fuels use.

The aim is for UK waste plastic to be recycled and recovered within the UK.

There is currently pressure on the UK's plastics recycling markets as the major outlet route to China has been severely restricted. This means that it is even more important that the UK recycles and recovers its own waste within the UK. However, there are a number of infrastructure projects taking place in the UK which are still in development and until these are running there is the need to store some materials.

If the anticipated outlets are not in place within 12 months material will be exported to other facilities within Europe or further afield.

11.0 FIRE DETECTION AND SUPPRESSION SYSTEMS

11.1 Fire Detection Methods

There will be a UKAS accredited fire detection system within the building (advice is currently being sought on the most appropriate system such as smoke or heat or temperature or infrared etc) as well as visual CCTV which will be monitored for visual flames or smoke. The fire detection systems will be linked to the 24 hour security at the overall Anglesey site.

11.2 Fire Suppression

If a fire starts it can spread through heat to adjacent materials or through sparks or airborne embers falling onto other combustible materials.

Fire suppression, in the form of sprinklers etc, has been considered for this development. However, water sprinklers may prevent a fire spreading, but will not put out the fire, so other firefighting medium is required to achieve this (see detail below). In order to stop or reduce the risk of fire spreading the layout of the baled plastic waste within the storage building is within discrete storage stacks with fire breaks around all sides of the bale stacks. There are two wider fire breaks (10m) at the two main access points to the building which separate the baled plastic waste into three sections (see drawing CEC/PA/004 revised Feb 2018). This stack separation reduces the risk of fire spreading and thereby further reduces the likelihood of the entire stored materials being on fire at the same time.

In the event of a fire there is the provision for the removal, if it is safe to do so, of unburnt baled plastic waste in close proximity to the fire to be moved, if it is safe to do so, to the quarantine areas thereby further reducing the risk of fire spreading.

In addition the bales will, whenever possible, be placed in a brick pattern rather than simple on top of each other. This will reduce the vertical tunnel effect which can result in fire spread.

Actual fire suppression will therefore be undertaken with fire water hoses and fire extinguishers (see section 12.1 below)

11.3 Fire Box

A fire box is to be maintained at the site access gatehouse with the Fire Prevention and Mitigation Plan, contact names and numbers and a set of drawings showing the locations of the drainage system and layout of the site. This will enable the Fire Service to assess the site more effectively and implement pollution prevention measures in accordance with the EMS and established protocols.

11.4 Firefighting Materials

Plastics can give rise to a range of noxious gases when burned and produce dense smoke and the fire service will decide the most appropriate means of extinguishing the material.

Fire water is available for fire fighting as detailed in section 6. Water hoses are available outside the two main site entrances. Fire extinguishers are available in the building and all the plant is equipped with fire extinguishers.

11.5 Plant and Equipment for fire fighting

There will be materials handling plant on Site ie vehicles delivering and removing the baled plastic, an excavator type piece of plant and at least 2 x fork lift trucks. All vehicles and plant are fitted with fire extinguishers. All plant is maintained and inspected in accordance with the EMS.

This plant will be available on Site if required for use by the fire service. The plant will be fitted with heavy duty pneumatic tyres to enable them to enter the building safely for removal of stock to quarantine areas in the event of a fire. Site staff will be trained in the use of equipment for such an eventuality. In the event of a fire in the storage building the removal of stock would be carried out only were it is safe to do so and under the supervision of the Fire Command at the time. This will reduce the risk posed to life in tackling a fire.

12.0 FIREFIGHTING STRATEGY

12.1 Actions on Finding a Fire

In the event of a fire the Site will be closed to vehicles and only essential personnel will be allowed onto the Site.

All non-essential personnel will be evacuated to the Fire Assembly point (see Plan no. CEC/PCR/007).

As all vehicles delivering waste to the site will come from PCR Ltd's sister site no further vehicles will be sent to the Site until management has authorised that it is safe to recommence and any vehicles on route will return to Deeside facility.

The surface water penstock valve will be closed.

In the event of a minor fire that can be dealt with using on Site extinguishers and hoses this will be undertaken by Site staff BUT ONLY IF CONSIDERED TO BE SAFE TO DO SO. After the fire has been extinguished the Site manager shall investigate and record the causes of the fire and issue instructions to prevent a recurrence.

In the event of a larger fire, where Site staff attempt to extinguish it or start to move non burning material to a quarantine area in order to reduce the risk of

fire spread, the Fire Service and Natural Resources Wales shall be called. The key action in this case will be to prevent the spreading of fire whilst maintain the safety of site operatives.

The management shall close the Site to incoming materials and inform the following if needed (this may depend upon the time of day, wind direction and advice from the Fire & Rescue Service and Natural Resources Wales) :-

Nearby businesses
Adjacent offices
Hospital
Residential properties
School
Adjacent industrial area
Welsh Government for the A55
Network Rail for railway

Contact will be made by phone except for local residents. In this case contact will be made directly by staff visiting the homes of the nearest receptors. For an ongoing fire event and to get ongoing information to receptors at a greater distance contact will be by local radio and television news.

(see Appendix 1 for contact details).

When the fire service arrives they will take over control and direction of staff to use plant and equipment as required. Staff will show the fire service the location of the drainage system to allow for water recirculation.

Staff will assist wherever possible but must maintain a safe distance from the fire and only work under the instruction of the Fire & Rescue Service Command.

Staff will make available all plant and equipment to the Fire Service as needed.

The management will consider whether the booms and sand bags need to be deployed and consideration will be given to contacting external contractors for tanking services, pumps and bowsers etc. (Contacts details below).

Hefin Thomas Agri Contractors	01407 720930 emergency 07554 441915
PAR Contractors Ltd	01248 852379
AE & AT Lewis Ltd	01248 723872

For a fire when the site is closed the Fire Box will contain contact details for the site owner and management. The owner/ manager shall attend the scene and assist the fire service where possible and contact the list above.

Fire fighting techniques
If it was safe to do so staff would, as well as removing unburnt materials to the quarantine areas, use the water hoses to spray fire fighting water over unburnt bales to keep them cool and would also use fire hoses to direct water at the base of the fire to assist in extinguishing the fire.

The removal of burning bales is ***unlikely*** to be a safe operation and so would only be considered under the direct supervision of the Fire Command.

Ongoing discussions would take place between management and Fire Command and NRW with regards to the best method of fire fighting. A controlled burn may be considered to reduce smoke emissions depending upon a number of factors such as wind direction, wind speed, sensitive receptors and quantity of stock on fire etc.

12.2 Containment of fire water and surface water receptors

See section 2.2

13.0 ACTIONS AFTER A FIRE

An assessment will be made, by the management, of the effects of the fire on infrastructure and the pollution risks from the site. If water has been used to fight the fire the manager shall arrange for the removal of contaminated water to a suitably permitted facility. There are a number of contractors who could be used to remove contaminated fire water these include :

Hefin Thomas Agri Contractors	01407 720930 emergency 07554 441915
PAR Contractors Ltd	01248 852379
AE & AT Lewis Ltd	01248 723872

Arrangements will be made for wastes that need to be moved for off site disposal such as ash and part burnt plastic. This would probably be to landfill. The nearest suitable landfill is at Llanddulas and is operated by FCC Environment. This or a suitable alternative site would be contacted regarding taking in the waste.

FCC Environment	0344 7369990

Site infrastructure repairs would be undertaken by in house staff or if needed contractors would be contacted and engaged to undertake the works.

If there is no significant damage to the Site infrastructure the Site would be re opened after consultation with NRW.

Where essential repairs are needed to any pollution control measures, the Site will remain closed until the repairs are completed. The key environmental

controls at the site which need to be in place are security systems, drainage systems and the building infrastructure.

A thorough investigation shall be conducted as to the cause of the fire and appropriate measures put in place to ensure that the risk of further fires is reduced.

14.0 TRAINING AND COMPETENCE

All staff undergo relevant training, covering all relevant aspects of Fire Prevention and awareness etc.

Training needs are assessed as part of the overall EMS for the site and staff members will be trained as needed for their role. This training could include, as required by each role, Fire Awareness training, Fire Marshall training, Fire fighting training, Use of fire extinguishers etc. (see training needs assessment in Appendix 2)

All staff also undergo New Starter training by the supervisor of the work area, this includes, specific, environmental issues associated with their job, emergency procedures etc.

Toolbox talks at various periods include environmental sessions.

In addition to the above, staff have various associated environmental training as part of existing courses & qualifications i.e. Operators Competence Certificate, etc. The site supervisor will be WAMITAB Level 4 qualified.

Refresher training is given on an annual basis.

Any staff undertaking monitoring, recording and reporting for the purposes of fire control are suitably trained and instructed as to their duties.

Regular fire drills are conducted.

This Fire Prevention & Mitigation Plan will be available in hard copy at the Site both within the A frame building but also at the 24hour security gate office so that both NRW and the FRS have access to it during an emergency. It will also be available in electronic form at the company's site at Deeside.

Compliance with Fire Plan

Compliance with the FPMP will be maintained by adhering to the monitoring, inspections and training requirements as detailed in the overall EMS.

15.0 REVIEW OF FPMP

The FPMP will be kept up to date to ensure that compliance with guidance will be maintained to ensure that all details such as contact details are still relevant.

The FPMP will be reviewed on a regular (at least annual basis) but also if :
- there is a fire incident at the Site
- there is any new Site infrastructure
- there is new plant on site
- there are any relevant new activities on site
- there are any relevant changes to site access and surrounding areas.

In any of these events the entire FPMP will be reviewed to ensure that it is current and applicable and relevant.

APPENDIX 1

SENSITIVE RECEPTOR EMERGENCY CONTACT DETAILS

Nearby businesses	**Contact**
Morrisons	01407 763065
Pets at Home	0845 608 0174
The Standing Stones	01470 761350
Wilko	01407 762825
Mon Maintenance Services	01407 764211
Argos	0345 165 7698
B&M	0330 838 9513
Iceland Foods	01407 761072
Tesco	0345 677 9356

Adjacent offices

Orthios	0330 3371125

Hospital

Ysbyty Penrhos Stanley	01407 766000

Residential properties

Contact in person at property or via local radio news for an ongoing event.

School

Ysgol Morswyn	01407 762233

Adjacent industrial area

Orthios	0330 3371125

Welsh Government for the A55

North & Mid Wales Trunk Road Agent	0300 123 1213

Network Rail for railway

Network Rail	03457 11 41 41

APPENDIX 2 Relevant SOPs and Documents from EMS

SOP 1
WASTE ACCEPTANCE PROCEDURE

General
This procedure details the steps to be taken to ensure compliance with the waste permit. The site accepts waste from Paperback Collection & Recycling Ltd's own site at Deeside.

Key Responsibilities

Gordon Anderson has overall responsibility for the operation and running of the site. The acceptance of waste follows several stages and the staff involved at each stage will have responsibility to carry out the operating procedure. Any problems encountered will need to be referred to the site manager or his designated foreman.

Supporting Documents

- Permitted Waste Types List
- Site Permit
- Duty of Care A Code of Practice

Waste Characterisation

Waste will be brought to the site from Paperback Collection & Recycling Ltd's own site at Deeside.

Paperback Collection & Recycling Ltd's Deeside management team will be required to establish if the waste it is proposed to bring to Penrhos will be compliant with the requirements of the Permit.

For wastes with EWC codes and descriptions which are listed below there will be no need to have samples analysed further (they have been produced to a specification) :

19 12 04 plastic

Under the Duty of Care all waste must be adequately described to allow the subsequent holder to deal with it in a way that will not cause pollution of the environment. It is therefore the responsibility of the producer of the waste to characterise the waste before it is accepted at the Penrhos site.

In addition to the production specification being established, there will be a visual examination of the waste before it leaves the Deeside facility and also when it is delivered to Penrhos. This is covered in SOP No 02.

SOP 3
SITE INSPECTION

PURPOSE

The site inspection is to be carried out by the Site Manager or Site Foreman or any other member of staff who has been trained in the requirements of the inspection process. The inspection is to ensure that the site permit is being complied with. Any problems arising from the inspection shall be dealt with to ensure compliance.

Key Responsibilities

Gordon Anderson has overall responsibility for the operation and running of the site and for ensuring that staff are suitably training in this procedure.

Instructions

The following items will be inspected in accordance with the site check sheet. Inspection results and any remedial actions will be noted on the site check sheet. The check sheet will be passed to the site manager or their nominated deputy for action if needed.

- Effective storage of waste
- Condition of the site access road and yard
- Visible dust emissions for the active areas of the site
- Excessive noise
- Any spillages or leakage
- Surface water run off – any problems with drainage system. Check for blockages and operation of penstock valve on point of discharge to surface water (this will be in agreement with Orthios)
- Condition of the perimeter fence and gates
- Evidence of pests and vermin
- General cleanliness of site and dust and fluff near hot exhausts etc and fire exits clear, fire extinguishers and fire equipment
- Temperature of bales
- Moisture of bales

- Fire watch

Site Monitoring, Inspections and Environmental Log

Week commencing..... Site Penrhos

Topic	Mon	Tues	Wed	Thurs	Fri	Sat	Sun	Comments/Observation/Remedial Action
Site Entrances & Notice Board								
Perimeter Fence, Gate, CCTV								
Condition of site roads and surface								
Vermin								
Odours								
Noise levels								
Litter/mud/debris/dust and fluff on equipment								
Drains / penstock valve								
Waste types and quantities								
Waste bales								
Plant breakdowns								
Evidence of fires								
Accidents on site								
Rejected loads								
Weather conditions								
Temp probe See overleaf								
Moisture see overleaf								
Fire exits/fire equipment clear								
Location of plant at end of day								
Fire watch checks at end of day								
Completed by								

SOP 13
MONITORING OF STOCKPILES FOR TEMPERATURE AND STACK ROTATION

PURPOSE

From the Company's experience of this type of waste it is not anticipated that there will be any self heating of the baled plastics. Nevertheless this procedure is to ensure that the site has a system for monitoring the plastic bale stockpiles which ensures any temperature rise is noted and an assessment can be made of any actions which may need to be taken to reduce any fire risk.

Key Responsibilities

Gordon Anderson has overall responsibility for ensuring that sufficient, suitable equipment and suitable training is provided to allow staff to implement this procedure.

PROCEDURE

Paperback Collection & Recycling Ltd will rotate stock to ensure older wastes are not retained for excessive periods. For example, we will process the oldest stockpiles first before using newer stockpiles.

We will record the stack rotation with a simple plan of the site and the date of stack formation and number of bales within each stockpile. This plan will be updated as bales are removed.

Inspection of stored wastes will take place daily. A written record will be made of these inspections on the site check sheet.

The stockpiles will be assessed continuously for any visual emissions during the working day as a matter of course for all site operatives. Any unusual odours from the stack will also be investigated. A temperature probe will be used to record the temperature of the stacks.

Using 2m temperature probe take several readings (minimum of 4 on each stockpile) from a variety of points at the ***core*** of the stockpile. The thermometer will be allowed to return to normal temperature between readings. Each reading will be recorded.

Stacked bales to be tested top, middle and bottom of stack

Record readings – Highest result is the most important.

Action to be taken

Temperature readings over **48 degrees** will require attention to the material. Report this immediately to level 4 Supervisor for remediation.

Baled materials above 48 degrees are to be split and the contents windrow cooled to reduce the temperature to 30 degrees when materials are safe for re-baling.

Splitting of the bales will only be done with the availability of fire fighting water and fire extinguishers which should be ready for use next to the bale before it is split.

Over a week at least 10% of the bales within the warehouse will be sampled.

The manager may reduce the frequency and/or sampling rate if the monitoring confirms that the bales show no self heating. The reasoning for any reduction will be recorded.

If the bales show any **trend of heating** the matter will be reported immediately to the Site Manager for assessment and determination of further action to be taken. Further action could include rearranging stacks, breaking open and cooling bales.

DO NOT WALK ON THE STOCKPILE TO TAKE TEMPERATURE READINGS OR FOR ANY OTHER REASON ONLY USE H&S APPROVED PERSON CAGE AND DO NOT WORK ALONE.

SOP 14
MONITORING OF STOCKPILES FOR MOISTURE

PURPOSE

From the Company's experience of this type of waste it is not anticipated that there will be any self heating of the baled plastics. Nevertheless this procedure is to ensure that the site has a system for monitoring the plastic bale stockpiles which ensures moisture levels are noted so that an assessment can be made of any actions which may need to be taken to reduce any fire risk from self heating.

Key Responsibilities

Gordon Anderson has overall responsibility for ensuring that sufficient, suitable equipment and suitable training is provided to allow staff to implement this procedure.

PROCEDURE

Inspection of stored wastes will take place weekly. A written record will be made of these inspections on the site check sheet.

Use the Delmhorst Moisture Gauge to record the temperature of the stacks.

Take several readings (minimum of 4 on each stockpile) from a variety of points on the stockpile. Each reading will be recorded.

Stacked bales to be tested top, middle and bottom of stack

Record readings – Highest result is the most important.

Action to be taken

Moisture readings over 20 percent may require attention to the material. Report this immediately to the supervisor for further remedial action as supervised.

Turning, churning or spreading of the material if appropriate will dry the material if loose. Baled materials may have to be split to be dealt with efficiently and made safe**.**

The manager may reduce the frequency and/or sampling rate if the monitoring confirms that the bales show no consistent moisture content above 20 percent. The reasoning for any reduction will be recorded.

DO NOT WALK ON THE STOCKPILE TO TAKE MOISTURE READINGS OR FOR ANY OTHER REASON ONLY USE H&S APPROVED PERSON CAGE AND DO NOT WORK ALONE.

SOP 12
HOT WORKS PROCEDURE

Purpose

This procedure details how to undertake hot works on site. This relates to such activities as welding, soldering, grinding and other similar activities.

Hot Work should only be undertaken if alternatives have been discounted, i.e. mechanical fixing, sawing, adhesives etc.

Key Responsibilities

Gordon Anderson has overall responsibility for the operation and running of the site. All hot works activities undertaken on site are under the overall responsibility of the manager. However, the site manager will specify an Authorised Person who will be responsible for carrying out the risk assessment of the Hot Works job. An Authorised Person is someone who has sufficient technical knowledge, training and practical experience of the Hot Work Processes and their associated hazards to undertake a Hot Work Risk Assessment. He/she is responsible for specifying the necessary precautions, e.g. isolations, site preparations, emergency procedures. There will be a senior person carrying out the hot work they are the Competent Person. All staff on site have responsibility to carry out this operating procedure fully. Any problems encountered will need to be referred to the site manager or their designated foreman.

Hot works

The use of a Hot Work Permit is required for all hot work on this site. A Permit-to-Work involves a methodical assessment of the task to identify and specify the precautions to be taken.

The Permit-to-Work should be issued by the Authorised Person responsible for carrying out the risk assessment of the job. He/she is responsible for specifying the necessary precautions, e.g. isolations, site preparations, emergency procedures. The precautions should be discussed with the senior person carrying out the hot work (Competent Person) to ensure that the nature of these and the hazards is clearly understood. It is the joint responsibility of the Authorised Person issuing the Permit and the Competent Person receiving it to fully understand the contents, limitations and scope of the Permit-to-Work and its full implications, prior to commencement of work. The Permit-to-Work should be validated for a maximum of one day only. If additional time beyond the expiry of the Permit is required then this should be formally extended on the Permit-to-Work by the Authorised Person who issued it, or in their absence another appropriate authorised person after reviewing the criteria under which it was issued.

Hot work carried out by contractors should be covered by the same procedures. Method statements should accompany complex jobs. Where

contractors are engaged it is essential that liaison occurs between the site management and the contractor if the hot work might affect the normal activities of the area.

A copy of the Permit-to-Work should be available at the hot work location.

Before undertaking hot works the Authorised Person will need to establish or ensure :

- that a risk assessment of the activity is undertaken and a hot works permit issued. If the Hot Work involves or produces substances hazardous to health, e.g. cleaning solvents, acids, welding fumes etc. then the work must include any additional control measures as necessary under the Control of Substances Hazardous to Health Regulations.
- a suitable area in which to undertake hot works. This will include ensuring that flammable or combustible materials are at a suitable distance from the hot works or are protected from the hot works.
- hot works are not undertaken within 1 hour of the close of the site, unless in an emergency
- only approved and properly maintained equipment is used to undertake the work
- only suitably training staff or contractors undertake hot works
- ensure that fire fighting equipment is properly located and readily available
- ensure good ventilation to avoid the build up of smoke and fumes
- ensure that there will be no transfer of heat from the hot works to combustible items such as through walls, along pipes etc
- during hot works ensure that precautions are taken to avoid accidental operation of fire detection systems
- ensure all nearby personnel are protected from heat, sparks etc

Fire Watch
A fire watcher shall be placed in charge whilst the “hot work” operations are in progress and shall patrol in or about any structure of building close to the “hot work” operations, where the risk of fire may arise. The Authorised Person must inspect the site of the “hot work” operation at least once per day on the dates the permit is valid.

A final inspection of the area will be undertaken approximately 1 hour after the completion of any hot works to ensure there is no smouldering fire and hot areas.

Operational Checklist for those involved in Hot Work
Typical Precautions for Safe Hot Working

1. Care to be taken when using and storing materials used for ignition purposes, i.e. matches, lighters.
2. Hot work equipment is in good repair and adequately secured.

3. All combustible material of a portable nature shall be removed from the site of operations and floors swept clean of combustible materials. Flammable substances such as paints and adhesives must be removed from the Hot Work area.
4. All combustible material remaining in the vicinity shall be either
a) thoroughly drenched with water or
b) cover with damp sand or
c) covered with non combustible sheets – whichever is suitable.
5. Combustible floors, walls, ceilings protected by wetting down and covering with damp sand or covered or screened by sheets of non-combustible material – whichever is suitable.
6. Where work is above floor level, non-combustible curtains or sheets suspended beneath the work to collect sparks.
7. All gaps in walls and floors through which sparks could pass covered with sheets of non-combustible materials.
8. Means for fire extinguishing must be in close proximity to the “Hot Work” operation. If a fire point is not in the immediate vicinity, then portable fire extinguishing equipment must be available at the site of operations.
9. Ensure that the correct Personal Protective Equipment is worn in relation to the task being carried out.
10. Smoke/heat detectors that could be affected by the “Hot Work” operation must either be a) isolated or b) “Bagged off”.
In both cases, site management must be informed that smoke/heat detectors are not in operation. When the work has been completed the smoke/heat detector must be put back into operation.
11. Those concerned have had the nearest fire alarm/telephone pointed out to them and have been told what to do in the event of a fire or other emergency.
12.Any pipes affected have been assessed for hazardous contents or residues, isolated and vented. Precautions have been taken to prevent the release of sparks or other hazardous emissions from open ends. Consider the potential for conduction of heat.

HOT WORK PERMITS ALONE DO NOT COVER WORK CARRIED OUT IN CONFINED SPACES

Hot Work Checklist – to be secured to cylinder trolleys
• Condition of pipes/fittings checked?
• Enclosed fabrications (e.g. tanks, pipes) checked for hazardous contents?
• Combustible materials in area removed
or covered?
• Combustible floors protected?
• Wall/floor openings protected?
• Where is the nearest:
- fire extinguisher?
- fire alarm call point?
- phone?
• Smoke/heat detectors protected – management informed?
• Check for signs of fire after work completed
• In the Event of Fire,

- raise alarm,
- phone 999 - state location,
- use extinguishers if safe to do so.

Duties of the Authorised Person
An Authorised Person is someone who has sufficient technical knowledge, training and practical experience of the Hot Work Processes and their associated hazards to undertake a Hot Work Risk Assessment. The Authorised Person has the following duties:
(i) To assess the risks associated with the hot work activity and it's potential effect on the surrounding area and processes.
(ii) Prepare a permit to work.
(iii) To issue the appropriate documentation to the Competent Person, discussing the practicalities of the safety precautions and control measures required.
(iv) To monitor that during the hot work activity, the work is carried out in line with the permit to work. Where the work extends beyond one day, to extend the permit if the conditions are still applicable.
(v) To ensure that on completion of the hot work the Competent Person has left the area in a safe condition and to cancel a permit if issued.

Duties of the Competent Person
A Competent Person is someone who is trained and experienced in the actual Hot Work activity and has duties as follows:
(i) Ensure receipt from the Authorised Person (Hot Work Assessor) of a Hot Work Permit, prior to starting work.
(ii)Discuss the safety precautions required with the Authorised Person (Hot Work Assessor). Sign for acceptance of the permit to confirm understanding of the requirements and the obligation to carry out the instructions correctly.
(iii)Work in compliance with the job instructions and control procedures.
(iv)Adhere to any provision in the Permit to Work.
(v)Supervise, erect and maintain any barriers, screens or other protective measures.
(vi) Ensure/arrange communication and/or reporting procedures for emergency situations as appropriate.
(vii) Observe all fire precautions.
(viii) Comply with any monitoring required by the documentation.
(ix) Keep the Hot Work Area clean, tidy and free from any combustible materials.
(x) Restrict the use and application of heat to the stated points of work.
(xi) Leave the area in a safe condition if the hot work is suspended. The permit will need to be formally extended or a new permit issued if the hot work is to continue on a different day.
(xii) Comply with any requirements laid down in the Hot Work safety document to carry out a personal inspection after a specified period following the last application of heat.
(xiii) On completion or cessation of the Hot Work,confirm that the Hot Work area is safe and free from any source of ignition or any signs of any

smouldering materials, tidy up the work area, remove/replace any fire fighting equipment, if a permit was issued, sign it off and return it to the Permit Issuer (Authorised Person).

SOP 4
PLANT AND EQUIPMENT

PURPOSE

This procedure is to ensure that the site plant and equipment is operated in a manner which will protect the environment.

Key Responsibilities

Gordon Anderson has overall responsibility for ensuring that sufficient, suitable plant and equipment is provided to operate the facility. The Site Manager is also responsible for ensuring that all scheduled and other essential maintenance is carried out and that the plant and equipment is maintained in accordance with the manufacturer's recommendations. The Site Foreman and Operators of the plant are responsible for completing the checks and notifying the Site Manager of any defects.

Daily Checks Prior to Using and Plant and Equipment

Before using any item of equipment at the start of each day the Site Foreman or Equipment Operative must check the following :

- Check the general condition of the item of equipment
- Ensure that all safety guards (as appropriate) are in place
- Check the condition of cables for electrical equipment
- Inform the site manager or his nominated deputy of any defects

At the end of each working day the Site Foreman or Operative must :

- Check that all equipment is turned off (as appropriate) and left in a safe condition
- Securely lock away all tools and small items of equipment as directed by site Foreman or manager
- Check engine and exhausts are clear of dust and fluff

The Site Manager must :

- Arrange for regular servicing of all items of plant and equipment in accordance with the manufacturer's recommendations
- Arrange for the provision of replacement plant to cover plant being serviced or repaired.

SITE RULES

These rules apply to all persons working at or otherwise entering the site and are in addition to the Site Rules for Drivers. Failure to follow the rules could result in dismissal or expulsion from Paperback.

1. All employees must familiarise themselves with the Site Rules, for Delivery Drivers and ensure these rules are adhered to at all times.
2. All employee and visitors motor vehicles must be parked and remain situated on the main car park by the security gate. Vehicles are not permitted inside the building without the express authority of the Managing Director or the Site Services Co-ordinator. An exception can be made to allow contractors vehicles on site to complete the task they are undertaking.
3. Under no circumstances may employees' private vehicles be driven within the permitted site. Authority must be gained from the M.D or Services Co-ordinator.
4. Nothing is to be removed from the site without the permission of the Managing Director. Any valuables or money found on site is to be brought to attention oft e Managing Director or the Services Co-ordinator.
5. All persons on site must be unaffected and not be under the influence or possession of alcohol or drugs (other than prescribed medication from your Doctor)

   It is your responsibility to inform the management if you are on medication.
6. Failure to comply with regulation 5 will result in dismissal/ expulsion from the site.
7. Only personnel holding an in-house ticket for the site or hold an HGV licence are permitted to operate vehicles on site.
8. Only personnel holding the correct plant/forklift truck licence are permitted to operate these vehicles on site .
9. Vehicles, including but not limited to forklift trucks and HGVs are not to be left running when unattended.
10. Hi Vis clothing, protective safety boots must be worn at all times while on site when deemed necessary additional PPE may have to be worn. All work wear issued to employees must be regularly cleaned/washed and not work in a dirty condition.

11. Paperback employees are to keep all kit on the lockers provided when not being worn; all personal possessions should be putaway.

12. All welfare amenities provided by the Company must be respected at all times and kept in an orderly and hygienic state.

13. Smoking is NOT permitted anywhere on site. Anyone found to be smoking anywhere within the permitted Site will face dismissal/expulsion from the site.

14. No fire, matches, petrol/gas lighters or other apparatus for causing ignition may be used within the permitted Site by any person.

15. All personnel or visiting the Site should familiarize themselves with the location of the FIRE ALARM CALL POINTS, EMERGE CY EXITS, EVACUATION ROUTES and FIRE EXTINGUISHER LOCATIONS. The fire alarm is tested on a weekly basis at time advised to all present proper to the test. The fire assembly point is located on the front car park by the security gate.

16. If the Fire Alarm sounds and you have not been informed that a fire test is taking place; Stop all activities proceed immediately via an evacuation route to the FIRE

1

ASSEMBLY POINT located on the front, main car park area by the security gate and await instruction from the appointed Co-ordinating fire marshal.

17. Upon discovering a fire, activate the nearest FIRE ALARM CALL POINT and follow the instructions shown in 16. All main access doors must be kept clear for Emergency Vehicles. Unless otherwise instructed, NO VEHICLES should be moved once the Fire Alarm has sounded.

18. In the event of a fire no vehicle movements are permitted unless specific instruction has been given by site supervisor or the Fore Commander.

19. In the event of a fire or fire drill all staff and persons on site must remain at the fire assembly point until a roll call is completed unless specific instruction has been given by the Co-ordinating fire marshal. Do NOT

leave the site until authorised by the site Co-ordinating fire marshal.

20. At all times personnel must not deviate from their designated and authorised working/visiting area.

21. Management reserve the right to refuse access to any individual found to contravene site rules, abuse or interfere with equipment or otherwise carry out action considered as misconduct.

JOB	TRAINING REQUIRED (tick boxes to show who needs which training)																		COMMENTS
			Environmental awareness					Maintenance/operations						Accidents and emergency					
	Certificate of Technical Competence	Supervision of waste management sites	Environmental and permit awareness	Waste receipt inc Duty of Care	Waste separation and storage	Site Inspection and monitoring		Maintenance of forklift	Maintenance of excavator					Fire procedure	Spill response procedure	Fire awareness	Failure of services	Fire fighting	
Managing Director		√	√	√	√	√								√	√	√	√	√	
Operations Co-ordinator	√	√	√	√	√	√								√	√	√	√	√	
H&S Supervisor			√		√	√		√	√					√	√	√	√	√	
Supervisor			√	√	√	√								√	√	√	√	√	
Assistant supervisor			√	√	√	√								√	√	√	√	√	
QC Lead Operator			√	√	√	√								√	√	√	√	√	
Site Operator			√	√	√	√								√	√	√	√	√	

EMS REVISION LOG

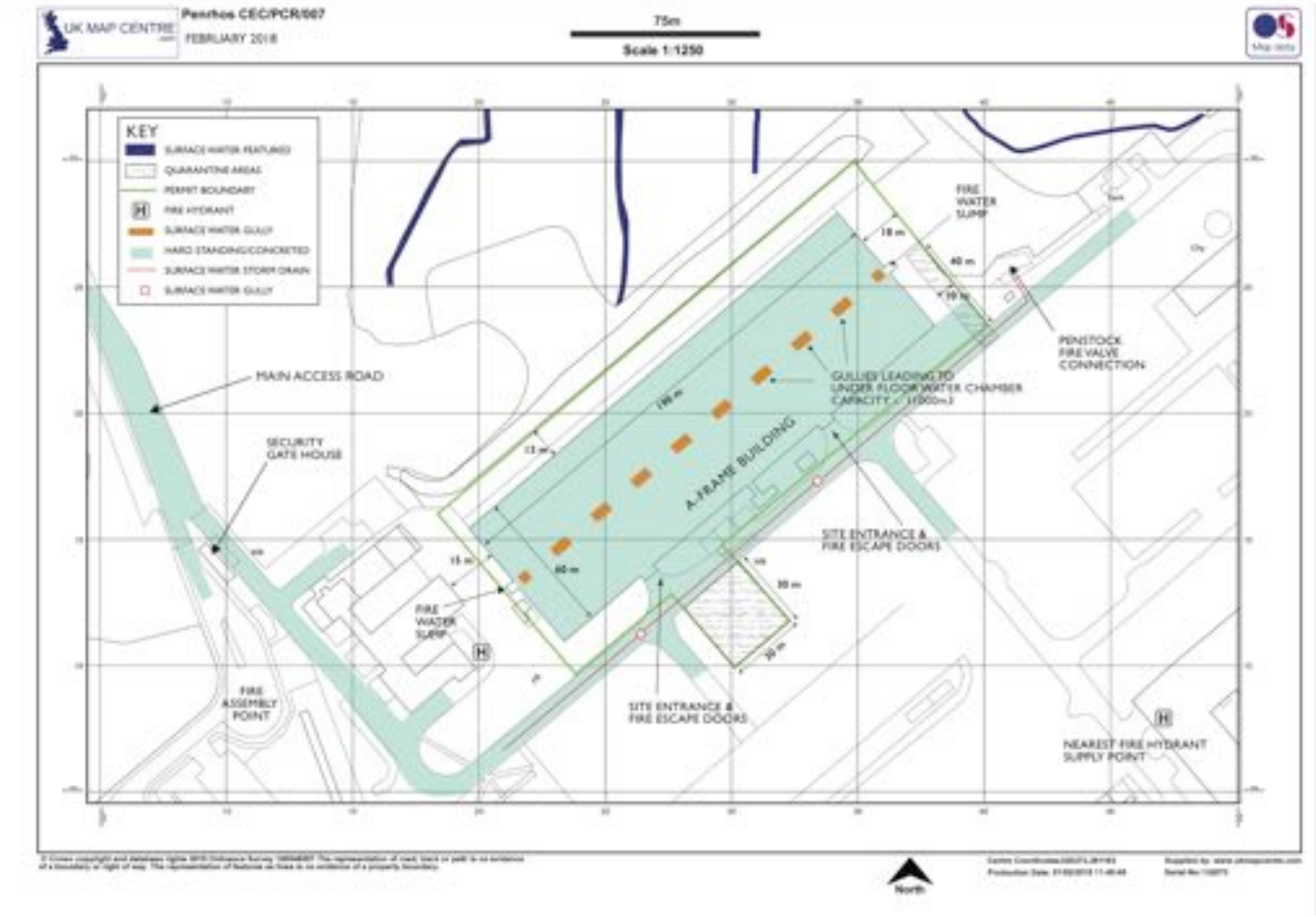
EMS Revision Date	Change details	Document Ref	Date Issued to Employees

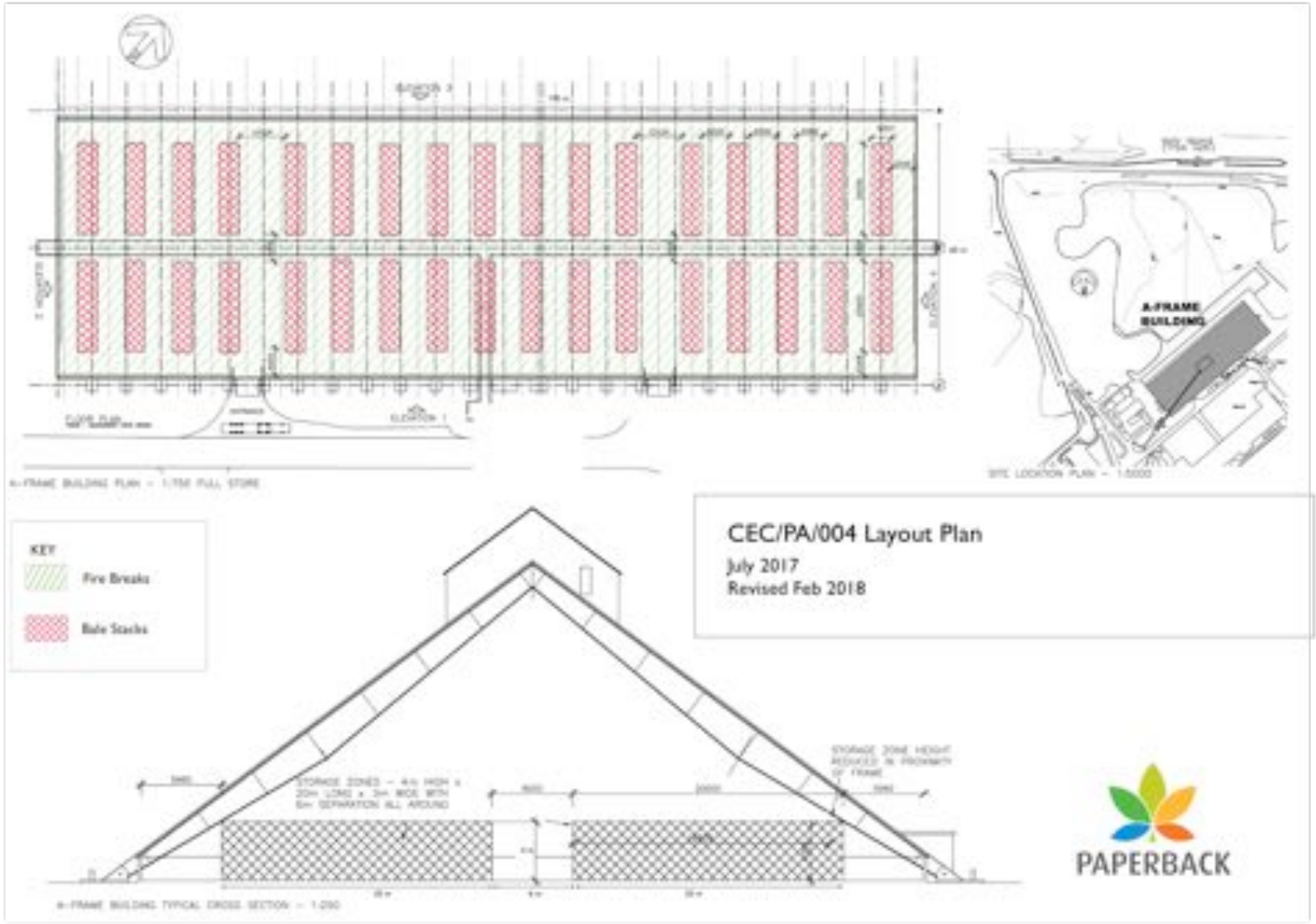
Accident / Pollution Incident Management Plan
Paperback Collection & Recycling Ltd

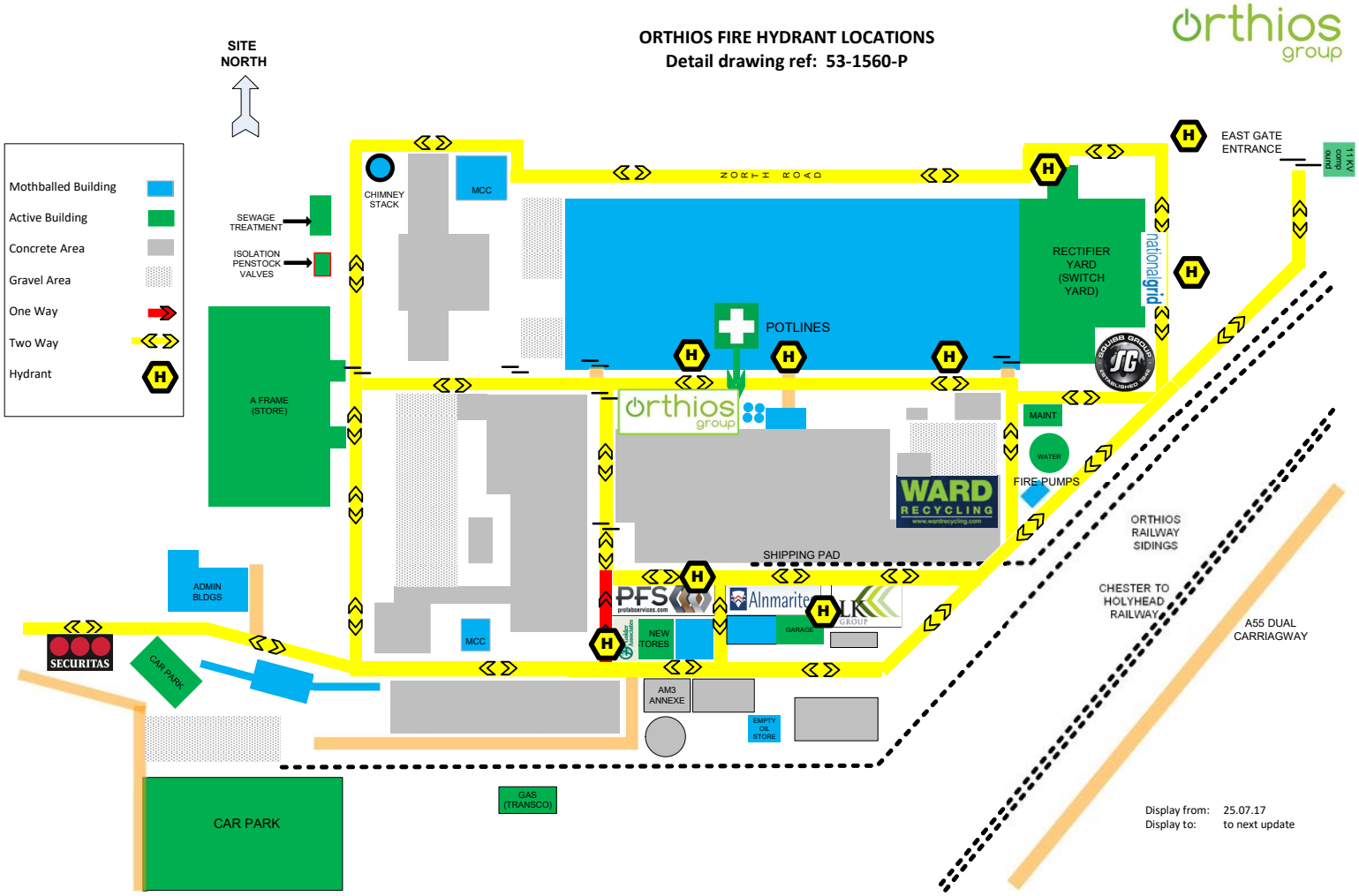
Date: February 2018
Review Date: February 2019
Version: 2.0

Accident / Pollution Incident Management Plan Contents

A – SITE PLANS


UK MAP CENTRE
Penrhos CEC/PCR/007
FEBRUARY 2018
75m
Scale 1:1250
KEY
SURFACE WATER FEATURES
QUARANTINE AREAS
PERMIT BOUNDARY
FIRE HYDRANT
SURFACE WATER GULLY
HARD STANDING/CONCRETED
SURFACE WATER STORM DRAIN
SURFACE WATER GULLY
MAIN ACCESS ROAD
SECURITY GATE HOUSE
A-FRAME BUILDING
GULLIES LEADING TO UNDER FLOOR WATER CHAMBER CAPACITY - 1100m3
FIRE WATER SUMP
PENSTOCK FIRE VALVE CONNECTION
SITE ENTRANCE & FIRE ESCAPE DOORS
FIRE ASSEMBLY POINT
NEAREST FIRE HYDRANT SUPPLY POINT
North


A-FRAME BUILDING
KEY
Fire Breaks
Bale Stacks
CEC/PA/004 Layout Plan
July 2017
Revised Feb 2018
PAPERBACK


ORTHIOS FIRE HYDRANT LOCATIONS
Detail drawing ref: 53-1560-P
orthios group
SITE NORTH
Mothballed Building
Active Building
Concrete Area
Gravel Area
One Way
Two Way
Hydrant
NORTH ROAD
CHIMNEY STACK
MCC
SEWAGE TREATMENT
ISOLATION PENSTOCK VALVES
A FRAME (STORE)
POTLINES
RECTIFIER YARD (SWITCH YARD)
EAST GATE ENTRANCE
11 KV cable
nationalgrid
MAINT
WATER
FIRE PUMPS
WARD RECYCLING
SHIPPING PAD
ORTHIOS RAILWAY SIDINGS
CHESTER TO HOLYHEAD RAILWAY
A55 DUAL CARRIAGWAY
ADMIN BLDGS
SECURITAS
CAR PARK
PFS
Alnmarine
LK GROUP
NEW TORES
GARAGE
AM3 ANNEXE
EMPTY OIL STORE
GAS (TRANSCO)
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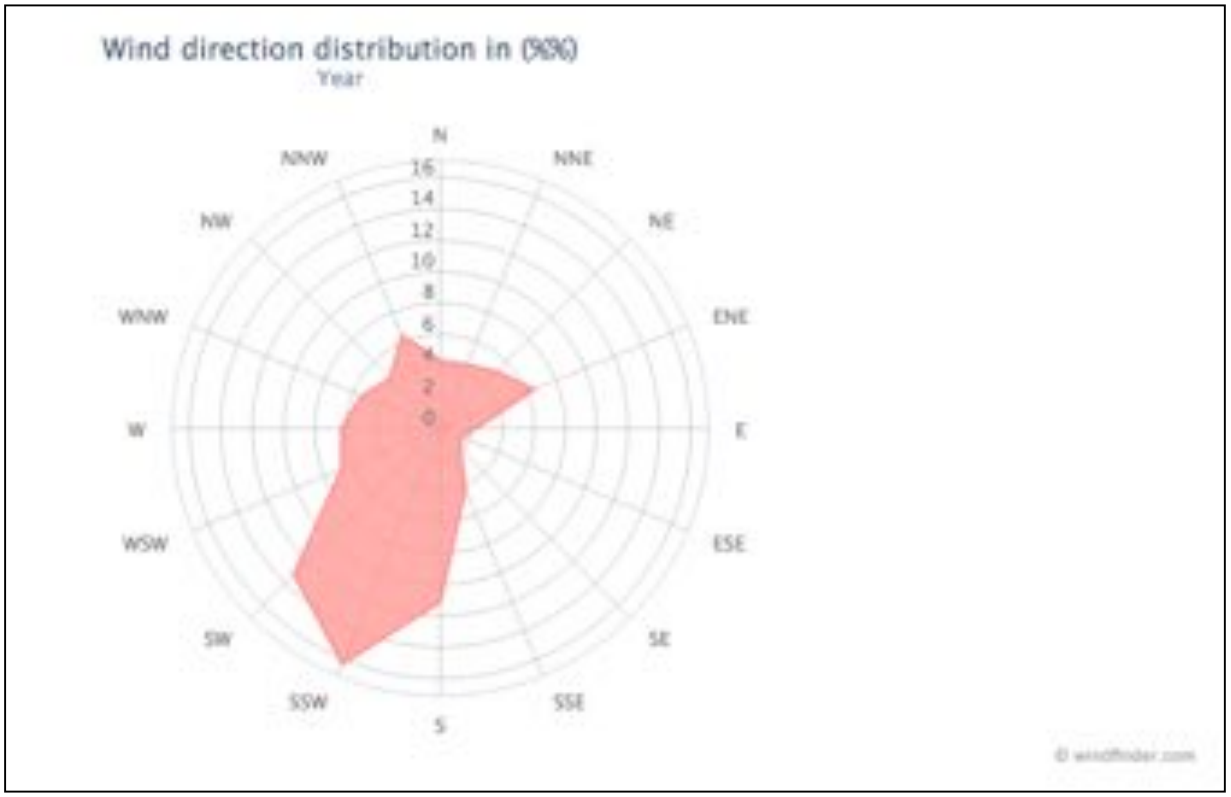
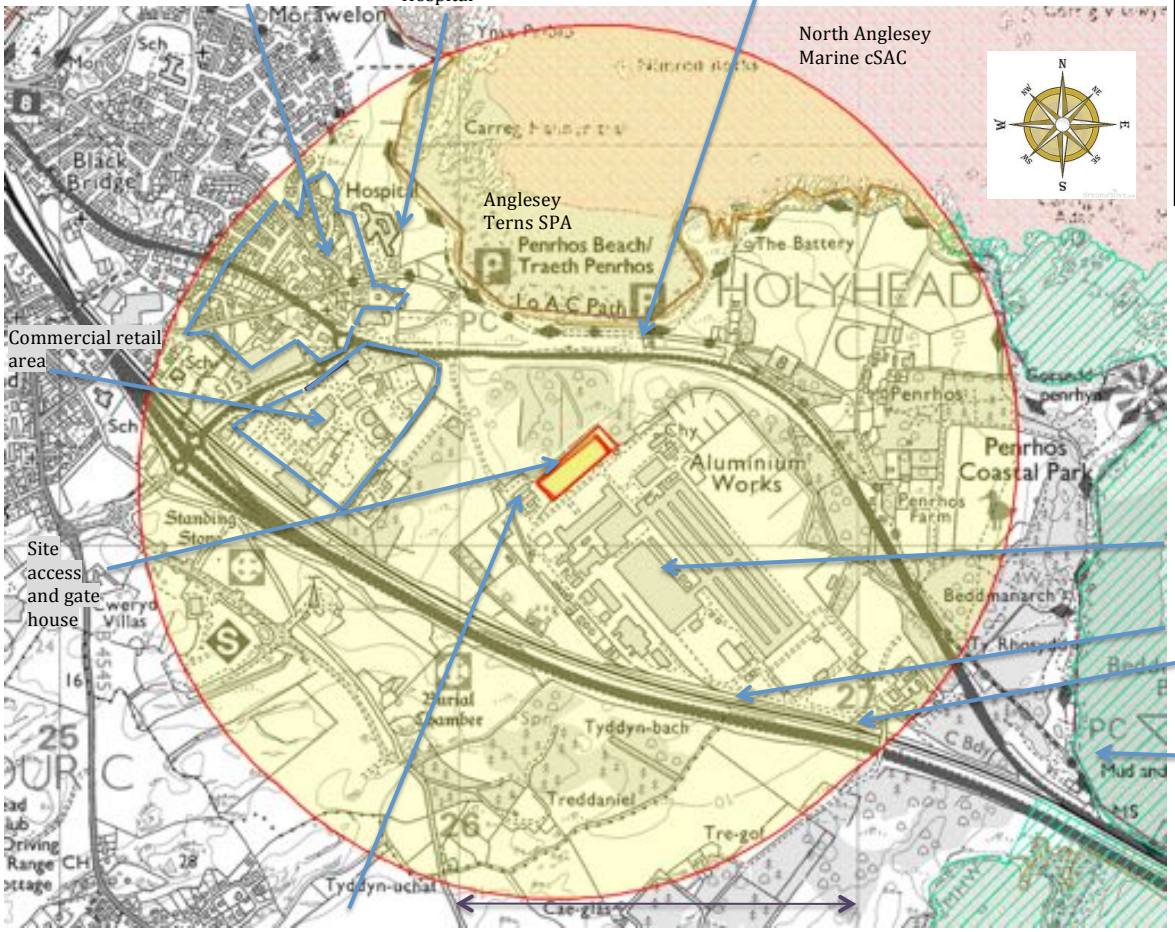
Display to: to next update


Wind direction distribution in (%%)
Year
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
16
14
12
10
8
6
4
2
0



Location Plan and Sensitive receptors

Ref : CEC/PA/002

Date : 16/10/2017

Version 2.0

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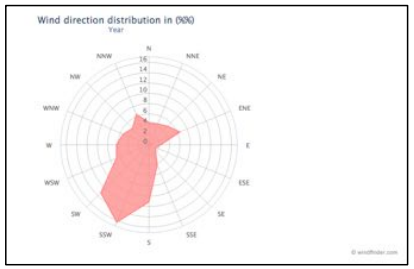


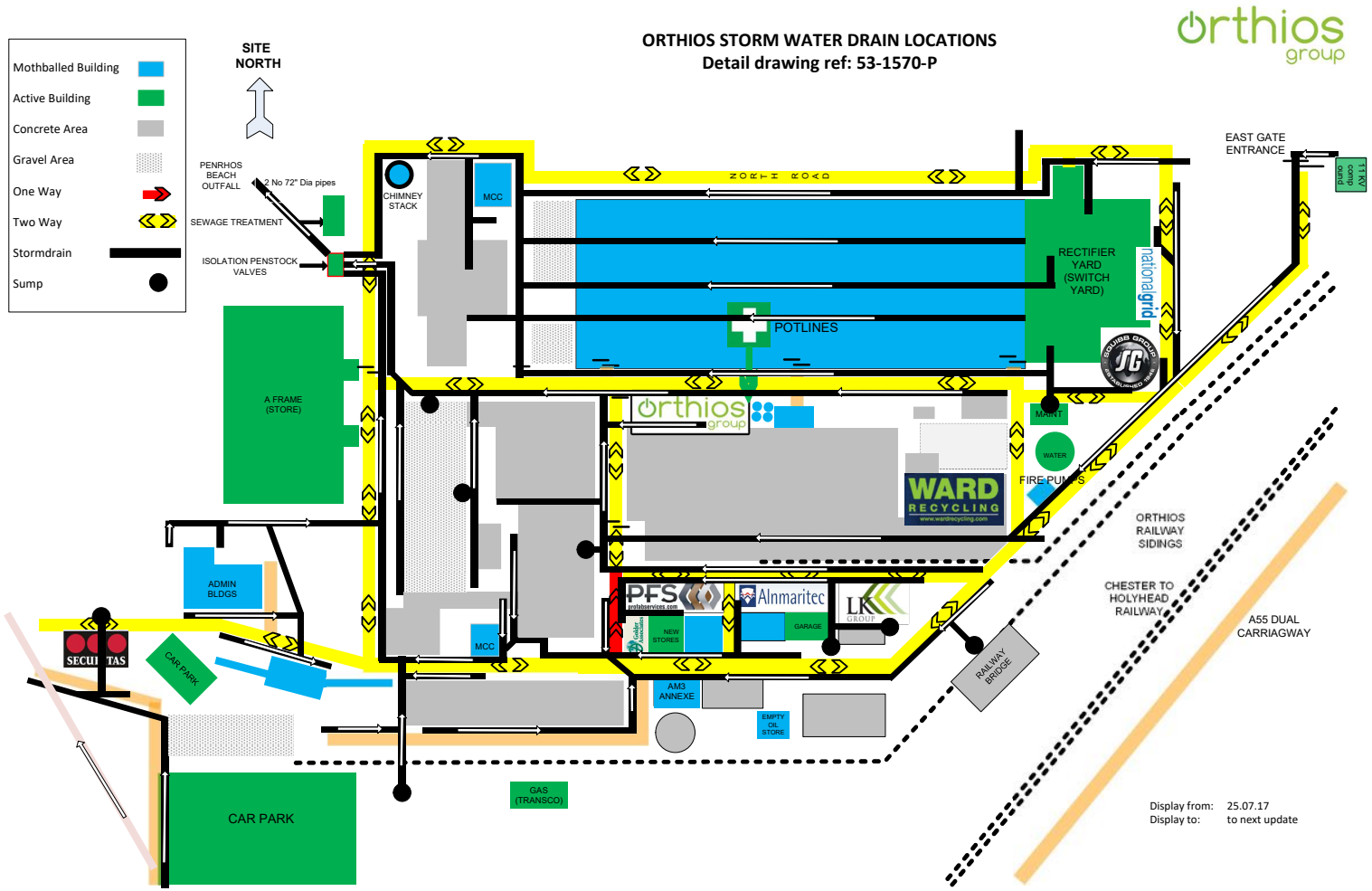
Industrial area

Railway line

A55 road

Beddmanarch-Cymyran SSSI

CERI ENVIRONMENTAL CONSULTING LTD
Specialists in Waste & Environmental Management
SAWMILLS COTTAGE
SAWMILLS, KERRY
Nr. NEWTOWN,
POWYS SY16 4LL
Tel/Fax: 01686 670546
email: enquiries@cerienvironmental.co.uk


ORTHIOS STORM WATER DRAIN LOCATIONS
Detail drawing ref: 53-1570-P
orthios group
Mothballed Building
Active Building
Concrete Area
Gravel Area
One Way
Two Way
Stormdrain
Sump
SITE NORTH
PENRHOS BEACH OUTFALL
2 No 72" Dia pipes
SEWAGE TREATMENT
ISOLATION PENSTOCK VALVES
CHIMNEY STACK
MCC
NORTH ROAD
EAST GATE ENTRANCE
RECTIFIER YARD (SWITCH YARD)
nationalgrid
POTLINES
A FRAME (STORE)
MARKET
WATER
FIRE PUMPS
WARD RECYCLING
ADMIN BLDGS
PFS
Alnmaritec
LK GROUP
NEW STORES
GARAGE
CAR PARK
AM3 ANNEXE
EMPTY OIL STORE
GAS (TRANSCO)
RAILWAY BRIDGE
ORTHIOS RAILWAY SIDINGS
CHESTER TO HOLYHEAD RAILWAY
A55 DUAL CARRIAGWAY
Display from: 25.07.17
Display to: to next update

B – Key Site and Emergency Contacts

This table contains information and contacts you may need in an emergency

SITE DETAILS			
Location: Penrhos Storage, Penrhos, Anglesey			
Postcode: LL65 2UX			
Site Access Grid Reference: SH 26215 81132			
SITE CONTACTS	Name	Office Hours	Out of hours
Owner:	Gordon Anderson	**01244 833370**	07768392242
Manager:	Richard Cooper	**01244 833370**	07583069701
Security Contact:			
Landowner	Orthios		
H&S Supervisor	Tony Whittaker	**01244 833370**	07582533014
EMERGENCY SERVICES		Office Hours	Out of hours
Emergency		999	999
Medical:		999	999
Police:		999	999
Fire:		999	999
REGULATORS		Office Hours	Out of hours
Health and Safety Executive (HSE)		0845 300 9023	0151 922 9235
Local Authority: Gwynedd			
Natural Resources Wales		0300 065 3000	
NRW (24 hour emergency hotline)		0300 065 3000	0300 065 3000
UTILITY / KEY SERVICES	Name	Office Hours	Out of hours
Water undertaker:	Dwr Cymru	Emergency number 0800 052 0130	Emergency number 0800 052 0130
Electricity supplier:			
Oil supplier:	n/a		
Chemical supplier:			
Spill/fire water contractor:	Hefin Thomas Agri Contractors PAR Contractors Ltd AE & AT Lewis Ltd	01407 720930 01248 852379 01248 723872	emergency 07554 441915

Maintenance contractor:			
Electrician:			
Plumber:			
Locksmith:			
Joiner:			
OTHER KEY CONTACTS	Name	Office Hours	Out of hours
Adjacent landowners:	Orthios	0330 3371125	
Neighbours: Nearby businesses	Morrisons Pets at Home The Standing Stones Wilko Mon Maintenance Services Argos B&M Iceland Foods Tesco	01407 763065 0845 608 0174 01470 761350 01407 762825 01407 764211 0345 165 7698 0330 838 9513 01407 761072 0345 677 9356	
Adjacent offices	Orthios	0330 3371125	
Hospital	Ysbyty Penrhos Stanley	01407 766000	
Residential properties	Contact in person at property or via emergency services		

School	Ysgol Morswyn	01407 762233	
Adjacent industrial area	Orthios	0330 3371125	
Welsh Government	for the A55 North & Mid Wales Trunk Road Agent	0300 123 1213	
Network Rail	for railway Network Rail	03457 11 41 41	
Specialist advisors:	Ceri Environmental Consulting Ltd	01686 670546	07751112118

C - LIST OF SUBSTANCES AND STORAGE FACILITIES The following is a list of liquids, powders etc that are stored on the permitted site and could be harmful to the environment if they escape.

Material	Maximum Quantity	Type and size of storage	Type and size of Secondary Containment
Baled plastic	15,000 tonnes	stacked bales	water reservoir below A frame building penstock valve at discharge point

D - PREVENTING ACCIDENTS / INCIDENTS ….. AND WHAT TO DO IF THEY HAPPEN

The following table is a list of the things that could go wrong and harm the environment.

Possible Accident / Incident	What would the harm be?	How do we reduce the chances of it happening?	What to do if it happens
Spillages			
Slow seepage of liquids from imported contaminated materials. Slow seepage can be less noticeable than 'spills'.	Contamination of land, groundwater and watercourses.	Inspect and validate all in-coming wastes. Train the staff . No plant and equipment will be refuelled on site Unauthorised wastes removed as a matter of urgency	Follow the spill response procedure. It describes what to do in the event of a spill and where the kit is kept.
Overfilling			
Overfilling of oil / fuel tanks during delivery.	Contamination of land, groundwater and watercourses.	No fuel/oil tanks on site	.
Failure of Plant or Equipment			
Leakages; due to faulty pipe work, valves, over-pressure, blockages, corrosion, severe weather, ground movement etc.	Contamination of land, groundwater and watercourses.	Plant and equipment maintenance programme	Spill response procedure as described above.
Puncture; of vessels and tanks etc due to impact – such as trucks.		Daily visual inspection and completion of inspection checklist record	
Fire			
Fire from plant and equipment and waste stored	Smoke and pollution, Firewater causes contamination of land, groundwater and watercourses.	No smoking policy. Fire training and emergency drills. Incorporation of fire breaks into site layout and containment of fire water Maintain tidy site and minimise stockpiles .	Follow Fire procedure describing what to do in the event of a fire.
Flood			
Due to ingress of watercourse floodwater, blocked drains, burst water main, use of fire water.	Contamination of raw materials, buildings, land, drainage system, groundwater and watercourses with fire and flood water.	Maintenance of drains No hazardous waste stored on site All waste contained within building	Pump any contaminated water from site to tanker and remove to specialist facility – not likely to be contaminated due to nature of waste on site

Possible Accident / Incident	What would the harm be?	How do we reduce the chances of it happening?	What to do if it happens
Failure of Services			
Due to failure of supply; water, electricity. Due to utility supply being struck and broken / cut.	No significant hazard to environment	.	Repair services asap
Vandalism			
Unauthorised entry and tampering or malicious damage to property, plant and equipment.	Contamination of land, groundwater and watercourses.	Secure gate and perimeter fence. No tanks or valves on site except on plant. Plant and equipment locked out of hours. 24 hours security	Spill response procedure as described above.

Paperback Collection & Recycling Ltd

Fire Wardens – Daily Duties

A Fire Warden's daily duties may include checking that:

- Exit doors are available for use, unlocked and unobstructed.
- Escape routes are clear of storage and combustible materials.
- Fire extinguishers are in position with seals in place.
- Fire safety signs are in position.
- Fire alarm call points are unobstructed.
- Fire-resisting doors are closed and functioning properly.
- Any malfunction of the weekly fire alarm test is reported.
- Any person with a disability who may need help to evacuate is facilitated.
- Any faults on the emergency lighting are reported.

Fire Wardens – Duties in an Emergency

These are generic procedures that apply to most work environments. Please remember to check your site specific procedures for any variations.

On hearing the alarm:

- Instigate the evacuation of your area.
- Check your allocated area to ensure that everybody has left.
- Ensure that anybody with evacuation difficulties is being seen to.
- Proceed to the assembly area.
- Report to the Fire Co-ordinator.
- Take a roll call if appropriate.

Instructions to the Fire Warden

- Take control of the evacuation.
- Collate information provided by other members of staff and Fire Wardens.
- Report to the officer in charge from the Fire Service.
- Notify the officer in charge from the Fire Service;
- If all persons are accounted for.
- Where the fire is located.
- What is involved?
- Other relevant information.

PAPERBACK FIRE SYSTEM TEST REPORT FORM

Alarm activated	11.00am	Action required	
Test completed Date			
Test completed Date			
Test completed Date			
Test completed Date			
Test completed Date			
Test completed Date			
Test completed Date			
Test completed Date			
Test completed Date			
Test completed Date			
Test completed Date			
Test completed Date			

Completed by: Fire Warden

Name

Signature

Fire system test to be completed every Friday 11:00am

PAPERBACK FIRE DRILL REPORT FORM – Date

Alarm activated	11.00am	Action required	
Evacuation completed			
Everyone aware of correct assembly points			
Marshalls Richard Cooper Tony Whittaker			
Visitor book			
Any other points			

Completed by: Fire Warden

Name

Signature

Fire evacuation drills to be completed every month

CONTRACTOR INSTRUCTIONS

Prior to the commencement of any work on site, it is important that you are made aware of our specific requirements in relation to the contract and also our general site rules.

Task Description

Specific Resource Requirements

PPE		Materials	
Staffing		Health and Safety and Fire Prevention	
Equipment		Other	

General site instructions

1. All vehicles using the site must observe the site speed limit at all times.
2. All users of the site must observe all warnings, instructions and information signs at all times.
3. All visitors to the site must wear and use the appropriate Personal Protective Equipment. Specific requirements may be detailed.
4. All work areas must be kept tidy, clean and clear of rubbish.
5. Stairways, walkways, doorways and transport routes must be kept clear at all times.
6. Contractors must report all accidents and near misses.
7. Contractors must observe any additional instructions given to them by an appropriately authorised member of staff.
8. This Site is a no smoking site.

I confirm that the details of the contract and the requirements of the site have been explained to me, and that I understand and will comply with these instructions.

Signed: …….. Date: ……..

Task Monitoring

Deviations & Amendments	
Further instructions	

Task Completion

Quality and Safety Inspection	
Work completed as agreed	

STOCKPILE MONITORING RECORD SHEET

Stockpile assessment e.g. visual/ odour

Ambient temperature	

Date	Stockpile no.	Bale 1 Core	Bale 2 Core	Bale 3 Core	Bale 4 *Core*	Action taken	Staff Initials

STOCKPILE MONITORING RECORD SHEET

Stockpile assessment e.g. visual/ odour

Ambient temperature	

Date	Stockpile no.	Bale 5 Core	Bale 6 Core	Bale 7 Core	Bale 8 *Core*	Action taken	Staff Initials

STOCKPILE MONITORING RECORD SHEET

Stockpile assessment e.g. visual/ odour

Ambient temperature	

Date	Stockpile no.	Bale 9 Core	Bale 10 Core	Bale 11 Core	Bale 12 *Core*	Action taken	Staff Initials

SPILL CONTROL PROCEDURES

For

Paperback Recycling

Created by: M. German

Date: 19th April 2013

Revision Date: 19th April 2014

TABLE OF CONTENTS

PROCESS EXPLANATION

This procedure applies to all areas of the site, both internal and external.

EMERGENCY CONTACTS

Contact	Number
Gordon Anderson	01244 833370
Richard Cooper	07583 069701
Spill Coordinator - Richard Cooper	07583 069701
Fire/Police/Ambulance	999
Environment Agency - Wales	0800 80 70 60
Welsh Water	0800 085 3968
LANES FOR DRAINS.	01244 661691
TONY [illegible] HESAP	07582533014

DEFINITIONS

Minor Spill: A minor spill is one that usually presents little or no hazard to person or property, and is small enough to be safely cleaned up using the emergency spill kit.

Major Spill: A major spill is one that cannot be contained safely with the materials on the site, threatens safety to life, and/or threatens to enter the sewer system or travel beyond the boundaries of building/property to endanger the environment. The Emergency Services shall be contacted.

COSHH/MSDS (Material Safety Data Sheets): A compilation of information on the identity of hazardous chemicals, health, and physical hazards, exposure limits, and precautions

SPILL CONTROL PROCEDURES

The spill coordinator will investigate any spill before evacuating the building or contacting any of the emergency contacts listed previously. The following criteria shall be used to determine the severity of the incident and if the spill or leak should warrant evacuation of the building.

A minor spill is one that usually presents little or no hazard to person or property, and is small enough to be safely cleaned up using the emergency spill kit.

Minor leaks or spills are normally reported by individuals detecting:

- An alarming or offensive odour,
- A small pool of liquid on the ground.

If the minor leak or spill is in an open area and the vapours are being dispersed it will not be considered a significant hazard.

If the vapours from the minor leak or spill can collect in a confined space sufficiently to form an explosive mixture it will be considered a significant hazard and an evacuation must take place immediately.

A major spill is one that cannot be contained safely with the materials on the site and/or threatens to enter the sewer system or travel beyond the boundaries of building/property to endanger the environment.

Major leaks or spill may be detected by:

- The existence of large odour zone and/or vapour cloud.
- A large pool or liquid on the ground.

If a major spill is detected, an evacuation must take place immediately along with notifying the Emergency Services at 999 and the other emergency contacts found within this document.

DISPOSAL

The disposal of waste material resulting from a spill or leak of flammable and combustible liquid is of extreme importance. All disposal actions must be in accordance with the Environmental Protection Act. The following steps should be followed in an attempt to clean up a spill or leak in a safe and secure manner.

The following will be done once the spill has been contained:

1) Apply absorbent material found within the spill kits to the entire spilled area

2) Using a large hand tool (i.e., non-sparking shovel) ensuring all the liquid has been exposed and mixed with the absorbent material

3) Place the used absorbent into a disposal bag and then a non-combustible container. Dispose of material in conformance with the COSHH/MSDS sheet.

4) If the spill is major, consider using external contractors to clean the exposed area and for disposal of the waste material.

SPILL KIT DOCUMENTATION

Type and location of the spill kit and the contents:

- Sand bags
- Absorbant granules
- Nitrile gloves
- Paper media pads
- Goggles
- Non-sparking shovel
-

Note: The spill kits are only to be used by the Spill Coordinator and/or the Acting Spill Coordinator. Monthly inventory will take place to ensure sufficient supplies within the spill kits. After a spill, all used items will promptly be replaced.

STAFF TRAINING

Training of staff is an important part of this plan to ensure the proper containment and disposal of any leaked/spilled liquid. Training to staff on these spill procedures will take place as follows:

- All new employees will receive a copy of the spill procedures
- Within 3 months of employment, all new employees will receive a spill procedure tool box talk. This will include, but not be limited to, a review of the spill procedure document, explanation and location of relevant Personal Protective Equipment (PPE) and shown the spill kit locations, contents and use.
- All existing employees will be given a tool box talk, every 6 months, on the spill procedures as mentioned above or will be part of a Spill Control Drill.

NOTE: The spill procedures will be posted and maintained Foremans Office

EMERGENCY SPILL PROCEDURES FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS

IF THE SPILL CANNOT BE SAFELY CONTAINED USING THE SPILL KIT OR IF THE SPILL IS CAUSING A THREAT TO LIFE OR THE ENVIRONMENT, EVACUATE THE BUILDING AND CONTACT FIRE AND EMERGENCY SERVICES AT 999

UPON DISCOVERY OF A MINOR SPILL

1. ENSURE THE SAFETY OF ALL STAFF AND BUILDING OCCUPANTS

- Warn all surrounding staff and building occupants
- Notify the On-Site Manager (Spill Coordinator). Act as the Spill Coordinator until his/her arrival
- If unsure of the product, consult the COSHH/MSDS sheets
- Wear proper Personal Protective Equipment (PPE) contained in the spill kit
- Attempt to stop the leak or eliminate the source of the spill if safe to do so.
- Eliminate ignition sources and provide natural ventilation

2. CONTAIN THE SPILL: (If safe to do so)

- Use contents of the provided spill kit(s)
- If necessary, ensure all drains are covered to prevent run-off
- Attempt to stop the spread of the spill/leak by using absorbent material to surround the spill
- Once the spill is contained, attempt to soak it up using an absorbent material
- Place the absorbent material in an approved container and dispose of it in accordance with the COSHH/MSDS sheet.
- If any leak/spill reaches the drainage system, contact the appropriate authorities as listed in the Emergency Contact section of the procedures

Location of COSHH/MSDS sheets: _

_____Foremans Office_____