FIRE PREVENTION & MITIGATION PLAN

Unit 27 & The Former Scrapyard, Castle Park Industrial Estate, Flint, Flintshire CH6 5XA

New Horizon Plastics Co Ltd

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THIS DOCUMENT IS DUE FOR REVIEW IN **JULY 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:	Unit 27 & The Former Scrapyard, Castle Park Industrial Estate, Flint, Flintshire CH6 5XA		
Site Operator:	New Horizon Plastics Co Ltd	**National Grid Ref:**	SJ 24398 73554

CONTACT	DESCRIPTION	OFFICE HOURS	OUT OF HOURS
Philip Thomas Karyn Thomas	Director / Site Managers	07730 402400	07730 402400 07917 718335
Mark (Arthur) Imrie	Technically Competent Manager	07730 402400	07958 587462
Hollywell Community Hospital Halkyn Road, Holywell, CH8 7TZ	Local NHS Hospital (Main)	03000 850008	999
	Accident & Emergency (A&E)	999	999
Eyton Place Surgery Flint Health and Wellbeing Centre, Earls Street, Flint, Flintshire, CH6 5ER	Local Doctor Surgery (GP)	0117 9661412	999 or 112
North Wales Police 26 Wepre Drive, Connahs Quay, Deeside, CH5 4HA	Local Police Non-Emergency	01275 818340	999 or 112
North Wales Fire & Rescue Service Gorsaf Dân (Flint) Fire Station, Chester Street, Flint, Flintshire, CH6 5DH	Fire and Rescue Service (in Emergency Dial 999)	01352 732777	999 or 112
Natural Resources Wales (Nearest Office) Chester Road, Buckley, CH7 3AG	Environmental Regulator	0300 065 3000	0300 065 3000
Flint Town Council Council House, Victoria Square, Birmingham B1 1BB	Local General Enquiries	01352 734414	999 or 112
Flintshire County Council County Hall, Mold, Flintshire, CH7 6NF	Local General Enquires	01352 703234	999 or 112
Dwr Cymru (Welsh) Water	Mains water and sewerage supplier	0800 052 0130	0800 783 4444
Oaktree Environmental Ltd - Lime House, 2 Road 2, Winsford, Cheshire CW7 3QZ	Specialist Advisor (Waste and Planning Issues)	01606 558833	999 or 112 or

1 Introduction

1.1 Overview of site operations

1.1.1 New Horizon Plastics Co Ltd operate EPR/BB3697ZN which is an A16a Physical Treatment Facility for hazardous and non—hazardous waste. The site allows for the sorting, storage and treatment of predominantly plastic waste. Recycled plastic consists of baled, pellets or flaked plastic for export as product in the manufacturing industry. Residual waste will be sent to an appropriately permitted site. The location and processes of all the above activities are shown on Drawing No. CAS/2570/03.

1.2 Fire prevention objectives

1.2.1 This Fire Prevention & Mitigation Plan (FPMP) has been produced in accordance with Natural Resources Wales's (NRW) - Waste Management; Guidance Note 16 published July 2017 to:

- Minimise the likelihood of a fire;
- Reduce impact from emissions during or after a fire on the local community, critical infrastructure and the environment;
- Ensure suitable resources required by the NRW and other emergency responders are available during an incident; and,
- Identify post incident clean-up and remediation costs.

1.3 General site information

1.3.1 This document considers the risks associated with fire on site at Unit 27 & The Former Scrapyard, Castle Park Industrial Estate, Flint, Flintshire CH6 5XA. The site allows for the sorting, storage and treatment of plastic waste to provide feedstock to manufacturers using recycled product such as granulated or flaked plastic or other recycling companies for further recovery. Residual waste will be sent to an appropriately permitted site for further recycling. The site will not be open to the public for the deposit of waste.

1.3.2 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. CAS-2570-A for its content.

1.3.3 The layout of the site is shown on Drawing No. CAS/2570/03. This FPMP document will be kept in the site office located as shown on Drawing No. CAS/2570/03.

1.3.4 This FPMP will also be located in the Emergency Services Box (ESB) located near the site entrance as shown on Drawing No. CAS/2570/03 in Appendix I. The ESB will also contain contact numbers for immediate receptors who could be in danger if a large fire broke out at the site. The receptors are shown on Drawing No. CAS/2570/04 in Appendix I and table 9.1 and in the event of a fire, the Fire & Rescue Service (FRS) and NRW would be able to view this FPMP to ensure the actions set out are implemented to meet the objectives shown in section 1.1.1

1.3.5 The site also has a contract set up with a Fire Risk Consultant who review and visit the site every 12 months. The most recent Fire Risk Assessment was undertaken on 08/03/2022 and is included in Appendix III of this FPMP.

1.4 Staffing and management

1.4.1 The site will require approximately 12-15 staff when fully operational. Staff roles include minimisations, yard operatives, drivers, security, plant operatives, site and operations managers.

1.4.2 All operational staff and contractors must be aware and understand the contents of the Fire Prevention & Mitigation Plan (FPMP) and its location in order to respond and action the proposals set out in this FPMP to ensure the three objectives in Section 1.2 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. CAS/2570/03. 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
Fork lift	2	Loading/unloading/movement/sorting
Telehandler	3	Importing / exporting material
360^0 excavators	3	Importing / exporting / loading material
Road sweeper	1	Site sweeping/housekeeping

1.5.2 All of the plant above, apart from the road sweeper can be used to move waste burning, or near burning waste. The above plant comprises modern plant with fully enclosed cabs as well as fire and heat resistant hydraulic systems. The mobile plant also has fire extinguishers situated in their cabs.

1.6 Hours of operation

1.6.1 The site will be operated in accordance with the following hours:

- 07:00 – 19:00 Monday – Sunday and closed Bank Holidays.
- The site will be completely shut down for one day a month to provide a full operational clean up.

1.7 Correspondence with Fire and Rescue Service

1.7.1 North Wales Fire & Rescue Service (FRS) and Welsh Water were contacted in the preparation of the latest FPMP review with a view to obtaining details regarding the nearest hydrants in the proximity of the site and also their projected water supply in the event of an incident.

1.7.2 New Horizon Plastics Co Ltd will seek a response from the NRW and FRS should a fire incident occur or any major site, infrastructure or operational changes with regards to their FPMP and associated operations on site. 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 A Sensitive Receptors Plan has been provided in Appendix I to highlight all main receptors within 1,000m of the site which could be affected by a fire at 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 table overleaf details a risk assessment of all the receptor types within 1km radius of site, and likely impacts on each - e.g. smoke, road closures, impacts on businesses etc…

1.8.4 Contact details for surrounding industrial, commercial, retail and leisure premises are shown in Section 8.3 including and procedures of how receptors with human population would be notified of a fire.

Table 1.2 – Receptor Table

Receptor	Receptor Type	Source	Harm	Pathway	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management
Numerous surrounding industrial and commercial uses on Castle View Industrial Park	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	Medium	Medium	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.
Residential dwellings in the surrounding area shown on Drawing No. CAS/2570/04	Residential	As above	Respiratory irritation, illness and nuisance to local population.	Air transport of smoke.	Medium	Medium	Medium	As above
Surrounding highway networks including A548	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	Medium	As above
Flint Train Station and railway line	Leisure / retail	As above	Closure of railway due to excessive smoke fumes. Increased risk of accidents due to poor visibility. Nuisance to staff and people associated with using these services due to closure.	Air transport of smoke.	Medium	Medium	Medium	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.
Surface Waters inc. the Dee Estuary – RAMSAR, SAC, SPA and SSSI	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.	Low	Medium	Low	Procedures set out in this FPMP. The site has a sealed drainage system.
Flint Mountain SSSI	Protected sites and species	As above	As above	Air transport of smoke.	Low	Medium	Low	Procedures set out in this FPMP
The Flint Marsh Local Wildlife Site	Protected sites and species	As above	As above	Air transport of smoke.	Low	Medium	Low	Procedures set out in this FPMP
Other habitats and species inc. deciduous woodland	Protected sites and species	As above	As above	Air transport of smoke.	Low	Medium	Low	Procedures set out in this FPMP
Flint Castle	Heritage site	Fire causing the release of polluting materials to air (smoke, fumes and particulate matter)	Harm to heritage site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Air transport of smoke.	Low	Medium	Low	Procedures set out in this FPMP

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 5 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	• Only trained staff can use 'hot works' equipment i.e. oxy-acetylene. • Staff and contractors follow safe working practices including a permit to works system when carrying out hot works. • Daily fire watch for a suitable period after hot works have ended, particularly at the end of a working day.	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	• Hot works procedures in place.	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 and LPG tanks 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
“Tramp” metal	Metal could be hot from mechanical processing and interact with lighter waste causing a fire	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. • Minimum daily checks on mechanically processed scrap metal at the start/end of each working day. • 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. • Infra-red / heat detection cameras in place providing full coverage over mechanically treatment and storage areas.	Low

2.2 Storage of non-waste hazardous substances

2.2.1 There are red diesel tanks situated on site which are used to power fixed and mobile plant as shown on Drawing No. CAS/2570/03 and the following 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 are clearly marked showing the product within and also its capacity.

2.3 Other hazardous (non-waste) material storage

2.3.1 The location of gas cylinders, tanks and diesel are shown on Drawing No. CAS/2570/03. In terms of any aerosols, other combustible liquids and chemicals, these would be located in the workshop at Unit 27 and only used for repairs.

2.3.2 The site has on site generators to power mobile plant but both generators are kept away from waste storage and treatment areas and 6m from any combustible or flammable material.

2.4 Hot works procedure

2.4.1 The site's hot working procedure are shown in Appendix IV of this document.

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 AREAS as shown on Drawing No. CAS/2570/03.

2.5.2 The smoking receptacle inside the shelter 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 FPMP 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 **Out-of-hours** – Out of hours will comprise 19:00 – 07:00 Monday to Saturday and all-day Sundays and Bank Holidays.

2.6.5 Within the 30 minutes of the sites closing, there is ample time to inspect the equipment for 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. CAS/2570/03.

2.6.6 The locations of processing plant including routing and out-of-hours for mobile plant are clearly shown on Drawing No. CAS/2570/03.

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

2.6.8 Fuels and combustible liquids from site vehicles will be checked prior to commencement of operations then ongoing throughout the day ensuring each vehicle has undergone the relevant inspection for the presence of leakages.

2.6.9 If spillages are reported or found on site following inspections, they will be cleared immediately by depositing sand or absorbents on the affected area and removed to the quarantine area or to a dedicated quarantine skip to await removal to a suitably permitted

2.7 Site security

2.7.1 As shown on Drawing No. CAS/2570/03, the boundary of both sites are protected from unauthorised access comprising palisade fencing. The two site access gates are of steel construction and are lockable should the site be left unmanned at any time, to prevent unauthorised vehicular or pedestrian access.

2.7.2 Both sites will benefit from 24-hour security with remotely accessible CCTV fitted with full site coverage and off-site supervision. The CCTV system is linked to a third-party monitoring company CMS Security who will view any footage in the event an alarm and notify the site manager / TCM in any incidents who can take appropriate actions depending on the scale of the incident.

2.7.3 The site security measures will be inspected on a daily basis and any defects which impair the effectiveness of the security will be repaired as soon as practicable. If this is not possible, temporary measures will be put in place to ensure no unauthorised access to the site can be gained until the proper repairs can be carried out.

2.7.4 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 (3/5 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

3.1.1 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. This will ensure compliance with the maximum storage duration for specific wastes (as shown on the Waste Storage Table on the Site Layout and Fire Plan).

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.

3.1.3 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.

3.2 Combustible waste reception

3.2.1 Incoming wastes will be tipped in the areas shown on Drawing No. CAS/2570/03.

3.2.2 It is proposed that the site will operate continuously so there is no requirement for any additional waste/reception storage areas. Additional storage areas will comprise post-sorted/treated wastes and product which will be removed when the areas are full, this is expected to be at least 3-4 times during the site's operating hours.

3.2.3 If material is not suitable for processing following an initial sort, it will be removed from site within the timescales shown in Table 4.1.

3.3 Combustible waste daily acceptance

3.3.1 The site will accept a maximum of 225 tonnes per day of non-hazardous plastic and a maximum of 10 tonnes per day of hazardous plastic. The non-hazardous plastic can be processed at a rate of at least 40 tonnes per hour and the hazardous waste can be processed at a rate of 3 tonnes per hour so based on the site's operating hours, there should never be a backlog of waste on site.

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. CAS/2570/03 and reference should be made to the 'waste storage table' in Section 4.3 which demonstrates how the waste will be stored and monitored within the guidelines of the NRW's FPMP 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. CAS/2570/03 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 NRW's FPMP 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 Monitoring and control of temperature

4.2.1 Due to the proposed durations of waste storage, it is proposed that temperature monitoring by eye i.e. visual is considered suitable and the use of temperature probes, thermal imagery, automated monitoring is not required.

4.3 Waste storage table

4.3.1 The table overleaf is a summary of the waste storage table which is shown on Drawing No. CAS/2570/03 and details maximum pile sizes and duration for wastes stored on site.

4.3.2 The table below which is shown on Drawing No. CAS/2570/03 details maximum pile sizes and duration for wastes stored on site.

Table 4.1 – Waste Storage Table

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**	**Max volume (m^3)**	**Max storage time**	**Comments**
AREA 1	Temporary plastic bulking area acting as pre-processing pile - waste arises from SITE B	Shredded, washed, baled and wrapped	Concrete panel wall	3	10	4	2	40	1	80	<6 hours	Area clear 1 hour prior to working day shutdown ready for next shift
AREAS 2 & 3	Residual (light organics) from wash process	Treated/washed	Sealed container	N/A	1	1	1	1	1	1	<1-2 hours	Bags removed when full; on average 10 - 12 times per day
AREA 4	Temporary storage of plastic flake and pellet product	Mechanically processed/tonne bags	Tonne bulk bags	N/A	15	4	1	60	1	60	<12 hours	Bags are removed to separate unit prior to being exported to claim PRNs (non-waste)
AREAS 5 - 6	Temporary LD plastic bulking area prior to shredding	Shredded, washed, baled and wrapped	Concrete firewall / interlocking blocks	3.2	6	7	2.2	42	0.75	69	<6 hours	Area clear 1 hour prior to working day shutdown ready for next shift
AREA 7	Reception and storage area for loose LD plastic	Loose and baled form	As above	4	10.8	10.8	3	116.64	0.75	262	<2 weeks	Storage based on worst case scenario i.e. plant breakdowns
AREA 8	Storage area for loose LD plastic	As above	N/A	3.2	20	4	2.2	80	1	176	<2 weeks	Storage based on worst case scenario i.e. plant breakdowns
AREA 9	Storage area for loose LD plastic	As above	As above	4	10.8	7.2	3	77.76	0.75	175	24 hours	Storage based on worst case scenario i.e. plant breakdowns
AREA 10	Hazardous IBC inspection and storage area	Loose containers	Concrete firewall (partial) / interlocking blocks	3.2	16	13	2	208	1	416	<2 weeks	Storage based on worst case scenario i.e. plant breakdowns (approx. 250 containers < 10 tonne)
AREA 11	Washed IBC storage (non-hazardous)	Washed, loose containers	Concrete firewall / interlocking blocks	3.2	10.4	7	2	72.8	1	146	<2 weeks	Storage based on worst case scenario i.e. plant breakdowns

4.3.3 The conversions for the waste piles have been calculated using the following:

Table 4.2 – Conversion factors

CONVERSION FACTORS
Conversion factors for waste piles are worked out using the following methods set out by Natural Resources Wales
The maximum length & width of 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 rectangle + pyramid for waste stored within a bay (approx. 0.75)
Conversion of pyramid volume for waste stored in a free-standing stockpile (approx. 0.333)
For areas containing skips, conversion is calculated by volume of each skip x number of skips

5 Managing waste piles

5.1 Stored combustible waste/materials

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

a) Baled and loose recyclable plastic waste.
b) Metal cages from IBCs
c) Rejected /by-product wastes unsuitable for processing or arising from processing
d) There will also be non-waste material on site comprising plastic flakes.

5.1.2 **AREA 4** - Once the plastic has been fed through the treatment process, the operator will claim non-waste status on the material by way of a PRN or for re-use in the UK. Although the material is combustible, it presents a very low risk of combustion and will not undergo stringent monitoring as per the table shown in the next section.

5.2 Waste stored in free-standing piles

5.2.1 The table below details the wastes stored on site and procedures to reduce the risk of combustion/ignition in line with the NRW's FPMP guidance (reference should be made to the Layout & fire Plan in Appendix 1 for details and locations for each of the storage areas).

Table 5.1 – Storage/monitoring procedures – Free-standing piles

Pile Ref:	Storage/monitoring procedures to reduce the risk of fire
AREA 1 Temporary plastic bulking area acting as pre-processing pile - waste arises from the baler and wrapper at the Former Scrapyard	• Plastic will be delivered to this area in baled and wrapped form. • The bales will be stacked rather than stored in a chimney effect due to the duration in which they are stored (<6 hours). • The waste will be temporarily stored in this area prior to be loaded into the first process of the treatment plant which is the bale breaker. • Once the bale is broken, the waste then goes through a variety of treatment processes externally then into the 7 no. processing lines inside the building which manufacturer the product. The site when fully operational will be able to process 120 tonnes of waste per day so the volume of the pile has been based on 120 tonnes to ensure it is not stored for longer than half a day. • During the 1-day shutdown per month or in the event of a breakdown, the area will be clear of waste material. • Apart from the use of loading equipment and adjacent treatment plant no other mechanical processing of waste takes place within 6m of this area. • In addition to the CCTV, the waste will be visually monitored throughout the day by site operatives. • It is considered that no monitoring other than visual is required due to continual movement and processing of the material.
AREAS 5-6 Temporary LD plastic bulking area prior to shredding	• This area stores the material ready for the start of the processing procedure comprising the shredding. • The waste in this area will have passed all inspection tests prior to being treated. • The plastic will be a mixtures of compacted, baled and loose will be delivered to this area in baled and wrapped form. • Any bales stored in this area will be stacked rather than stored in a chimney effect due to the duration in which they are stored (<6 hours). • The waste will be temporarily stored in this area prior to be loaded into the shredder and cleared out of hours to ensure it is not stored for longer than half a day. • During the 1-day shutdown per month or in the event of a breakdown, the area will be clear of waste material. • Apart from the use of loading equipment and adjacent treatment plant no other mechanical processing of waste takes place within 6m of this area. • In addition to the CCTV, the waste will be visually monitored throughout the day by site operatives. • It is considered that no monitoring other than visual is required due to continual movement and processing of the material.

Pile Ref:	Storage/monitoring procedures to reduce the risk of fire
AREAS 7 – 9 Reception and storage areas for loose LD plastic and overflow processed plastic	• AREA 7 comprises the main reception area for plastic which will be delivered to the site once they have passed waste acceptance checks from a third-party site. • AREAS 8 – 9 act as overflow waste storage areas for the above • The waste will comprise a mixture of loose and compacted (baled) plastic. • As the plastic will be a mixtures of loose and baled, it is not possible to stack the bales in a chimney effect due to a stability the risk. The loose plastic and bales will be mixed together which allows the waste to be transferred to AREAS 5 & 6 quicker. • Due to the duration of the stored waste (2 weeks) and the maximum volume stored (<265m^3), it is considered the need for additional monitoring comprising the use of thermal imaging camera, temperature probing, turning bales etc.. is not required. • The waste will be tipped at the front of the stockpile and then continually extracted from the rear of the stockpile by 360^0 excavator into the shredder to ensure the first-in, first-out principle applies. • The wastes are stored within a concrete interlocking block fire walls with a minimum 1m freeboard from the sides, top and front of the walls as shown on Drawing No. CAS/2570/03. • In addition to the CCTV, the waste will be visually monitored throughout the day by site operatives. • It is considered that no monitoring other than visual is required due to the proposed storage duration of the material i.e. two weeks.
AREA 10 Waste acceptance and inspection area for plastic containers inc. storage of hazardous containers AREA 11 Washed IBC storage (non-hazardous)	• This area comprises the main reception area for plastic containers. • The containers will be inspected by the site chemist upon arrival to the site and containers which cannot be processed following assessment by the site chemist (virtual or attended) will be segregated in the bay and removed to the adjacent quarantine area prior to being removed off site. • Containers which are suitable for processing will be stored to await treatment in the plant. • Once containers are washed, they will be stored in AREA 11 awaiting removal off site. • The containers are largely non-combustible but will be visually monitored continuously throughout the day and subject to strict waste acceptance procedures by personnel who will be trained via toolbox talks in recognition of fire. • Apart from the use of loading equipment no other mobile plant is situated within 6m of this area. • In addition to the CCTV, the waste will be visually monitored throughout the day by site operatives. • As the site is 24/7 operational, continuous monitoring by staff will also take place. • Although the containers are combustible, the risk of spontaneous or self-combustion on their own accord is very low even during exposure to sunlight.

5.3 Waste stored in containers

5.3.1 The table below details the waste/material types which are stored in containers and/or tonne bags at the site.

Table 5.2 – Storage/monitoring procedures - Waste stored in containers

Pile Ref:	Storage/monitoring procedures to reduce the risk of fire
AREAS 2 & 3 Residual (light organics) from wash process	• Comprising <1,000 litre tonne bags or containers of residual waste from the wash plastic comprising labels or other constituents. The waste is not considered readily combustible given its high moisture content. • The bags/containers will be accessible from the top and sealed to prevent the escape of odours or liquids. • The bags/containers are likely to be removed at least 3-4 times throughout a 24-hour period so it considered no further monitoring is required.

5.4 Baled waste storage

5.4.1 The following table overleaf details the procedures for managing baled waste storage on site and reference should be made to Drawing No. CAS/2570/03A for details of the locations of the storage areas:

Table 5.3 – Storage/monitoring procedures - Baled waste

Pile Ref:	Storage/monitoring procedures to reduce the risk of fire
AREA 1 Temporary plastic bulking area acting as pre-processing pile - waste arises from the baler and wrapper at the Former Scrapyard AREAS 5-6 Temporary LD plastic bulking area prior to shredding AREAS 7 – 9 Reception and storage areas for loose LD plastic and overflow processed plastic	• Storing and monitoring procedures for these wastes have been outlined in table 5.1. • As mentioned previously, AREAS 1, 5 & 6 are only stored for a maximum of half a day whilst they await being transferred to Unit 27 (AREA 1) or for shredding (AREAS 5- 6). It is considered that stackoing these wasres in a chimney effect will not be practical given the quick storage and processing times • Although the wastes are baled, it is considered that storing in a tower would be more suitable for AREA 1 as these will not comprise square bales, they will have been wrapped also so will look more like agricultural bales. Stacking in a chimney effect will cause stability issues. • In terms of AREAS 7 – 9, these wastes will contain a mixtures of loose, compacted and baled so as per the comments above, stacking these wastes in a chimney effect will not be possible for stability reasons. • The storage is only two weeks maximum and will therefore not exceed the limits in table 1 of the FPMP guidance. • Bales are not stacked more than 4, maximum would be 3 bales high. • It is considered a sampling and testing protocol for the bales is not required given the low storage durations and quantities. The two weeks has also been based on a maximum, the wastes in AREAS 7-9 will be processed much sooner on a daily basis, two weeks covers contingencies i.e. breakdowns/repairs etc.. • Bales are monitored continuously by staff so if any signs of fire are detected, the bales can be turned or doused using on site suppression.

5.5 Temperature monitoring for stored waste

5.5.1 In addition to the above tables, the risk of fire may be reduced via the visual monitoring of wastes, moisture control (i.e. regular wetting down of wastes to reduce heat of stored wastes) and the regular rotation of bales/wastes to ensure dissipation of heat if considered appropriate by the TCM/site manager.

5.5.2 **External Heating / Temperature Monitoring of external piles** – As detailed in section 3.3.1, the waste stored externally will be constantly moved throughout the day and it is not envisaged that waste would be stored longer than two weeks or much sooner due to the processing capabilities of the treatment plants i.e. the treatment plants can process more waste than the site plans to accept on a daily basis. The two-week storage duration would be a worst-case scenario i.e. site shutdown in an emergency situation.

5.5.3 **Infra-Red / Heat Detection System inside building (Unit 27)–** Although the main processing building containing the 7 no. processing lines will not store any waste, due to the high value of processing equipment and combustible material, automated infra-red/heat detection is installed.

5.5.4 The system was installed by a UKAS accredited installer which is connected to CMS security company and consists 3 no. cameras shown on Drawing No. CAS/2570/03. The system has a set trigger temperature and due to continuous movements inside the building, the system will regularly log a call to the monitoring centre who can view and contact the operator to see whether or not it was a false alarm. For waste storage, the trigger temperature is set at 65^{o}C however it is envisaged that there will no storage of any waste inside the building other than when it is being fed into the processing plants.

5.5.5 **Processing plant -** All processing lines are installed with heat and pressure ranges which have been set by the manufacturer and the lines benefit from an automated cooling system in the event the plant overheats. The control panel system is linked to the manufacturers mobile and other remote software via 4G Sim Cards who are immediately alerted by the

plants control panel system and the Company can remotely access machinery to identify the fault and also shut down if necessary.

5.5.6 There are also four hoppers which act as the main feed for the seven lines, these hoppers have been fitted with an automated foam suppression system so if the hopper reaches a dangerous temperature, they automatically shutdown and the suppression system will douse the hopper. This will take place in addition to detection system being raised automatically.

5.6 Stock rotation and seasonal variations

5.6.1 Details of stock rotation are clearly shown throughout the above sections wastes which are stored and processed on site. In the event of destination site closures or seasonal demands for wastes leading to a longer storage duration, the operator can:

- Source additional mobile plant i.e. shredders, balers to size reduce the material in order to export off site quicker.
- Divert incoming waste and send stored waste to alternative sites. The operator can search for additional site's using NRWs public register for alternative sites who could take this material or they would contact the destination sites where waste from the site will be sent. The operator has a number of contracts set up with other waste companies to send material too to avoid overs stockpiling.
- The site will stop accepting waste if the processing lines fail.

5.6.2 The operational outputs and residues produced by the site and the disposal or recovery routes are detailed as follows which the operator has outlets for:

a) **AREA 4 -** Flakes / pellets – exported to China as product
b) **AREA 13** – Metal from IBCs – sent to suitable metal recycler for further treatment

5.6.3 The site is an approve packaging re-processor and would only accept waste material when they have an outlet to send the manufactured plastic to in order to claim PRNs. The site would not accept any waste without any outlet or an external order as it would not be

financially viable for the business meaning plastic would not be stored at the site for longer than stated in this FPMP.

6 Prevent fire spreading

6.1 Fire walls and bays

6.1.1 Some of the waste/material on site will be stored against concrete legio interlocking block fire walls. 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. General rules. Structural fire design' and will be over 100mm in thickness and have a fire resistance of 1200^{o}C for 4 hours. This ensures any 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
Concrete panel wall	0.3m	AREA 1	- Class A1 in accordance with Clause 4.3 4.4 of EN:13369 - <120 minutes
Interlocking concrete block	0.8m	AREAS 5 - 11	- Class A1 in accordance with Clause 4.3 4.4 of EN:13369 - <120 minutes

6.1.2 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.

6.1.3 For waste which is stored in and against walls, a suitable 1.0m freeboard over the top, sides and around the front of the 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 1.0m freeboard. The height of the stockpiles can be monitored by using the joints as a guide, the interlocking blocks are a mixture 0.6 – 0.8m high and concrete panels are 1.0m high. In terms of the front and sides of the piles, the same format can be used ensuring there is always at least 1 ½ blocks clear which would demonstrate the 1.0m freeboard is maintained. This is clearly shown on Drawing No. CAS/2570/03. Staff will carry out a final check one hour before shutdown to ensure all piles benefit from the freeboard.

6.2 Wind

6.2.1 As can be seen from Drawing No. CAS/2570/03, wastes requiring storage of more than 12 hours are stored within secure bays (with a minimum of 1.0m freeboard) and are thus sheltered from the wind.

6.2.2 The sites comprise sealed drainage systems to prevent fire water being blown off site in the event of windy weather conditions.

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 Fire Checklist 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 the above checks daily will keep 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. CAS/2570/03.

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. CAS/2570/03 shows all fire exists for buildings, storage locations of firefighting equipment and escape routes.

7.1.4 The site undergoes at least 2 no. litter picks every during the operational hours including a road sweeper to reduce the build-up of combustible materials on and off site. The materials recovered will be deposited into a mobile refuse bin which will be removed weekly by a trade waste collector. The location of wheelie bin will vary so it has not been included on the site plan.

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 12 months to test that the plan works. The first test will take place within one month of the agreement of

this document with the NRW. 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 / tool box 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 As there are two sites operating under one permit boundary two quarantine areas have been provided and details for each are shown below and the position on Drawing No. CAS/2570/03.

8.1.2 **UNIT 27** = The largest pile comprises **AREA 1** and could total 80m^3 in volume meaning the quarantine area would need to hold 40m^3 of waste material. The quarantine area is positioned as shown on Drawing No. CAS/2570/03 and has a 6m clearance from any waste storage or anything which is at risk of combusting. This quarantine area measures 20m^2 and if waste were piled 2m high, could hold 40m^3 of waste which is 50% of the largest stockpile on this area of the site.

8.1.3 **The Former Scrapyard** = The largest pile comprises **AREAS 10** with a maximum volume of 416m^3 in volume meaning the quarantine area would need to hold 208m^3 of waste material. This quarantine area measures 110m^2 and if waste/containers were stored/stacked two high or to 2m high, the area could hold total 220m^3 of waste which is more than 50% of the largest stockpile on this area of the site.

8.1.4 Both quarantine areas are located on an impermeable surface with sealed drainage meaning that any firewater used to tackle burning/smouldering waste would be contained within the site's drainage system and not escape off site.

8.1.5 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 The waste would be moved using the site's mobile plant comprising either forklift, telehandler or 360^0 excavator.

8.2.2 In the event of a fire the areas will be used either to isolate wastes which are smouldering to allow safe dissipation of heat without placing other areas on site at risk of ignition or to remove any wastes stored in bays near any material affected by a fire to prevent fire spreading to adjacent piles. Waste will be moved to the Quarantine Areas immediately and within one hour of a fire starting at the latest (providing it is safe to do so).

9 Fire detection procedure

9.1 Automated detection

9.1.1 The site benefits from an L3 category fire alarm detection system in line with BS583-1:2017. The systems are connected to a monitoring centre who are a CMS security company. In terms of the main processing building at Unit 27, it benefits from infra-red/heat detection cameras are installed within the building and site management will be notified immediately by the monitoring company of any issues.

9.1.2 The above fire alarm system for both sites will benefit high definition, night vision and motion sensor cameras which will full coverage to areas storing waste and other areas of the site. The locations of the cameras are indicatively shown on Drawing No. CAS/2570/03.

9.1.3 The system will detect any sudden movement i.e. a piece of waste falling, animals, intruders which will set off a trigger and email/text the 6 staff who have access. The on-call staff would then review the site to see if it is a false alarm or if an intruder was present and ring the emergency services if required. If signs of smoke or flames are visible, the emergency services would be contacted in addition to the 6 staff who would visit the site within 10 minutes to prevent the fire starting/spreading.

9.1.4 The above system has been installed and signed off by the UKAS accredited installer.

9.1.5 The site manager and TCM will be trained in the following to ensure reduce the impact of a fire:

- Mobile plant
- Site drainage and surface water protection measures
- Firefighting equipment

9.1.6 In the event the out-of-hours contacts are unavailable due to sickness or holiday, an alternative member of staff who lives within 5-10 minutes if the site (suitably trained) will

be provided with a phone contactable by the monitoring company and directors who will stand in temporarily to ensure out-of-hours procedures are sufficient.

9.1.7 It is also considered the FRS would be available within 10 minutes to assist the out-of-hours contact in supressing and controlling the fire.

9.1.8 The processing treatment plants at Unit 27 are installed with heat and pressure ranges set by the manufacturer. The lines also benefit from automated cooling systems in the event that the plant overheats. The control panel system on the processing plant is linked up to the manufacturers 24/7 system in China via a 4G Sim Card; the manufacturer will be immediately alerted and will remotely access the plant to identify any fault and shut down if necessary. Reference should also be made to Section 5.5.6 in terms of the automated detection and suppression for the four no. feed hoppers.

9.1.9 In terms of external areas of the site, there will manned security when the site is closed so it is considered that IR detection is not considered necessary as during the day there will always be staff present on site who have been trained by site management in early fire prevention, detection and suppression.

9.2 Manual detection

9.2.1 If a fire is detected or suspected by a member of staff during operational hour as a result of monitoring it must be immediately reported to the site manager, TCM or fire marshal. 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 roll-call 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) If viable and safe, instruct necessary site staff to commence extinguishment.

10 Fire response procedures

10.1.1 Further to the above measures, the following procedure would apply if a large fire is detected:

a) Call the Fire Response Service (FRS) immediately using 999.
b) Call the NRW's Emergency Contact Number.
c) Competent person to ensure suitably trained employee initiates the three penstock valves in the site's surface water drainage system shown on the Site Layout & Drainage Plan.
d) Prior to the FRS arriving, inform all neighbouring premises likely to be affected.
e) 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.
f) Ensure access routes are clear.
g) If safe to do so, site management will inspect the location of the fire, to identify immediate risks to surrounding premises and the FRS.
h) 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.
i) 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.).
j) 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.
k) Implement pollution control measures (see Section 12) if safe to do so.

10.1.2 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. CAS/2570/03 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 12 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. including drain mats/plugs and ensure all firefighting equipment is sound. The fire check

form may also 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 site is located in the Castle Park Industrial Estate which is accessed from an unnamed road off Evans Street / Castle Dyke Street and provides direct access to the site for the emergency services with the nearest fire station located 0.5 miles away on Chester Road. The response time is expected to be 5 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 on-site traffic co-ordinator also ensures that the 3.7m access routes are maintained throughout the working day and before cessation of works.

10.4.3 Access routes for emergency services around the site are clearly shown on Drawing No. CAS/2570/03.

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 and in the emergency services box.

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
Flintshire County Council	Contact for residential/small business receptors	01352 703234 / 999
Transport for Wales	Contact for Transport Service	0333 3211 202
Ysgol Gwynedd	School as identified on receptors plan	01352 732365
Ysgol Croes Atti Primary School	School as identified on receptors plan	01352 733335
Daisy Chains Nursery	School as identified on receptors plan	01352 763229
Flint Castle	Contact for receptor	0300 025 6000

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

10.5.4 Following discussions with from Flintshire County Council, they have advised that 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 loud 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. The Council will not commit in providing written communication to demonstrate their approach as it would depend on the type/size of fire as they have numerous approaches.

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 Section 20 of the Natural Resources Wales FPMP 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 and with their being two operational sites', the largest pile of combustible waste on each site has been calculated and comprises the following based on the table below:

- **AREA 1 on UNIT 27** measuring 80m^3 (when at full capacity). This pile this would require 96,048 (96 m^3) of water to extinguish the fire within 3 hours requiring a flow of 533.6 litres per minute.
- **AREA 10 on The Former Scrapyard** measuring 416m^3 (when at full capacity). This pile this would require 499,500 (500m^3) of water to extinguish the fire within 3 hours requiring a flow of 2,775 litres per minute.

Table 11.1 – Water supply calculations (Unit 27)

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
80	802 x 6.67 = 533.6	533.6 x 180	96,048 (96m^3)

Table 11.2 – Water supply calculations (The Former Scrapyard)

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
416	416 x 6.67 = 2,774.72	2775 x 180	499,500 (500m^3)

11.1.3 As it is extremely unlikely both sites would be on fire at the same time, the proposed fire water required for fire-fighting and containment has been based on each site and not a combined total as per the third bullet point of 11.1.2.

11.2 Internal suppression/alternative measures

11.2.1 The following alternative measures will ensure that the objectives set out in Section 1.1 are met:

a) There is no waste stored within any of the buildings / covered areas on site. In terms of Unit 27, all material stored is finished product awaiting removal off site. In terms of the Former Scrapyard, the covered areas will not store waste and comprise only plant and equipment used to process plastic. Therefore the risk of self-combustion or deep-seated fires is therefore very low.

b) All waste processed in buildings/covered areas will have been subject to strict waste acceptance procedures and monitoring by staff to ensure it is suitable for processing into a commodity.

c) All operational staff on site will suitably be trained in carrying out fire risk assessments to minimise the chance of a fire breaking out.

d) The buildings/covered areas have access via large roller shutter doors or are open fronted to remove waste or anything at risk of combusting demonstrating suitable accessibility for firefighting.

e) The site has access to a number of on-site suppression measures which can be deployed in the event of a fire as an immediate response following the alarm being raised and the mobilisation of appointed fire contact(s) (if safe to do so). These are described further in the sections below.

f) The processing lines in Unit 27 benefit from a cooling system and can be shut off by the manufacturers in the event of them overheating.

g) The only combustible material stored inside the building of Unit 27 is product and as it has been thoroughly inspected and processed, the material will not contain any contaminants or incompatible waste. The material is not prone to self-combustion, does not overheat and is removed from the site daily as the site claims revenue for this material as part of their PRN accreditation.

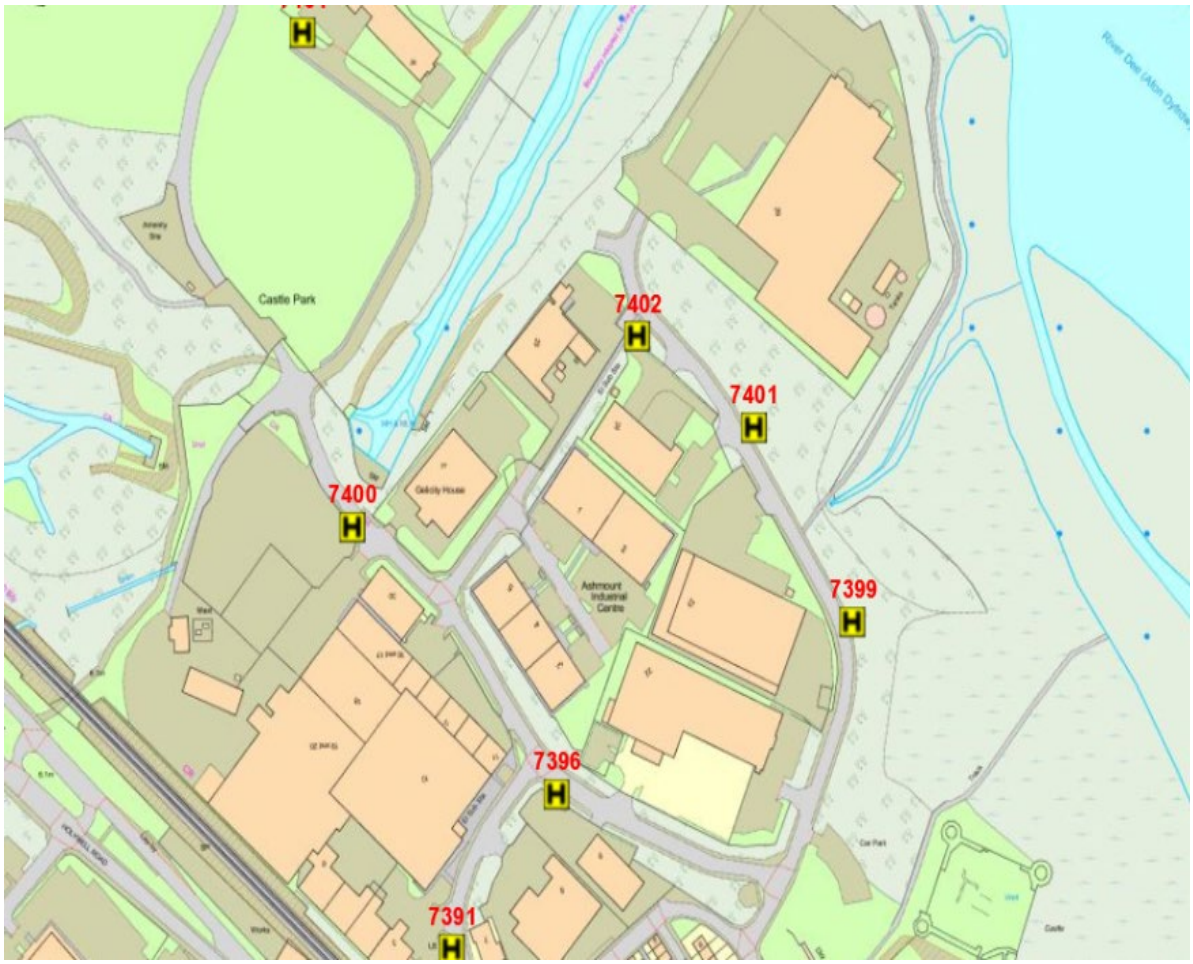
11.3 Site-wide suppression

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 which is connected to the surface water mains providing suppression to all areas storing combustible waste in the building and external areas. The location of the reel is shown on Drawing No. CAS/2570/03.

11.4 External Suppression - Fire Hydrants

11.4.1 There are hydrants located in close proximity to the site as shown on the image overleaf: which the FRS have confirmed would be suitable for use in the event of fire.



11.4.2 Based on the above, it is likely hydrants 7400, 7402 and 7396 could be used as are all within 200m of the site.

11.4.3 Contact was made with both the FRS and Welsh Water and both are unable to provide a flow rate for the hydrant on and 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:

- Recommended Minimum Flow Rates and Location of Fire Hydrants are:

Industry

11.4.4 In order that an adequate supply of water is available for use by the Fire and Rescue Authority in case of fire it is recommended that the water supply infrastructure to any industrial estate is as follows with the mains network on site being normally at least 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.

11.4.5 As the above site is considered in an area industry and over three hectares with the nearest the flow rate of the hydrant should be approximately 4,500 l/m which exceeds the required flows l/m for both sites and suitable for extinguishing the fire within 3 hours.

12 Managing fire water

12.1 Drainage

12.1.1 **Unit 27** - All surface water where waste is being stored is sealed with kerbing and engineered to fall towards the centre of the external yard where is it collected into 2m wide/deep pit which is recirculated into the water treatment and wash process. This reduced the need to discharge any surface water off site and rainwater can be harvested. Foul from toilets and wash facilities connects to the existing foul sewer system. The building is sealed and contained to prevent ingress of water and egress of any fluids i.e. spillages.

12.1.2 **The Former Scrapyard** – All surface water where waste is being stored is sealed with kerbing, surrounding fencing or compacted crushed aggregate. All rain (surface) water will be collected in six no. 20,000 sealed underground surface water storage tanks. The capacity of the tanks are monitored weekly or daily in the event of heavy rainfall events and once the capacity reaches 80%, the tanks are emptied by a suitably authorised tanker company.

12.1.3 The above is demonstrated on Drawing No. CAS/2570/03 and further information regarding the drainage system is shown in Section 2.9 of the EMS.

12.2 Containment of fire water

12.2.1 **UNIT 27** – The external pad concrete pad measures approximately 1,650m^2, approx. 300m^2 of which is made up by fixed plant meaning the actual containment area measures approx. 1,350m^2. It is considered the only escape for firewater would be through the site access to so it is proposed that a fire water boom would be positioned as shown on Drawing No. CAS/2570/03 to fully seal the site in the event of a fire. This would mean that 0.15mm kerb and – 0.16mm fire water boom containment around the site perimeter would contain the 96m^3 of fire water required as shown in the table overleaf. The site is relatively flat has ample capacity to contain the fire water and create a swimming pool/lagoon effect once the drainage system is shut off.

12.2.2 As detailed in Section 11.1, the largest pile would require containment for 38m^3 of water in accordance with the FPMP guidance.

Table 12.1 – **Firewater Containment Calculation (Unit 27)**

Volume of Water (m^3)	Containment Area (m^2)	Containment Required	Total Containment On Site
96	1,250	96 / 1,250 = 0.08	0.15 – 0.16m with kerbing and booms = +0.07 available

12.2.3 **The Former Scrapyard** – The external pad concrete pad measures approximately 4,250m^2 taking into account the location of covered areas and plant. It is considered the only escape for firewater would be through the site access or into the sewer system so in the event of a fire, it is proposed that a fire water boom would be positioned as shown on Drawing No. CAS/2570/03 to fully seal the site in the event of a fire. This would mean that 0.15m high kerb and – 0.16m high fire water boom containment around the site perimeter would contain the 500m^3 of fire water required as shown in the table overleaf. The site is relatively flat and has ample capacity to contain the fire water and create a swimming pool/lagoon effect once the drainage system is shut off.

12.2.4 As detailed in Section 11.1, the largest pile would require containment for 500m^3) of water in accordance with the FPMP guidance.

Table 12.2 – **Firewater Containment Calculation (The Former Scrapyard)**

Volume of Water (m^3)	Containment Area (m^2)	Containment Required	Total Containment On Site
500	4,250	500 / 4,250 = 0.12	0.15 – 0.16m with kerbing and booms = +0.03 available

12.3 Fire water boom deployment procedure

12.3.1 The fire water boom will be located within the offices on both sites as shown on Drawing No. CAS/2570/03 and would be deployed in the event of a fire and positioned as per the plan to contain any fire water runoff. 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 poly 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. CAS/2570/03 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 The above process should be completed as above for all lengths of boom shown on Drawing No. CAS/2570/03.

12.3.5 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.

12.3.6 **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.

12.3.7 If there is any deviation from the above drainage arrangement, an amended FPMP will be submitted for approval by the NRW and FRS.

12.3.8 The operator will deploy a 0.16m fire water boom (which will be kept in the site office) at the location shown on Drawing No. CAS/2570/03 to ensure no firewater enters into groundwater's or public sewers.

12.3.9 If there is any deviation from the above drainage arrangement, an amended FPMP will be submitted for approval by the NRW 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.

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 (mixed waste). Additional combustion products may also include PAHs, dioxins and particulate matter including black smoke from plastic.

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 NRW'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, manually clean out the storage tank and gully removing the debris to the pile of fire damaged waste for removal 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 cleaned and emptied.
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) Remove any temporary bungs/valves
b) Account for all consumables that have been used in the fire and re-order / replace immediately.
c) Restack, and re-locate all items used for the surface water protection during the fire to their storage locations ready for future deployment.
d) 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 NRW 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 The operator receives all waste i.e. plastic packaging from agricultural operations or waste management companies meaning during site closure in the event of a fire, the waste can be diverted to another suitable facility using NRWs public register for waste permits search.

13.3 Post fire site recovery

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

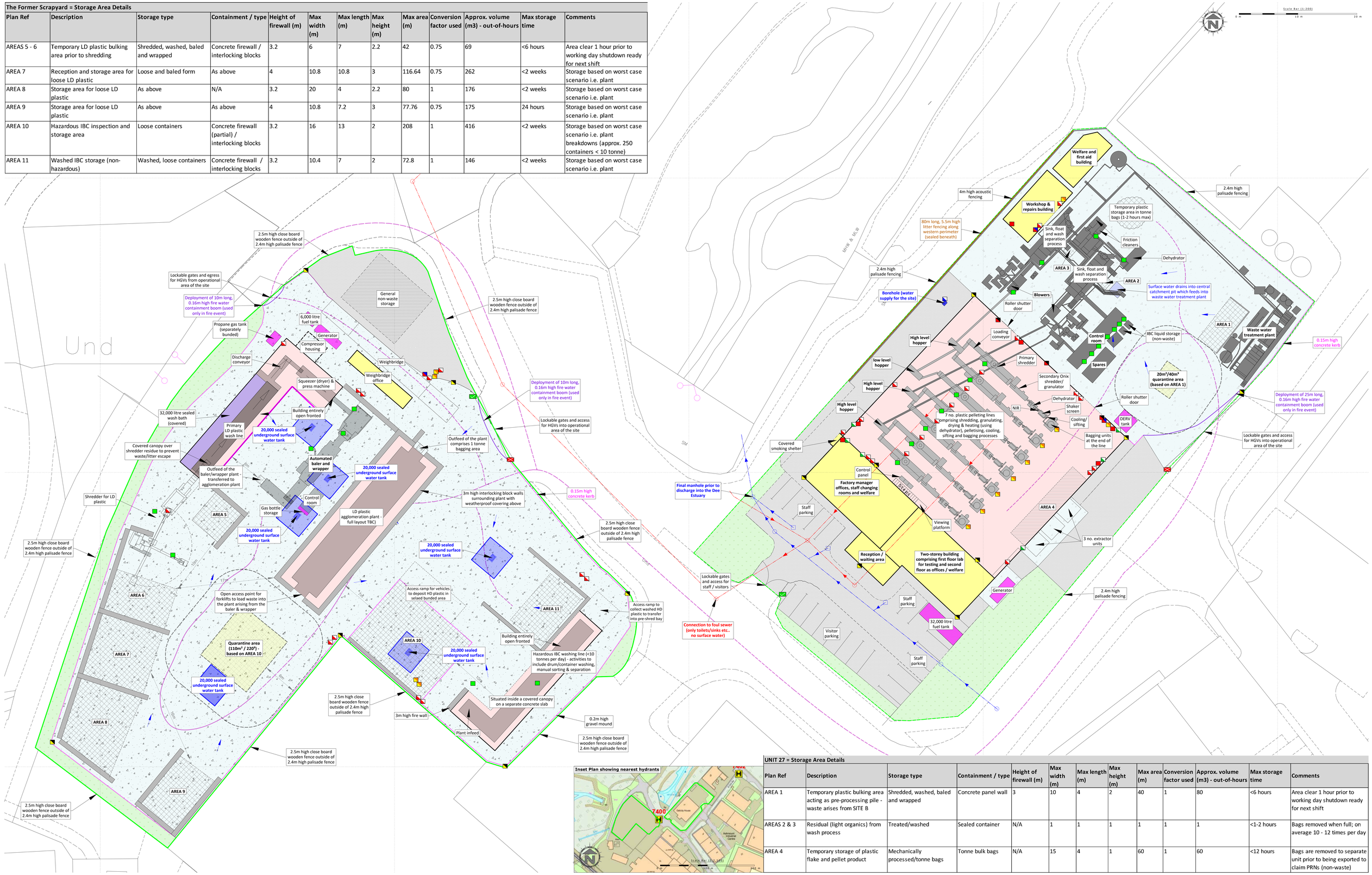
a) Remove damaged material to a permitted facility that is able to deal with it legally.
b) Ask engineers to carry out repairs on any plant, vehicles and/or infrastructure.
c) Assist the FRS with the fire investigation and where necessary engage the advice from a professional fire consultant.
d) Review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

Appendix I

Drawings

The Former Scrapyard = 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 5 - 6	Temporary LD plastic bulking area prior to shredding	Shredded, washed, baled and wrapped	Concrete firewall / interlocking blocks	3.2	6	7	2.2	42	0.75	69	<6 hours	Area clear 1 hour prior to working day shutdown ready for next shift
AREA 7	Reception and storage area for loose LD plastic	Loose and baled form	As above	4	10.8	10.8	3	116.64	0.75	262	<2 weeks	Storage based on worst case scenario i.e. plant
AREA 8	Storage area for loose LD plastic	As above	N/A	3.2	20	4	2.2	80	1	176	<2 weeks	Storage based on worst case scenario i.e. plant
AREA 9	Storage area for loose LD plastic	As above	As above	4	10.8	7.2	3	77.76	0.75	175	24 hours	Storage based on worst case scenario i.e. plant
AREA 10	Hazardous IBC inspection and storage area	Loose containers	Concrete firewall (partial) / interlocking blocks	3.2	16	13	2	208	1	416	<2 weeks	Storage based on worst case scenario i.e. plant breakdowns (approx. 250 containers < 10 tonne)
AREA 11	Washed IBC storage (non-hazardous)	Washed, loose containers	Concrete firewall / interlocking blocks	3.2	10.4	7	2	72.8	1	146	<2 weeks	Storage based on worst case scenario i.e. plant



Inset Plan showing nearest hydrants

UNIT 27 = 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
AREA 1	Temporary plastic bulking area acting as pre-processing pile - waste arises from SITE B	Shredded, washed, baled and wrapped	Concrete panel wall	3	10	4	2	40	1	80	<6 hours	Area clear 1 hour prior to working day shutdown ready for next shift
AREAS 2 & 3	Residual (light organics) from wash process	Treated/washed	Sealed container	N/A	1	1	1	1	1	1	<1-2 hours	Bags removed when full; on average 10 - 12 times per day
AREA 4	Temporary storage of plastic flake and pellet product	Mechanically processed/tonne bags	Tonne bulk bags	N/A	15	4	1	60	1	60	<12 hours	Bags are removed to separate unit prior to being exported to claim PRNs (non-waste)

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

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

DRAWING TITLE
SITE LAYOUT & FIRE PLAN

CLIENT
New Horizon Plastics Co Ltd

PROJECT/SITE
Unit 27 & The Former Scrapyard, Castle Park Industrial Estate, Flint, Flintshire CH6 5XA

SCALE @ A0	CLIENT NO	JOB NO
1:200	2570	014

DRAWING NUMBER	REV	STATUS
CAS/2570/03	N	Issued

DRAWN BY	CHECKED	DATE
CP	--	19.03.24

Key:
- Permit boundary
- Combustible waste storage areas
- Hazardous waste storage 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)
- Concrete building firewalls (0.3m thick)
- 0.15 - 0.4m high concrete kerbing/seal
- Mains water point
- 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 manouvering areas
- Fire alarm
- Surface water fall direction
- Foul water drainage
- Surface water drainage
- Foul/surface gully's
- Foul/surface manholes
- Plant shut off
- Fire assembly point
- Fire door
- CCTV cameras (indicative)
- Infrared/heat detection cameras
- Emergency services box
- 0.8m wide fire wall
- 0.3m wide fire wall

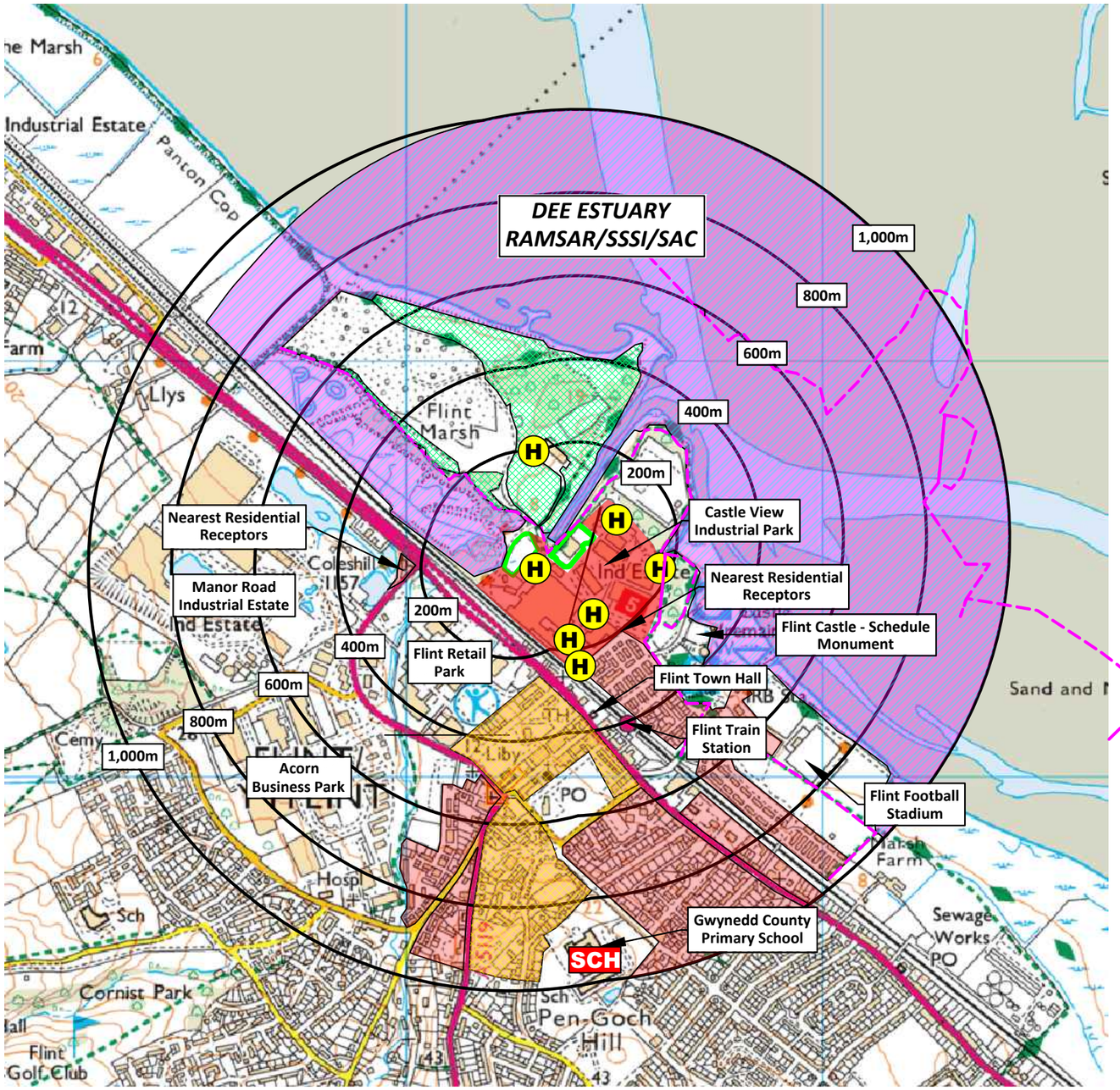
NOTES
Drawing for indication only. Reproduced with the permission of the controller of H.M.S.O. Crown copyright licence No. 100022432. This drawing is copyright and property of Oaktree Environmental Ltd.

REVISION HISTORY

Rev:	Date:	Init:	Description:
-	28.11.19	CP	Initial Drawing
B	14.04.20	CP	NRW comments & re-issue
C	07.05.20	CP	Client comments
D	11.05.21	CP	Updated for EP variation
E	03.12.22	CP	Updated for EP variation
F	29.03.22	CP	NRW comments
G	05.12.22	CP	Site infrastructure updates
H	07.03.23	CP	Site infrastructure updates
I	20.06.23	CP	Site infrastructure updates
J	29.08.23	CP	Site infrastructure updates
K	25.10.23	CP	NRW comments
L	23.01.24	CP	NRW comments
M	01.03.24	CP	NRW comments
N	19.03.24	CP	NRW comments

KEY:

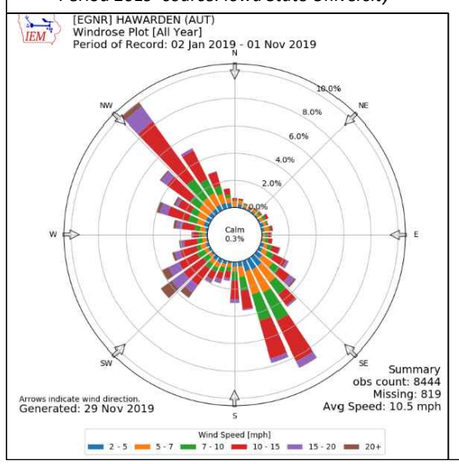
- Permit boundary
- Surface water (river / stream / beck)
- Surface water (estuary / pond / pool / lake / sea)
- Castle View Industrial Park
- Workplaces (includes agriculture industry, commerce and retail)
- Areas with mix of residential, retail and commercial properties
- Residential blocks
- Class A roads
- Class B roads
- Class C roads
- H — Nearest fire hydrant
- Railway line
- SCH — School
- Woodland areas
- Protected sites (Ramsar, SSSI, SPA, SAC)
- Welsh coastal path
- Flint Marshes LWS



Scale Bar (1:12,500)

0 km — 500 m — 1 km

Compass Wind Rose for Hawarden (EGNR)
Period 2019- *source: Iowa State University*



NOTES

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

REVISION HISTORY

Rev	Date	Init:	Description:
-	29.11.19	CP	Initial Drawing
A	14.04.20	CP	Added receptor
B	11.05.20	CP	Updated for EP variation
C	25.10.23	CP	NRW comments, added receptors

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
SITE LOCATION MAP

CLIENT
New Horizons Plastic Co Ltd

PROJECT/SITE
Unit 27, Castle Park Industrial Estate, Flint CH6 5XA

SCALE @ A3	JOB NO	CLIENT NO
1:12,500	014	2570

DRAWING NUMBER	REV	STATUS
CAS/2570/04	C	Issued

DRAWN	CHECKED	DATE
CP	--	25.10.23

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

Appendix II

Record Keeping Forms

NEW HORIZON PLASTICS CO 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)												
SWALE TANK AND DRAINS FUNCTIONING CORRECTLY												
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***	

NEW HORIZON PLASTICS CO LTD - PREVENTATIVE MAINTENANCE CHECKLIST

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						

NEW HORIZON PLASTICS CO LTD
EMPLOYEE TRAINING NEEDS ASSESSMENT / REVIEW - NHP/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 & MITIGATION 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

Fire Risk Assessment

FIRE RISK ASSESSMENT

New Horizon Plastics Co Ltd, Unit 27 Castle Park Industrial Estate, Flint, CH6 5XA

Assessor:**Andrew Stracey AIFireE** Validated By:**Rory McNamara**

Ref.**014965**

Citation Fire & Electrical

BAFE SP205 - Part 1

The Institute of Fire Safety Managers IFSM Affiliate Member

For any further information regarding this Fire Risk Assessment: Call 0800 055 6559 or visit www.citationsafety.co.uk

Prepared by **Citation Fire and Electrical** 08/3/2022

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Introduction

Citation Fire & Electrical are part of the Citation Group. As well as offering industry leading Health & Safety and HR & Employment Law support, Citation can also provide ISO Certification, Fire Safety Services, Electrical Testing and specialised risk assessments – including Fire, Asbestos and Legionella.

Validated by:	Rory McNamara
Reference No.:	014965
Employer or other responsible person:	New Horizons Plastics Company Limited / Philip Thomas - Director.
Who manages fire safety for the premises:	Neil Rawson - Quality Supervisor.
Address of property:	New Horizon Plastics Co Ltd, Unit 27 Castle Park Industrial Estate, Flint, CH6 5XA
Person consulted:	Neil Rawson.
Assessor:	Andrew Stracey
Date of assessment:	17/01/2022
Date of previous assessment:	02/12/2020
Suggested review date:	16/01/2023

The following is your Fire Risk Assessment (FRA)

The purpose of this report is to provide an assessment of the risk to life from fire in this building and, where appropriate, to make recommendations to ensure compliance with fire safety legislation. This report does not address the risk to property or business continuity from fire.

This FRA should be reviewed by a competent person by the date indicated above or at such earlier time as there is reason to suspect that it is no longer valid or there have been significant changes.

Where your control measures were found to be adequate you must monitor and maintain those measures to ensure conditions do not deteriorate.

It is critical that the findings of the FRA are acted upon and that the significant findings of the assessment (and the assessment itself) are kept up to date.

The person with overall responsibility should nominate members of the management team to take ownership of each of the action points.

Important Note

Although the Assessor has exercised all reasonable care in the inspection of your premises and in the preparation of this report, there may be other matters that were not taking place or were not evident at the time of the visit or that occur, and our Assessor was not informed of those matters. You should therefore carefully consider this report in its entirety, to satisfy yourself that the main fire hazards and risks associated with your business have been covered.

Where fire compartments / fire dampers / ceiling voids were considered inaccessible for safety reasons and could not be physically accessed or were outside the visual range, the Assessor cannot provide technical comment on these areas. Under these circumstances the responsibility to provide this technical information rests with the duty holder. Further, in respect of any fire door installation in or opening to common parts of the premises, the Assessor cannot confirm whether the installation complies with any British or other applicable Standard and it remains the duty holder's responsibility to ensure such compliance.

i. **Fire Risk Assessment**

IMPORTANT

For the purposes of this Fire Safety Risk Assessment we have conducted an overview of the organisation's existing fire hazards and have identified fire hazards in your building(s) and/or structure(s) and how you can control them. We have also evaluated the required fire measures, however, the fire hazards may be in building(s) and/or structure(s) that may have a cladding or external wall system, and for the purposes of this Fire Risk Assessment, whether we have identified or referred to the presence of a cladding or external wall system or not, we have not inspected the system or carried out any assessment of it. We cannot comment on any fire risk arising from any cladding or external wall system or anything else fixed to the outside of the building (including but not limited to balconies, lights and ornamental attachments) or the potential impact of the system on any other fire risks to which we have referred in this Fire Risk Assessment or in any other document or report. We advise you to appoint a suitably qualified and

competent specialist to determine the nature and composition of any cladding or external wall system and anything fixed to the outside of your buildings and structures and to advise you what, if any, fire risks the cladding system gives rise to.

As the 'responsible person' under fire safety law you are under a duty to review your Fire Risk Assessment regularly and keep it up to date particularly if there is any reason to suspect that it may no longer be valid or there has been a significant change in the matters to which it relates including changes to the premises, changes to the work done on the premises, and where there is any reason to suspect that any material on or in the building or structure may give rise to a risk not previously identified or referred to or sufficiently assessed.

ii. **Evacuation clause**

PLEASE NOTE

Given that we have neither inspected nor assessed any cladding system that may be present on the building or structure, we have assumed that any such system may be present and that it may give rise to both a rapid cause and rapid spread of fire and smoke and this has resulted in our concluding that, in the event of a fire incident, there should not be a "stay put" policy but that the premises should be evacuated.

We shall be happy to reconsider this if you instruct a suitably qualified and competent specialist to determine the nature and composition of any cladding system on any of your buildings and structures and to advise you what, if any, fire risks the cladding system gives rise to and you share the specialist's report with us.

iii. **Smoke Control Systems**

IMPORTANT

For the purposes of this Fire Safety Risk Assessment we have conducted an overview of your existing fire hazards and have identified fire hazards in your building(s) and/or structure(s) and how you can control them. We have also evaluated the required fire measures; however, the fire hazards may be in building(s) and/or structure(s) that may have a smoke control system and, for the purposes of this Fire Risk Assessment we have not inspected the smoke control system or carried out any assessment of it. We cannot comment on any risk arising from any smoke control system or the potential impact of the system on any other fire risks to which we have referred in this Fire Risk Assessment or in any other document or report. We advise you to appoint a suitably qualified and competent specialist to inspect and assess the smoke control system and advise you on the risks that it gives rise to or to which it relates.

As the 'responsible person' under fire safety law you are under a duty to review your Fire Risk Assessment regularly and keep it up to date particularly if there is any reason to suspect that it may no longer be valid or there has been a significant change in the matters to which it relates including changes to the premises, changes to the work done on the premises, and where there is any reason to suspect that the any material on or in the building or structure may give rise to a risk not previously identified or referred to or sufficiently assessed.

The significant findings and recommendations in this report are based on the guidance given in the following publications;

- Fire Safety Risk assessment: Offices and Shops (ISBN 978 1 85112 815 0)
- Fire Safety Risk assessment: Factories and Warehouses (ISBN 978 1 85112 816 7)
- Supplementary Guide - Means of escape for disabled people (ISBN 978 1 85112 873 7)
- The Regulatory Reform (Fire Safety) Order 2005

The following risk priorities have been applied to reflect the level of urgency the recommended remedial works should be implemented for each significant finding. An action plan should be produced for all significant findings, based on the following priorities, and completed as part of an ongoing process.

General Information

The Building	
Number of floors:	Two.
Approximate total floor area in m2:	1600

Details of construction:	New Horizons Plastics occupy a purpose-built industrial unit of steel frame construction with insulated, plastic-coated metal sheet walls. The front section of the building is of brick and glazed outer walls with insulated plastic coated sheet wall above with a pitched insulated plastic coated sheet roof above with skylights. The front section of the building provides a central front entrance lobby and reception with stairs to the first floor. On the first floor, a single corridor runs the width of the building on either side of a protected lobby at the head of the stairs providing access to offices and meeting rooms with windows overlooking the front carpark. A Block wall, to finished roof height, provides separation between the office and administration areas and the main production area. Windows within the first-floor corridor provide a view over the production area. The second means of escape from the first floor is provided by a door through the partition wall with an internal steel stair descending within the production area. The ground floor front section of the building below the offices provides a staff canteen/rest area, locker rooms, in-house engineers workshop to the left of reception, and a test laboratory to the right. The main rear area provides a single open-plan production area with machinery and processes running from left to right with walkways provided between each production line and walkways running front to rear on either side. Means of escape: Escape from the first floor is either via internal stair to the reception or alternate internal stair within the production area. Escape from the ground floor is via the front entrance lobby and reception to the carpark, via two fire exit doors on the left side of the building, two fire exit doors to the right side of the building or via two roller shutter doors to the rear which are generally open during trading hours. A large diesel tank is located in the front car park and external production processes are undertaken outside within an enclosed yard at the rear. The entire site is enclosed within security fencing with security gates at the front and rear.

Is any cladding visible? If yes, please refer to the exclusion clause contained within the **Important Notes** section above.	The building is largely constructed using insulated sandwich panel-style exterior walls. It is likely the roof is constructed using similar insulated sandwich panels however this could not be established during the assessment. Some areas were observed where exterior walls had been damaged leaving the insulation visible.
Occupancy and use:	Plastic recycling facility taking waste plastic and producing recycled plastic pellets for the industry.
Access and facilities for the Fire Service. Details of other relevant fixed systems in place:	No specific systems are in place for the fire service. Access to fire service vehicles is available at the front and rear of the premises.

The Occupants

Approximate maximum number of employees at any one time:	20
Approximate maximum number of other occupants at any one time:	Occasional visitors and contractors.
Approximate total number of people present in the building at any one time:	20
Occupants at special risk ie disabled occupants:	0
Sleeping occupants:	0
Disabled persons employed:	20
Occupants in remote areas and lone workers:	Yes.
Young persons employed:	No.
Other:	None.

Fire Loss Experienced

None reported.

Other Relevant Information

An exterior raw material storage compound is provided on the opposite side of the road which was not included within this risk assessment.

One, contracted security staff is provided and remains onsite on a waking night shift.

Developing personal emergency evacuation plans (PEEPs) for potential users is not considered essential. However, generic evacuation plans should be discussed with staff during staff training. It is not anticipated that the evacuation procedures would be complex however it must include provision for evacuation of persons from the first floor.

Risk Assessment: Risk Level Estimator

		SEVERITY		
		SLIGHT HARM	**MODERATE HARM**	**EXTREME HARM**
LIKELIHOOD	**LOW**	Trivial Risk	Tolerable Risk	Moderate Risk
	MEDIUM	Tolerable Risk	Moderate Risk	Substantial Risk
	HIGH	Moderate Risk	Substantial Risk	Intolerable Risk

Likelihood: Medium

In this context, a definition of the above items is as follows:	
LOW:	Unusually low likelihood of fire as a result of negligible potential sources of ignition.
MEDIUM:	Normal fire hazards e.g. potential ignition sources for this type of occupancy, with fire hazards generally subject to appropriate controls (other than minor shortcomings).
HIGH:	Lack of adequate controls applied to one or more significant fire hazards, such as to result in significant increase in likelihood of fire.

Severity:

SLIGHT HARM:	Outbreak of fire very unlikely to result in serious injury or death of any occupant (other than an occupant sleeping in the room of origin).
MODERATE HARM:	Outbreak of fire could foreseeably result in injury (including serious injury) of one or more occupants, but is unlikely to involve multiple fatalities.
EXTREME HARM:	Potential for serious injury or death of one or more occupants.

Summary of Premises Risk Rating
Moderate
The priority and main focus of the assessment is addressing the significant findings highlighted in the report.

A suitable risk based control plan should involve effort and urgency that is proportionate to risk. The following risk rating based control plan is based on one advocated by BS 8800 for general health and safety risks:

Risk level	Action and timescale
Trivial	No action is required and no detailed records need be kept.
Tolerable	No major additional controls required. However, there might be a need for improvements that involve minor or limited cost.
Moderate	It is essential that efforts are made to reduce the risk. Risk reduction measures should be implemented within a defined time period. Where moderate risk is associated with consequences that constitute extreme harm, further assessment might be required to establish more precisely the likelihood of harm as a basis for determining the priority for improved control measures.
Substantial	Considerable resources might have to be allocated to reduce the risk. If the building is unoccupied, it should not be occupied until the risk has been reduced. If the building is occupied, urgent action should be taken.
Intolerable	Building (or relevant area) should not be occupied until the risk is reduced.

(Note that, although the purpose of this section is to put the fire risk in context, the above approach to fire risk assessment is subjective and for guidance only. All hazards and deficiencies identified in this report should be addressed by implementing all recommendations contained in the following action plan. The fire risk assessment should be reviewed regularly).

Significant Findings

Overall Risk		
Immediate	Top Priority Immediate action required	Items that should take priority in an action plan Serious breach of legislation, having the potential for serious injury to occupants. Should be implemented as soon as possible, including where relevant, interim measures necessary to ensure the safety of occupants until permanent measures can be implemented.
High	High Priority Action within 7 days	Items that should be urgent in an action plan Matters that breach legislation but are not considered to constitute a serious threat to life safety. Should be implemented as soon as is reasonably practicable.
Medium	Medium Priority Action within 3 months	Items that should be resolved as an ongoing priority within a fixed timescale Items could be regarded as suitable for immediate implementation, simply because there is no reason to delay doing so, regardless of whether there is a major benefit to the safety of occupants.
Low	Low Priority Action within 12 months	Items that should be resolved as good practice Should be implemented as and when the opportunity arises.

Significant findings by priority ratings

Executive summary

The risk rating has been recorded as Moderate due to some records of maintenance and testing not being available at the time of the assessment and a lack of physical protection of the diesel storage facility.

Good management of fire safety is essential to ensure that fires are unlikely to occur; that if they do occur they are likely to be controlled or contained quickly, effectively and safely; or that, if a fire does occur and grow, everyone in your premises is able to escape to a place of total safety easily and quickly.
It is good practice to record the significant findings of your fire risk assessment and the actions you have taken.
Significant findings should include details of:

• the fire hazards you have identified (you don't need to include trivial things like a small quantity of hand sanitiser);
• the actions you have taken or will take to remove or reduce the chance of a fire occurring (preventive measures);
• persons who may be at risk, particularly those especially at risk;
• the actions you have taken or will take to reduce the risk to people from the spread of fire and smoke (protective measures);
• the actions people need to take in case of fire including details of any persons nominated to carry out a particular function (your emergency plan); and
• the information, instruction and training you have identified that people need and how it will be given.

Significant findings by priority ratings		
Heading	**Grade**	**Significant finding no**
Fire Hazards and their elimination and control	**Immediate**	
	High	
	Medium	1,2,3
	Low	4
Fire precaution measures	**Immediate**	
	High	
	Medium	5,6,7,8,9,10
	Low	11
Management of fire safety	**Immediate**	
	High	12
	Medium	13,14,15,16,17,18,19,20,21
	Low	22

Significant findings

Fire Hazards and their elimination and control

Medium

Electrical Sources of Ignition		
1	No identified separation or marking is provided to ensure areas in close proximity to electrical installations or electric charging remain clear and free from combustible material.	Recommend suitable separation is maintained to ensure combustible material is not stored in close proximity to electrical installations including the charging area. This is often simply achieved by the provision of marked areas and robust management procedures.
Dangerous Substances		

Significant findings		
2	The control of static electricity and dust was discussed, however, it was not established if this has been controlled with the new plant being installed.	Where dangerous substances are liable to be present you must assess the potential risk of harm to people covered under the Dangerous Substances and Explosive Atmospheres Regulations. Any assessment carried out should only be undertaken by a suitably qualified specialist. The main production areas were in a shutdown state at the time of the assessment with new plant and machinery is installed. There is no reason to assume the installation was not be undertaken in a professional workmanlike manner following the manufactures guidance. During the assessment, it was indicated shredded material is blown along ducting from one part of the process to another. The control of static electricity was discussed, however, it was not established if this has been controlled. Recommend management ensure suitable control measures are provided. Following the installation of the new plant and machinery, recommend management liaise with the manufacturer/supplier to confirm if separate DSEAR assessments are required to ensure the safe management of dangerous atmospheres which may be present, with particular attention to the hazards associated with dust. Flammable dust can initiate fire and explosions in factories and warehouses. Preventative measures include: • training in the handling of the product; • correct use of handling equipment; • ensuring that no potential ignition sources are taken into the dust cloud (e.g. forklift trucks); and • establishing procedures for cleaning up (e.g. vacuuming or wetting). Where there are quantities of powder greater than 25kg a DSEAR risk assessment will be required. Further guidance is available in the HSE guide76 on the handling of combustible dust.

Significant findings		
3	A large, unprotected, double-skinned diesel storage facility is provided outside the front of the premises. No records of inspection and maintenance were available.	Recommend management provide suitable barriers or protection to prevent accidental damage by vehicles within the front car park, which will also ensure suitable separation is maintained. Recommend management liaise with the diesel supplier to ensure the facility is tested and inspected regularly and a suitable DSEAR assessment has been completed for the storage of diesel, with records maintained for inspection and review.

Low

Electrical Sources of Ignition		
4	There was no policy in place for the use of personal electrical appliances.	Where personal electrical equipment is allowed in the workplace, ensure there is a suitable policy in place for their safe use.

Significant findings

Fire precaution measures

Medium

Means of Escape		
5	The office and administration area is protected against the effects of a fire within the production area by the installation of a block wall to finished roof height, however, the escape route from the first floor offices could be compromised if the window from the first-floor corridor overlooking the production area is left open.	Although it is recognised, if the window was to fail, occupants of the first floor could duck down and pass below the window while making their escape it is recommended the window is either fixed closed or fitted with an automatic self-closing device to ensure the maximum protection of the first-floor corridor is maintained at all times.
6	The arrangements for the means of escape for people with disabilities may not have been fully considered.	If disabled people are going use the premises then you must also provide a safe means for them to leave in the event of a fire. Where people with special needs use or work in the premises, their needs should so far as is practicable, be discussed with them. You may need to develop individual 'personal emergency evacuation plan' (PEEPs) for disabled persons who frequently use a building. Developing personal emergency evacuation plans (PEEPs) for potential users is not considered essential. However, generic evacuation plans should be discussed with staff during staff training. It is not anticipated that the evacuation procedures would be complex however it must include provision for evacuation of persons from the first floor.
Measures to Limit Fire Spread and Development		

Significant findings		
7	The premises has insulated sandwich panels. Observations of damaged panels with exposed insulation.	A fire within the insulated sandwich panel core can be particularly problematic to extinguish and many older panels are manufactured with flammable insulation. Where fire enters the insulation this can rapidly spread through the entire wall or roof resulting in a rapid failure of the structural integrity. Recommend any areas where the panels have been damaged exposing the insulated core are suitably repaired. **Important Note – please see 'Exclusions and Limitations'.**
Fire Doors		
8	Fire doors have been wedged open or identified with defects that may affect their integrity or performance in a fire situation. The door protecting the locker room from the effects of a fire within the main production area is not effectively self-closing tightly within its rebate. The door protecting the engineer's workshop from the effects of a fire within the main production area was wedged open. The door protecting the test laboratory from the effects of a fire within the main production area has excessive threshold gaps and requires strips and seals.	Fire doors are often constantly used and are required to perform a vital role in the fire safety of any building. Recommend fire doors are periodically inspected to ensure they function correctly and will provide adequate protection. The gaps around the doors, between the door and the frames, should be assessed to ensure they are within acceptable tolerances (between 2 & 4mm) with a gap no bigger than 8mm at the bottom. Automatic self-closers should be assessed to ensure the door is effectively self-closing tightly within its frame. The practice of wedging of doors should be discouraged by the management team. Where wedging of doors is experienced, it is vital that all doors remain in the closed position when the area is unoccupied.
Means of Giving Warning in Case of Fire		

Significant findings		
9	The building is equipped with automatic fire detection and warning with manual call points and sounders. Automatic detection is limited to the office/admin/laboratory/locker room/workshop and canteen area with manual call points and sounders only within the main production area. The level of automatic detection and warning provided is considered suitable for the occupancy and use of the premises.	**Staff, especially those working within the main production area, must understand their role in alerting others to fire by the activation of a manual call point.** **The main fire panel was in a healthy state, however, it was observed there was a general disablement configured at the time of the assessment. Management must confirm and understand what the general disablement is, and re-enable the zone as soon as possible.**
Firefighting Equipment		
10	Suitable firefighting equipment was provided for the occupancy and use of the premises, however, management must recognise any new processes which must be considered and reviewed to ensure the suitable provision of firefighting equipment is maintained.	Recommend management review the level of firefighting equipment provided following the completion of maintenance and upgrade works. An appropriate number of portable fire extinguishers suitable for use on electrical equipment (such as carbon dioxide extinguishers) should be available near charging points, and be immediately accessible for use in case of fire. Such portable extinguishers should be approved and certificated by a third-party certification body, with the provision and installation in accordance with BS 5306: Part 8.

Low

Means of Giving Warning in Case of Fire		
11	There is insufficient information displayed by the fire alarm panel to confirm fire alarm zones.	In order to quickly determine where a fire has been detected, you should display a schematic plan, showing fire alarm zones in a multi-zoned system adjacent to the control panel.

Significant findings

Management of fire safety

High

Training and Drills		
12	Employees of another company are not given appropriate fire safety information when working on the premises.	You must provide the employees of outside organisations who are working on your premises (e.g. agency providing security staff) with clear and relevant information on the risks and the preventive and protective measures taken. You must also provide those employees with appropriate instructions and relevant information about the risks to them.

Medium

Procedures and Arrangements		
13	The arrangements to evacuate people with disabilities may not have been suitably considered.	Additional planning and allocation of staff roles – with appropriate training is required for the emergency evacuation of disabled persons and may include: identifying where disabled occupants are located and assisting evacuating disabled occupants on stairs. The plan should not rely on fire and rescue service involvement for it to be effective. Management should liaise with employees with disabilities to discuss their individual needs for evacuating the premises in an emergency.
14	Persons have not been nominated to assist with the evacuation of people with disabilities.	The evacuation procedures for your premises should include nominating and training appropriate persons to assist with the evacuation of disabled people.
Testing and Maintenance		

Significant findings		
15	In general, the records of testing and inspection of fire precaution measures are poorly maintained.	You must keep any existing equipment, devices, or facilities that are provided in your premises for the safety of people, such as fire alarms, fire extinguishers, lighting, signs, fire exits, and fire doors, in effective working order and maintain separating elements designed to and prevent fire and smoke entering escape routes. Keeping records of the maintenance carried out will help you demonstrate to the enforcing authority that you have complied with fire safety law.
16	The emergency lighting system is tested monthly, however, records are not maintained.	Emergency lighting should be tested monthly (short duration or flick test) and maintained and inspected annually (full duration test). Certification and test records should be maintained as evidence of compliance.
17	The procedure in place to ensure that escape routes and exit doors are checked is not completed routinely.	Check escape routes to ensure they are clear from obstructions and combustible materials, and in a good state of repair.
Records		
18	Appropriate records are not being maintained.	It is recommended that fire training sessions are conducted at suitable intervals with comprehensive records maintained detailing the type of training and those who participated.
19	There is no record being maintained of false fire alarms.	Recommend management maintain a record of any false alarms.
20	The records of emergency lighting testing are incomplete.	Recommend management ensure the records of emergency lighting testing are maintained.
21	The weekly fire inspection checklist is not regularly completed.	Recommend management ensure records are maintained and reviewed.

Low

Procedures and Arrangements

Significant findings		
22	A weekly FIre Inspection Checklist is provided, however, this does not appear to be completed regularly.	Recommend management ensure checks, and inspections are completed regularly as per policies.

Significant Findings - Resolution Sheet

Significant finding that have been rectified can be signed off using this section. This form should be attached to your current FRA, the amendment(s) supersede or are additional to the current report as specified in the attached document.

Fire Hazards and their Elimination or Control

Finding Number	Action by	Date Actioned	Date reviewed
Resolution			

Finding Number	Action by	Date Actioned	Date reviewed
Resolution			

Finding Number	Action by	Date Actioned	Date reviewed
Resolution			

Finding Number	Action by	Date Actioned	Date reviewed
Resolution			

Finding Number	Action by	Date Actioned	Date reviewed
Resolution			

Fire Precaution Measures

Finding Number	Action by	Date Actioned	Date reviewed
Resolution			

Finding Number	Action by	Date Actioned	Date reviewed
Resolution			

Finding Number	Action by	Date Actioned	Date reviewed
Resolution			

Finding Number	Action by	Date Actioned	Date reviewed
Resolution			

Finding Number	Action by	Date Actioned	Date reviewed
Resolution			

Finding Number	Action by	Date Actioned	Date reviewed
Resolution			

Management of Fire Safety

Finding Number	Action by	Date Actioned	Date reviewed
Resolution			

Finding Number	Action by	Date Actioned	Date reviewed
Resolution			

Finding Number	Action by	Date Actioned	Date reviewed
Resolution			

Finding Number	Action by	Date Actioned	Date reviewed
Resolution			

Finding Number	Action by	Date Actioned	Date reviewed
Resolution			

Finding Number	Action by	Date Actioned	Date reviewed
Resolution			

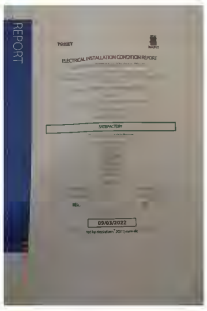
Fire Hazards and their elimination and control

Electrical Sources of Ignition			
1. Are reasonable measures taken to prevent fire of electrical origin?	Yes	No	N/A
2. More specifically, are fixed installations periodically inspected and tested?	Yes	No	N/A

Positive observation:

The last recorded Electrical Installation Condition Report dated 09/03/2021 was recorded as Satisfactory and identified 5xC3 'Improvement' recommendations.
The certificate recommends a retest on 09/03/2022.

Any remedial works noted in the Electrical Installation Condition Report must be addressed to reduce the potential for fires of electrical origin. The work should be completed by a competent electrician in accordance with the current Wiring Regulations.



Electrical installation condition report

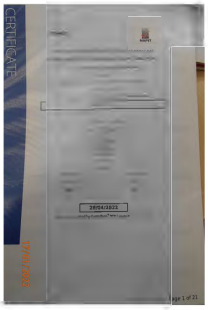
Electrical test recommendations

Electrical installation condition report

3. Is portable appliance testing carried out?	Yes	No	N/A

Positive observation:

PAT testing is completed annually, next due 26/04/2022.



PAT test certificate

4. Is there suitable control over the use of personal electrical appliances?	Yes	No	N/A

Observation:

There was no policy in place for the use of personal electrical appliances.

Priority : **Low**

Recommendation:

Where personal electrical equipment is allowed in the workplace, ensure there is a suitable policy in place for their safe use.

5. Is there suitable limitation over trailing leads and adapters?	Yes	No	N/A

6. Is there suitable control including separation of electrical installations and electric forklift charging areas?	Yes	No	N/A

Observation:

No identified separation or marking is provided to ensure areas in close proximity to electrical installations or electric charging remain clear and free from combustible material.

Priority : **Medium**

Recommendation:

Recommend suitable separation is maintained to ensure combustible material is not stored in close proximity to electrical installations including the charging area. This is often simply achieved by the provision of marked areas and robust management procedures.

Combustible material in close proximity to electrical installations

Electric forklift charging area

Fire Hazards and their elimination and control

Smoking			
7. Is smoking prohibited in the building?	Yes	No	N/A
Positive observation: Smoking is prohibited within the building, commensurate with the requirements of the Health Act 2006.			
8. is smoking prohibited in all areas of the building?	Yes	No	N/A
9. Are there suitable arrangements for those who wish to smoke?	Yes	No	N/A
Positive observation: Ashtrays are provided and are used in the smoking area which is situated outside.			
10. Did the smoking policy appear to be observed at the time of the inspection?	Yes	No	N/A
Positive observation: There were no signs of smoking occurring in the building.			

Fire Hazards and their elimination and control

Arson			
11. Does basic security against arson by outsiders appear reasonable?	Yes	No	N/A
Positive observation: The building is generally secure with 24-hour onsite security.			
12. Is there an absence of unnecessary fire loading in close proximity to the building?	Yes	No	N/A
Positive observation: The were no unnecessary fire loads in close proximity to the building at the time of the assessment.			

Fire Hazards and their elimination and control

Portable Heaters and Heating and Ventilation Installations	
13. Is there suitable control over the use of portable heaters?	Yes / No / N/A
14. Are fixed heating installations subject to regular maintenance?	Yes / No / N/A
Positive observation: Heating within the office area is provided by a gas boiler with low-pressure hot water radiators. No heating is required within the production area. A Gas Safety Record dated 18/02/2021 is recorded for inspection and review.	

Fire Hazards and their elimination and control

Lightning	
15. Does the building have an adequate lightning protection system?	Yes / No / N/A
Positive observation: The provision of lightning protection in the building was not apparent. Although the provision of a lightning protection system is not considered essential in the context of this risk assessment, the provision of a lightning protection system would need to be assessed through the risk assessment process detailed in BSEN 62305:2011. If the client considers the premises to be at undue risk from lightning strikes then an assessment will need to be carried out by a competent person in accordance with the standard given above.	
16. Has the lightning protection system been suitably maintained?	Yes / No / N/A
17. Does the lightning protection system appear functional?	Yes / No / N/A

Fire Hazards and their elimination and control

Cooking			
18. Are reasonable measures taken to prevent fires as a result of cooking?	Yes	No	N/A
Positive observation: Only basic staff refreshment facilities are provided. Recommend management continue to review the facilities provided to ensure a safe working environment is maintained. Recommend the toaster be moved away from the notice board.			
 basic staff refreshment facilities  Recommend the toaster be moved away from the notice board.			
19. More specifically, are filters cleaned or changed and ductwork cleaned regularly?	Yes	No	N/A

Fire Hazards and their elimination and control

Other Significant Fire Hazards that Warrant Consideration			
20. Are all other significant fire hazards properly controlled?	Yes	No	N/A

Positive observation:

Although no specific issues were observed during the assessment, it must be recognised the factory was in a shutdown while now plant and machinery was being installed. Some general recommendations for waste management sites include;

Controls and measures as part of your fire plan may be physical, such as fire-fighting equipment or the segregation of combustible materials to prevent fire spread, or procedural, such as evacuation and emergency plans. For example:

▪ During operations, wastes in a reception area (combustible material) may be set on fire by hot exhausts on the heavy mobile plant (an ignition source). You may decide that an appropriate control would be to instruct plant operatives to clear wastes from around exhausts at the end of each shift – and if so, you should include this in your instructions/procedures to mobile plant operatives
▪ You may identify that wastes (a combustible material) going through the shredders (potential ignition source for reasons of friction and/or sparks) may be a fire risk. You may decide that an appropriate control measure would be to install an automatic water deluge at the shredder
▪ You may decide that self-heating (an ignition source) is a risk for some of the wastes (combustible material) you store at your site. You may put in place routine inspections of such wastes using thermal imaging equipment to assess any hot spots, and procedures on what operatives need to do if heating is occurring.

You must also include in your assessment who and/or what (such as the environment) may be harmed by fire and/or the consequences of a fire. For the environment or public health, you should use the established model of source, pathway and receptor. For example, if a fire occurs it is likely that water will be used to fight it, at least initially. This firewater will be contaminated with combustion products and other harmful substances. Where will the contaminated firewater run to and could it cause environmental damage, or lead to exposure for members of the public? Your controls should address this type of consideration. Guidance on the management of firewater is contained in CIRIA Report 736 and from your environmental regulator.

It is also recommended as part of your plan that you discuss with your local Fire and Rescue Service (FRS) their likely fire-fighting strategy for your site, which may include a controlled burn to reduce firewater run-off and/or for fire-fighter safety, and if water is to be used an estimate of the likely volumes of firewater that will be produced to help you determine how much containment will be required. Likely FRS fire-fighting response should be part of your assessment process.

For waste management sites there may also be conditions in your environmental permit/licence/exemption regarding issues such as maximum waste inputs and/or storage limits, requirements for environmental and public health protection etc. These are valid input into your assessment and must be included. Even if no such limits are stated in your licence or permit, the physical limitations of your site will impose practical limits to the amounts of waste that can be handled and stored safely. Management must ensure the quantities of product stored is controlled and only the required quantity brought in for the day to day operation. Although not included within this assessment, management should ensure suitable control and management of raw materials stored within the offsite storage area over the road. Some environmental regulators may have their own guidelines and requirements for fire prevention and similar plans. You should

Fire Hazards and their elimination and control

Housekeeping			
21. Do combustible materials appear to be separated from ignition sources?	Yes	No	N/A
Positive observation: Housekeeping was generally satisfactory (see Electrical Sources of Ignition).			
22. Is unnecessary accumulation or inappropriate storage of combustible materials or waste avoided?	Yes	No	N/A
Positive observation: No unnecessary accumulation of combustible material was observed during the assessment.			

Fire Hazards and their elimination and control

Hazards Introduced by Outside Contractors			
23. Where appropriate, are fire safety conditions imposed on outside contractors?	Yes	No	N/A
Positive observation: An approved contractors scheme has been adopted where contractors are provided inductions and are required to provide proof of competency.			
24. Is a permit to work system used (eg for Hot Work)	Yes	No	N/A
Positive observation: A Hot Works Permit scheme is provided.			
25. Are suitable precautions taken by in house maintenance personnel who carry out works?	Yes	No	N/A
Positive observation: Well managed, skilled in house maintenance teams are provided.			

Fire Hazards and their elimination and control

Dangerous Substances	
26. Are the general fire precautions adequate to address the hazards associated with dangerous substances used or stored within the premises?	Yes / **No** / N/A
Observation: The control of static electricity and dust was discussed, however, it was not established if this has been controlled with the new plant being installed. Priority : **Medium**	

Recommendation:

Where dangerous substances are liable to be present you must assess the potential risk of harm to people covered under the Dangerous Substances and Explosive Atmospheres Regulations. Any assessment carried out should only be undertaken by a suitably qualified specialist.

The main production areas were in a shutdown state at the time of the assessment with new plant and machinery is installed. There is no reason to assume the installation was not be undertaken in a professional workmanlike manner following the manufactures guidance. During the assessment, it was indicated shredded material is blown along ducting from one part of the process to another. The control of static electricity was discussed, however, it was not established if this has been controlled. Recommend management ensure suitable control measures are provided. Following the installation of the new plant and machinery, recommend management liaise with the manufacturer/supplier to confirm if separate DSEAR assessments are required to ensure the safe management of dangerous atmospheres which may be present, with particular attention to the hazards associated with dust.

Flammable dust can initiate fire and explosions in factories and warehouses.
Preventative measures include:
• training in the handling of the product;
• correct use of handling equipment;
• ensuring that no potential ignition sources are taken into the dust cloud (e.g. forklift trucks); and
• establishing procedures for cleaning up (e.g. vacuuming or wetting).
Where there are quantities of powder greater than 25kg a DSEAR risk assessment will be required. Further guidance is available in the HSE guide76 on the handling of combustible dust.

27. Are the general fire precautions adequate to address the hazards associated with dangerous substances used or stored within the premises?

Yes	No	N/A

Observation:

A large, unprotected, double-skinned diesel storage facility is provided outside the front of the premises. No records of inspection and maintenance were available.

Priority : **Medium**

Recommendation:

Recommend management provide suitable barriers or protection to prevent accidental damage by vehicles within the front car park, which will also ensure suitable separation is maintained.

Recommend management liaise with the diesel supplier to ensure the facility is tested and inspected regularly and a suitable DSEAR assessment has been completed for the storage of diesel, with records maintained for inspection and review.

No protection to prevent accident damage by vehicles within car park

Fire precaution measures

Means of Escape			
28. Is the design and maintenance or the means of escape considered adequate?	Yes	No	N/A
Positive observation: Suitable means of escape is provided with 4 separate fire exits from the main production area plus escape through the reception from the administration area.			
29. Do staircase and exit capacities appear to be adequate for the number of occupants?	Yes	No	N/A
Positive observation: The stairs provided are suitable for the expected maximum occupancy of the building.			
30. Are there reasonable distances of travel where escape is in a single direction?	Yes	No	N/A
Positive observation: Travel distances are considered suitable throughout the premises.			
31. Are there reasonable distances of travel from a room with only a single direction of travel with a capacity of more than 60 persons?	Yes	No	
32. Where there are alternative means of escape, is the travel distance of a reasonable distance?	Yes	No	N/A
33. Is there adequate provision of exits?	Yes	No	N/A
34. Is there adquate provisions of exits when escape routes are less than 45° apart?	Yes	No	N/A

35. Do Fire exits open in the direction of escape?	Yes / No / N/A
36. Are there satisfactory arrangements for escape where sliding doors or revolving doors are used as exits?	Yes / No / N/A
37. Are the arrangements provided for securing exits satisfactory?	Yes / No / N/A
38. Is a suitable standard of protection designed for escape routes?	Yes / No / N/A

Observation:

The office and administration area is protected against the effects of a fire within the production area by the installation of a block wall to finished roof height, however, the escape route from the first floor offices could be compromised if the window from the first-floor corridor overlooking the production area is left open.

Priority : **Medium**

Recommendation:

Although it is recognised, if the window was to fail, occupants of the first floor could duck down and pass below the window while making their escape it is recommended the window is either fixed closed or fitted with an automatic self-closing device to ensure the maximum protection of the first-floor corridor is maintained at all times.

Ensure window remains closed at all times

39. Are there reasonable arrangements for means of escape for disabled people?	Yes / No / N/A

Observation:

The arrangements for the means of escape for people with disabilities may not have been fully considered.

Priority : **Medium**

Recommendation:

If disabled people are going use the premises then you must also provide a safe means for them to leave in the event of a fire. Where people with special needs use or work in the premises, their needs should so far as is practicable, be discussed with them. You may need to develop individual 'personal emergency evacuation plan' (PEEPs) for disabled persons who frequently use a building.

Developing personal emergency evacuation plans (PEEPs) for potential users is not considered essential. However, generic evacuation plans should be discussed with staff during staff training. It is not anticipated that the evacuation procedures would be complex however it must include provision for evacuation of persons from the first floor.

Fire precaution measures

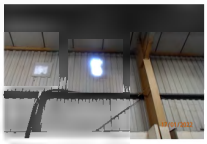
Measures to Limit Fire Spread and Development			
40. Is it considered there is a reasonable standard of compartmentation?	Yes	No	N/A
Positive observation: Suitable separation is provided between purpose groups with a block wall to finish roof height between the main production area and administrative areas. Notional compartmentation id provided within the admin area. Suitable protection is provided for the stairs.			
41. Is there reasonable limitation of linings that might promote fire spread?	Yes	No	N/A
42. As far as can reasonably be ascertained, are fire dampers correctly fitted to protect critical means of escape against passage of fire, smoke and combustion products in the early stages of a fire?	Yes	No	
43. Does the building have an external cladding system?	Yes	No	N/A
Observation: The premises has insulated sandwich panels. Observations of damaged panels with exposed insulation. Priority : **Medium**			

Recommendation:

A fire within the insulated sandwich panel core can be particularly problematic to extinguish and many older panels are manufactured with flammable insulation. Where fire enters the insulation this can rapidly spread through the entire wall or roof resulting in a rapid failure of the structural integrity.

Recommend any areas where the panels have been damaged exposing the insulated core are suitably repaired.

Important Note – please see 'Exclusions and Limitations'.



Damaged sandwich panels

Fire precaution measures

Fire Doors	
44. Are the escape routes available for use and suitably maintained?	Yes / No / N/A
45. Are fire resisting doors maintained in sound condition and self-closing, where necessary?	Yes / No / N/A

Observation:

Fire doors have been wedged open or identified with defects that may affect their integrity or performance in a fire situation.

The door protecting the locker room from the effects of a fire within the main production area is not effectively self-closing tightly within its rebate.

The door protecting the engineer's workshop from the effects of a fire within the main production area was wedged open.

The door protecting the test laboratory from the effects of a fire within the main production area has excessive threshold gaps and requires strips and seals.

Priority : **Medium**

Recommendation:

Fire doors are often constantly used and are required to perform a vital role in the fire safety of any building.

Recommend fire doors are periodically inspected to ensure they function correctly and will provide adequate protection. The gaps around the doors, between the door and the frames, should be assessed to ensure they are within acceptable tolerances (between 2 & 4mm) with a gap no bigger than 8mm at the bottom. Automatic self-closers should be assessed to ensure the door is effectively self-closing tightly within its frame.

The practice of wedging of doors should be discouraged by the management team. Where wedging of doors is experienced, it is vital that all doors remain in the closed position when the area is unoccupied.

Strips and seals missing

Door not closing tightly within its rebate

Excessive threshold gaps

Doors wedged open

46. Is the fire-resisting construction protecting the escape routes in sound condition?	Yes	No	N/A
47. Are all escape routes clear of obstructions?	Yes	No	N/A
48. Are all fire exits easily and immediately openable?	Yes	No	N/A

Fire precaution measures

Escape Lighting			
49. Has a reasonable standard of emergency escape lighting been provided?	Yes	No	N/A
Positive observation: General lighting provision appeared reasonable. However, this assessment was carried out in daylight hours. It is advised that if there are any concerns over the lack of general lighting in areas of the building, then the provision of either general or emergency lighting should be assessed by a competent person. (Some emergency lighting was observed to have no charge indicator. When questioned, the electrician onsite confirmed the lighting was working and demonstrated the function with a flick test during the assessment).			
 Emergency light flick test demonstrated during assessment			
50. Has a reasonable level of emergency escape lighting been provided to cover signage?	Yes	No	N/A

Fire precaution measures

Fire Safety Signs and Notices			
51. Is there a reasonable standard of fire safety signs and notices?	Yes	No	N/A
Positive observation: A mix of exit signage has been provided, whilst not fully compliant with the most recent fire signage standards, the indication of exit routes is clear and unambiguous.			

Fire precaution measures

Means of Giving Warning in Case of Fire	
52. Is a reasonable fire detection system provided?	Yes / **No** / N/A
Observation: The building is equipped with automatic fire detection and warning with manual call points and sounders. Automatic detection is limited to the office/admin/laboratory/locker room/workshop and canteen area with manual call points and sounders only within the main production area. The level of automatic detection and warning provided is considered suitable for the occupancy and use of the premises. Priority : **Medium**	
Recommendation: **Staff, especially those working within the main production area, must understand their role in alerting others to fire by the activation of a manual call point.** **The main fire panel was in a healthy state, however, it was observed there was a general disablement configured at the time of the assessment. Management must confirm and understand what the general disablement is, and re-enable the zone as soon as possible.**	
 Main fire panel	
53. Is the remote transmission of alarm signal adequate?	**Yes** / No / N/A
Positive observation: the main fire alarm is not monitored, however, the site is manned 24 hours.	

54. Is a zone plan displayed?	Yes	No	N/A

Observation:

There is insufficient information displayed by the fire alarm panel to confirm fire alarm zones.

Priority : **Low**

Recommendation:

In order to quickly determine where a fire has been detected, you should display a schematic plan, showing fire alarm zones in a multi-zoned system adjacent to the control panel.

Fire precaution measures

Firefighting Equipment			
55. Is there reasonable provision of manual fire extinguishing appliances?	Yes	**No**	N/A

Observation:

Suitable firefighting equipment was provided for the occupancy and use of the premises, however, management must recognise any new processes which must be considered and reviewed to ensure the suitable provision of firefighting equipment is maintained.

Priority : **Medium**

Recommendation:

Recommend management review the level of firefighting equipment provided following the completion of maintenance and upgrade works.

An appropriate number of portable fire extinguishers suitable for use on electrical equipment (such as carbon dioxide extinguishers) should be available near charging points, and be immediately accessible for use in case of fire. Such portable extinguishers should be approved and certificated by a third-party certification body, with the provision and installation in accordance with BS 5306: Part 8.

Recommend management review the firefighting equipment provided at the new charging area

56. Are all fire extinguishing appliances readily accessible?	Yes / No / N/A
57. Are hose reels installed to the relevant standard?	Yes / No / N/A

Fire precaution measures

Other Relevant Fixed Systems	
58. Is there suitable provision of firefighters' switch(es) for high voltage luminous tube signs etc?	Yes / No / N/A
59. Is there appropriately sited facility for electrical isolation of an photovoltaic cells, with appropriate signage to assist the Fire and Rescue Service?	Yes / No / N/A

Management of fire safety

Procedures and Arrangements			
60. Is there a competent person appointed under Article 18 of the Fire Safety Order to assist the responsible person in undertaking the preventative and protective measures?	Yes	No	N/A
Positive observation: the New Horizon Plastics Company Limited / Philip Thomas (Director) is responsible for fire safety.			
61. Is there a person managing fire safety on the premises?	Yes	No	N/A
Positive observation: Neil Rawson (Quality Supervisor) manages fire safety.			
62. Is there a suitable record of fire safety arrangements?	Yes	No	N/A

Positive observation:

Documented fire safety arrangements are provided. Recommend management periodically review these to ensure they remain suitable.

Management should provide a documented fire safety policy that should be flexible enough to allow modification. It should be recognised that fire safety operates at all levels within an organisation and therefore local managers should be able to develop, where necessary, a local action plan for each premise.
The company policy should be set out in writing and may cover such things as:

• who will hold the responsibility for fire safety at the board level;
• who will be the responsible person for each of their premises (this will be the person who has overall control, usually the manager);
• the arrangement whereby managers will, where necessary, nominate in writing specific people to carry out particular tasks if there is a fire; and
• the arrangement managers should monitor and check that individual site managers are meeting the requirements of the fire safety law.
You should have a plan of action to bring together all the features you have evaluated and noted from your fire risk assessment so that you can logically plan what needs to be done. It should not be confused with the emergency plan, which is a statement of what you will do if there is a fire.
The plan of action should include what you intend to do to reduce the hazards and risks you have identified and to implement the necessary protection measures.
You will need to prioritise these actions to ensure that any findings which identify people in immediate danger are dealt with straight away. In other cases where people are not in immediate danger but action is still necessary, it may be acceptable to plan this over a period of time.

Good management of fire safety is essential to ensure that fires are unlikely to occur; and if they do occur they are likely to be controlled or contained quickly, effectively, and safely; or that, if a fire does occur and grow, everyone in your premises is able to escape to a place of total safety easily and quickly.
All staff should be given information and instruction as soon as possible after they are appointed and regularly after that. Make sure you include staff who work outside normal working hours, such as night staff, contract cleaners, or maintenance staff.
All other relevant persons should be given information about the fire safety arrangements as soon as possible, e.g. visitors or guests when they register by drawing attention to the fire action notices.
The information and instructions you give must be in a form that can be used and understood. Where applicable they should take account of those with disabilities such as hearing or sight impairment, those with learning difficulties and those who do not use English as their first language.

You must provide easily understandable information to employees, guests, and employers of other persons working in your premises about the measures in place to ensure a safe escape from the building and how they will operate, for example:
• the fire prevention and protection measures and procedures in your premises and where they impact on staff and other relevant persons in the building;
• the procedures for fighting a fire in the premises; and
• the identity of people who have been nominated with specific responsibilities in the building.
• the action to take on discovery of a fire or on activation of the fire alarm including the

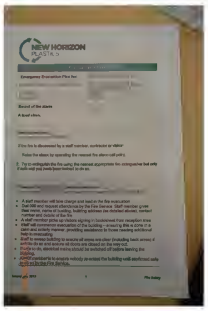
Documented Fire Procedures

63. Are there adequate procedures for investigating fire alarm signals\/

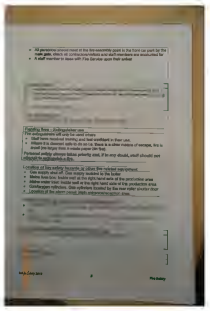
Yes	No	N/A

Positive observation:

A documented fire evacuation plan is provided.



Fire evacuation plan



Fire evacuation plan

Fire evacuation plan

64. Are there suitable arrangements for summoning the fire and rescue service?

Yes	No	N/A

65. Are there suitable arrangements to meet the fire and rescue service on arrival and provide relevant information, including that relating to hazards to firefighters?

Yes	No	N/A

66. Are there suitable arrangements for ensuring the premises have been evacuated?

Yes	No	N/A

67. Are there suitable Fire Assembly Points?	Yes / No / N/A
Positive observation: The assembly point is outside the perimeter fencing to the side of the carpark.	
68. Are there adequate procedures for evacuation of people with disabilities?	Yes / No / N/A
Observation: The arrangements to evacuate people with disabilities may not have been suitably considered. Priority : **Medium**	
Recommendation: Additional planning and allocation of staff roles – with appropriate training is required for the emergency evacuation of disabled persons and may include: identifying where disabled occupants are located and assisting evacuating disabled occupants on stairs. The plan should not rely on fire and rescue service involvement for it to be effective. Management should liaise with employees with disabilities to discuss their individual needs for evacuating the premises in an emergency.	
69. Are there persons nominated to use fire extinguishing appliances?	Yes / No / N/A
Positive observation: 8 staff are nominated as fire marshalls. Recommend management ensure the nominated staff are clearly identified.	
70. If the premises are in multiple occupation, are there adequate arrangements for cooperation between dutyholders to ensure coordination of their fire safety arrangements?	Yes / No
71. Are there persons nominated to assist with evacuation of disabled people?	Yes / No / N/A

Observation:

Persons have not been nominated to assist with the evacuation of people with disabilities.

Priority : **Medium**

Recommendation:

The evacuation procedures for your premises should include nominating and training appropriate persons to assist with the evacuation of disabled people.

72. Is there appropriate liaison with fire and rescue service i.e. by fire and rescue service crews visiting for familiarisation visits?	Yes	No	

73. Are routine in-house inspections of the fire precautions undertaken?	Yes	No	N/A

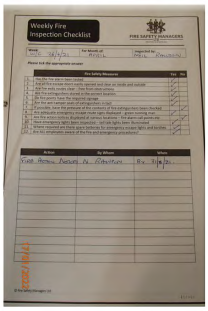
Observation:

A weekly FIre Inspection Checklist is provided, however, this does not appear to be completed regularly.

Priority : **Low**

Recommendation:

Recommend management ensure checks, and inspections are completed regularly as per policies.



Weekly Fire Inspection Checklist

Training and Drills			
74. Are staff given adequate fire safety training on induction?	Yes	No	N/A

Positive observation:

Assurance received staff are given fire safety training on induction. Management must ensure evidence is available for inspection by an inspecting authority if requested.

Staff should receive basic fire safety induction training and attend refresher sessions at pre-determined intervals.
As a minimum all staff should receive training on:
the items listed in your emergency plan;
the importance of fire doors and other basic fire-prevention measures;
where relevant, the appropriate use of firefighting equipment;
the importance of reporting to the assembly area;
exit routes and the operation of exit devices, including physically walking these routes;
general matters such as permitted smoking areas and assisting disabled persons where necessary.

75. Are staff given periodic refresher training?	Yes	No	N/A

Positive observation:

Assurance received staff are given regular refresher fire safety training. Management must ensure evidence is available for inspection by an inspecting authority if requested.

Staff should receive basic fire safety induction training and attend refresher sessions at pre-determined intervals.
As a minimum all staff should receive training on:
the items listed in your emergency plan;
the importance of fire doors and other basic fire-prevention measures;
where relevant, the appropriate use of firefighting equipment;
the importance of reporting to the assembly area;
exit routes and the operation of exit devices, including physically walking these routes;
general matters such as permitted smoking areas and assisting disabled persons where necessary.

76. Are staff given additional training to cover any specific fire safety roles and responsibility?	Yes	No	N/A

Positive observation:

Staff nominated as fire marshalls received additional training on 2/9/2020.

Example of fire training certificate

77. is the content of training provided considered adequate?

Yes	No	N/A

78. When the employees to another employer work in the premises, is appropriate information on fire risks and fire safety measures provided?

Yes	No	N/A

Observation:

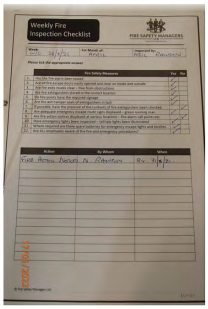
Employees of another company are not given appropriate fire safety information when working on the premises.

Priority : **High**

Recommendation:

You must provide the employees of outside organisations who are working on your premises (e.g. agency providing security staff) with clear and relevant information on the risks and the preventive and protective measures taken. You must also provide those employees with appropriate instructions and relevant information about the risks to them.

Management of fire safety

Testing and Maintenance	
79. Is there adequate maintenance of general fire precautions?	Yes / **No** / N/A
Observation: In general, the records of testing and inspection of fire precaution measures are poorly maintained. Priority : **Medium**	
Recommendation: You must keep any existing equipment, devices, or facilities that are provided in your premises for the safety of people, such as fire alarms, fire extinguishers, lighting, signs, fire exits, and fire doors, in effective working order and maintain separating elements designed to and prevent fire and smoke entering escape routes. Keeping records of the maintenance carried out will help you demonstrate to the enforcing authority that you have complied with fire safety law.	
 Weekly inspection checklist	
80. Is the weekly testing and periodic servicing of the fire detection and fire alarm system undertaken?	**Yes** / No / N/A

Positive observation:

The fire alarm is tested weekly. Management must ensure records of 6 monthly maintenance are maintained for inspection and review.

81. Are monthly and annual testing routines in place for the emergency escape lighting?

Yes	No	N/A

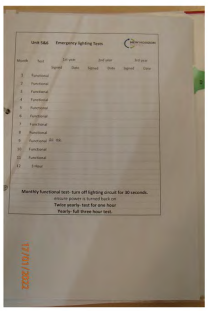
Observation:

The emergency lighting system is tested monthly, however, records are not maintained.

Priority : **Medium**

Recommendation:

Emergency lighting should be tested monthly (short duration or flick test) and maintained and inspected annually (full duration test).
Certification and test records should be maintained as evidence of compliance.



Emergency lighting test record

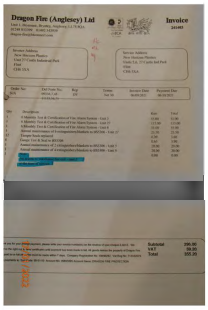
82. Is annual maintenance of fire extinguishing appliances undertaken?

Yes	No	N/A

Positive observation:

Firefighting equipment is maintained annually.

The last service and inspection were recorded on 6/9/2021.



Fire extinguisher maintenance certificate

83. Is periodic inspection of external escape staircases and gangways undertaken?	Yes	No	N/A
84. Are six-month testing of rising mains undertaken?	Yes	No	N/A
85. Are weekly and monthly testing, six month inspection and testing undertaken of lift(s) provided for use by firefighters or evacuation of disabled people (evacuation lifts)?	Yes	No	N/A
86. Are routine checks of final exits doors and/or security fastenings undertaken?	Yes	**No**	N/A

Observation:

The procedure in place to ensure that escape routes and exit doors are checked is not completed routinely.

Priority : **Medium**

Recommendation:

Check escape routes to ensure they are clear from obstructions and combustible materials, and in a good state of repair.

87. Is annual inspection and testing of lightning protection undertaken?	Yes	No	N/A
88. PV panels. Are other relevant inspections and tests being conducted?	Yes	No	N/A

89. Sprinkler systems. Are other relevant inspections and tests being conducted?	Yes	No	N/A

Records			
90. Are there appropriate records of fire drills?	Yes	No	N/A

Positive observation:

Fire drill records were maintained.

Fire drill records

91. Are there appropriate records of fire training?	Yes	No	N/A

Observation:

Appropriate records are not being maintained.

Priority : **Medium**

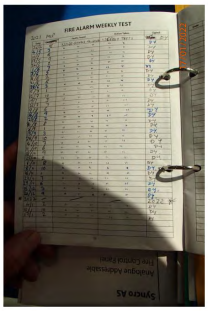
Recommendation:

It is recommended that fire training sessions are conducted at suitable intervals with comprehensive records maintained detailing the type of training and those who participated.

92. Are there appropriate records for fire alarm testing?	Yes	No	N/A

Positive observation:

Fire alarm test records were observed.



Fire alarm test records

93. Are there appropriate records maintained of false alarms?

Yes	No	N/A

Observation:

There is no record being maintained of false fire alarms.

Priority : **Medium**

Recommendation:

Recommend management maintain a record of any false alarms.

94. Are there appropriate records for emergency lighting tests?

Yes	No	N/A

Observation:

The records of emergency lighting testing are incomplete.

Priority : **Medium**

Recommendation:

Recommend management ensure the records of emergency lighting testing are maintained.

Emergency lighting test records

95. Are there records of testing and maintenance of other fire protection systems and equipment?

Yes	No	N/A

Observation:

The weekly fire inspection checklist is not regularly completed.

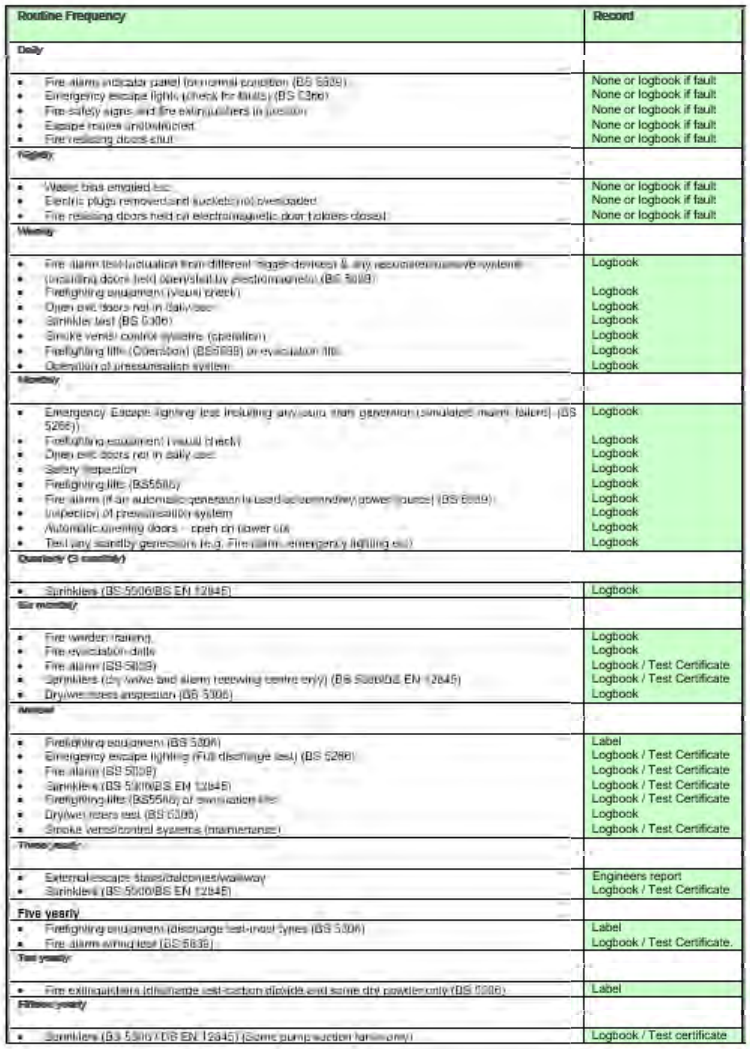
Priority : **Medium**

Recommendation:

Recommend management ensure records are maintained and reviewed.

Appendix 1: Fire Safety Routines

It is recommended that one person or organisation be nominated to be responsible for the maintenance of the fire precautions within the premises and the completion of all the records so as to ensure that the necessary entries are made into the logbook.



Routine Frequency	Record
Daily	
• Fire alarm indicator panel (in normal condition (BS 5839) • Emergency escape lights (check for faults) (BS 5266) • Fire safety signs and fire extinguishers in position • Escape routes unobstructed • Fire resisting doors shut	None or logbook if fault None or logbook if fault None or logbook if fault None or logbook if fault None or logbook if fault
Nightly	
• Waste bins emptied etc • Electric plugs removed and sockets not overloaded • Fire resisting doors held on electromagnetic door holders closed	None or logbook if fault None or logbook if fault None or logbook if fault
Weekly	
• Fire alarm test (actuation from different trigger devices & any associated sounders/visuals) • (excluding doors held open/shut by electromagnets) (BS 5839) • Firefighting equipment (visual check) • Open exit doors not in daily use • Sprinkler test (BS 5306) • Smoke vents/ control systems (operation) • Firefighting lifts (Operation) (BS5588) or evacuation lifts • Operation of pressurisation system	Logbook Logbook Logbook Logbook Logbook Logbook Logbook
Monthly	
• Emergency Escape lighting test (including any units from generator (simulated mains failure)) (BS 5266)) • Firefighting equipment (visual check) • Open exit doors not in daily use • Safety inspection • Firefighting lifts (BS5588) • Fire alarm (if an automatic generator is used for normal/key power supply) (BS 5839) • Inspection of pressurisation system • Automatic opening doors - open on power off • Test any standby generators (e.g. Fire alarm, emergency lighting etc)	Logbook Logbook Logbook Logbook Logbook Logbook Logbook Logbook Logbook
Quarterly (3 monthly)	
• Sprinklers (BS 5306/BS EN 12845)	Logbook
Six monthly	
• Fire warden training • Fire evacuation drills • Fire alarm (BS 5839) • Sprinklers (dry valve and alarm testing centre only) (BS 5306/BS EN 12845) • Dry/wet risers inspection (BS 5306)	Logbook Logbook Logbook / Test Certificate Logbook / Test Certificate Logbook
Annual	
• Firefighting equipment (BS 5306) • Emergency escape lighting (Full discharge test) (BS 5266) • Fire alarm (BS 5839) • Sprinklers (BS 5306/BS EN 12845) • Firefighting lifts (BS5588) or pressurisation lifts • Dry/wet risers test (BS 5306) • Smoke vents/control systems (maintenance)	Label Logbook / Test Certificate Logbook / Test Certificate Logbook / Test Certificate Logbook / Test Certificate Logbook Logbook / Test Certificate
Three yearly	
• External escape stairs/balconies/walkway • Sprinklers (BS 5306/BS EN 12845)	Engineers report Logbook / Test Certificate
Five yearly	
• Firefighting equipment (discharge test-most types (BS 5306) • Fire alarm wiring test (BS 5839)	Label Logbook / Test Certificate.
Ten yearly	
• Fire extinguishers (discharge test-carbon dioxide and some dry powder only (BS 5306)	Label
Fifteen yearly	
• Sprinklers (BS 5306 / DS EN 12845) (Some pump suction tanks only)	Logbook / Test certificate

It is recommended that one person or organisation be nominated to be responsible for the maintenance of the fire precautions within the premises and the completion of all the records to ensure that the necessary entries are made into the logbook.

Appendix 2: Staff Fire Training

The actions of staff if there is a fire are likely to be crucial to their safety and that of other people in the premises. All staff should receive basic fire safety induction training and attend refresher sessions annually. You should ensure that all staff and contractors are told about the emergency plan and are shown the escape routes.

The training should take account of the findings of the fire risk assessment and be easily understood by all those attending. It should include the role that those members of staff will be expected to carry out if a fire occurs.

Your training should include the following:

- What to do on discovering a fire;
- How to raise the alarm and what happens then;
- What to do upon hearing the fire alarm;
- The procedures for alerting students, pupils, members of the public and visitors including, where appropriate, directing them to exits;
- The arrangements for calling the fire and rescue service;
- The evacuation procedures for everyone in your premises (including young children or mobility impaired persons) to reach an assembly point at a place of total safety;
- The location and, when appropriate, the use of firefighting equipment;
- The location of escape routes, especially those not in regular use;
- How to open all emergency exit doors;
- The importance of keeping fire doors closed to prevent the spread of fire, heat and smoke;
- The importance of general fire safety, which includes good housekeeping;

Appendix 3: Portable Electric Appliance Test Guidelines

The Health & Safety Executive recommends that in premises such as offices, regular visual inspections rather than testing may be sufficient to secure compliance with the requirements to maintain electrical equipment. This table can be used as a guide to the appropriate initial* form of testing.

Significant hazards:

Faults in appliances – hence the need to undertake PAT tests;

Misuse of appliances – they should be suitable / sufficient for the intended activity.

Equipment Environment	User checks	Formal visual inspection	Combined inspection & testing
Battery operated: (<20v)	No	No	No
Extra Low Voltage: (<50vAC) e.g. telephone/desk lamps	No	No	No
Information Technology: e.g. VDU and DSE	No	2 - 4 years	No - if double insulated Otherwise 5 years
Copiers / Fax machines: Not hand held or rarely moved	No	2 - 4 years	No - if double insulated Otherwise 5 years
Double insulated equipment: Not hand held but moved regularly e.g. lamps / fans	No	2 - 4 years	No
Double insulated equipment: Hand-held e.g. floor buffers	Yes	6 months - 1 year	No
Earthed equipment (Class 1): e.g. electric kettles, some floor cleaners	Yes	6 months - 1 year	1 - 2 years
Cables (leads) and plugs to the above units Extension leads (mains voltage)	Yes	6 months - 4 years depending upon what equipment / unit is attached	1 - 5 years depending upon what equipment / unit is attached

*To be reviewed following experience of the faults found and of operating the maintenance system over a period of time.

Workplace Inspection Media

Electrical Sources of Ignition

Combustible material in close proximity to electrical installations

Electrical Sources of Ignition

Electric forklift charging area

Dangerous Substances

No protection to prevent accident damage by vehicles within car park

Means of Escape

Ensure window remains closed at all times

Measures to Limit Fire Spread and Development

Damaged sandwich panels

Fire Doors

Strips and seals missing

Fire Doors

Door not closing tightly within its rebate

Fire Doors

Excessive threshold gaps

Fire Doors

Doors wedged open

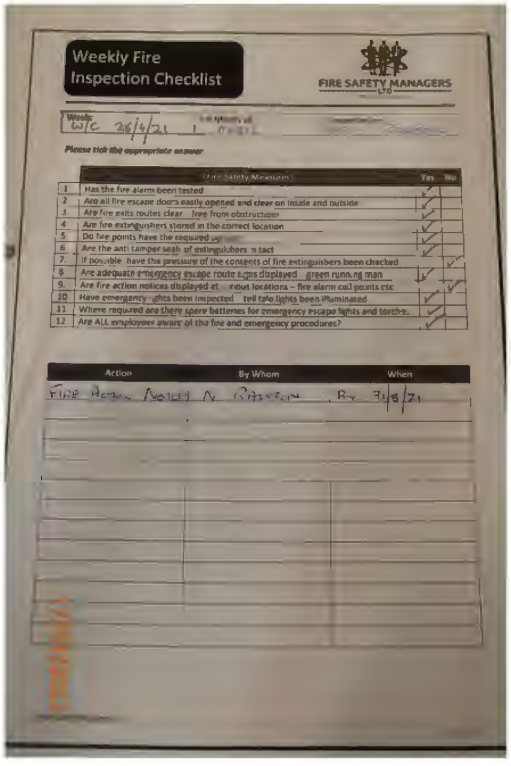
Means of Giving Warning in Case of Fire

Main fire panel

Firefighting Equipment

Recommend management review the firefighting equipment provided at the new charging area

Procedures and Arrangements

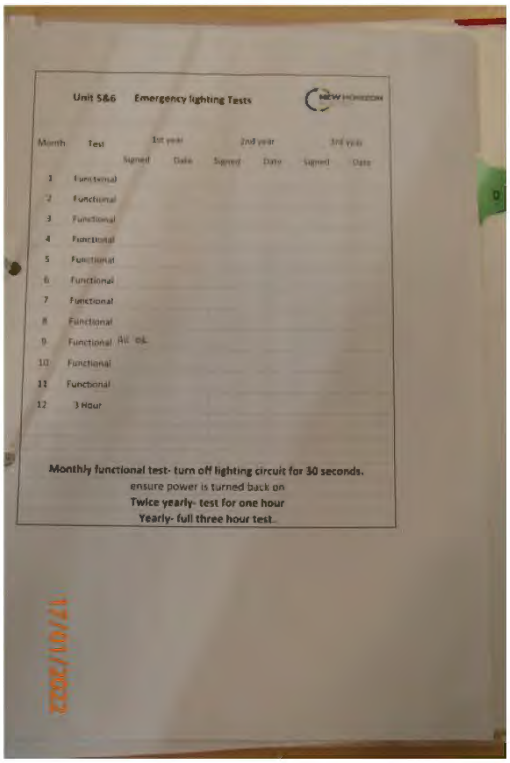


Weekly Fire Inspection Checklist

Testing and Maintenance

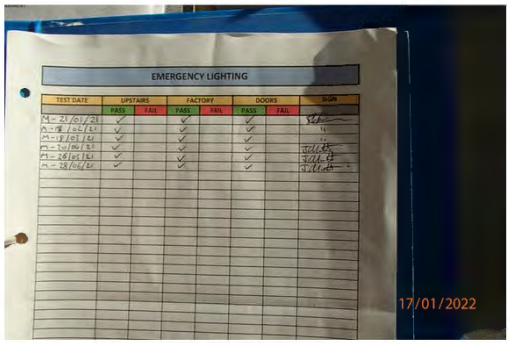
Weekly inspection checklist

Testing and Maintenance



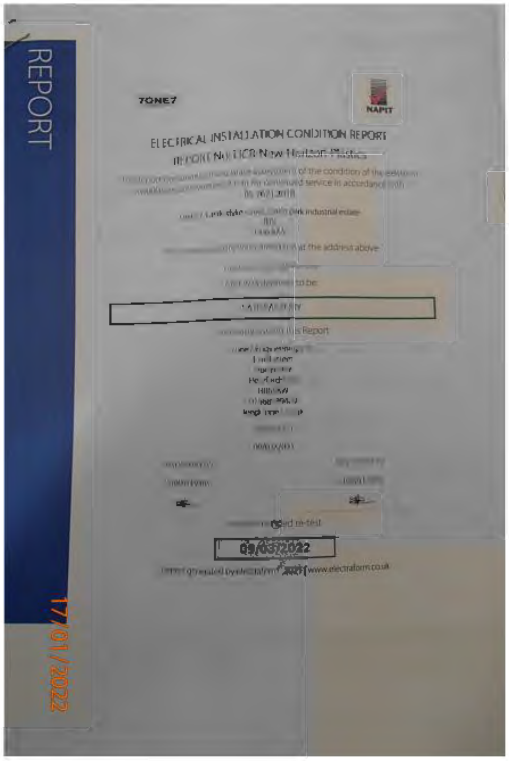
Emergency lighting test record

Records



Emergency lighting test records

Positive Observations Media

Electrical Sources of Ignition	Electrical Sources of Ignition
	
Electrical installation condition report	Electrical test recommendations

Electrical Sources of Ignition

Electrical installation condition report

Electrical Sources of Ignition

PAT test certificate

Cooking

basic staff refreshment facilities

Cooking

Recommend the toaster be moved away from the notice board.

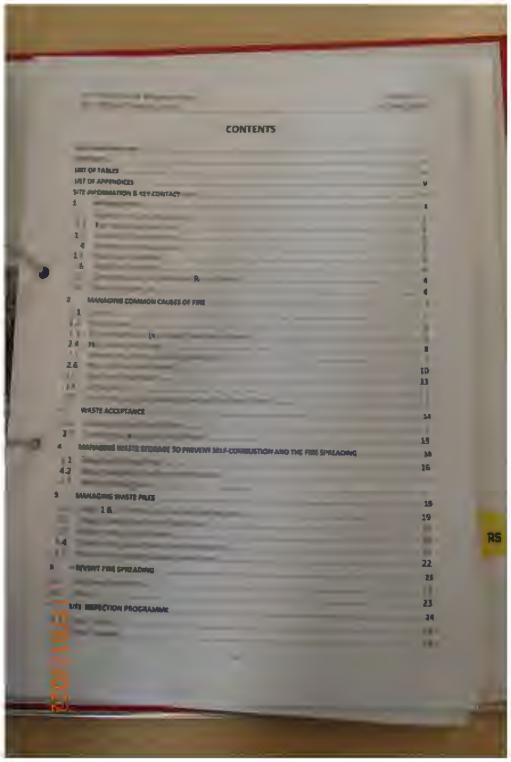
Escape Lighting

Emergency light flick test demonstrated during assessment

Firefighting Equipment

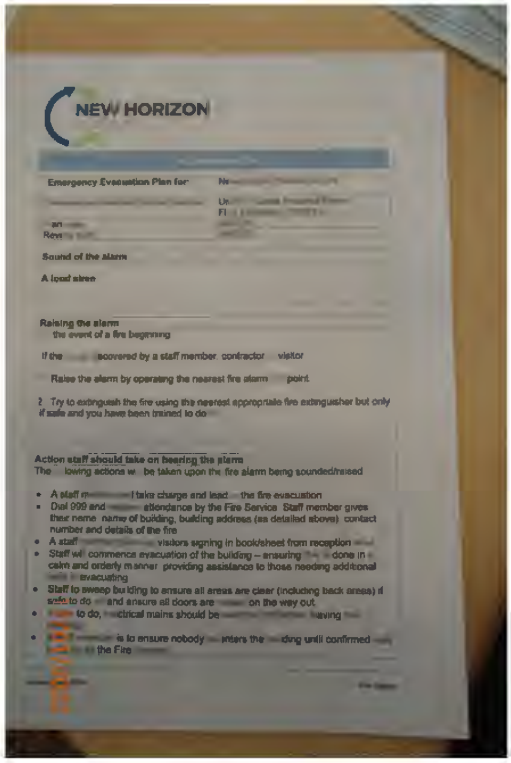
Recommend management review the firefighting equipment provided at the new charging area

Procedures and Arrangements

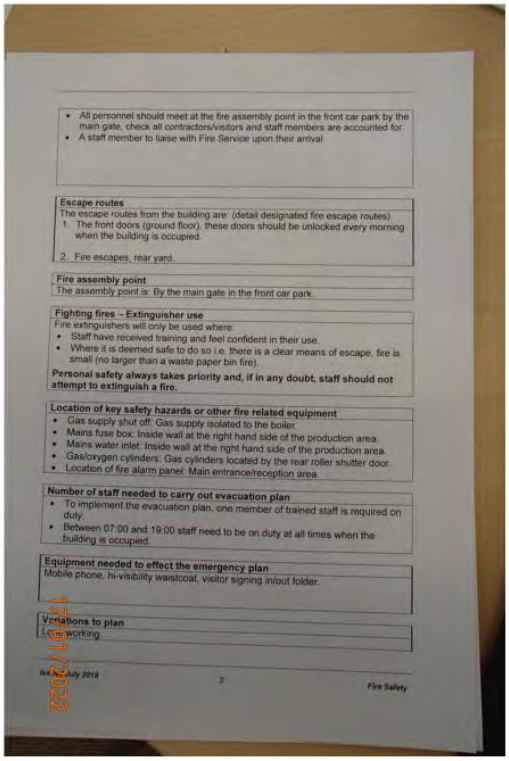
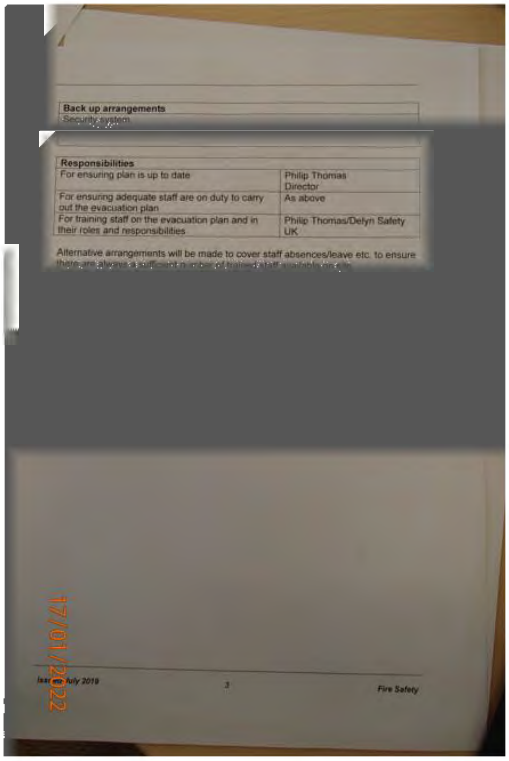


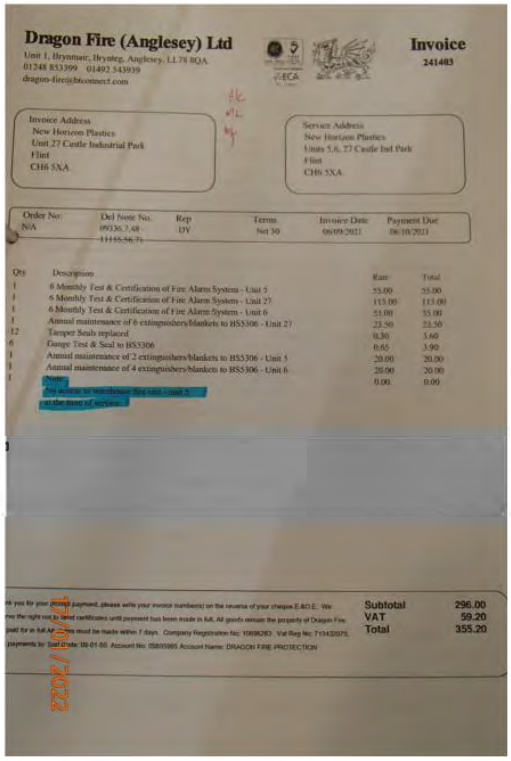
Documented Fire Procedures

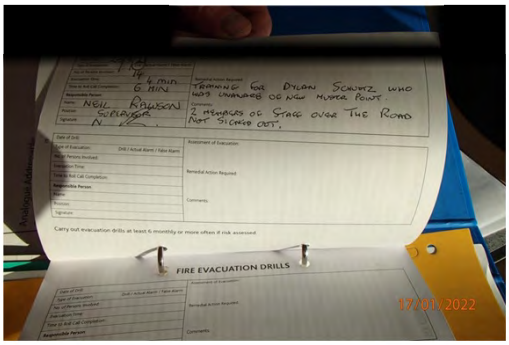
Procedures and Arrangements



Fire evacuation plan

Procedures and Arrangements	Procedures and Arrangements
	
Fire evacuation plan	Fire evacuation plan

Training and Drills	Testing and Maintenance
 Example of fire training certificate	 Fire extinguisher maintenance certificate

Records
 Fire drill records

Records
 Fire alarm test records

As well as offering leading Health & Safety and HR & Employment Law support, Citation can also provide ISO certification, fire safety services, electrical testing and specialist risk assessments – including fire, asbestos and legionella.

Appendix IV

Hot Works – Permit to Work

NEW HORIZON PLASTICS

PERMIT TO WORK (COPY)

Section 1: PERMIT DETAILS							Permit No.
Issued to (Person / Company):				Location:			
Work to be performed:							
Risk Assessment Ref:				Method Statement Ref:			
Section 2 : HAZARD IDENTIFICATION (NB – separate PTW required for Confined Space)							
Electrical	Mechanical	Chemical / Gases	Fire / Explosion	Noise	Handling	Machinery	
Hot Work	Confined Space	Pressure	Temperature	Height/Roof Work	Power Tools	Hand Tools	
Excavation	Demolition	Mobile Plant	Access Equip	Lifting Operations	Site Traffic	Dust / Asbestos	
Additional Information & Hazard Identification;							

Section 3: CONTROL MEASURES	
Electrical Isolation:	Mechanical Isolation:
I hereby confirm that the above plant / equipment has been isolated as above, proved inoperable, locked off & signs posted as appropriate.	I hereby confirm that the above plant / equipment has been isolated as above, proved inoperable, locked off & signs posted as appropriate.
Signed *Date* *Time*	*Signed* *Date* *Time*
Additional Control Measures, Area Isolation & PPE:	

Section 4: PERMIT ISSUE	
Issuing Authority *(Sign/Print/Date)*	x
I hereby declare that I have examined the proposed workplace and discussed the hazards, control measures and PPE with the Performing Supervisor. The precautions identified in section 3 and in the relevant risk assessments/ method statements must be applied before the work may proceed and maintained throughout the duration of the works.	
Valid from: *(Date/Time)*	**To :** *(Date/Time)*

Section 5: PERMIT RECEIPT	
Performing Supervisor *(Sign/Print/Date)*	x
I hereby declare that I will supervise the above work and all persons under my control have been informed of the requirements of this permit and associated risk assessment/method statement. I certify that all precautions will be applied by all performers for the duration of the works and will report any circumstances that alter the given precautions as the work proceeds.	
Work performers *(Sign/Print/Date)* I am fully aware of the work to be performed and the requirements of this permit and associated risk assessment/method statement. I certify that all precautions will be applied for the duration of the works and will report any circumstances that alter the given precautions as work proceeds.	
x	x
x	x

Section 6 : PERMIT EXTENSION						
Issuing authority to validate all copies of the permit. Performing Supervisor must return copy for validation prior to any work continuing. Extension valid until *(Sign/Date/Time)*;						
						New Permit Required

Section 7: CESSATION OF WORK	
Performing Supervisor *(Sign/Print/Date)*	x
I hereby declare that the above work **has / has not*** been completed. All persons have been withdrawn and informed that all work related to this permit must cease	

Section 8: PERMIT CANCELLATION	
Cancelling Authority *(Sign/Print/Date)*	x
I confirm that the specified work has **/ has not*** been completed. All persons and equipment have been withdrawn and the precautions / control measures in section 3 have **/ have not*** been discontinued. The plant/equipment can **/ can not*** be returned to service and this permit is hereby cancelled.	

*Copies x 3 needed = Performing Supervisor/Display on Job Issuing Authority Operations Manager/File *Delete as appropriate