TD TYRE RECYCLING FACILITY, JOHNSTOWN, CARMARTHEN

FIRE PLAN

Report Number 2161r5v1d1021

Permit reference:

Waste returns reference:

Operator:
TD Tyre Recycling Ltd

Site Address:
Plot 7, Cillefwr Road West,
Alltycnap Road,
Johnstown,
Carmarthenshire SA31 3RB

Compiled by:
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1 INTRODUCTION

The first part of this document is intended to provide a ready reference fire plan that is easy to use, includes site drawings and photographs and could be referred to in an emergency.

Emergency contact details are summarised in Table 1-1. A Site Layout Plan is provided in Figure 1.

Table 1-1 Emergency contact details

SITE DETAILS FOR TD TYRES LTD			
Site address: Plot 7, Cillefwr Road West, Alltycnap Road, Johnstown, Carmarthenshire			
Postcode: SA31 3RB			
Operator Tel number (24 hrs): Tony Davies 07967 212469			
Site Access Grid Reference: E239030 N218889 or SN 39030 18889			
What3words location reference for site entrance: weeds.varieties.campers			
NEAREST HOSPITAL	Glanwili Hospital, Dolgwili Rd, Carmarthen SA31 2AF		
SITE CONTACTS	Name	Office Hours (specify)	Out of hours
Landlord	John Williams (Crwbin quarries)	07480 807595	07480 807595
EMERGENCY SERVICES		Office Hours	Out of hours
Emergency		999	999
REGULATORS		Office Hours	Out of hours
Health and Safety Executive (HSE)		0345 300 9923	0151 922 9235
Local Authority:		01267 234567	01267 234567
NRW (24 hour emergency hotline)		0300 065 3000	0300 065 3000
UTILITY/KEY SERVICES	Name	Office Hours	Out of hours
Water undertaker:	Welsh Water	0800 052 0145	
Electricity supplier:	via Landlord		
Fuel supplier:	Oil4Wales	01267 275777	01267 275777
Waste contractor	Cres	01267 223500	01267 223500
NEIGHBOURS	Name	Office Hours	Out of hours
Gordon's garage		07813 969239	07813 969239
Ty Arfryn Care Home		01267 231589	
Residential properties	TBC	TBC	

Appendix 1 documents the background to the fire plan and justifies the measures adopted.

2 FIRE RISK

2.1 Combustible Waste at Site

An evaluation of the operation against the wastes typically found to be combustible, according to GN16, is provided in Appendix 1.

The main combustible waste types at the site are:

- Loose tyres
- Baled tyres

2.2 Flammable and Hazardous Substances

2.2.1 Fuel for Site Plant / Vehicles

Fuel for plant is delivered to the site and stored within a bunded tank located adjacent to mechanical baler. All deliveries are supervised.

2.2.2 Cylinders

There are no routine hot works and no routine requirement for gas cylinders at the site.

2.3 Potential Causes of Fire

Potential causes of fire at the site are evaluated in Appendix 1. The main causes of fire at the site are considered to be:

- Arson
- Electrical shorting of plant

2.4 Ignition Sources

Obvious ignition sources are limited at the site as the following precautions are implemented:

- No smoking on site
- No hot works undertaken
- All potential ignition sources kept at least 6m away from combustible and flammable waste
- All personnel aware of the risks of fires developing and encouraged to actively identify and report fire risks or sources
- Inspections of all wastes and machinery will be made at the start, middle and end of each shift to check for heat or smoke
- All site personnel are trained in fire prevention and fire management
- Emergency procedures are in place

2.5 Self-Combustion

Due to the nature of the wastes and the very short storage duration the risk of self-combustion is considered to be very low. This is evaluated further in Appendix 1.

3 FIRE MINIMISATION

3.1 Waste Acceptance Measures

Fire minimisation starts with robust waste acceptance procedures. Waste acceptance measures are included in the EMS. These are aimed at preventing unauthorised waste, or waste that the site does not have the capacity to treat or store, being accepted.

3.2 Site Layout

The second layer of fire minimisation is setting out and operating the site in a way that separates potential ignition sources from combustible waste and providing adequate separation distances between different wastes. The current site layout shown in Figure 1 indicates separation of the tyre stacks. The site layout is justified in Appendix 1.

The site has:

- A mechanical baler
- A shipping container for storage of tools and small quantities of oil
- Level open areas for safe storage of tyres
- Portacabin offices
- Quarantine skip

3.3 Stack Sizes

The waste typically held in storage at any one time is summarised in Table 3-1. Tyres in stacks will be managed so that the first in first out principle is applied.

Table 3-1 Typical Storage Arrangements

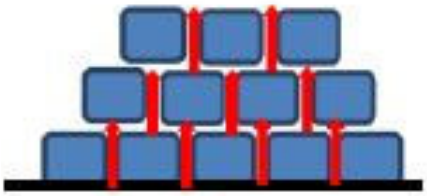
Waste type and form	Amount received daily	Amount typically in storage (maximum stack size)	Typical time in storage	Maximum Stack Dimensions	Separation distance
Loose tyres	~1500	~1500	Typically baled on day of arrival	If needing to be stacked: 4m x 4m x 2m	3m separation between stacks following discussions with FRS
Baled tyres	0	94m^3 is max stack size. Site can accommodate 24 stacks	<1 month	One stack is 94m^3: 5.6m(L) x 5.6m(W) x 2.8m(H)	
Plastic	5tonne/3month	12 bales	<6 months	Stacked alongside tyre bales as required	

3.4 Separation Distances

Separation distances between stacks of tyres will be at least 3m to allow for access at all times. This arrangement was previously discussed between the site operator and the Fire Rescue Service during a site visit with NRW.

3.5 Baled Waste Storage

Where possible, tyre bales will be interlaced to limit the opportunity for the 'chimney stack effect' developing during a fire.



3.6 Use of Bays and Walls

There are currently no plans to enclose stacks at the site. All stacks of waste will be readily accessible.

3.7 Hot Works

Where oversized material is received, a hand-held oxy-propane cutting kit will be utilised to cut the scrap metal to a suitable size. The cylinders will be stored within dedicated cages (oxygen and propane) at least 3 metres apart. The following controls will be utilised during the use of the hand-held oxy-propane cutting kit:

- only trained competent personnel shall undertake scrap metal processing using the hand-held oxy-propane cutting kit
- all equipment shall be checked for leaks and/or damage before use
- appropriate PPE and RPE shall be utilised
- all cylinders shall be fitted with flashback arresters
- the scrap metal will be moved to a safe location for carrying out hot work (a minimum of 6 metres from any combustible or flammable wastes)
- any combustible materials near to the processing operation shall be moved
- after processing the cut materials shall be segregated from on-site stockpiles for up to 30 minutes after hot work finishes (i.e. 30-minute fire watch period)
- suitable fire extinguishers shall be in the area of the hot work
- gas cylinders shall be appropriately stored (in-line with HSE Guidelines) upon completion of the activity
- a fire-watch at the end of each working day

All other hot works are prohibited within the permitted area.

3.8 Other Wastes

No other wastes typically present.

3.9 Waste Stored in Containers in a Building

3.9.1 Oils and Fuels

Small quantities of oils, screenwash and brake fluid are stored in the portacabin offices and bought on an as required basis to limit amount in storage.

3.10 Waste Stored in Containers Externally

3.10.1 Fuel and Oil Storage

Up to 1500 litres of red diesel is stored in a bunded storage tank adjacent to the site entrance.

3.11 Stack Management

TD recognises that the early identification and separation of hotspots can be critical in reducing the severity and spread of tyre fires. The need for active hot spot identification should be overcome by the proposed short storage durations and the free air separation distances to be employed. Throughout each shift all operatives will be encouraged to be vigilant for signs of a hot spot or smouldering material. This would include identifying areas where hot spots may develop and the detection of smoke or odours and/or the presence of steam, heat and heat haze. This is evaluated further in Appendix 1.

3.12 Waste Rotation

Due to the relatively compact size of the site, the successful sustainable operation of the business relies upon rapid turnover of tyres. This helps to ensure that the first in first out principle is achieved and waste is not stored for longer than stipulated in GN16. On this basis, additional waste rotation is not considered necessary under normal operating conditions as the waste is only in storage for very short time periods. For this reason, there is no formal stock rotation management procedure other than ensuring that the oldest tyres are always selected for off-site transfer.

3.13 Alternative waste management options

In the event of a fire and temporary closure of the site, all deliveries will be diverted to alternate tyre recycling facilities. Where feasible, customers will also be requested to retain tyres at their site pending incident response.

3.14 Seasonality

Based on past experience, TD does not consider the operation to be distinctly seasonal. The market for tyres is, however, prone to fluctuations over relatively short time periods. This can lead to short-term changes in storage times but the whole operation is reliant upon rapid turnaround and this will not change.

3.15 Utilities

There are no known utilities at the site apart from electricity. The main electrical box is shown on Figure 1. During their site visits, the FRS have made a plan of the site so that they are aware of the electrical box location.

3.16 Key Infrastructure

There are no overhead transmission lines and no known underground utilities.

The A40 runs west to east 300m north of the site.

3.17 Requirements of Third Parties

The insurance company has not stipulated any specific demands on TD Tyres.

3.18 Plant Storage and Parking

Plant comprises:

- 1 Fork lift telehandler
- 3 vans (LGVs)
- 17.5 tonne lorry

Overnight, all plant is parked at least 6m away from the baler and waste storage area.

4 FIRE DETECTION

4.1 High Asset Value Equipment and Plant

The mechanical baler is the main high asset value item of plant at the site, alongside the fleet of company vehicles. Although the overall aim of this FPMP is to prevent a fire occurring in the first instance, TD has fire extinguishers in the offices and baling area.

Within the baling area fire extinguisher balls will also be placed. These balls are designed to explode following detection of flames releasing a powder that is intended to extinguish or knock back a fire. These comprise a ball shaped device, similar to a football, that have an activation strip embedded into the ball's outer casing. When the activator is exposed to flames, the ball bursts open releasing a dry fire extinguishing agent inside.

4.2 Fire Occurrence During Operations

Visual inspection of the compact site and stored waste will be undertaken daily during operations. This is considered proportionate to the size of site and nature of the waste in storage i.e. whole tyres, not crumbed.

The aim of these inspections will be to identify obvious evidence of fire or potential fire. Steam is considered a good early indicator for the waste accepted.

At the end of each shift, all site areas will be inspected with the inspection aimed at identifying indications of potential hotspots. The inspection will aim to identify such areas by detection of smoke odours and/or the presence of steam, heat, heat haze and smoke.

Any signs of a hot spot will trigger action to minimise fire spread.

4.3 Fire Occurrence Outside of Operating Hours

The FRS has been provided with contact details for all key TD tyre personnel and so contact can be made between the emergency services and TD management at any time.

To prevent significant fire spread during an out of hours incident, separation distances will be maintained, fire extinguisher balls will be installed at key locations and a large quarantine area always available.

5 EMERGENCY PREPAREDNESS

5.1 Emergency Escape Routes and Assembly

The site is rectangular with only one point of access and egress. The offices are adjacent to the site entrance.

Emergency evacuation routes are indicated on Figure 2. In the event of a fire all personnel would exit the site via the only point of access / egress and muster at the assembly point, next to the site entrance.

5.2 Fire Rescue Service Access

A minimum width of road of 3.7m and clearance height of 3.7m will be maintained at all times to the site. This is required for efficient operation of the site during day-to-day operations and will provide good access for the FRS. Site access will always be kept clear.

5.3 Off-Site Emergency Grab Pack

Adjacent to the site entrance, a secure box will contain a copy of this fire plan. NRW and FRS will have coded access to the box.

5.4 Protective Clothing and Pollution Control Equipment

Adjacent to the site offices and entrance, a marked box will contain:

- Fire Marshall high viz vest
- Spare PPE - (nitrile gloves, PVC gauntlets, overalls, overshoes, safety goggles)
- Additional Fire extinguishers and fire balls
- Spill kits with absorbents (granules) and small booms
- First Aid Kit
- Additional Copy of FPMP
- Disposal bags
- Cable ties
- Duct tape
- Spare drip trays
- Emergency signage
- Tool box

Alongside the site entrance will be larger pollution control kit:

- Empty Skip (sealable)
- Sand bags
- IBC water bombs

5.5 Quarantine

In the case of a fire outbreak or identification of hot / steaming materials, the waste will be moved into the quarantine area wherever safe to do so to isolate it during an incident. The

location of the fire quarantine area is shown on Figure 1, although in an emergency any empty part of the site or skip will be used.

The large quarantine area can readily accommodate a full stack.

5.6 Occupied Buildings

During office hours there may be people in the site office or in external areas.

5.7 Site Traffic Movements

There is limited traffic movement and traffic control is relatively straightforward and naturally self-limiting by space availability and the position of the site entrance. This restricts vehicles to crawling speed whilst they are on site and as they enter and leave. All vehicles access and leave the site via the same point after reversing into or turning in the yard.

5.8 Prevailing Wind

Based on the experience of the operator, the prevailing wind direction experienced at site is typically from the southwest and west.

6 FIRE RESPONSE

6.1 Response Plan

The sequence of these steps may vary according to the nature and circumstances of the fire emergency, but priority will always be given to the safety of staff and visitors, followed by the prevention of impact on infrastructure and identified local human or environmental receptors. TD will follow the instructions of the FRS and provide plant, personnel and financial resource as required. As part of the preparation of this plan, the FRS have been consulted.

The following procedures are to be followed on the discovery of fire or smoke. The steps are numbered sequentially but in reality, they will likely be implemented in parallel by different members of staff.

Raise Alarm

1. Upon discovering smoke or fire personnel will raise the alarm by shouting to each other as the site is small. Evacuation will be through the single site entrance.
2. The person discovering a fire should inform the Site Manager immediately and provide an assessment of the situation. The Site Manager must immediately go to the vicinity of the fire (if considered safe to do so) to assess the situation and decide upon a course of action.
3. If safe to do so, the burning waste will be isolated from other wastes using telehandler. This may involve placing into an empty skip or dragging / moving the waste away from other wastes and infrastructure into the quarantine area or open area of the site.
4. All plant will then be moved to safety and turned off and all electrical items isolated. The electrical power to the site should be turned off if safe to do so.

Evacuate and Call 999

5. The person discovering a fire should then call the fire brigade on ''999" providing details of the fire's location and scale.
6. All non-essential persons should be instructed to leave the area and report to the designated Assembly Point on Figure 2. As this is next to the site entrance, a direct escape route should be followed. Persons evacuating must obey Site Managers instructions, ensure other workers also evacuate, assist any person who needs help (if safe to do so), not stop to collect any personal belongings, proceed directly to the Assembly Point and remain there until officially instructed otherwise.
7. The Site Manager and other trained personnel should access the Pollution Control Box and don the high viz Fire Marshall jackets and grab fire extinguishers / fire balls.
8. The signage informing customers that the site is temporarily closed should also be grabbed from the Pollution Control Box and erected at the site entrance. A staff member wearing a high-viz vest should staff the entrance and re-direct any deliveries to other sites and direct FRS as they arrive.

Roll call

9. The Site Manager will collect the roll call list and confirm the presence of staff and visitors at the assembly point.

Trained personnel tackle fire or stop its spread

10. If safe to do so, the person or persons discovering the fire should seal off the area and fight the fire using appliances provided. Persons with no specific training are not expected to fight a fire.
11. Where possible, machine operators are to move their machines to a safe area only returning to assist in the separation of waste to the quarantine area (to limit fire spread)

and placement of skips / IBC water bombs at the direction of the senior fire officer or Site Manager.
12. If it is safe to do so, a search of all work areas of the site will be undertaken by the Site Manager to ensure that everybody has evacuated the site.

Update FRS upon arrival

13. Upon arrival, the Site Manager will issue the FRS with a copy of the Fire Plan. The FRS will assume control of the situation and all instructions/advice given by them will be followed. A copy of the Plan will also be available in a safe box fitted with a combination padlock on the external wall of the site.
14. The Site Manager/Supervisor is to advise the Officer in Charge of the emergency services if someone is missing.
15. After all occupants are evacuated and visitors and staff are accounted for, wait for the 'all-clear' from the FRS before returning staff to any affected area.

Post Incident Investigation

16. The Site Manager is responsible for ensuring the conditions that led to the fire are investigated (in association with the FRS, Police and NRW as appropriate). The Manager is also responsible for ensuring plant is safely recommissioned, accident plans and management systems documents are reviewed and improved, training requirements for staff personnel are reviewed and that any remedial measures (including further fire reduction measures and new procedures) are implemented.

6.2 Specialist Support

In addition to in-house resources, TD can call on CRES waste management, based directly opposite, to assist with post incident site management and clean-up.

6.3 Additional Financial Resources

Additional finances will also be made available for additional resources and site clean-up. The company credit card will be available with a balance of several thousand pounds readily accessible.

All staff members can be contacted 24/7 and most live within 20 minutes of the site.

7 EXTINGUISHING SMALL FIRES

All personnel will be trained to tackle a small fire with the aim of extinguishing or knocking back until the FRS attend site. This will primarily involve personnel using fire extinguishers, fire balls, IBC water bombs and plant / skips to isolate burning waste.

7.1 Fire Extinguishers

Fire extinguishers are red with a coloured label to indicate their type. The different types of fire extinguishers are intended for use on specific classes of fire. The fire extinguishers to be deployed are summarised in Table 7-1.

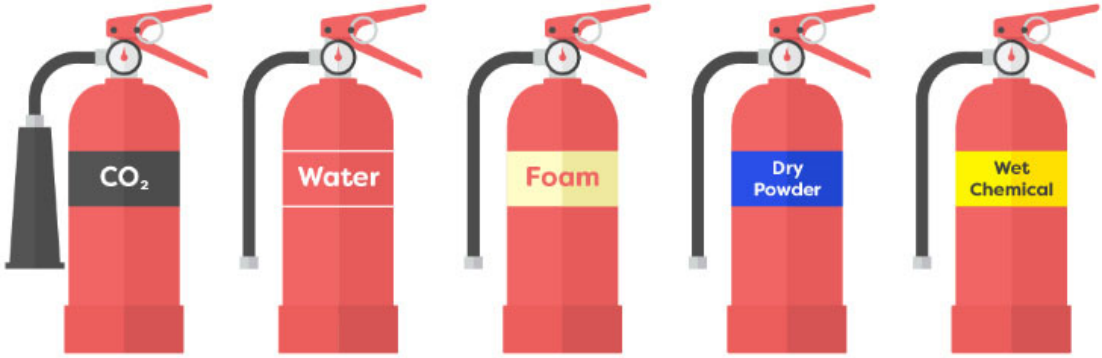


Table 7-1 Suitability of Fire Extinguishers

Extinguisher Type	Class A Organic Materials (e.g. Paper & Coal)	Class B Flammable Liquids (e.g. Petrol & Paint)	Class C Flammable Gases (e.g. Butane & Methane)	Class D Flammable Metals (e.g. Lithium & Magnesium)	Electrical Electrical Equipment (e.g. Computers & Servers)	Class F Cooking Oils (e.g. Olive Oil & Fat)	**Location at site**
Water	✓	X	X	X	X	X	Site office
Dry Powder	✓	✓	✓	✓	✓	X	Site office Baler

Each fire extinguisher will be fully charged and ready for use at all times.

Fire balls, containing dry powder, will be deployed in the baling bay and oil / fuel storage areas.

7.2 Fire Extinguisher Balls

Automatic fire extinguisher balls are to be installed in the building with spare balls to be available in the Pollution Control Box for use as fire extinguishing 'grenades'. The aim of the

approach is to limit the need for FRS to enter buildings where there is no life at risk and to have an automatic fire suppression system that either extinguishes the fire or knocks it back to limit spread.

7.3 Fire Separation

In the event of a fire, suitable plant (with fire resistant hydraulics) would be used by trained personnel to separate potentially hot / burning wastes during the early stages of a fire incident and work, as directed by FRS, during a major incident. All personnel live within close proximity.

Personnel will be informed of the use and limitations of firefighting equipment available onsite and undertake practical exercises. Records of this training will be included in the operating record for the facility.

7.3.1 IBC Deluge ('Water Bombs')

The site will be equipped with 5 x (1000L) IBCs filled with water which, in the event of an incident will be quickly hoisted by the on-site telehandler and dropped on to any small fires/hot spots (one by one and only if safe to do so and under direction of a competent person or the FRS where relevant). Alternatively, the water in the IBCs may be used to quench small burning items if they were encountered. These water deluge 'bombs' will provide an instant large volume of water to aid the extinguishing of a fire (especially in the early stages). These will be clearly labelled and covered with a loose lid and stored adjacent to site entrance.

7.3.2 Quenching

Used in combination with a skip, the water from the IBCs could alternatively be used to form a water bath for quenching hot or burning waste in a skip. The skip could also be topped up. This would provide a rapid and effective means of cooling, quenching and isolating waste whilst significantly reducing fire water demand.

8 FRS FIRE WATER SUPPLY

8.1 Requirements

According to GN16, a 300m^3 stack comprising of wholly combustible material would normally require an average water supply of at least 2000 litres/minute for a minimum of 3 hours. This is equivalent to ~7 litres / minute / m^3 of waste.

The largest stacks will have a volume of 94m^3. This means that according to the GN16 calculations ~625 litre/minute for a minimum of 3 hours would be required.

8.2 Reducing Demand

Consideration has been given to reducing fire water demand.

8.2.1 Small Stack Sizes

Small stack sizes have been integrated to the site layout. This minimises the amount of fire water required and reduces possibility of fire spread.

8.2.2 Separation

Separation of burning material from unburned material will be one of the first steps taken during an incident. This will immediately reduce the volume of fire water potentially required.

8.2.3 Quenching

If burning waste were to be placed into a skip, the overall fire water requirement would be expected to be significantly reduced as some of the waste would become submerged and the fire would be contained in a fixed volume. As such processes do not occur to the same extent in a loose stockpile, the fire water demand would be expected to be much lower.

8.2.4 Suffocation

Sand bags are to be kept on site in the Pollution Control Box to enable small fires to be rapidly suffocated without generating fire water. Skips will also be available to aid such actions.

8.3 Water Supply

8.3.1 Fire Hydrant

There is a hydrant located immediately outside the site entrance at grid reference E238984 N218929, as shown in Plate 8-1. The FRS is aware of this position and Welsh Water has confirmed that it is in working order. Welsh Water has confirmed that there is 40m/h pressure (4 Bar) at the hydrant and that the hydrant is a Series 19 Aqua Gas hydrant and is in the process of being retrofitted. They are currently producing a clamp for this particular hydrant to remove any risk and meet British Standards. This hydrant is readily capable of fulfilling the fire water demands for the largest stack.

Plate 8-1 Fire hydrant adjacent to site entrance

9 FIRE WATER MANAGEMENT

The overall approach to fire-water control is to minimise generation and 'control at source'. The layout of the site is intended to minimise fire spread and the first actions to be taken when a fire is identified is to separate burning material from unburnt material. These actions are intended to minimise overall fire size and therefore the amount of potential fire water generated during its extinguishing.

9.1 Fire Water Control

Fire water run-off has the potential to contain harmful combustion by-products, fire-fighting chemicals or un-combusted waste materials washed from the site. The volume of water involved and the subsequent dilution of these compounds will vary based on the scale and nature of any fire. Minimising potential impacts to the environment and local infrastructure is a key consideration of this FPMP and has been integrated to the design of the facility.

During a fire incident, any fire water sprayed onto the site would pond on the low permeability hardstanding and flow towards the site entrance and perimeter bunding. To enclose the run-off, sand bags would be placed across the site entrance.

9.2 Fire Water Management

During and following an incident, TD would work with NRW and CRES to determine the most appropriate route for fire water disposal. This decision making would likely be informed by visual inspection of the fire water, discussion with FRS to understand if any additives had been added during the fire fighting and testing to determine fire water chemistry. The outcome may involve off-site tankering or discharge to sewer.

10 DURING AND AFTER AN INCIDENT

10.1 Potential Impacts of Fire

Waste fires can cause significant direct and indirect harm to people, the environment, commercial activities and public resources. Impacts may include:

- Use of firefighting resources that cannot then tackle other emergencies (not related to waste)
- Release of airborne smoke and particulates. This can smother vegetation and cause risk to human health through inhalation
- Transport of potentially contaminated firefighting fluids to drainage systems and controlled water (surface water and groundwater) which can impact water quality and wildlife
- Explosions and falling debris may result in physical harm to humans and infrastructure
- Use of firefighting resources that cannot then tackle other emergencies (not related to waste)
- Heat and flames can directly harm people, infrastructure and the environment
- Loss of business

On-site and off-site impacts of a fire can be influenced by a number of environmental factors. These include wind direction and rainfall and also run-off and presence of surface and groundwater.

10.2 On-site Assets

Although the assets are of economic importance, TD recognises that these items can be replaced and that, at no time, should personnel or the FRS risk human life in their protection.

10.3 Business Continuity

The un-announced immediate closure of the site would cause temporary disruption with tyres diverted to alternate outlets and / or retained at customer facilities.

10.4 Human and Infrastructure Receptors within 1km of site

There are residential properties and a care home directly south of the site and several commercial neighbours. These are shown on Figure 3.

Following the incident, the Managing Director will meet with the neighbours to explain what has happened and the steps that will be taken to minimise fire risk in the future. The neighbours will also be encouraged to provide feedback that would be accommodated in the FPMP.

10.5 Removal of Solid Fire Waste

Following any fire there is likely to be burnt or partially burnt waste and/or their materials requiring off-site waste management. This will prevent potential future emissions to land and/or water.

Each of these waste types will need to be classified in accordance with WM3 and appropriate Duty of Care implemented at all stages. This may require the waste to be sampled and tested.

Until the waste is fully classified, the waste will be monitored and assessed for residual/ smouldering fires in an area separate from other wastes e.g. quarantine. This will be achieved by turning the waste, if possible and safe. During this process, the waste will be inspected for residual sources of heat and smoke. Where suitable, and agreed with NRW and FRS, waste that is still hot may be laid out into a thin layer using heavy plant and then quenched with cooling water.

10.6 Becoming Operational Again

The precise actions required following an incident will be dependent on the scale of any fire. Protection of the environment, specifically groundwater, will be prioritised and the clean-up operation will be carried out in full consultation with NRW. Permitted activities will not re-commence without NRW approval.

Before the site becomes operational following a fire incident, the site will be cleared of all fire wastes, fire waters and all relevant infrastructure will be inspected for damage that may have been caused. This will include structural assessments of all infrastructure and buildings.

Following an internal review of the cause of the fire the findings will be integrated to an updated FPMP. Such a review would also accommodate any observations made by NRW, FRS or other third parties.

10.7 Notification of Fires to NRW

After any fire related to waste management activities that cannot be extinguished within 10 minutes of discovery occurs, NRW will be notified.

The notification will include:

- Contacting by telephone as soon as possible, but no later than 4 hours following fire discovery, and
- Providing a written description of the cause and extent of the fire and the resulting fire response within 14 days of fire detection

The facility will provide NRW with as much information as possible regarding the fire and fire-fighting efforts, as soon as possible after the fire occurs.

The fire prevention and fire control procedures for the facility will be revisited following the occurrence of a significant fire to determine if modifications are warranted.

11 REVIEW AND MONITORING

11.1 Routine Review

Each year this FPMP will be subject to review. This will be aimed at ensuring that the procedures implemented on site match those documented in the FPMP.

11.2 Monitoring

The following Key Performance Indicators will be used to monitor the effectiveness of this FPMP:

- Number of fires recorded annually / number of fire related incidents
- Achieving set schedules and time frames (evacuation drills and building audits)
- Measuring the number of Fire Service call outs against cause
- Number and nature of enforcement, alterations or prohibition notices from statutory authorities
- Quarterly / six monthly/ annual premises inspection and meetings to ensure actions and progress are made
- Annual audit of all fire systems by external party

Fire extinguishers would be subject to monthly visual inspection to check for damage and accessibility and annually tested and serviced, as required, in accordance with manufacturers requirements.

Fire extinguisher balls would be replaced in accordance with manufacturers requirements.

11.3 Audit

TD recognises that it is important for the day-to-day activities to implement what is written in this FPMP to manage fire risk. Therefore, in addition to the pro-active monitoring programme, a planned programme of internal and external audit will be implemented. Internal audits will be undertaken quarterly and external audits annually and coupled to the annual review. The findings of all audits will be documented. During the audits, the following aspects will be evaluated:

- Paperwork & Records – Maintenance schedules, daily fire checks, staff training, transfer notes, stock rotation, location and site plans
- Procedures - Waste Treatment, waste acceptance, ignition sources, dust management, integrity of infrastructure
- Prevention – check of stockpile sizes, detection systems, fire walls, suppression system and site security
- Emergency Response - Containment, disposal of waste, firefighting equipment, water supply

A compliance assessment may not be limited to these areas, but it gives a good indication of what an assessment may comprise.

11.4 Update following Incident

In addition to the regular annual review and six monthly monitoring and audit, this FPMP would be reviewed and updated where necessary following a fire incident. This could be following discovery of a minor fire where the FRS was not called or did not need to assist or following an incident where the FRS lead the fire-fighting.

A review would also be prompted if the activities at the site changed, if the waste types accepted changed, if waste volumes accepted increased or if new infrastructure (buildings or plant) was installed.

All aspects of the FPMP would be available for review during any update or review. Focussed attention would, however, be made to ensure that the document captures potential changes to the risk of fire occurring and additional preventative and management techniques required.

11.5 Communication of Plan

All staff will be trained on the relevant sections of this FPMP during their induction training and this training will be refreshed annually or after any amendment to the FPMP, whichever occurs soonest. Training will be recorded in each individual employees training records.

All contractors will be made aware of the key elements of the FPMP. This will be recorded in the Site Induction Training file.

All training on the FPMP will focus on the actions necessary to:

1. Prevent a fire occurring; and
2. Actions necessary if a fire breaks out.

USEFUL RESOURCES

Waste Industry Safety and Health Forum (WISH) – WASTE 28 Reducing fire risk at waste management sites issue 2 – April 2017
https://wishforum.org.uk/wp-content/uploads/2017/05/WASTE-28.pdf

WISH - https://wishforum.org.uk/

Regulatory Reform (Fire Safety) Order 2005
http://www.legislation.gov.uk/uksi/2005/1541/pdfs/uksi_20051541_en.pdf

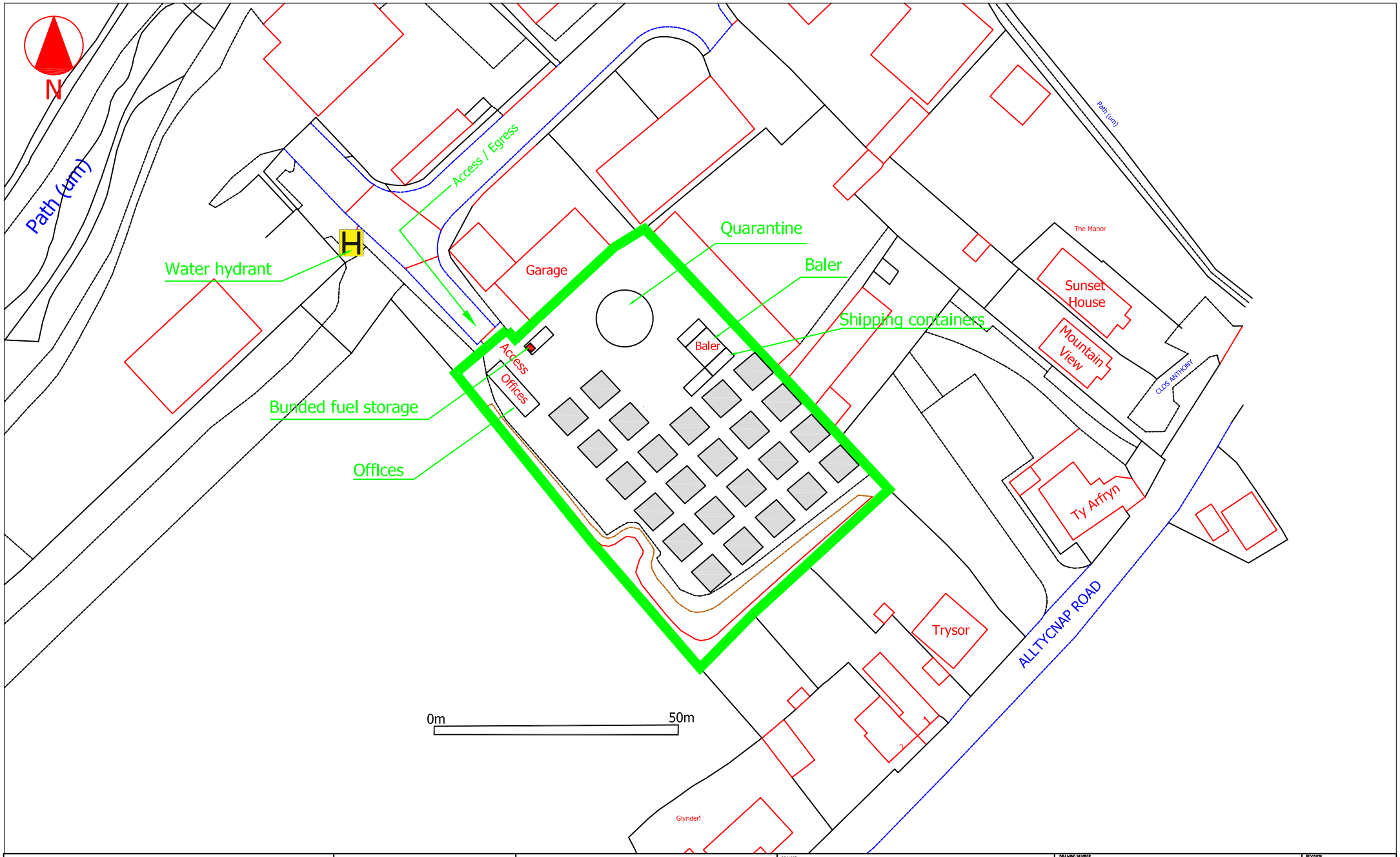
Health and Safety Executive (HSE) Guidance
http://www.hse.gov.uk/search/search-results.htm?q=hot%20works%20guidance%20-%20gsc.tab=0&gsc.q=hot%20works%20guidance&gsc.page=1#gsc.tab=0&gsc.q=hot%20works%20guidance%20-%20gsc.tab&gsc.page=1

Containment systems for the prevention of pollution (C736)
http://www.ciria.org/Resources/Free_publications/c736.aspx

Fire Prevention & Mitigation Plan - https://naturalresources.wales/media/682159/eng-guidance-note-16-fire-prevention-mitigation-plan.pdf

Fire Safety Risk Assessment - Factories and Warehouses. - https://www.gov.uk/government/publications/fire-safety-risk-assessment-factories-and-warehouses

Health and Safety Executive (HSE) Fire Safety Guidance - https://www.hse.gov.uk/toolbox/fire.htm



Drawing Number 2161/1

Legend

Permit boundary

Tyre stack (5.6m x 5.6m x 3m high)

NOTE

CLIENT: TD Tyre Recyclng Ltd

Rev	Date	Status/Ammendments

PROJECT: TD Tyre Recycling Facility, Johnstown, Carmarthen

TITLE: Site Layout and Access

DRAWING NUMBER	SCALE	DATE	DRAWN	REVISION
2161/1	As Shown	11.21	BR	0

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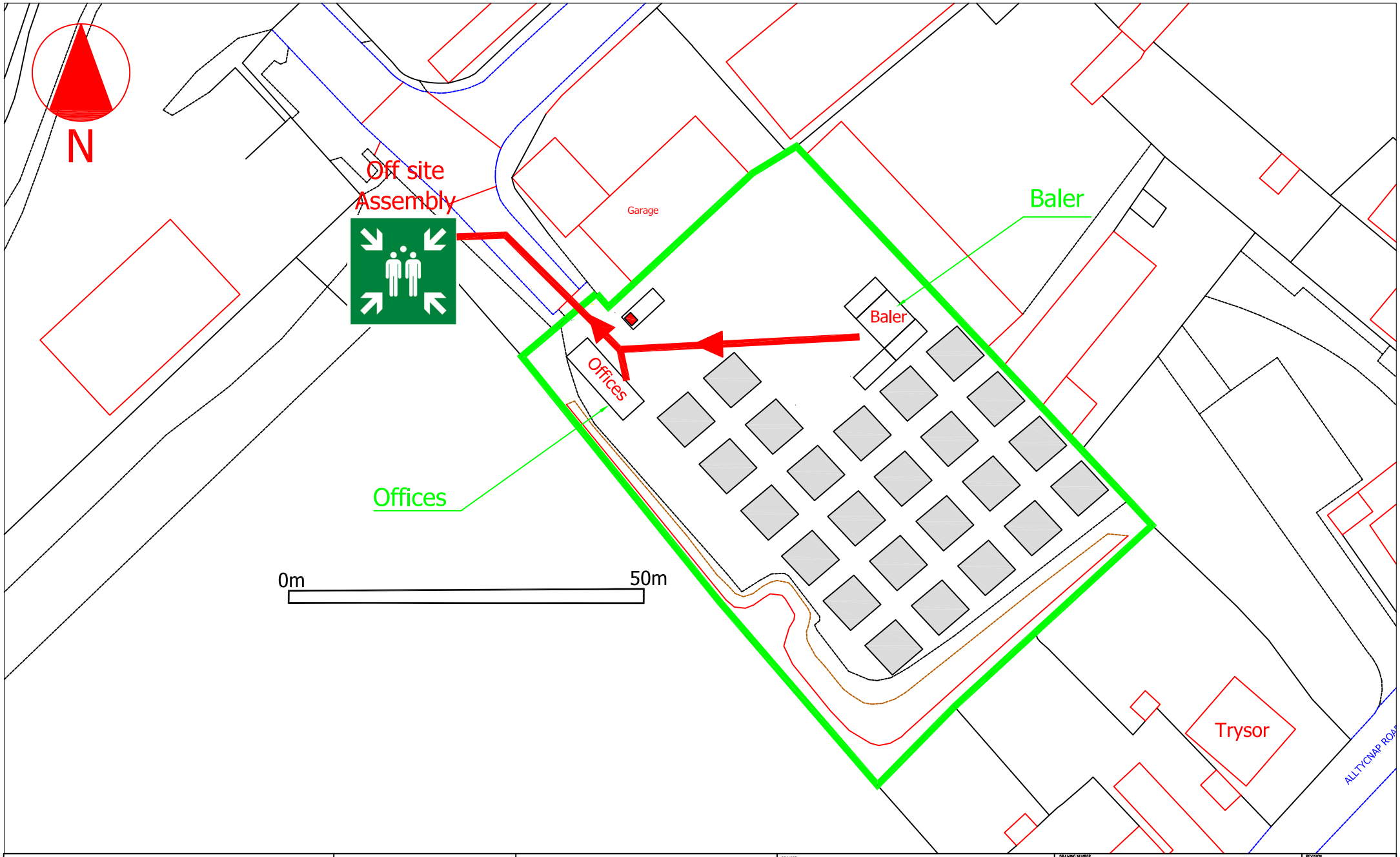
www.geotechnology.net



Drawing Number 2161/2

Legend

Permit boundary

Tyre stack (5.6m x 5.6m x 3m high)

NOTE

CLIENT: TD Tyre Recyclng Ltd

Rev	Date	Status/Ammendments

PROJECT: TD Tyre Recycling Facility, Johnstown, Carmarthen

TITLE: Emergency Evacuation Route

DRAWING NUMBER: 2161/2

REVISION: 0

SCALE	DATE	DRAWN	CHECKED
As Shown	11.21	BR	

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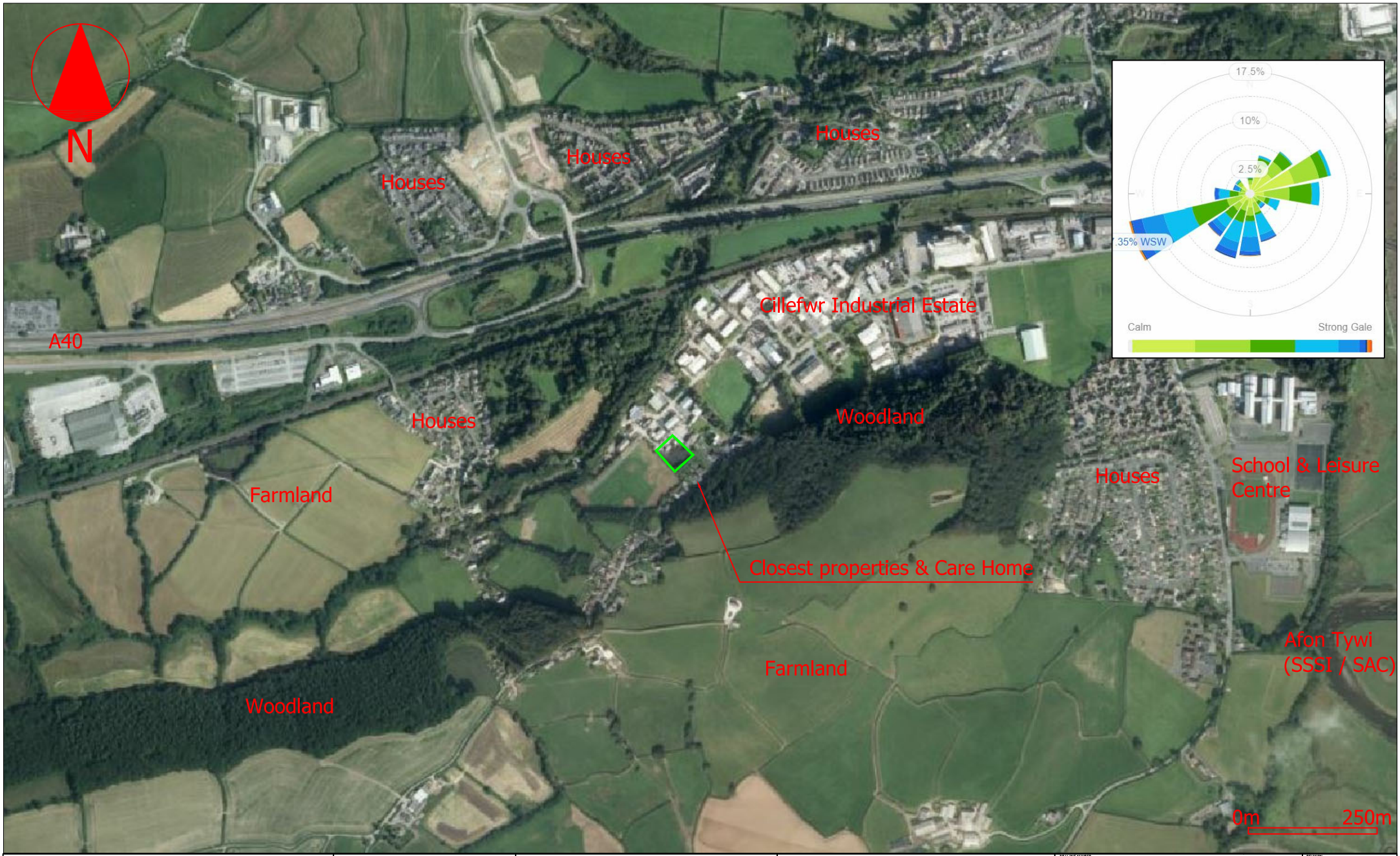
GEO TECHNOLOGY



Drawing Number 2161/3	NOTE	CLIENT: TD Tyre Recyclling Ltd	PROJECT: TD Tyre Recycling Facility, Johnstown, Carmarthen	DRAWING NUMBER: 2161/3	REVISION: 0
Legend: TD Tyres site		Rev / Date / Status/Ammendments	TITLE: Sensitive Receptors	SCALE: As Shown; DATE: 11.21; DRAWN: BR; CHECKED:	

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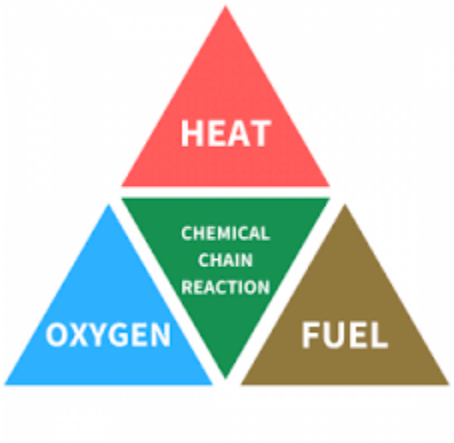
TD TYRE RECYCLING LTD
BESPOKE PERMIT

FIRE PREVENTION AND MITIGATION PLAN

Appendix 1
Fire Plan Justification

Report Number 2161r5v1d1021

Metal recycling, vehicle storage, depollution & dismantling (authorised treatment) facility



APPENDIX 1.
FIRE PLAN JUSTIFICATION

Report Number 2135r5v1d1021

Commissioned by

Pembrokeshire Metal Recycling
Carew pavilion
Carew Airfield
Tenby
SA70 8SX

Fire Plan

List of Tables

1 INTRODUCTION

1.1 Purpose

There have been many waste fires in Wales over recent years. This has led to increased scrutiny and new guidance from NRW titled *Fire Prevention and Mitigation Plan Guidance - Waste Management* (Guidance Note 16 or GN16).

Natural Resources Wales (NRW) requires a Fire Prevention and Mitigation Plan (FPMP) to be in place which is subject to regular update and review.

This appendix is intended to document some of the decision making underpinning the fire plan and to provide the waste regulator with additional information regarding the background to the development of the plan.

The FPMP has been compiled by Geotechnology Ltd using the details of the overall approach developed by TD to reduce the risk of fire during day-to-day operation of the site and to provide a single source of reference during a fire emergency.

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2 FIRE RISK

2.1 Combustible Waste at Site

An evaluation of the operation against the wastes typically found to be combustible, according to GN16, is provided in Table 2-1.

Table 2-1 Identification of Combustible Wastes

Potentially combustible wastes covered by GN16	**Applicability to Ammanford operation**
Paper or cardboard	No waste paper or cardboard accepted at site Small quantities present in site office and welfare facilities
Plastics	No separate plastics stored at site.
Rubber (natural or synthetic, including whole tyres, baled tyres, tyre shred, crumb and fibre)	**Whole and baled tyres accepted and stored at site**
Wood & wood composites (planks, boards, pallets, crates, sawdust, shavings & chips	No wood accepted at site
Fragmentiser waste (from processing end of life vehicles (ELV's), plastics and metal wastes from materials recovery facilities)	No fragmentised waste accepted or generated
Rags and textiles	Such waste not accepted or generated in significant quantities.
Scrap metals including ELV's	ELVs and scrap metal not accepted
Waste fuels – including residual combustible waste, RDF and SRF	No waste fuels are accepted or generated at the site
Waste electrical and electronic equipment (WEEE) such as fridges, computers and televisions containing combustible materials such as plastic	No WEEE is accepted at the site
Batteries within ELV's	Batteries not accepted at the site
Compost and plant material	No composting to be undertaken at the site
Biomass facilities	No biomass facilities at the site

2.2 Potential Causes

Potential causes of fire at the site are evaluated in Table 2-2. The likelihood of each cause occurring is ranked as either low, medium or high. The ranking takes into consideration the preventative actions taken during day-to-day operation to limit the possibility of fire occurring.

Table 2-2 Potential causes of fires and control measures to be adopted

Potential Cause of Fire	**Likelihood of Risk**	**Control Measures**
Arson or Vandalism	Low Risk	• Routine inspection programme to ensure no breaches of site boundary • Daily/Weekly Inspection programme to ensure no breaches of security measures • Site is secure but located in quiet area of industrial estate
Visitors and Contractors	Low risk	• Ensure all visitors and contractors are signed-in and familiar with site rules • Brief all visitors with key health and safety information including fire prevention procedures • Ensure relevant contractors provide RAMS that include fire prevention
Ignition Sources	Low risk	• Open burning not permitted anywhere on the site • Smoking not permitted • Space heaters, furnaces, incinerators, heating pipes and naked flames not permitted/ not typically used on site. • All potential ignition sources (see other causes of fire) will be kept at least 6m away from combustible waste
Self-combustion	Low Risk	• Tyres will be typically stored for less than 3 months

Potential Cause of Fire	Likelihood of Risk	Control Measures
		• Robust waste acceptance procedures will ensure that waste does not represent any increased self-ignition risk • Daily visual check of all waste stockpiles to identify smoke/steam
Plant or Equipment Failure	Low risk	• All plant and equipment to be serviced and maintained as per manufacturers' requirements • Preventative maintenance programme to be implemented • Daily plant and machinery inspections carried out by trained plant operatives. All defects reported by end of the working day • All plant to be parked 6 metres from combustible waste where possible
Discarded Smoking Materials	Low risk	• Smoking only permitted in dedicated areas away from waste storage area • Cigarette disposal bins provided in smoking area
Hot Works e.g. cutting and welding	No / low risk	• No hot works undertaken. If it is required, following precautions implemented: • They must be carried out (>6m) away from waste storage areas • Firefighting extinguishers will be available at all times during hot works • Following all hot work, a fire watch will be maintained in relevant areas until end of shift to ensure there is no residual ignition source or smouldering fire
Industrial Heaters	Low risk	• The site does not use industrial heating of any kind
Poor Housekeeping	Low risk	• Daily inspections of working area to identify need for cleaning • Daily dry brushing of any loose combustible waste, dust and fluff in all areas • Immediate clean-up of leaks and spills with spill kits
Hot Exhausts	Low risk	• Tyres will be kept away from the working area • All other wastes in working area will be visually checked throughout operations for signs of heating • Upward pointing exhausts used where possible
Damaged/ exposed electrical cables	Low risk	• All relevant electrical items will be regularly serviced and tested • Mobile power tools and power supplies will only be used for temporary maintenance tasks • Firefighting equipment will be available on site at all times (powder and foam extinguishers and extinguisher fire balls)
Hot loads deposited at site	Low risk	• No hot loads are accepted at the site • Any hot loads would be rejected or placed into quarantine and NRW informed
Build-up of loose combustible waste, dust and fluff	Low risk	• Baling and storage does not generate significant quantities of dust and fluff
Tramp metal in machinery	No risk	• Baling and storage does not lead to generation of material that could get caught in machinery
Batteries in waste	Low risk	• Batteries not accepted
Leaks and spillages of oils and fuels	Low risk	• Prevent leaks by using appropriate containers • Prevent leaks by not over-filling appropriate containers • Prevent spillages by using funnels etc. to fill appropriate containers • Prevent spillages by using drip trays • Ensure materials used to absorb combustible liquids are correctly stored before disposal as hazardous waste
Poor Waste Acceptance Inspections/ Problematic waste stowed away	Low risk	• Visual inspection of all waste accepted will include assessment of potentially hot wastes and abnormal loads with increased fire risk such as lithium batteries • Quarantine area to be maintained for problematic loads
Open Burning	Low risk	• No burning of wastes is allowed anywhere on the site (see site rules)
Sparks from Loading Buckets	Low risk	• Loading buckets not required for waste handling • All operatives to look out for sparking and to inform management immediately • Air tools and drill with earth lead used to limit sparks and electrostatic

Potential Cause of Fire	Likelihood of Risk	Control Measures
Neighbouring Site Activities	Low risk	• Be aware of activities at adjacent yards • Establish good communications between all parties and understand processes /risks
Reactions between wastes	Low risk	• Only tyres accepted for temporary storage
Cylinder storage	No risk	• No cylinders used.
Leaks of fuel and oils	Low risk	• Drip trays regularly emptied to reduce vapour accumulation • Correct storage and disposal of materials used to absorb combustible liquids
Cooking	Low risk	• No cooking facilities provided in welfare facilities

2.3 Self-Combustion

According to GN16, many materials can self-combust under certain conditions, and the risk generally increases when materials are stored for prolonged periods, whether internally or externally, and in general the smaller the particle size the higher the risk.

Storage time limits presented in GN16 are reproduced in Table 2-3 alongside the predicted storage duration at the site. These timeframes are considered as starting points for the consideration of storage and self-combustion and used to inform stock management and rotation requirements.

All of the waste is to be in storage for very short duration and so on this basis the risk of self-combustion is considered to be very low.

Table 2-3 Evaluation of maximum storage time of combustible wastes

Waste	Max storage according to GN16	Storage time at site under normal conditions	Implications for site management
Non-shredded or similarly treated wastes (that is wastes whose particle size has not been reduced)	6 month	Tyres to typically be in storage <3months	Short duration storage indicates no need for stock rotation or hot spot monitoring under normal conditions
Baled and compacted wastes	6 month	Baled tyres to typically be in storage <3months	Short duration storage indicates no need for stock rotation, hot spot monitoring, sampling, temperature readings, turning or re-baling under normal conditions
Shredded and similarly treated wastes (that is wastes whose particle size has been reduced)	3 month	No shredding or size reduction to be undertaken.	Not applicable
Combustible fines/dusts & very small particle size wastes	1 month	No fines / dust accepted or generated.	Not applicable

According to GN16, some materials are at risk of self-combustion if stored for more than 3 months. An evaluation of these wastes against the operation is provided in Table 2-4.

This indicates that the planned storage times fall well below the timeframes for potential self-combustion i.e. self-combustion could occur after ~90 days (3 months) but wastes will be stored for less than this. This suggests that self-combustion is not likely which has significant implications for site management and fire detection. These implications are detailed in Table 2-3 and 2-4.

Table 2-4 Evaluation of materials at risk of self-combustion

Waste	Typical timeframe for risk of combustion according to GN16	Storage time at site under normal conditions	Implications for site management
Green material	>3 months	No green waste at site	Not applicable
Compost	>3 months	No compost at site	Not applicable
Wood	>3 months	No wood at site	Not applicable
Wood products	>3 months	No wood at site	Not applicable
General / mixed waste including residual waste, RDF and 'fines'	>3 months	No fines at site	Not applicable
Tyres (whole)	>3 months	Loose tyres to be placed in storage for <3 months	Short duration storage indicates no need for stock rotation or hot spot monitoring under normal conditions
Tyres (processed)	>3 months	Baled tyres to be placed in storage for <3 months	Not applicable
Smaller size or graded materials either stored or mixed	>3 months	Not applicable	Not applicable
Material that has not had potential hazards removed before stacking e.g. rust which can generate heat	>3 months	Not applicable	Not applicable
Treated materials which are not cold before storage e.g. treatment can generate heat	>3 months	Not applicable	Not applicable
Presence of Lithium batteries	Not mentioned under self-combustion but such batteries can combust if damaged causing metal fire	Thorough waste acceptance measures to be adopted to ensure rogue batteries are identified	Quarantine skip to be maintained for non-permitted waste Sand bags to be available to isolate problematic waste

3 FIRE MINIMISATION

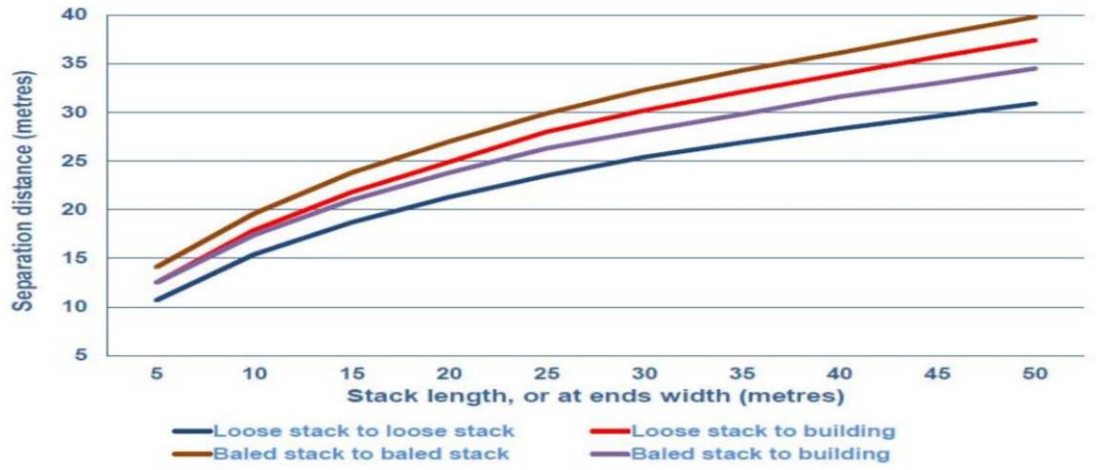
3.1 Separation Distances

One of the key aspects of GN16 is the approach recommended to limiting the size of waste stacks and ensuring sufficient separation distances between stacks. In GN16 this is achieved through the use of look-up tables and graphs. Two approaches are provided in GN16 for to different types of waste:

- Graph 1 – to be used for determining stack lengths and separation distances for external storage of waste with typical maximum burn temperature of 950°C. This is waste such as general wastes such as RDF, SRF (Refuse Derived Fuel and Solid Recovered Fuel), wood and paper.
- Graph 2 - to be used for determining stack lengths and separation distances for external storage of waste with typical maximum burn temperature of 1200°C. This is waste such as plastics and rubber.

Stacks of tyres, comprising rubber, should be evaluated in accordance with Graph 2 and so this is also reproduced below and considered in the site layout.

Graph 2. Stack lengths and separation distances plastic/rubber wastes (typical max burn 1,200 °C)



To determine your separation distance, mark your stack length on the horizontal axis of the graph and draw a line up to the relevant graph line (stack to stack, to buildings etc.). Then draw a horizontal line across to the vertical axis and read-off separation distance. This can also be done in reverse. For example, at your site separation distance may be constrained by site size. Therefore this distance can be marked on the vertical axis and maximum stack length read-off on the horizontal axis.

Following on-site discussions between the site operator and FRS, during a site visit with NRW, 3m free air separation distances are to be maintained between each tyre stack.

Table 3-1 Evaluation of assumptions underpinning separation distance

Assumption in GN16	Applicability at operation
Max stack height of 4m or 4 bales	Tyres to be stacked no higher than 4 high which is <3m as each bale 0.75m high.
Max stack width of 10 – 20m (providing access is available on both sides)	Max stack width 6m based
Free air separation to other stacks	3m based on discussions with FRS
Free air separation to buildings	>6m
Dividing wall height, freeboard and structure	No dividing walls to be used
Max width of bunkers 10m	No bunkers to be used for fire separation

3.2 Baled Waste Storage

3.2.1 Sampling and Testing

As the bales are to be in storage for very short duration there is no benefit of sampling and testing. As the bales comprise tightly compressed, the use of a temperature / moisture probe would not provide representative readings or be practical.

3.2.2 Representative Readings

Given the rapid turnover of waste and the nature of the waste, no monitoring will be undertaken.

3.2.3 Turning of Bales

Given the rapid turnover of waste no turning of the bales is considered necessary under normal conditions.

3.2.4 Breaking Open and Re-Baling

Given the rapid turnover of waste and the nature of the waste, it is not considered necessary to break open and re-bale metal bales to reduce fire risk.

3.3 Stack Management

Given the nature of the wastes and outdoor storage, natural moisture levels will be allowed to develop. Given the nature and free-draining properties of the stockpiled wastes, further moisture control is not considered to be necessary at this stage.

To avoid self-combustion, high turnover of stock will be achieved and storage times will not approach 3 months. As the site is relatively small, waste will typically in storag for less than 1 month. This is the only way that the operation is economically viable and so there is an underlying financial incentive for rapid waste turnover. Stock management will be based on the 'first-in-first-out' principle to avoid tyres being in storage longer than planned. Given the small nature of the site, this will be implemented by ensuring that waste to be taken off-site is first taken from the oldest stock on site. This will be implemented by ensuring stockpiles are removed in the order they were placed, starting with the oldest. Measures to reduce self-combustion are evaluated in Table 3-2.

Table 3-2 Evaluation of measures to reduce self-combustion

Fire prevention principle in GN16	Applicability at site	Implications for operation
Reduce risk factors	All waste to in storage <12 weeks No heat generated during treatment No fines accepted or generated	No need for stock rotation or formal hot spot monitoring
Minimise stack sizes	All waste will be kept separate in smaller stack sizes before maximum stack size is reached	
Control moisture	All waste on site for <12 weeks	Moisture control not considered necessary due to short-term storage.
Good stock rotation and monitoring	All on site <12 weeks	Routine stock rotation, formal hot spot monitoring and temperature readings not considered necessary due to short-term storage.
Store material in largest form	No size reduction to occur apart from baling	Ensure bales are routinely removed from site.
Monitor stack temperature	All tyre waste on site <12 weeks	Temperature and moisture content monitoring of bales not considered practical or necessary due to nature of waste and short-term storage.
Regularly turn stacks	All waste on site <12 weeks	Routine turning of stacks not considered necessary given short-term storage.
Detect and control hotspots	All waste on site <12 weeks No heat generated during baling.	Temperature monitoring of tyres not considered practical or necessary due to nature of waste and short-term storage. Visual observation, such as presence of steam, will be used as good indicator of hotspot during daylight hours.
Define maximum storage times	All wastes to be on site <12 weeks	Stockpiles to be date marked (day/month) using spray paint and rotational stocking areas to ensure first-in-first-out principle implemented.
Minimise external heating	All wastes to be on site <12 weeks	No additional shading from sunlight considered necessary at this stage given short-term storage times

4 FIRE DETECTION

4.1 Early Fire Detection

GN16 requires operators to give consideration to adequate procedures to detect a fire in its early stages so that its impact can be potentially reduced.

4.1.1 Active Control Measures

Active fire detection measures such as those listed below have been considered:

- smoke and heat detectors including temperature probes
- CCTV visual flame detection systems
- spark, infrared and ultraviolet detection

As there are few ignition sources and the site has good lines of sight, the risk of fires developing un-noticed during working hours is very small. On this basis, installation of active fire detection measures is not considered necessary for such times.

However, to protect the identified valuable assets, automatic fire ball extinguishers are to be mounted within the baling area and in the areas used to store the small quantities of oil or fuel required.

4.2 Waste in a Building

There is no waste stored inside a building.

5 EMERGENCY PREPAREDNESS

No additional comment.

6 FIRE RESPONSE

6.1 Overall Philosophy

The operator acknowledges that the FRS may not be able to or will choose not to enter a building or site during a fire and sometimes will allow waste to burn out. Such decisions are often made based on dynamic risk assessments informed by the timing of the incident and risks to human life, high value assets and the environment. For this reason, the underlying principle of the approach is to operate and layout the site to minimise the risks of fire starting and spreading in the first instance and to provide a sufficient, reliable and adequate supply of fire water to the site.

The operator recognises that fires in waste sites can be difficult to extinguish, needing a lot of resources for long periods, and can have serious effects on public health, the environment, safety to firefighters and local communities. Impacts may be short term or long term, including:

- Public health impacts on responders and communities
- The public being evacuated or sheltering in place
- Environmental impacts
- Pollution of groundwater
- Road closures
- High demand on fire and rescue services and other agency resources
- Large-scale financial losses and disruption

When dealing with anything other than hotspots or small fires, the operator expects the FRS incident commander responding to have the ultimate say in how the incident will be managed and the strategy that will be used to bring the incident to a satisfactory conclusion.

During an incident, particularly large incidents, there are often a number of conflicting views, pressures or powers from interested parties such as the public, environmental regulators and local authorities.

These conflicting views can be difficult to manage alongside the views of the site operator/ land owner and can place the incident commander under considerable pressure to find a solution that fits the differing priorities from different organisations. For this reason, the operator will provide the FRS with all the resources it requires and is keen for this FPMP to be developed through consultation with relevant parties.

As noted in GN16, fires in stacks can be particularly difficult to extinguish using conventional firefighting approaches. This is particularly the case at sites storing treated wastes such as tyre crumb, wood chip or compost, because of the small particle size of the waste and the density of the stack.

Direct application of water, with or without firefighting additives such as foam, to burning stacks is often ineffective and may generate large volumes of polluted fire water and/or increase the hazard from the smoke plume, due to lower combustion temperatures.

Typical firefighting methods for burning tyres may include smothering the waste, separating burning material from other waste, controlled burn and quenching. Controlled burning is a defensive operational tactic to prohibit or restrict the use of extinguishing media on fires to allow the combustion process to continue uninhibited. This is sometimes used as UK law does

not require the FRS to extinguish fires. A controlled burning strategy may warrant consideration in certain circumstances, including protecting the environment, where the benefit from offensive firefighting does not outweigh the risks, or where available resources and media are insufficient to successfully resolve the incident. The decision of FRS to adopt a controlled burn strategy, as with smothering or quenching, would likely be made following consultation with relevant parties.

6.2 Strategy

In arriving at the firefighting strategy the operator has considered:

- the layout of the site – ignition sources, scale & nature of the environmental hazards and activities that take place
- key environmental receptors
- risks posed to people
- risk posed to the environment
- risks posed to property
- type of materials stored on site
- availability of firewater containment facilities
- local topography, weather conditions and fire scenarios that could reasonably be expected on site

The site layout has been designed to allow for active firefighting, to minimise fire spread and to allow a fire to be extinguished within the shortest time possible. This includes ensuring good access for FRS at all times and free air separation distances between small waste piles. There is a hydrant located directly outside the site and this has been confirmed as suitable for use.

7 EXTINGUISHING SMALL FIRES

No additional comment.

8 FRS FIRE WATER SUPPLY

No additional comment.

9 FIRE WATER MANAGEMENT

No additional comment.

10 DURING AND AFTER AN INCIDENT

No additional comment.

11 REVIEW AND MONITORING

No additional comment.

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