FIRE PREVENTION PLAN

Gerrard Place, Skelmersdale, WN8 9SU

WL Polymer Ltd

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THIS DOCUMENT IS DUE FOR REVIEW IN **NOVEMBER 2025** OR AS A RESULT OF ANY INCIDENTS WHICH MAY LEAD TO THE REQUIREMENT FOR IMMEDIATE REVIEW, WHICHEVER IS THE SOONER

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Site Information & Key Contacts List

Site Address:	Gerrard Place, Skelmersdale, WN8 9SU		
Site Operator:	WL Polymer Ltd	**National Grid Ref:**	SD4773305350

CONTACT	DESCRIPTION	OFFICE HOURS	OUT OF HOURS
Robert Baines Stuart Kershaw Shu Li	Directors	07831 771126	07831 771126
Stuart Kershaw	TCM		
Ormskirk General Hospital Dicconson Way, Wigan Road, Ormskirk, L39 2AZ	Local NHS Hospital (Main)	01695 577111 / 111	999
	Emergency	999	999
Beacon Primary Care Sandy Lane, Skelmersdale, WN8 8LA	Local Doctor Surgery (GP)	01695 317920	999
Lancashire Police Skelmersdale Police Station Southway, Skelmersdale, WN8 6NH	Local Police Non-Emergency	101 (non-Emergency) 999 (Emergency)	999
Lancashire Fire & Rescue Service Skelmersdale Fire Station Tanhouse Road, Skelmersdale, WN8 9NN	Fire and Rescue Service (in Emergency Dial 999)	01695 723853	999 or 112
Environment Agency	Environmental Regulator	0300 065 3000	0300 065 3000
West Lancashire Borough Council Sandy Lane Centre, 61 Westgate, Skelmersdale, WN8 8LP	Local General Enquires	01695 577177	999 or 112
United Utilities	Mains water and sewerage supplier	0345 6722 999	0345 672 3723
Oaktree Environmental Ltd - Lime House, 2 Road 2, Winsford, Cheshire CW7 3QZ	Specialist Advisor (Waste and Planning Issues)	01606 558833	N/A

1 Introduction

1.1 Overview of site operations

1.1.1 This document considers the risks associated with fire on site at Gerrard Place, Skelmersdale, WN8 9SU. The site will be operated as a physical treatment facility for non-hazardous plastic packaging waste including the bulking and transfer or other non-hazardous materials.

1.2 Fire prevention objectives

1.2.1 This FPP has been designed to meet the following objectives:

- To minimise the likelihood of a fire happening;
- To aim for a fire to be extinguished within 4 hours;
- To minimise the spread of a fire within the site and to surrounding neighbouring sites; and,
- To minimise impact of fire on people, environment and businesses.

1.2.2 This FPP document will be kept in the site office and in other locations around the site to ensure all operational site staff and contractors are aware and understand the contents of the Fire Prevention Plan (FPP) and what they **must** do during a fire.

1.3 General site information

1.3.1 This document considers the risks associated with fire on site at Gerrard Place, Skelmersdale, WN8 9SU. The site will be operated by WL Polymer Ltd (the operator).

1.3.2 The site was previously operated by Viridor Polymer Recycling Limited under EPR/SP3593ZB/V004 for a similar use. The operator intends to utilise part of the existing infrastructure which was installed by Viridor which include the automated detection and suppression system which are shown in Sections 9 and 11 of this document. It is understood the previous operator had an agreed FPP with the EA so reference should be made to the

previous FPP for any alternative items of missing infrastructure information which have not been made available to the current operator.

1.3.3 The recycling centre allows for the sorting, storage and treatment of plastic and bulking and transfer of other non-hazardous wastes. In terms of the plastic treatment, this will include two separate washing and extrusion lines inside an existing industrial building which will turn plastic packaging and metal film arising from the wash plant into products comprising extruded film and agglomerate. Any residual waste produced which is a by-product from the processing plant will be sent to an appropriately permitted site, this is likely to comprise IBCs of spent wash material and constituents such as paper and metal removed during the wash process.

1.3.4 In the external yard will comprise a number of storage bays which will be used as holding bays for the plastic awaiting treatment as above and bulking and transfer bays for pre-segregated wastes such as other plastics, paper & card, baled cans (metal) and dry mixed recyclables. These wastes are likely to come into the site on a curtain sided trailer and deposited into the bays where they will be bulked pending onward transfer to a larger waste facility. The site only intends to mechanically treat plastic packaging waste and bulk and transfer non-plastic packaging and other wastes.

1.3.5 In addition to this document the site is managed and operated in accordance with a fully comprehensive Environmental Management System (EMS); also prepared Oaktree Environmental Ltd and reference should be made to Document Ref. GPL-3329-A for its content. In summary the main treatment operations which take place at the site are as follows:

- Plant feeding using 360° excavator.
- Manual sorting/separation with forklift, 360° excavator, loading shovel or hand.
- Bale breaking (by bale breaking equipment or 360° excavator)
- Baling by using appropriate mechanical plant
- Mechanical sorting/separation by using appropriate mechanical plant
- Crushing by using appropriate mechanical plant

- Shredding by using appropriate mechanical plant
- Agglomerating by using appropriate mechanical plant
- Wrapping
- Drying using mechanical and thermal means
- Heat treatment as part of an extrusion process (Erema processing plant)
- Washing, granulation and pelleting (by mechanical equipment)

1.3.6 The layout of the site is shown on Drawing No. GPL/3329/03.

1.4 Staffing and management

1.4.1 The site will have approximately 20 staff employed at the site comprising site managers, shift managers, operatives and admin staff. Site management will comprise the directors, shift managers and technically competent manager.

1.4.2 All operational staff and contractors must be aware and understand the contents of the Fire Prevention Plan (FPP) and its location in order to respond and action the proposals set out in this FPP to ensure the objectives in Section 1.1.1 are met.

1.5 Plant and equipment

1.5.1 The table below details the mobile plant/equipment on site, fixed plant has not been included but is shown on Drawing No. GPL/3329/03. The mobile plant can also be used to aid in fire suppression or manoeuvring of waste to reduce the spread of fire. Only trained operators will be permitted to drive/operate the plant/equipment listed below.

Table 1.1 - Plant and Equipment

Item	Number	Function
Forklift	5	Loading/unloading/movement/sorting
Loading shovel	1	As above
360^0 excavator	1	As above

1.6 Hours of operation

1.6.1 The site will operate on a 24/7 basis comprising two 12-hour shift patterns. A breakdown of the operating hours is as follows:

- **Waste acceptance and removal** = 24/7
- **Waste processing** = 24/7
- **Plant maintenance and full site housekeeping comprising manually cleaning processing plant inside the Units** = Continuous throughout operations

1.6.2 As the site is run on a 24/7 basis, there are two separate shift patterns which are 06:00 – 18:00 and 18:00 – 06:00.

1.7 Correspondence with Fire and Rescue Service

1.7.1 Lancashire Fire & Rescue Service (FRS) and United Utilities were contacted in the preparation of the latest FPP review with a view to obtaining details regarding the nearest hydrants in the proximity of the site and their projected water supply in the event of an incident. This information is shown in Section 11.4.

1.7.2 Regular correspondence will ensure all measures to prevent, mitigate and contain fires on site are up to date and deemed sufficient by the FRS.

1.8 Sensitive receptors

1.8.1 Reference should be made to Drawing No. GPL/3329/04 in Appendix I to highlight the key receptors within 1,000m of the site.

1.8.2 To minimise the impact on the local area and associated receptors from a fire on site, this document details mitigation measures which will decrease the likelihood of a fire occurring on site and limit the size and duration of a fire if it does occur (as per Section 1.1 above). These measures will ensure the potential impact on any of the surrounding land is as minimal as practicably possible.

1.8.3 The primary sensitive receptors for any fire event would be the site itself and any site users and the adjacent sites and its users.

Table 1.2 – Receptor Table

Receptor	Receptor Type	Source	Harm	Pathway	Probability of Exposure	Consequence	Risk Management	Magnitude of risk following procedures
Numerous industrial, leisure and commercial uses on Gillibrands Road and surrounding areas	Industrial / commercial premises	Fire causing the release of polluting materials to air (smoke, fumes and particulate matter)	Respiratory irritation, illness and nuisance to local population. Financial loss of businesses due to closure of adjacent roads/evacuation of premises.	Air transport of smoke.	High	High	Procedures set out in this FPMP. Toolbox talks and liaison meetings with receptors to review procedures in the event the site is subject of a fire.	Low
Residential dwellings in the surrounding area shown on Drawing No. GPL/3329/04	Residential	As above	Respiratory irritation, illness and nuisance to local population.	Air transport of smoke.	High	High	As above	Low
Schools	School / leisure	As above	Respiratory irritation, illness and nuisance to local population.	Air transport of smoke.	Medium	Medium	As above	Low
Surrounding highway networks including A roads and the M58 Motorway	Major road networks	As above	Closure of roads due to excessive smoke fumes. Increased risk of accidents due to poor visibility.	Air transport of smoke.	Medium	Medium	As above	Low
Surface Water (River Tawd) bordering the site	Surface Waters	Direct run off of fire water across site or to surface waters. Fire causing the release of polluting materials to air (smoke, fumes and particulate matter).	Loss of amenity, deterioration of water quality, killing of flora / fauna and other local wildlife Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Air transport of smoke. Direct run off of fire water across site to surface waters.	Medium	High	Procedures set out in this FPP. The site has a sealed drainage system.	Low
Other habitats and species inc. deciduous woodland	Protected sites and species	Direct run off of fire water across site or to surface waters. Fire causing the release of polluting materials to air (smoke, fumes and particulate matter).	Loss of amenity, deterioration of water quality, killing of flora / fauna and other local wildlife Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Air transport of smoke. Direct run off of fire water across site to surface waters.	Medium	Medium	Procedures set out in this FPP. The site has a sealed drainage system.	Low

2 Managing Common Causes of Fire

2.1 Details

2.1.1 The following table outlines common causes of fire and outlines specific examples of these sources, the associated risks and any mitigation measures necessary to manage them:

Table 2.3 - Common fire sources and mitigation

Source	Risk	Magnitude of Risk / Likelihood	Brief outline of Mitigation (refer to Section 4 for storage/monitoring procedures)	Magnitude of risk / likelihood following mitigation
Arson or vandalism	Deliberate ignition of wastes by intruder(s) and/or vandalism of site infrastructure, plant and/or machinery which may give rise to malfunction or compromise the integrity of waste storage/containment measures	Medium	• Appropriate site security infrastructure. • Vehicle checks on arrival to the site. • Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer. • Staff training / toolbox talks.	Near-zero
Plant or equipment	Spillages of fuel, sparks from machinery or malfunction caused by ineffective maintenance	Medium	• Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer. • Any liquid/fuel/oil storage is double bunded. • Daily checks of site surfacing and spill kits. • Staff training / toolbox talks.	Near zero
Electrical appliances and cabling	Faulty appliances or damaged/ exposed electrical cables may spark as a result of a power surge	Medium	• Fixed wiring testing is carried out 3 years and portable appliances are PAT tested 12 months in accordance with Legislation. • Daily checks for dust and fluff on wiring / electrical appliances.	Low
Discarded smoking materials	Risk of ignition of stored wastes from smoking materials which have not been fully distinguished	Low	• Designated smoking area on site and smoking policy.	Near-zero
Sparks from loading buckets/shovels	Scraping of loading buckets/shovels causing sparks which may ignite stored wastes	Low	• Fire extinguishers are fitted in the cab of all loading plant. • Staff training / toolbox talks. • Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer.	Low
Hot works	e.g. welding, soldering, cutting, etc. which involve the use of high temperature equipment which may be a source of both primary and residual heat to stored wastes	Medium	• No hot works will take place at the site	Low
Industrial heating	Industrial heaters and/or pipework used to heat internal and external areas on site which may, in turn, supply heat to stored wastes increasing the risk of combustion	Low	• There are no industrial heaters (or associated pipework) used heat areas of the site.	Low
Hot exhausts	Potential source of both primary and residual heat to stored wastes	High	• Fire extinguishers are fitted in the cab of all loading plant. • Staff training / toolbox talks for continuous monitoring throughout the day to detect signs of a fire caused by dust settling on hot exhausts and engine parts. • Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer. • Out-of-hours storage of plant & equipment away from combustible or flammable wastes. • Daily checks for dust and fluff on plant/equipment before and use of equipment.	Low

Source	Risk	Magnitude of Risk / Likelihood	Brief outline of Mitigation (refer to Section 4 for storage/monitoring procedures)	Magnitude of risk / likelihood following mitigation
Build-up of loose combustible waste, dust and fluff	Light waste and ambient particulates with high combustibility settling and building up in key areas in and around plant/machinery and around exhausts	High	• Fire extinguishers are fitted in the cab of all loading plant. • Staff training / toolbox talks for continuous monitoring throughout the day to detect signs of a fire caused by dust settling on hot exhausts and engine parts. • Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer. • Minimum daily checks for dust and fluff on plant/equipment before and use of equipment at the start/end of each working day.	Low
Hot loads	Imported wastes which may contain materials which are above ambient temperature	High	• All loads are inspected in accordance with strict waste acceptance procedures. • Quarantine area and rejected waste containers on site for quick isolation of load.	Low
Overhead power lines	Any overhead power lines on or around the site may ignite in the event of a fire and worsen the effects	Low	• There are no overhead power lines which traverse the site.	Near-zero
Ignition sources	Activities or appliances which use a source of both primary and residual heat to treat waste or manufacturer material or plant/equipment	Medium	• No hot works to take place at the site.	Low
Batteries within waste deposits	Ignition of stored wastes via batteries within imported wastes	High	• All loads are inspected in accordance with strict waste acceptance procedures including wastes received into satellite sites. • Quarantine area and rejected waste containers on site for quick isolation of load containing batteries. • All batteries on site stored in dedicated containers in suitable areas on site.	Medium
Other combustible non-waste materials on or near the site not mentioned above i.e. gas cylinders / LPG tanks	Any combustible non-waste materials on or near the site may ignite in the event of a fire and worsen the effects	High	• All loads are inspected in accordance with strict waste acceptance procedures. • Quarantine area and rejected waste containers on site for quick isolation of load. • Dedicated storage areas for cylinders on site.	Low
Reaction between wastes	Combustible waste piles may ignite in the event of a fire and worsen the effects if wastes react	High	• All loads are inspected in accordance with strict waste acceptance procedures. • Quarantine area and rejected waste containers on site for quick isolation of load.	Low
Leaks and spillages of oils and fuels	Fuels and combustible liquids leaking or trailing from site vehicles and ELVs can combust or cause accidents leading to combustion	High	• Spill kits available throughout the site. • Suitable and sealed drainage system. • Vehicles visually inspected throughput the day with any noticeable leakages being depolluted as a priority. • All depollution would take place inside a building. • Minimum daily checks for spillages around the site. • Staff training / toolbox talks.	Low
“Tramp” metal	Metal could be hot from mechanical processing and interact with lighter waste causing a fire	High	• The treatment plant has various components attached which will remove any tramp metal from the waste. • There are no current proposals for any mechanical treatment of scrap metal other than metal film arising from the wash plant, it must be noted this will have been sorted and washed prior to processing.	Low

2.2 Fuel storage

2.2.1 There is a dedicated fuel storage building and the following procedures ensure tanks do not cause a fire risk at the site:

- Tanks are surrounded by a bund capable of containing a minimum of 110% of the volume of fuel stored in the tank.
- All pipework and associated infrastructure will be enclosed within the bund.
- A lock will be fitted to the tank valve to prevent unauthorised operation.
- All valves and gauges on the bund will be constructed to prevent damage caused by frost.
- The tank is stored 6m away from any waste processing equipment.

2.2.2 The tanks will be clearly marked showing the product within and their capacity.

2.3 Other hazardous (non-waste) material storage

2.3.1 The site has a dedicated caged cylinder storage and chemicals store on site as shown on Drawing No. GPL/3329/03. The cylinder storage would be located in this store.

2.4 Hot works procedure

2.4.1 There will be no hot works taking place at the site.

2.5 Smoking policy (including E-cigarettes)

2.5.1 Employees who wish to smoke may do so in their own time during lunch breaks. Employees will not be permitted to smoke whilst carrying out their duties and responsibilities. Smoking is only permitted in the designated smoking area as shown on Drawing No. GPL/3329/03.

2.5.2 The smoking area will be monitored daily and routinely emptied to prevent a build-up of potentially combustible materials.

2.5.3 Managers will be responsible for the promotion and maintenance of the policy by their staff. Managers will receive training and guidance regarding their responsibilities in relation to the policy and enforcement of it.

2.5.4 Employees should inform the appropriate manager of anyone who fails to comply with the policy.

2.5.5 Employees not complying with the policy will be referred to their manager for support subject to the usual disciplinary procedure.

2.5.6 Visitors not adhering to the policy will be asked to comply or leave the premises or site

2.5.7 All job applicants will be made aware of the policy via application packs, where a requirement to abide by it will be part of the person specification. Applicants will be reminded of the policy at interview stage.

2.5.8 A copy of the policy will form part of new employees' induction packs. Training and guidance on enforcing the policy will from part of new managers' induction process.

2.5.9 The policy will be reviewed every 12 months.

2.6 Mobile and fixed plant maintenance

2.6.1 All items of plant and equipment listed in Section 1.5 (and any additional items of plant which may be hired in to cover busier periods) are subject to preventative maintenance checks to ensure their safe operation and to prevent any potential situations which may give rise to faults or malfunction. A Preventative Maintenance Checklist is shown in Appendix II of this FPP which can be referenced by the operator.

2.6.2 All mobile and fixed plant on site including vehicles in the fleet are subject to annual manufacturer maintenance to ensure proper working order in the form of service contracts.

2.6.3 External separation distances of 6m will be observed between plant and stored material when the site is not staffed.

2.6.4 Staff will be trained to continuously monitor the plant for signs of any dust/fluff which will be removed using hoses or brushes and deposited into a mobile refuse/trade waste bin (emptied weekly). Plant which is not in use for any extended period and in any event at the end of the working day will be stored at least 6 metres from combustible wastes in the area shown on Drawing No. GPL/3329/03.

2.6.5 All mobile plant and equipment will be fitted with fire extinguishers in the cab.

2.6.6 The locations of processing plant are clearly shown on Drawing No. GPL/3329/03. It is the operator's intention to use the plant continually Monday – Friday and use Saturday and Sundays to carry out a full deep clean of the plant. This would involve routine functioning checks and to remove any items of waste or dust/fluff which may have accumulated. The collected material would then be deposited in a mobile wheelie bin and emptied weekly as part of a trade contract.

2.7 Site security

2.7.1 As shown on Drawing No. GPL/3329/03, the boundary of the site is protected from unauthorised access with a 2.5m high steel v-mesh fencing and there are lockable gates should the site be left un manned at any time to prevent unauthorised vehicular or pedestrian access. The building is secure by several lockable roller shutter doors.

2.7.2 In addition to the above boundary treatments, the site will benefit from two types of remotely accessible CCTV with full site coverage and off-site supervision. The two types of CCTV system will comprise intruder alert and infra-red detection cameras. The infra-red cameras are linked to the sprinkler system in the building. The use of the heat detection cameras and sprinkler system are further discussed in Section 9.1 of this FPP. The CCTV systems link to site management who will view any footage in the event an alarm and notify the site management of any incidents. The site management who can take appropriate

actions depending on the scale of the incident. As the site will be ran on a 24/7 basis, there will only be minor occasions when it is closed.

2.7.3 The site security infrastructure will be inspected on a daily basis and any defects which impair the effectiveness of the security will be repaired to the same or better standard as soon as practicable. All repairs will be noted on the site diary within 24 hours of the event.

2.7.4 The security measures at the site are under constant daily review under the site's inspection regime. If unauthorised access becomes apparent as a problem at the site, the security measures will be reviewed and improvements implemented.

2.8 Electrical faults or damaged/exposed electrical cables

2.8.1 All fixed wiring electrical cabling on site will be inspected daily by staff and serviced in accordance with Legislation (3 years) by fully qualified and certified electrical contractors to undertake both Planned Preventative Maintenance and Reactive Maintenance (under contract) of the following:

a) Fire detection & alarm system;
b) Emergency lighting;
c) Machinery checks / services (as per manufacturers' instructions).

2.8.2 In terms of portable appliance testing (PAT), this will be serviced annually by qualified and certified electrical contractors.

2.8.3 Daily inspections of cabling, etc. will be undertaken and the daily Fire Checklist can be used as a reference. Any potential ignition sources from suspected electrical faults will be isolated and the appointed electrical contractors will be contacted immediately to rectify the situation. Where possible, staff will immediately remove any stored wastes from the vicinity of the fault area or cable traverse if safe to do so.

3 Waste acceptance

3.1 Preliminary procedures

3.1.1 Strict waste acceptance procedures are in place at the site and detailed in the site's EMS. Details of when the waste was accepted, how long waste has been on site and how long other separated wastes are stored prior to removal from the site will be stored will ensure compliance with the maximum storage duration for specific wastes as shown in Section 4.2 and on Drawing No. GPL/3329/03.

3.1.2 The following details will be recorded for every load deposited at the site:

a) The date and time of delivery.
b) The name and address of the waste producer.
c) The detailed and accurate description of the waste including type, quantity (in tonnes and/or cubic metres) and EWC codes.
d) How the waste is contained e.g. loose, container type.
e) The carrier's name and address.
f) Driver's name, signature and vehicle registration No.
g) Signature or initials of person(s) producing/ accepting/ inspecting/ carrying the waste.
h) Additional handling details/notes made by the driver after inspection of the load.
i) SIC code of the premises which produced the waste (where relevant).
j) Waste hierarchy declaration.
k) Information on previous treatment of the waste e.g. manual or mechanical.

3.2 Combustible waste reception

3.2.1 All incoming wastes will comprise mainly of plastic packaging in shrink wrapping or pre-segregated wastes mentioned in 1.3.4 which will be delivered into the site by articulated HGVs or curtain sided trailers HGVs. Once the trailer/HGV is parked on the weighbridge, the curtain will be opened/HGV inspected, and operatives will unload the waste using forklifts. Plastic waste awaiting treatment will be moved to **AREAS 5 - 7** to await processing and any other wastes will be taken to **AREAS 1 – 4** for sorting/segregating and bulking awaiting

transfer. In terms of **AREA 8**, this will comprise the area prior to the waste being transported into the building so acts as more of a loading area rather than an actual storage area. The three areas in the building will comprise a temporary area where waste is dropped by to staff feeding it into the relevant item of treatment plant so waste will not be bulked in this area.

3.3 Rejected waste

3.3.1 The wastes before being unloaded from the curtain sided trailer or HGV will be inspected for contrary items, pests, odour and any material found not suitable for the site will not be unloaded and left on the trailer and returned to source.

3.3.2 Any wastes identified during the incoming waste inspections which do not conform to site acceptance criteria will not be accepted and/or removed and quarantined immediately to await safe removal from site. The EA will be contacted (where necessary) if the non-conforming waste discovered is likely to lead to a breach of permit conditions.

4 Managing waste storage to prevent self-combustion and the fire spreading

4.1 Managing storage time

4.1.1 Combustible waste will be stored as shown on Drawing No. GPL/3329/03 and reference should be made to the 'waste storage table' in Section 4.2 which demonstrates how the waste will be stored within the guidelines of the EA's FPP document.

4.1.2 The operator will store waste materials in their largest form and minimise pile sizes wherever possible.

4.1.3 Fire break distances and pile locations are also shown on Drawing No. GPL/3329/03 and the surface areas and dimensions of each storage area is provided in the waste storage table in Section 4.3. All pile sizes, heights, widths, lengths, volumes and separation distances are in accordance with the EA's FPP guidance document.

4.1.4 The aim of the site is to process the incoming material and arrange for its export off site as soon as practicably possible, to minimise over-stocking which in-turn minimises the risk of overheating and spontaneous combustion. Therefore, the maximum storage times in the table are considered conservative to allow for market fluctuations, downtime, etc.

4.1.5 Storage on flat ground: Site surfaces where wastes are to be stored are flat, therefore reducing the risk of falling materials accelerating the spread of fire.

4.2 Waste storage table

4.2.1 The table overleaf is a summary of the waste storage table which is shown on Drawing No. GPL/3329/03 and details maximum pile sizes and duration for wastes stored on site.

Table 4.1 - Combustible waste storage table

Storage Area Details Combustible Wastes												
Plan Ref	**Description**	**Storage type**	**Containment / type**	**Height of firewall (m)**	**Max width (m)**	**Max length (m)**	**Max height (m)**	**Max area (m)**	**Conversion factor used**	**Approx. volume (m3) - out-of-hours**	**Max storage time**	**Comments**
AREAS 1 - 4	Bays for unloading mixed waste streams for sorting and separation (waste may also contain as shown in AREAS 5-7)	Waste could be baled or loose	Concrete panel & concrete interlocking block fire walls	4	20	7	3	140	1	420	<8 weeks	Any wastes which could give rise to odour would be removed within 48 hours
AREAS 4 - 7	Bays for unloading mixed plastic prior to treatment (waste may also contain as shown in AREAS 1-4)	Waste could be baled or loose	As above	4	20	7	3	140	1	420	<8 weeks	Any wastes which could give rise to odour would be removed within 48 hours
AREA 8	Pre-processing bay containing plastic film prior to loading into the treatment plant	Waste could be baled or loose	As above	4	8	6	3	48	1	144	<24 hours	Area will continually load wastes into the pre-treatment area inside the building
AREA 9	Mixture of baled material and product storage	Baled / processed	Concrete panel fire wall of building	6	5	5	3	25	1	75	<8 weeks	These areas will only store waste in the event the baler is used because the wash & extrusion plants have been decommissioned
AREA 10	Mixture of baled material and product storage	Baled / processed	Concrete panel fire wall of building	6	5	8	3	40	1	120	<8 weeks	As above

Table 4.2 – Conversion Factors

Conversion Factors
Conversion factors for waste piles are worked out using the following methods set out by the Environment Agency
The maximum length width pile is based on the largest dimension – the volume of the pile has been calculated using the area x height x relevant conversion factor
Conversion of 1 for materials stored within containers, area of storage in stackable containers and waste/bale stacks
Conversion of 0.75 for waste stored within a bay comprising volume of rectangle + pyramid
Conversion of 0.3333 for waste stored in a free-standing stockpile
All containers can be moved and are accessible from one side so a fire can be extinguished

5 Managing waste piles

5.1 Stored combustible waste

5.1.1 The following list outlines the materials which have been identified on site as having combustible potential.

a) Mixture of pre-sorted baled, loose paper/card, baled cans, other packaging waste and dry mixed recyclable/com mingled wastes
b) Baled, wrapped and loose recyclable plastic waste (**AREAS 5 - 8)**
c) Baled plastic produced on site (**AREA 9**)
d) Rejected/by-product wastes unsuitable for processing or arising from processing (**AREAS A & B**).

5.1.2 The site will only mechanically treat plastic using the processes shown in Section 1.3.5, all other wastes i.e. non plastic waste listed in table 4.1 above will be for bulking and transfer only.

5.1.3 It is proposed once the plastic waste has been subject to the relevant treatment process, it will cease to become a waste and the operator will claim non-waste status on the material by way of a PRN or for re-use in the UK or export. The material will be used to manufacture/ Although the material is combustible, it presents a very low risk of combustion given the material is a commodity and store in bulk bags awaiting despatch. This material will not be stored in great quantities as it will need to be removed for the operator to generate increased revenue.

5.1.4 The table below details the wastes stored on site and procedures to reduce the risk of combustion/ignition in line with the EA's FPP guidance (reference should be made to Drawing No. GPL/3329/03 for details and locations for each of the storage areas):

Table 4.1 – Combustible waste storage table for waste stored free-standing piles or bays (Longford 1 & 3).

Pile Ref:	Storage/monitoring procedures to reduce the risk of fire
AREAS 1 –4 Bays for unloading mixed waste streams for sorting and separation (waste may also contain as shown in AREAS 5-7) AREAS 5 -7 Bays for unloading mixed plastic prior to treatment (waste may also contain as shown in AREAS 1-4) AREA 8 Pre-processing bay containing plastic film prior to loading into the treatment plant AREAS 9 & 10 Mixture of baled material and product storage	• In terms of AREAS 1 – 4, these are external storage bays which store wastes which will have been delivered to the site pre-separated or as a mixture of waste types which the site can accept on the permit. AREAS 5 -8 will be feedstock for the plastic treatment plants inside the building. The contents in the bays may vary depending on demand for material i.e. all bays could store plastic and AREAS 1 -6 may have other wastes stored in them. AREAS 9 & 10 will comprise buildings used to store baled plastic material or bagged product material. • The waste in these stockpiles will be removed from the curtain sided trailer or HGV into the bay where they will be sorted in the relevant waste stream. The waste will then be bulked and removed from site. The waste is in AREAS 9 & 10 is likely to be produced on site. • The waste will be placed at right hand side of the stockpile and extracted from the left in an anti-clockwise formation ensuring the first in first out principle will applies. The stockpiles are therefore dynamic • The site will not aim to store these wastes for longer than a couple of weeks but 8 weeks has been provided to cover a worst-case scenario in the event of a breakdown, plant malfunction or let down of collection/removal by third party. • All waste is stored is within a concrete firewall bays therefore access is available from the front of the bay for firefighting. • As the piles are free standing, the waste will be 3m at the top centre of the pile which will form a dome shape so there is a suitable free board of at least 1m between the top of the pile and where the waste hits the wall at a 45-degree angle. • The piles are visually monitored throughout the day by site operatives and trained personnel who will be trained via toolbox talks in recognition of fire. • Apart from the use of loading plant i.e. loading shovel, forklifts, no other mechanical processing of waste takes place within 6m of waste piles. • A full deep clean of the bay will take place every 12 weeks to ensure there are no contrary items of waste which have been stored longer than necessary. • In addition to the CCTV, the waste will be visually monitored throughout the day by site operatives. • All site staff will be given instructions and advised of the importance of stock rotation as part of their training. • **No further storage or monitoring procedures required for this area.**

5.2 Waste stored in bags/containers

5.2.1 The site will store wet residue / pulp arising from the processing plants in tonne bags which take between 2 – 4 weeks to fill. Once the bags are full, they will be removed off site and replenished with empty bags.

5.3 Baled waste storage

5.3.1 The following table overleaf details the procedures for managing baled waste storage on site and reference should be made to Drawing No. GPL/3329/03A for details of the locations of the storage areas:

Table 4.2 – Combustible waste storage table for waste stored in bales

Pile Reference	Storage/monitoring procedures to reduce the risk of fire
AREAS 9 & 10 Mixture of baled material and product storage	• The bales will be stored 3m high i.e. three bales high in blocks of 3-4. • The site would only look to bale plastic in the event the plastic treatment plants are decommissioned to avoid a backlog of waste. The baler may also be used for processing residual items of plastic on site allowing for easier transportation. • It must be noted that AREAS 1 – 7 may store baled waste in the storage bays which is mixed with loose waste material. The same procedures below would apply to this waste also. • The bales in external areas would be stored <8 weeks if they were being stored. • There is a concrete high fire all adjacent to the bale storage which spans to the roof of the building and the bales are not stored within 6m of any other combustible or flammable waste. • The bales are visually monitored throughout the day by site operatives and trained personnel who will be trained via toolbox talks in recognition of fire. • Apart from the use of loading equipment (the location of which varies throughout the building) no other mechanical processing of waste takes place within 6m of waste piles. • There is suitable access to the bales via there open fronts situated on the building to aid in suppressing or removing the bales in the event of a fire. • The building also benefits from a fully automated detection and sprinkler/suppression system. • The area will only be full for a few hours whilst awaiting an articulated load; in reality the area will be less than shown on in Section 4 and Drawing No. GPL/3329/03. It is considered that no turning of bales is necessary as they will not be stored for longer than one week and monitored using the techniques below. • In the event the bales need to be stored longer, further monitoring of the bales may be used using a probe or thermal imagery. If this method is used, the centre bale stacks will be removed meaning the operator can provide a full representation of the bale surface temperature and inside the centre of the bales. • If the operator did monitor using the above method, if a temperature of above 70^0C is recorded, the bale will be transferred into the quarantine area, broken and doused with water until the temperature has reduced. The other bales will then be re-assessed using the same monitoring techniques. It must be noted that the bulbs of the sprinklers activate at a temperature of 68^0C so if the bales did overheat, the sprinklers would activate and the operator can move the bales to the quarantine area. • **No further storage or monitoring procedures required for this area.**

5.4 Temperature monitoring for stored waste

5.4.1 There are no proposals to carry out any manual monitoring using probes or thermal guns given the durations in which wastes will be stored at the site. The FPP guidance suggests over 12 weeks would trigger the need for further monitoring, this is 4 weeks additional to what the operator is proposing.

5.5 Stock rotation and seasonal variations

5.5.1 Details of stock rotation are clearly shown in previous sections, if the processing lines were to fail, the site would not accept any material, the site only accepts material when there is sufficient processing capability. The processing plant has two no. lines and it would be unlikely both lines fail at the same time. In the unlikely event both plants fail for a long duration i.e. a month, the site would begin to remove material to an alternative permitted site to reduce long storage durations of material. The site will also have baler to continue processing the material, the downside to baling the waste is that it would leave the site as waste and not a commodity.

5.5.2 The operator also has at least three no. diversion/alternative sites who could take this material including a contract set up with a Waste-to-Energy company.

5.5.3 The list of outlets has not been provided due to confidentiality purposes however the contracts will range from weekly – monthly depending on seasonal variations and demand for material.

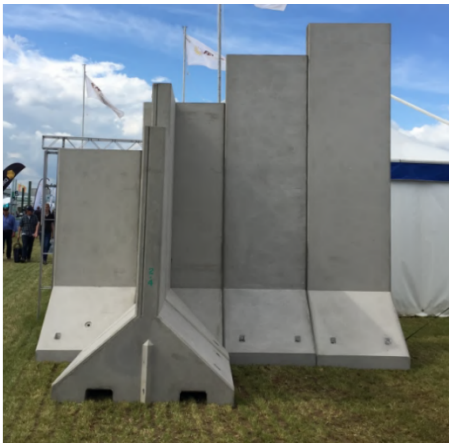
5.6 Exposure from direct sunlight

5.6.1 It is considered that the above measures demonstrated in the previous sections i.e. storage in fire walls and duration of storage will reduce any risk of a fire occurring from prolonged periods of sunlight. The site also operates 24/7 so piles are monitored continuously by trained staff who are involved in unloading and loading waste from these areas.

6 Prevent fire spreading

6.1 Fire walls and bays

6.1.1 Waste on site will be stored against freestanding precast concrete wall panels. The walls are constructed to the BS8110 Pt2 'Structural use of concrete Part 2 Code of practice for special circumstances' and BSEN1992-1-2 'Design of concrete structures. An example of the walls is shown below.



6.1.2 As the walls meet the above guidance, the structural fire design will be over 100mm in thickness and will have a fire resistance of 1200°C for 4 hours. This ensures the concrete firewalls on site will:

a) resist fire (both radiative heat and flaming); and,
b) have a fire resistance period of at least 120 minutes to allow waste to be isolated and to enable a fire to be extinguished within 4 hours.

Table 6.1 – Fire wall details and specifications

Firewall type	Width	Site location / use	Specification
Freestanding precast concrete wall panels	0.2m	See waste storage table	- Class A1 in accordance with Clause 4.3 4.4 of EN:13369 - <120 minutes
Concrete breeze blocks	0.3m	See waste storage table	As above.
Concrete interlocking blocks	0.8m	See waste storage table	As above.

6.1.3 The above walls are checked throughout the day by staff via daily inspections if any gaps or damage to the walls are present which could compromise their integrity, the walls will be repaired and sealed as soon as practically possible.

6.1.4 For waste which is stored in and against walls, a suitable 1.0m freeboard will be visually monitored throughout the day by operational staff who are loading/removing waste to/from the bay to ensure waste stockpiles don't exceed the freeboard height of the bay. The walls come in heights of 3m and will have a 2m high marker painted to ensure staff can monitor the height at all times.

6.2 Wind

6.2.1 As can be seen from Drawing No. GPL/3329/03, wastes are stored within a building or bays with a minimum of 1.0m freeboard and are thus sheltered from the wind.

7 Site inspection programme

7.1 Daily checks

7.1.1 Site management are responsible for carrying out daily site walks for checking drainage systems, security measures and waste storage areas. Site management can reference the checklists shown in Appendix II but may use internal check sheets. The site also carries out weekly inspections for firefighting equipment to ensure they are fit for purpose.

7.1.2 Carrying out daily checks keeps the levels of dust, fibre, paper and other loose combustible materials, which could aid in the acceleration of a fire, on site surfaces to a minimum and ensure all containment of wastes on site are functioning effectively in accordance with the storage limitations provided in the table on Drawing No. GPL/3329/03. It must be noted that during weekends all processing plant is deep cleaned to prevent any significant build up.

7.1.3 Operational staff will be trained by site management to ensure visual inspections of escape routes, fire exits, extinguishers etc. are clear in the event of a fire; Drawing No. GPL/3329/03 shows all fire exists for buildings, storage locations of firefighting equipment and escape routes.

7.2 Staff training

7.2.1 Operational staff are subject to site inductions which includes basic fire emergency procedures by site management. If necessary, a third-party fire consultant will be contacted to carry out additional training.

7.2.2 A full test (drill) of the procedures in this document will be carried out every 6 months to test that the plan works. The first test will take place within one month of the agreement of this document with the EA. The outcome and any follow up training for staff will be documented in the site diary and relevant forms in the EMS. The fire checklist may also be used during the drill.

7.3 Toolbox talks

7.3.1 All operational staff will receive fire awareness and firefighting procedures training / toolbox talks by trained site management prior to working at the site. This will enable the operational staff to detect early signs of fire and to minimise the chance of a fire breaking. Refresher testing will be mandatory every 6 months or sooner if site operations change which could lead to a greater fire risk.

8 Quarantine area

8.1 General

8.1.1 The largest pile on site is 420m^3 in volume meaning the quarantine area would need to hold 210m^3 of waste material. The quarantine area is positioned as shown on Drawing No. GPL/3329/03 and measures 70m^2 so if waste was piled to a height of 3m, which is considered with waste being stored at the site, the quarantine area could hold 210m^3 of material.

8.1.2 The quarantine area is located on an impermeable surface with sealed drainage and would be clearly marked on the ground, operatives would check to ensure it is visible though daily inspections.

8.1.3 Wastes will only be moved to the quarantine area if safe to do so following recommendation of the FRS.

8.2 Use of quarantine area

8.2.1 In the event of a fire breaking out, it is proposed the quarantine area will only be used to remove any wastes near any material which is smouldering or on fire (but not itself directly affected by the fire) to prevent the fire spreading this is because fires are usually extinguished in situ.

8.2.2 Surrounding wastes would be moved using forklifts, loading shovels and will only be moved to the quarantine area if safe to do so.

9 Fire detection procedure

9.1 Fire detection procedure (manual)

9.2 Manual detection

9.2.1 The site is manned 24/7 so if a fire is detected or suspected by a member of staff during operational hours, it will be immediately reported to site management. The relevant person will then conduct the following procedure:

a) Raise the fire alarm (if not already done by another staff member).
b) Initiate evacuation of staff and visitors on site to the meeting point and instruct delegated person(s) to conduct a rollcall to ensure all site users are accounted for.
c) Assess the intensity and scale of the fire and make a judgment as to whether the fire can be managed without the requirement for assistance from the emergency services i.e. using the hose or fire extinguishers.
d) Call the emergency services if assistance is required.
e) Radio call all staff who are parked in the car park and remove their cars off site i.e. into the public house across the road ensuring the quarantine area is clear
f) If a load is being delivered to the, advise this must cease and advise the driver of the articulated vehicle to leave the site.
g) If viable and safe, instruct necessary site staff to commence extinguishment.

9.3 Automated detection

9.3.1 **Internal** - As shown on Drawing No. GPL/3329/03, internal parts of the building benefit from an automated fire detection system comprising heat and smoke cameras which link to the sprinkler/suppression system. The system was installed by the previous operator of the site who had an approved FPP. It must be noted that very little waste will be stored in the building other than baled material when the processing lines are decommissioned. The detection system is in place to avoid damage to the building, processing plant and product

storage areas. The operator is still in a position to have the detection system maintained and monitored; this will be by a third-party monitoring company who are UKAS accredited.

9.3.2 **External** – As the site will be 24/7, no automated detection is proposed for wastes stored externally the operator will rely on manual means i.e. staff continuously monitoring piles when working in close proximity. If the site was closed for a period of time, there would be a security guard on site who would be trained by the TCM to walk the site hourly and monitor all external piles for any signs of fire. The security guard would be provided with details for out-of-hours staff who can respond during an incident and also be trained to contact the fire brigade.

10 Fire response procedures

10.1 Response procedure

10.1.1 Further to the above measures, the following procedure would apply if a large-scale incident were detected, included projected timescales for each measure

a) Call the Fire Response Service (FRS) immediately using 999 = **<30 seconds from incident**
b) Call the EA's Emergency Contact Number = **<30 seconds from incident**
c) Radio calls all staff who are parked in the car park and remove their cars off site i.e. into the public house across the road ensuring the quarantine area is clear = **<5 minutes**
d) If a load is being delivered to the, advise this must cease and advise the driver of the articulated vehicle to leave the site = **<10 minutes**
e) Competent person to ensure suitably trained employee has the fire water boom ready for use = **<5 minutes**
f) Prior to the FRS arriving, inform all neighbouring premises likely to be affected = **<5 minutes**
g) If not previously informed, senior management of the company will be informed at this point of the details, nature and extent of the fire and whether assistance from staff from other depots is required. = **<5 minutes**
h) Ensure access routes are clear = **<10 minutes**
i) If safe to do so, site management will inspect the location of the fire, to identify immediate risks to surrounding premises and the FRS = **<5 minutes**
j) Ensure operators of appropriate machinery are standing by in a safe location to help create fire breaks, under the direction of the FRS when they arrive **<10 minutes**
k) Ensure relevant site staff are standing by in a safe location to deploy additional surface water protection equipment under the direction of the FRS when they arrive (booms, etc.) = **<10 minutes**
l) Site management will identify themselves to the FRS as soon as they arrive on site and will provide them with a copy of this document and update them with relevant information that will assist them in dealing with a fire more effectively = **<15 minutes**
m) Implement pollution control measures (see Section 12) if safe to do so **<15 minutes**

10.1.2 It is proposed all the above measures could be completed within 15 minutes of a fire being detected which is considered given the proposed time it would take for the emergency services to arrive at the site.

10.1.3 In the event of the site manager or TCM being absent from the site, the operator will ensure a suitable person is employed and familiar with the site.

10.2 Staff/Visitor Response Procedure

10.2.1 The following quick actions will be undertaken by site operatives where a fire is detected or suspected on site:

a) Don't panic
b) Inform the site manager or technically competent manager immediately
c) Raise the alarm (if not done so already)
d) Do not try to tackle the fire yourself unless you are trained in doing so and you are sure of the nature of the fire
e) Leave the site using the nearest exit as quickly and as orderly as possible
f) Assemble at the specified fire assembly point
g) The site manager or delegated operative will be in charge of calling the emergency services on "999" and ensuring that all persons who were working in the building are assembled safely
h) Do not return to the site until you have been given the 'all clear' by the emergency services and/or site management / responsible person.

10.3 Evacuation of Staff (and Drill Procedure)

10.3.1 An evacuation plan has been formulated for the site and all operational staff have been made aware of it (through site induction and refresher training). The fast and effective evacuation of staff to the Fire Assembly Point shown on Drawing No. GPL/3329/03 will increase safety on site and limit the impact of a fire on any persons on site.

10.3.2 Fire drills will take place every 6 months and 1 month after site operations commence to ensure evacuation times are acceptable and that site staff remain informed of evacuation procedures.

10.3.3 The drill will be a simulation of an emergency with the location of a mock fire notified to staff in order to test the response speed in deploying pollution control equipment i.e. booms and ensure all firefighting equipment is suitable. The fire checklist will also be completed and a detailed report of the outcome of the exercise will be prepared to assist with staff training.

10.4 Access for emergency services

10.4.1 The nearest fire station is located to the east of the site on Tanhouse Road approximately 1.3 miles away. The response time is expected to be 8- 12 minutes.

10.4.2 The width of the surrounding roads and gateway exceeds the minimum required in Section 5 of the FRS (3.7m). The shift managers will also ensure that the on-site access routes are maintained throughout the working day.

10.4.3 Access routes for emergency services around the site are clearly shown on Drawing No. GPL/3329/03.

10.5 Notifying receptors

10.5.1 The contact numbers of key sensitive receptors identified within 1km of the site who could be directly affected in the event of a fire along with the Receptor Plan will be stored within the site office.

10.5.2 As it isn’t feasible for a contact number to be provided for every individual residential receptors and individual business within 1km, the most sensitive receptors and closest business receptors have been included within the table overleaf.

Table 10.1 - Receptor Contact Information

CONTACT	DESCRIPTION	CONTACT NUMBER
Hills Motorbikes, East Gilibrandsm Giligbrands Road, Skelmersdale, WN8 9SU	Motorbike Dealer	01695 551974
JRL Group Limited, Gerrard Place, Skelmersdale, WN8 9SG	Construction Company	0161 236 5705
Proteus Facades, 1 Gerrard Place, Skelmersdale, WN8 9SU	Metal Fabricator	0151 545 5075
Hills Salvage and Recycling Ltd (Hills Motors), Gerrard Place, Skelmersdale, WN8 9SU	Used Vehicle Parts Shop	01695 455777
Envision Media, 20 Greenhey Place, Skelmersdale, WN8 9SA	Signwriter and manufacturer	01695 559956
Fast Fence Ltd, unit 9, Greenhey Place, Skelmersdale, WN8 9SA	Fence Contractor	01695 455150
Skelsmerdale Electrical Distributions Ltd, 14 Greenhey Place, Skelmersdale, WN8 9SA	Electrical Wholesaler	01695 720006
BDS Training Ltd, 31 Greenhey Place, Skelmersdale, WN8 9SA	Training Provider	01695 555911
S V R Plastics Ltd, 5-6 Greenhey Place, Skelmersdale, WN8 9SA	Plastic Fabrication Company	01695 50717
RNB Commercials Ltd, 36 Greenhey Place, Skelmersdale, WN8 9SA	Vehicle Repair	01695 50800
The Bike Works, 2 Greenhey Place, Skelsmeredale, WN8 9SA	Bicycle Shop	01695 240321

10.5.3 The above receptors will be contacted by a co-ordinated approach where staff from WL Polymer Ltd will contact them by phone and/or email.

10.5.4 Once Emergency Services arrive on site i.e. FRS, Police, the lead authority (usually the Police) will co-ordinate a systematic approach to ensure all the relevant sensitive receptors within 1,000m are notified. This will involve via telephone calls, personal visits (knocking on doors) and or using a load speaker while driving around the associated catchment. In addition to this, the Emergency Services would also publicise the fire on their Social Media outlets and contact local news websites, radios who can also provide updates on the incident.

10.5.5 The police with the assistance of ECSS and any other attending authority will ensure all relevant properties are informed of the fire event and given clear instructions of the actions they need to take.

11 Suppressing fires & water supply

11.1 General

11.1.1 The Guidance for the FPP mentions the site should have enough water available for firefighting to take place and to manage a worst-case scenario. A worst-case scenario would be the largest waste pile catching fire.

11.1.2 Based on the above scenario, the largest pile of combustible waste on site is 4**2**0m^3 (when at full capacity). This pile this would require 504,252 (504 m3) of water to extinguish the fire within 3 hours requiring a flow of 2,801 litres per minute as demonstrated in the table below.

Table 11.1 - Water supply calculations

Maximum pile volume in m^3	Water supply needed in litres per minute	Overall water supply needed over 3 hours in litres	Total water available on/off site in litres
420	420 x 6.67 = 2,801.40	2801.40 x 180	504,252 (504 m^3)

11.2 Internal suppression/alternative measures

11.2.1 As mentioned in previous sections, the site was operated by Viridor who installed a fire suppression system consisting of a series of sprinklers located on frames of the roof. The location of the sprinklers is shown on Drawing No. GPL/3329/03. The installer of the sprinklers is unknown, information may be available from the previous operator but the operator recently had a service and flow test undertaken by A & F Sprinklers Ltd who are UKAS accredited. A & F Sprinklers Ltd confirmed the internal suppression is in fully working order, this report is shown in Appendix III.

11.2.2 The suppression system links to an enclosed water tank measuring approximately 150m^2, the volume of water in this tank is in excess of 500m^3 of water. The tank links to the suppression system via a series of panels situated in adjacent LT and control rooms. It must be noted the largest pile of waste inside the building would be AREA 9 (300m^3) requiring

360m^3 at a flow of 2,000 litres per minute. The flow tests report in Appendix III and volume of water available on site demonstrate there is ample flow and surpassing this requirement.

11.3 Other on-site suppression

11.3.1 There are a number of fire extinguishers located around the site which can be deployed in the event of an incident to tackle the fire or for fire suppression in the intervening time between discovery of the fire and the arrival of the FRS.

11.3.2 There will be access to hose reel providing suppression to all areas storing combustible waste in the building and external areas. The location of the reel is shown on Drawing No. GPL/3329/03.

11.4 External Suppression - Fire Hydrants

11.4.1 In consultation with the FRS, there is a fire hydrant situated approximately 40m the site access and suitable for use in the event of a fire breaking out. The hydrant is in full working order and is situated on a nominal 150mm main. The location of the hydrant is shown on Drawing No. GPL/3329/03. The fire hydrant therefore:

- Conforms to British Standard 750 or equivalent
- Is within 100m of the site access
- Is regularly serviced and maintained by the FRS or other suitably qualified provider

11.4.2 Contact was made with both the FRS and United Utilities and both are unable to provide a flow rate for the hydrant off-site therefore the following guidance extracted from The Local Government Association (LGA) / Water UK National Guidance Document details the following flow rates which should be considered for this site. As the hydrant is located in an area of industry and being on a 150 mm nominal diameter:

- Up to one hectare 20 litres per second.
- One to two hectares 35 litres per second.
- Two to three hectares 50 litres per second.

- **Over three hectares 75 litres per second.**

11.4.3 As the above site is considered in an area industry measuring over three hectares, the flow rate of the hydrant should be approximately 4,500 l/m which easily exceeds the required flow of 2,801 l/m shown in Section 11.3.2 and therefore suitable for extinguishing the fire within 3 hours.

12 Managing fire water

12.1 Drainage

12.1.1 All clean roof water generated from the building on site is engineered to fall into a gutter on either side of the building which leads to a number of downpipes, these pipes are then immersed directly into the ground, sealed with concrete preventing runoff and into the surface water drainage system. The bottom of pipes where they reach the ground are concreted to prevent any water arising from the surface to access these entry points.

12.1.2 All foul water generated from toilets, sinks etc.. this flows directly underground and into the foul sewer system. The surface and foul water drainage is shown on Drawing No. GPL/3329/03.

12.1.3 In terms of water generated from the external yard area, the site is engineered to fall into a series of gully catchment pits and then into the foul sewer. The front (west) of the yard drains into the foul sewer via an interceptor.

12.1.4 All areas of impermeable concrete are sealed by brick walls, concrete walls or 0.15m high kerbing therefore the site comprises a sealed drainage system.

12.2 Containment of fire water

12.2.1 The entire site is sealed so there is no risk of firewater escaping the site. The only possible water escape is through the site access or into the sewer system. In terms of the access, this will be sealed in the event of a fire using a fire water boom and the final manhole, where all underground drainage runs to has a shut off valve as shown on the next page which can be initiated electronically from the site office.

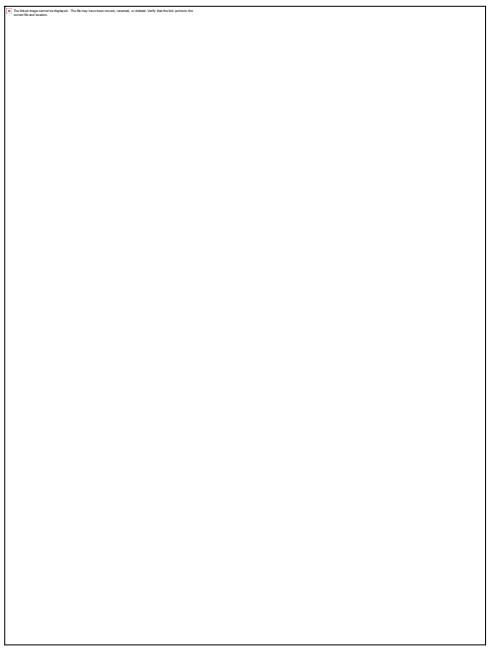


Image showing shut off valve

12.2.2 Based on the direction of the drainage, water is likely pool in the northern and western parts of the site. The external pad concrete pad in these areas measures approximately 5,330m^2. The site is relatively flat has ample capacity to contain the fire water and create a swimming pool/lagoon effect given the minimum 0.15m high kerbing to perimeters and 0.16m high boom at the entrance.

Table 12.1 - Firewater Containment Calculation

Volume of Water (m^3)	Containment Area (m^2)	Containment Required	Total Containment On Site
504	5330	504 / 5330 = 0.09	0.06m (concrete kerbs)

12.3 Fire water boom deployment procedure

12.3.1 The fire water boom will be located within the plant workshop as shown on Drawing No. GPL/3329/03 and would be deployed at the site access in the event of a fire and prior to extinguishing once the FRS arrive on site. The booms have a 160mm diameter tube each side and using a standard water main i.e. the hose from the site could be filled and provide containment in <10 minutes based on the length of the boom (10m), the volume required and the 15 l/m from the standard hose.

12.3.2 A key member of senior staff will be responsible for arranging the deployment of the fire water booms and will be trained in this procedure.

12.3.3 Upon confirmation that a significant volume of water is likely to be required for extinguishing a fire on site, the following deployment procedure for the poly booms will be observed:

a) Take the boom roll from the site office;
b) Emplace the boom as shown on Drawing No. GPL/3329/03 by rolling the necessary length;
c) Use supplied cable ties (also available in the site office) to seal the front end of the boom;
d) Using a sharp knife, cut the laid-out section from the remaining roll;
e) Using the Hose Reel, begin filling the first of the two chambers of the boom being sure to elevate the ‘fill’ end to prevent the water leaving the tube;
f) Once the first chamber is filled, repeat in second chamber ensuring the ‘fill’ end is kept elevated to prevent escape of water;
g) When both chambers are full the ‘fill’ end should be sealed using a cable tie thus completing deployment.
h) Typically, one side of the roll would be filled which has a 160mm diameter,

12.3.4 Once deployed, all booms should be regularly checked during a fire event to ensure that they are providing effective containment and that there are no breaches.

Secondary/additional lengths of boom can be deployed in addition to the compulsory locations using the same procedure (as above) if deemed necessary.

12.3.5 **Fire water boom specification** - The boom is the same as those issued to the FRS in their 'Grab Packs'. In the grab pack information, it states "*The boom is resistant to most chemicals but may be adversely affected by very aggressive solvents such as acetone*". The site will not accept any waste material containing acetone or any other solvents.

12.3.6 If there is any deviation from the above drainage arrangement, an amended FPP will be submitted for approval by the EA and FRS.

12.3.7 The operator will deploy the 0.16m fire water boom (which will be kept in the site office) at the location shown on Drawing No. GPL/3329/03 to ensure no firewater enters into groundwater's or public sewers.

12.3.8 If there is any deviation from the above drainage arrangement, an amended FPP will be submitted for approval by the EA and FRS.

12.4 Wind

12.4.1 In the event large quantities of fire water are used the concrete area already benefits from an impermeable concrete surface with sealed drainage and the additional of fire water booms will further reduce any impact of windblown fire water escaping off site. In addition to this, all waste stored externally is within concrete storage bays with a 1m freeboard.

12.5 Removal of fire water

12.5.1 Upon successfully extinguishing a fire all standing fire water would be pumped using a hired-in vacuum tanker and deposited to a suitably permitted site for treatment.

12.6 Control of Combustion Products

12.6.1 Combustion products likely to be associated with the waste stored at the site include; oxides of carbon, nitrogen and particulate matter including white smoke (plastic packaging waste). Additional combustion products may also include PAHs, dioxins and particulate matter including black smoke from other plastics.

12.6.2 The release of combustion products may be controlled by the low size of waste piles at the site and the swift removal of burning wastes to the quarantine area (thus reducing spread of fire and reducing the amount of combustion products created).

13 During and after an incident

13.1 Contingency Planning

13.1.1 In the event of a fire the site will cease accepting waste. All customers who wish to deliver wastes during a fire will be notified by site admin staff and any who arrive without prior notification will be turned away. If urgent, deliveries will be directed to an alternative waste facility in the borough; details of which can be found on the EA's public register.

13.1.2 No waste will be accepted on site until the post-fire site recovery procedures outlined in the section below have been fully implemented and the site is authorised to re-open for trade and waste acceptance.

13.2 Site decontamination

13.2.1 Surface water on site will be cleared using the following method:

a) Using a bowser, all standing fire water should be sucked up and taken off site or stored in a tank/bowser prior to removal off site.
b) Using all available resources remove fire damaged waste to landfill or permitted site.
c) Using a road sweeper, sweep the yard (damp as required using the bowser) until all ash and clinker has been removed.
d) All debris has now been isolated and all contaminated water holding areas have been cleared.
e) Wash the yard down in entirety using clean water or allow a reasonably heavy rain shower to wash the yard down.
f) It is at this stage that site management should decide whether it is appropriate to remove the surface water protection measures or repeat areas of the clean-up.

13.2.2 If the clean-up operation has been deemed complete, the surface water protection measures can now be removed. This will be achieved using the following methods:

a) Account for all consumables that have been used in the fire and re-order / replace immediately.
b) Restack, and re-locate all items used for the surface water protection during the fire to their storage locations ready for future deployment.
c) Check monthly that items are still present and correct and still serviceable for use in an emergency.

13.2.3 The operator will liaise with the EA throughout the event ensuring they are satisfied with the clean-up programme and notify the operator when the site can begin accepting waste again onto site.

13.2.4 Due to the nature of the site's customers, there are no regular waste contracts which need to be dealt with if the site is closed for a period of time due to any incidents. All waste accepted on site is at the discretion of the operator who can turn away waste whenever they need to i.e. if processing lines fail. In the event that the site is not able to receive wastes the customer will be offered alternative authorised facilities where they can take their waste.

13.3 Post fire site recovery

13.3.1 If a recovery procedure is required, the operator would instigate the following;

a) Remove damaged material to a permitted facility that is able to deal with it legally.
b) Ask engineers to carry out repairs on any plant, vehicles and/or infrastructure.
c) Assist the FRS with the fire investigation and where necessary engage the advice from a professional fire consultant.
d) Review the FPP and EMS procedures and improve upon where found deficient.
e) Review training requirements for staff.
f) Assess whether further preventative measure could be implemented.
g) Ensure all fire equipment, where used, is replenished.
h) Remove fire water to a permitted facility for disposal.

Appendix I

Drawings

NOTES

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REVISION HISTORY

Rev:	Date:	Init:	Description:
-	17.11.23	CP	initial drawing
A	21.11.23	CP	Operator comments

Key:

- Permit boundary
- Combustible waste storage areas
- Temporary storage/loading areas
- Product storage non-waste
- Waste recycling buildings
- Concreted areas
- Other buildings (offices, etc.)
- Stone surface / free draining
- Landscaped/grass areas
- Location of fixed plant (indicative)
- Mains water point & hoses
- Spill kit
- Fire fighting equipment (extinguishers, etc.)
- Fire water containment equipment i.e. booms, drain mats, drain plugs etc..
- Access routes for emergency vehicles and site plant manoeuvring areas
- Fire alarm
- Surface water fall direction
- Foul water drainage (potentially contaminated)
- Surface water drainage (clean)
- Surface gullies
- Foul/surface manholes
- Plant / electrical shut off
- Fire assembly point
- Fire door
- CCTV cameras (indicative locations)
- Infrared/heat detection cameras (indicative locations)
- 0.8m wide concrete interlocking block fire wall
- 0.3m - 0.6m wide concrete panel fire wall
- Fire suppression system sprinklers (indicative locations)

EREMA Extrusion plant references

Ref:	Description:
1	Bag fill unit
2	Pellet drying centrifuge
3	Pellet transport system
4	Pellet dewatering system
5	Water pump station
6	Hot die face pelletiser
7	EREMA Backflush filter
8	Water system for vacuum pump
9	EREMA Laserfilter
10	Powered exhaust sytem
11	Control cabinet
12	INTAREME process combination
13	Belt conveyor
14	Maintenance platform

Wash Plant references

Ref:	Description:
1	Twin rotor shredder
2	Conveyor
3	Float sink tank
4	Centrifuge / dewater & clean
5	Granulator
6	Auger feed
7 & 8	Flat sink tanks
9	Centrifuge / dewater & clean
10	Float sink tank
11	Centrifuge / dewater & clean
12	Manifold & conveyors x 3
13	3 x screw press mechanical driers
14	Frames x 3 for holding jumbo sacks - Packing of finished agglomerate

Storage Area Details

Plan Ref	Description	Storage type	Containment / type	Height of firewall (m)	Max width (m)	Max length (m)	Max height (m)	Max area (m)	Conversion factor used	Approx. volume (m3) - out-of-hours	Max storage time	Comments
AREAS 1 - 4	Bays for unloading mixed waste streams for sorting and separation (waste may also contain as shown in AREAS 5-7)	Waste could be baled or loose	Concrete panel & concrete interlocking block fire walls	4	20	7	3	140	1	420	<8 weeks	Any wastes which could give rise to odour would be removed within 48 hours
AREAS 4 - 7	Bays for unloading mixed plastic prior to treatment (waste may also contain as shown in AREAS 1-4)	Waste could be baled or loose	As above	4	20	7	3	140	1	420	<8 weeks	Any wastes which could give rise to odour would be removed within 48 hours
AREA 8	Pre-processing bay containing plastic film prior to loading into the treatment plant	Waste could be baled or loose	As above	4	8	6	3	48	1	144	<24 hours	Area will continually load wastes into the pre-treatment area inside the building
AREA 9	Mixture of baled material and product storage	Baled / processed	Concrete panel fire wall of building	6	5	5	3	25	1	75	<8 weeks	These areas will only store waste in the event the baler is used because the wash & extrusion plants have been decommissioned
AREA 10	Mixture of baled material and product storage	Baled / processed	Concrete panel fire wall of building	6	5	8	3	40	1	120	<8 weeks	As above

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE: SITE LAYOUT & PLAN

CLIENT: W L Polymer Ltd

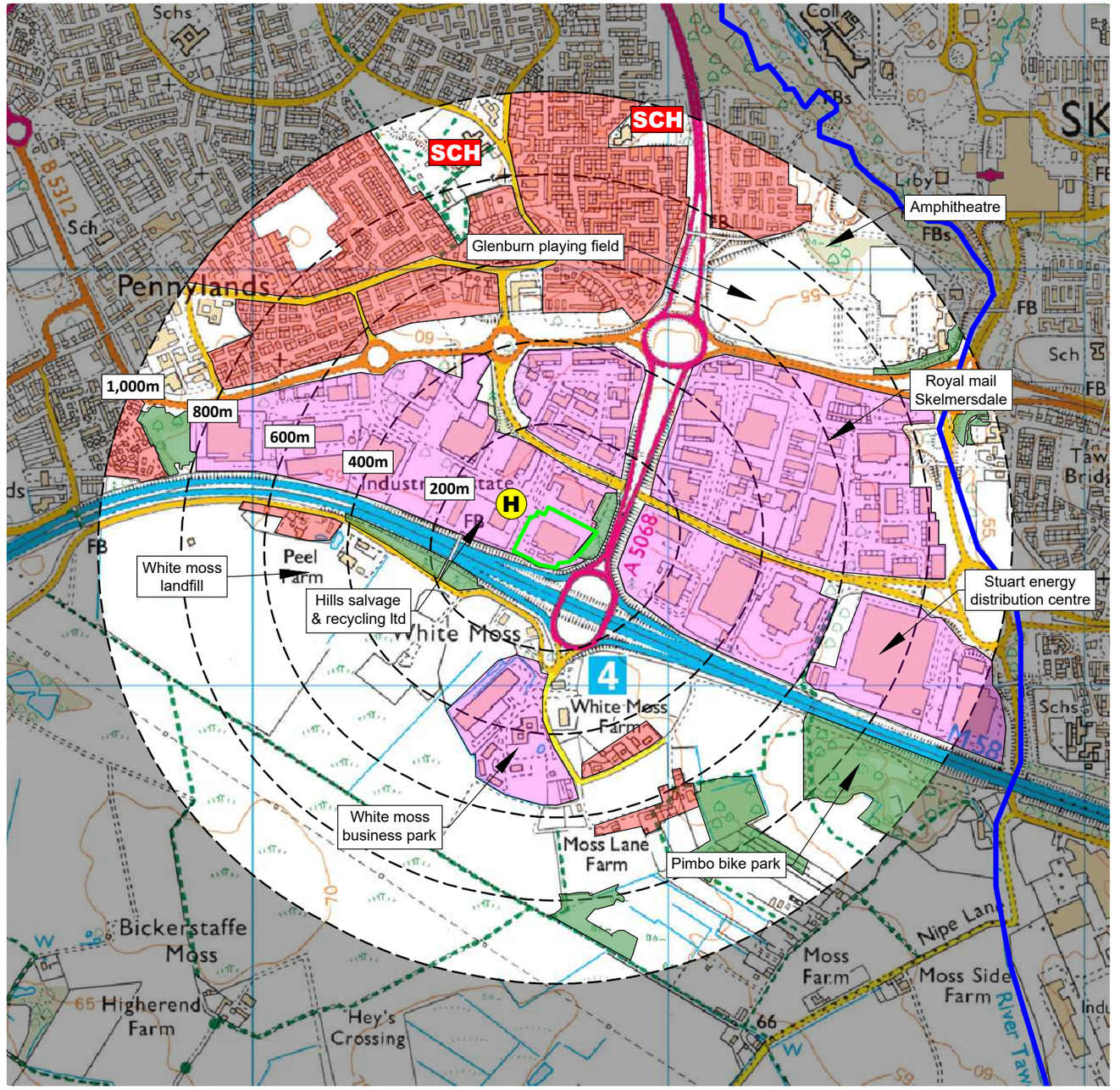
PROJECT/SITE: Gerrard Place, Skelmersdale WN8 9SU

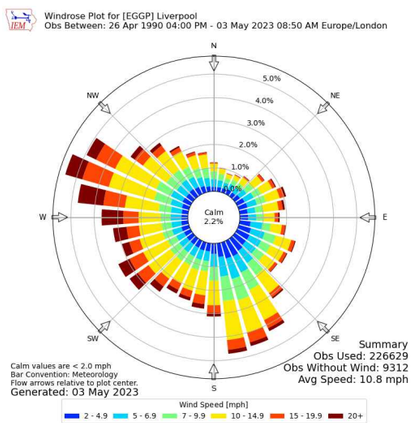
SCALE @ A0	CLIENT NO	JOB NO
1:200	3329	001
DRAWING NUMBER	REV	STATUS
GPL/3329/03	A	Issued
DRAWN BY	CHECKED	DATE
CP	SK	17.11.23

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
t: 01606 558833 | e: sales@oaktree-environmental.co.uk

KEY:

- Permit boundary
- Main River
- Surface water body (river / stream / pond / pool / lake)
- Workplaces (includes agriculture industry, commerce and retail)
- Areas with mix of residential, retail and commercial properties
- Residential blocks
- Class A, B, C roads
- Nearest fire hydrant
- Railway line
- School
- Woodland areas
- Priority habitat inventory (deciduous woodland)





Compass Wind Rose for (EGGP) Liverpool
Period 1990-2023
- source: Iowa State University

Scale Bar (1:12,500)

0 km — 500 m — 1 km

NOTES

1. Boundaries are shown indicatively.
2. Wind rose data shows the prevailing wind direction to be Southerly.

REVISION HISTORY

Rev:	Date:	Init:	Description:
-	28.09.23	JH	Initial drawing

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
RECEPTOR PLAN

CLIENT
WL Polymer Ltd

PROJECT/SITE
Gerrard Place, Skelmersdale WN8 9SF

SCALE @ A3	CLIENT NO	JOB NO
1:12,500	3329	001

DRAWING NUMBER	REV	STATUS
GPL/3329/04	-	Issued

DRAWN BY	CHECKED	DATE
JH	RS	28.09.23

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
t: 01606 558833 | e: sales@oaktree-environmental.co.uk

Appendix II

Record Keeping Forms

WL POLYMER LTD
SITE INSPECTION FORM (MINIMUM TWICE DAILY)

DAY												
TYPE OF INSPECTION												
TIME OF INSPECTION (START)												
TIME OF INSPECTION (FINISH)												
SITE ENTRANCE/NOTICE BOARD												
SECURITY - GATES												
SECURITY - FENCING												
SITE ROADS (CLEAR FROM HAZARDS)												
IMPERMEABLE CONCRETE AREAS (INTEGRITY)												
KERB AROUND CONCRETE PAD (INTEGRITY)												
WASTE CONTAINMENT BAY WALLS												
WASTE STORAGE LIMITS COMBUSTIBLE												
COMBUSTIBLE WASTES (AWAY FROM POTENTIAL IGNITION SOURCES)												
FIRE DETECTION SYSTEMS												
REJECTED WASTE TYPES / STORAGE												
FIRES (ANY INCIDENTS REPORTED)												
QUARANTINE AREA CLEAR OF WASTE												
NO SMOKING SIGNS IN PLACE												
FIRE FIGHTING EQUIPMENT												
FIRE BREAKS IMPLEMENTED												
PLANT/EQUIPMENT MAINTENANCE CHECKS												
HOT EXHAUSTS FIRE WATCH (DUST/FLUFF CLEANED REMOVED)												
SPILLAGES OF OIL/LIQUIDS CLEARED												
OFFICE/WELFARE FIRE RISKS CHECKED												
ELECTRICAL APPLIANCES AND CABLING CHECK												
FUEL TANK/BUND												
LITTER												
DUST												
ODOUR												
VERMIN												
RECORDS												
COMPLAINTS RECEIVED												
OTHER (SEE NOTES BELOW)												
INSPECTION CARRIED OUT BY												

NOTES/ACTION (CONTINUE ON A SEPARATE SHEET IF NECESSARY):

CHECKED BY		**SIGNATURE**	
POSITION		**DATE**	
Sheet		***of***	

WL POLYMER LTD - PREVENTATIVE MAINTENANCE CHECKLIST

Appendix II

CHECKED BY	**POSITION**
DATE	**DATE OF LAST CHECKLIST**

	EQUIPMENT ITEM					
OFFICIAL MAINTENANCE CHECK REQUIRED (Y/N)						
IF NO, DATE OF LAST CHECK						
IF YES, DATE OF NEXT CHECK						
IS ITEM IN CORRECT WORKING ORDER						
LEAKAGES OF OIL/DIESEL ON MOBILE PLANT / VEHICLES						
IF NO, WHAT REPAIRS ARE REQUIRED (USE SEPARATE SHEET IF REQUIRED)						
WERE REPAIRS DETAILED ON THE LAST CHECKLIST						
IF YES, HAVE THEY BEEN CARRIED OUT						
ADDITIONAL REPAIRS OR ACTIONS REQUIRED						

WL POLYMER LTD
EMPLOYEE TRAINING NEEDS ASSESSMENT / REVIEW - BSP/RF/6

EMPLOYEE NAME				**DATE COMPLETED**			
POSITION				**REVIEW DUE**			
TRAINER				**OUTCOME**	**PASSED**		
POSITION					**FURTHER TRAINING REQUIRED**		
CARRIED OUT /SIGN OFF >	**Y/N**	**SIGNED BY EMPLOYEE**	**SIGNED BY TRAINER**		**Y/N**	**SIGNED BY EMPLOYEE**	**SIGNED BY TRAINER**
ENVIRONMENTAL PERMIT				**FIRE PREVENTION PLAN**			
MANAGEMENT SYSTEM				**FIRE SAFETY**			
SITE RULES				**EMERGENCY PROCEDURES**			
RECORD KEEPING / TRANSFER NOTES				**STORAGE /PILE SIZE LIMITS**			
RECOGNITION OF WASTE TYPES				**STORAGE DURATION**			
SECURITY				**FIRE DETECTION**			
VEHICLE CHECKS				**FIRE ALARMS**			
PLANT OPERATION				**FIRE FIGHTING EQUIPMENT**			
PLANT CHECKS				**FIRE WATER CONTAINMENT MEASURES**			
AMENITY - LITTER, ODOUR, PESTS etc.				**SPILL CLEARANCE**			
NOTES AND ACTIONS:							

Appendix III

Sprinkler System Flow Test Results

SPRINKLERS LTD

Unit 4 | Gorrells Way | Transpennine Trading Estate | Rochdale | OL11 2PX
T: 0845 505 1550 | E: service@afsprinklers.co.uk | W: afsprinklers.co.uk

FIRE PUMPS | FLOW TESTING

ROUND THE CLOCK | ROUND THE COUNTRY | 24 HOUR SERVICE

Client Details			
Client	VIRIDOR POLYMER RECYCLING	**Job Ref Number**	PS2444
Site Address	Viridor Polymer Recycling (AFZ3) Gerrard Place East Gilibrands WN8 9SF	**Engineer**	Daniel Jackson
		Work Start	05/09/2022 09:05:31
		Work End	05/09/2022 13:32:18
		Travel Time	1 Hours, 19 Min.

Work Carried Out

annual pump service completed
alignments recorded
flow test completed
unable to change oil filter due to type of filter and requires replacement

scope of works

diesel pump has old damfoss valve that is heavily passing and requires replacement

diesel engine requires new air filters crossland 908&908 paper filter

diesel engine requires new oil filter AC72
engineers do not stock these filters due to the age of the pump set

Additional Works Required

engine requires new air filters
crossland 908 &crossland 909

engine requires oil filter
AC72 paper filter

1x new 1/2" damfoss valves with balance line with inline filter
will require new cooling line due to age and condition of orginal (original is made with copper fittings, to fit old style damfoss valve)
possible pirtek custom cooling line

1x engine fuel lift pump pictures attached

Sprinkler Fire Pump(s) Details

Fire Pump No.	Fire Pump Type	Rated Flow	Rated Pressure	Rated Speed	Pump End Model No.	Pump End Serial No.
1	Electric	4500			SL13	c425K
2	Diesel	4500			SL13	c426k

Measurements Recorded

Flow Recorded	L/Min
Discharge Pressure Recorded	Bar
Suction Pressure Recorded	Bar

Flow Test Result(s)	Pump 1	Pump 2
CV Discharge Pressure	9.3	9.0
CV Suction Pressure	unknown	unknown
CV RPM	2983	2531
Point 1 - Flow	900	900
Point 1 - Discharge Pressure	9.2	8.9
Point 1 - Suction Pressure	unknown	unknown
Point 1 - RPM Speed	2980	2492
Point 1 - Oil Pressure	n/a	n/a
Point 1 - Water Temperature	n/a	n/a
Point 2 - Flow	1500	1500
Point 2 - Discharge Pressure	9.1	8.6
Point 2 - Suction Pressure	unknown	unknown
Point 2 - RPM Speed	2976	2487
Point 2 - Oil Pressure	n/a	n/a
Point 2 - Water Temperature	n/a	n/a
Point 3 - Flow	2500	2500
Point 3 - Discharge Pressure	9.0	8.3
Point 3 - Suction Pressure	unknown	unknown
Point 3 - RPM Speed	2970	2477
Point 3 - Oil Pressure	n/a	n/a
Point 3 - Water Temperature	n/a	n/a
Point 4 - Flow	3500	3500
Point 4 - Discharge Pressure	8.6	8.0
Point 4 - Suction Pressure	unknown	unknown
Point 4 - RPM Speed	2964	2474
Point 4 - Oil Pressure	n/a	n/a
Point 4 - Water Temperature	n/a	n/a
Point 5 - Flow (Duty Point)	4500	4500
Point 5 - Discharge Pressure	7.2	7.2
Point 5 - Suction Pressure	unknown	unknown
Point 5 - RPM Speed	2953	2471
Point 5 - Oil Pressure	n/a	n/a
Point 5 - Water Temperature	n/a	n/a
Point 6 - Flow		
Point 6 - Discharge Pressure		
Point 6 - Suction Pressure		
Point 6 - RPM Speed		
Point 6 - Oil Pressure		
Point 6 - Water Temperature		
Point 7 - Flow		
Point 7 - Discharge Pressure		
Point 7 - Suction Pressure		
Point 7 - RPM Speed		
Point 7 - Oil Pressure		
Point 7 - Water Temperature		
Point 8 - Flow 150% overload		
Point 8 - Discharge Pressure		
Point 8 - Suction Pressure		
Point 8 - RPM Speed		
Point 8 - Oil Pressure		
Point 8 - Water Temperature		

Customer Details	Date	Engineer Details	Date
eddie	05/09/2022 13:32:07	Dan jackson	05/09/2022 12:57:15