AC ENVIRONMENTAL CONSULTING

Fire Prevention Plan

Eurokey Recycling Ltd

Unit 2, Raven Park, Earlstrees

Industrial Estate, Corby,

NN17 4DU

January 2025

Eurokey Recycling Ltd

Ref: EK.PT.FPP.2501

AC Environmental Consulting Ltd,

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Reference & Revision	Issue	Prepared	Approved
EK.PT.FPP.2501	First Issue	LH	DA

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1. INTRODUCTION

1.1. This Fire Prevention Plan has been formulated to satisfy the conditional requirements of Eurokey Recycling Ltd and reflects the guidance detailed within the Environment Agency document 'Fire Prevention Plans: Environmental Permits' (Published 29th July 2016).

1.2. Eurokey Recycling Ltd is a commercial plastic waste recycling facility at Unit 2, Raven Park, Earlstree Industrial Estate, Corby, NN17 4DU. Eurokey Recycling Ltd seek to obtain a bespoke Environmental Permit for the facility. The site will predominantly accept and process plastic waste. The annual throughput will be up to 60,000 tonnes per annum, averaging at 0-164 tonnes per day.

1.3 The core activity of the site is the receipt, storage and treatment of plastic recyclables for the production of plastic pellet. The applicant will accept post-industrial and some post-consumer packaging waste, from supermarkets, or wholesalers, which will be delivered baled, using third party vehicles. The packaging waste received consists of low density polyethylene (LDPE) clear and coloured films, and polypropylene (PP) plastics films for recycling. The site will receive sorted and unsorted plastic waste. Sorted waste refers to plastic waste of a single polymer, whereas the unsorted waste can comprise of mixed plastics / different polymers. [redacted]

1.4 The site will consist of an external yard with a weighbridge, trailer loading bays, car parking, and [redacted]

1.5 The site will accept deliveries of waste 24 hours a day, 7 days a week, and the site will be operational to process waste 24 hours a day, 7 days a week.

2. AMOUNT AND TYPE OF WASTE RECEIVED DAILY

Material Type	Form	Amount (Daily)
Plastic	Articulated Lorry Load	Average: 164 tonnes

2.1. In accordance with the company's Environmental Management System, the company shall only accept waste materials in accordance with the EWC codes permitted in the bespoke Environmental Permit. The EWC codes relevant to this application include the following:

- 15 01 02 – Plastic Packaging

- 19 12 04 – Plastic and Rubber
- 20 01 39 – Plastics

2.2. It is crucial to note that the site will accept plastic waste only. The EWC code 19 12 04 has been included to accommodate for the occasional and minimal presence of rubber when processing the plastic waste. Therefore, there is no need to have a stockpile for rubber specifically as it will not be a waste stream that the site accepts.

2.3. The permitted area deals with plastic specifically. The site does not accept hazardous waste. The waste is brought onto site using third party vehicles and is delivered to one of the 13 roller shutter doors at the loading dock on the eastern façade of the building where it is immediately inspected and transferred to the storage area, with the assistance of mobile plant.

2.4. Processing on site includes:

[redacted]

2.5. The processing and storage of the plastic has allocated areas as shown on Drawing Ref: 250108E101.

2.6. There is the possibility for non-conforming metal waste to be accepted in with the loads of plastic. Non-conforming waste includes contaminated plastics, non-target plastics on a washing line, and metal baling wires. [redacted]

2.7. [redacted] the machinery to process waste 24 hours a day from Monday – Sunday. The following sections detail in the total volume of plastic that is processed through the machinery on site per hour per day.

2.8. To calculate the volume of plastic processed per hour, the density (kg/m³) and the mass (kg) of the plastic processed each day in question needs to be identified. For the purpose of these calculations, the mass of the waste needs to be converted from tonnes into kilograms (1 tonne = 1,000kg). The mass (kg) is then divided by the density (kg/m³) to obtain the volume (m³). The volume can then be divided by the number of operating hours per day.

The site is operational from 24 hours each day Monday – Sunday.

Plastic Processing

1. The density of plastic varies between 910 kg/m³ and 970kg/m³ depending on the type of plastic. For the purpose of these calculations the maximum density of 970kg/m³ will be used.
2. [redacted]
3. [redacted]

On the [redacted] processed through the machinery on site per hour.

3. MATERIAL STORAGE QUANTITIES

3.1. The site will receive sorted and unsorted plastic waste. The site processes post-industrial and some post-consumer plastic waste which comes from supermarkets or wholesalers. The waste is delivered to one of the eleven HGV loading dock bays, or one of the two roller shutter doors on the eastern façade of the building by third party vehicles. The site will accept deliveries of waste 24 hours a day, 7 days a week.

3.2. Sorted waste refers to plastic waste of a single polymer, whereas the unsorted waste can comprise of mixed plastics / different polymers. The waste enters the site baled, which is delivered to the site using third party vehicles. Wastes are transferred to the storage area, with the assistance of mobile plant.

3.3. [redacted]

3.4. [redacted]

3.5. Materials stored in a single area will be clearly separated stockpiles of a maximum size as shown below. The stockpile numbers below are in accordance with the Fire Prevention Plan Drawing Ref: 250108E101 provided in Appendix 2. Where possible, each stockpile is separated by a 6m separation distance or by a fire wall. Materials stored in a single area will be clearly separated stockpiles of a maximum size, as shown below. For the purpose of this Fire Prevention Plan, stockpiles 18 and 19 will be combined due to the lack of separation distances.

3.6. The tools and PPE are stored within the workshop in the industrial building.

Stockpile Number	Material Type/Stockpiles	Form	Location	Maximum Amount in each area (m^3)
1	Baled Plastics	Baled	Building	330
2	Baled Plastics	Baled	Building	330
3	Baled Plastics	Baled	Building	330
4	Baled Plastics	Baled	Building	330
5	Baled Plastics	Baled	Building	330
6	Baled Plastics	Baled	Building	330
7	Baled Plastics	Baled	Building	330
8	Baled Plastics	Baled	Building	330
9	Baled Plastics	Baled	Building	330
10	Baled Plastics	Baled	Building	330
11	Non-conforming waste	Stillage	Building	0.6
12	Non-conforming waste	Stillage	Building	0.6
13	Non-conforming waste	Stillage	Building	0.6
14	Non-conforming waste	Stillage	Building	0.6

15	[redacted]	Stillage	Building	0.6
16	[redacted]	Stillage	Building	0.6
17	Sludge	30 yd skip	External Yard	29.3
18	Metals	30 yd skip	External Yard	29.3
19	General Waste	30 yd skip	External Yard	29.3

3.7. All waste accepted on site is received and stored in its largest form.

3.8. All waste accepted on site is flammable. The storage of products will also be considered in this Fire Prevention Plan, due to their flammability. The flammable stockpiles onsite are either separated by a 6m distance or by a fire wall. Site access can be gained from the eleven HGV loading dock bays, or one of the two roller shutter doors that are located on the eastern façade of the building. The remaining perimeters of the building are constructed from a built-up steel cladding system with profiled outer sheeting. It is crucial to note that all waste processing occurs within the enclosed building.

3.9. There are materials present on site which are not covered by the guidance but still pose a fire risk. These materials include a very small volume of oils and lubricants for plant maintenance which are enclosed within a fire resistant cabinet within the workshop area. The cabinet will remain locked at all times and is not within 6m of a flammable stockpile or the mobile plant storage area. There are no additional materials on site which are not covered by the guidance. There are no gas cylinders or fuel tanks on site.

4. OTHER COMBUSTIBLE MATERIALS STORED/PRESENT ON SITE

4.1. The following combustible materials are stored/present on site or in the office:

Material Type/Stockpiles	Form	Location	Maximum Amount in each area (m^3)
Paper/Cardboard/Plastic (office materials)	Loose	Office	<1m^3

Textiles (PPE)	Loose	Office	<0.5m^3
Lubricants (plant maintenance)	Loose	Workshop	<0.5m^3
Oils (plant maintenance)	Loose	Workshop	<1m^3
[redacted]	[redacted]	Workshop	2857m3

4.2. The nature of combustible materials stored on-site potentially increases the risk of fire. However, the office operation is separate from the waste operation and entirely contained and therefore the fire risk from each operation to the other is low.
As detailed in the section above, there is a very small volume of oils and lubricants for the machines, which are held in fire-resistant cabinets within the workshop area.

4.3. The above materials are not waste received on site but are items used in the management of the business with the exception of the non-waste (pellet), which is the output from the treatment.

4.4. [redacted]

5. MATERIAL STORAGE DURATION

5.1. Plastic waste materials for processing are transferred into the building to one of the 10 storage bays located, which are stored to the north of the building. [redacted] are also stored to the north of the building, which are segregated from the plastic waste bays.

5.2. Plastic waste within the permitted area is sorted and processed within the industrial building upon arrival from third party vehicles [redacted] which are output from the processing of the wastes, are segregated and stored within the designated areas shown on Drawing Ref: 250108E101 within the building for up to six months.

5.3. Waste stored within the permitted area does not include hazardous waste, therefore the site contains no higher risk material that needs to be processed within 7 days. Plastic waste will be stored on site for no longer than 3 months – flexibility is enabled within this maximum retention time. The site aims to turnover plastic waste within a much shorter time period, following a First in First Out system. End of waste outputs will be stored for up to six months.

Material Risk Rating	Timescale
Low risk material	Maximum 3 months
Pelletised material storage (non-waste)	Maximum 6 months

6. COMBUSTIBLE STORAGE DIMENSIONS (MAXIMUM)

6.1. The various stockpiles of wastes and products on site are maintained at certain maximum sizes depending on the need to maintain separation distances and the availability of space. The table below details the maximum stockpile size for each combustible waste category of waste.

Material	Length (Meters)	Width (Meters)	Height (Meters)	Maximum Waste Volume (m^3)
Stockpile 1: Baled Plastics	20	5	3	330
Stockpile 2: Baled Plastics	20	5	3	330
Stockpile 3: Baled Plastics	20	5	3	330
Stockpile 4: Baled Plastics	20	5	3	330
Stockpile 5: Baled Plastics	20	5	3	330
Stockpile 6: Baled Plastics	20	5	3	330
Stockpile 7: Baled Plastics	20	5	3	330
Stockpile 8: Baled Plastics	20	5	3	330
Stockpile 9: Baled Plastics	20	5	3	330
Stockpile 10: Baled Plastics	20	5	3	330
[redacted]	0.87	1.5	0.86	0.6
Stockpile 12: Non-conforming wastes	0.87	1.5	0.86	0.6
Stockpile 13: Non-conforming wastes	0.87	1.5	0.86	0.6
Stockpile 14: Non-conforming wastes	0.87	1.5	0.86	0.6
[redacted]	0.87	1.5	0.86	0.6
[redacted]	0.87	1.5	0.86	0.6

Stockpile 17: Sludge	6.1	2.4	2	29.3
Stockpile 18: Metals	6.1	2.4	2	29.3
Stockpile 19: General Waste	6.1	2.4	2	29.3

6.2. The volume of waste on site will require measures to rotate stock on site.

6.3. FIFO -The stockpiles in the storage areas according to waste stream operate through the first in first out principle. This can only be achieved with extra attention by site management to ensure full removal of waste from the storage areas once they have reached their maximum volume. Site management will inspect each stockpile daily to ensure FIFO is thoroughly implemented on site. The site will be staffed 24/7, and the staff will also be responsible for regular stockpile inspection and for the implementation of stockpile rotation. Waste materials will be stored in their largest form.

6.4. Stockpile levels will be monitored by the COTC holder weekly. The records will be reviewed by site management and action will be taken in the event where stockpiles are not being reduced as planned. This could involve investing in new equipment, hiring new staff, further staff training or changes in the site's current procedures.

7. CONTROL OF SOURCES OF IGNITION

7.1. A Fire Risk Assessment is carried out annually at the site and this identifies potential sources of ignition. As well as the normal sources that every building may have, the site has other that must be controlled. The potential sources of ignition are identified are:

7.2. **Hot Work:** The site operates a variety of Health and Safety systems and part of a Permit to Work system.

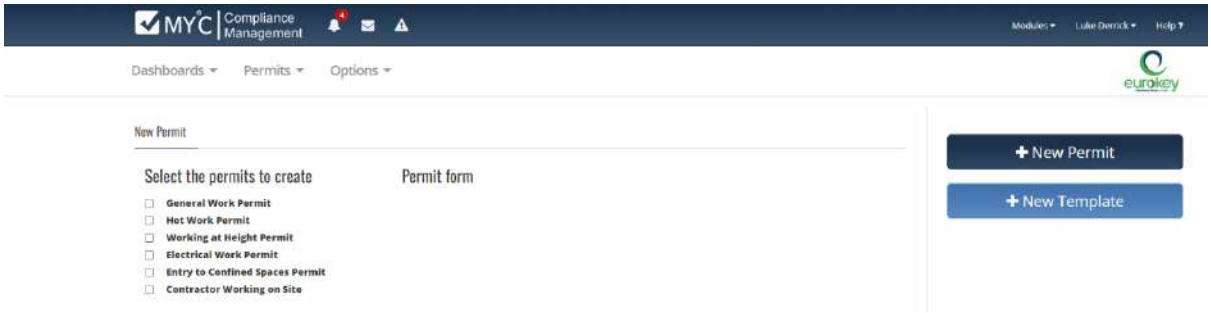
- No hot work is required as part of normal site operations. Any hot work which may occasionally be required e.g. any work which may give risk to sparks e.g. grinding, drilling, cutting of metal or stone/concrete, or electrical work will be subject to the permit to work system.

- Each job under the permit to work system is risk assessed prior to work commencing and suitable measures taken to prevent ignition of waste and to deal with any nascent fire promptly before a fire can take hold. This work will not be carried out in areas less that 6m away from any combustible waste.

Precautions taken include:

- Cleaning the area of combustible materials prior to work commencing.
- Have suitable fire extinguishers placed close to the area of work.
- Maintaining a careful watch throughout the work.
- Inspecting the work area after work gas finished and for an hour after, and a permit to work (PTW) system to help manage the risk.

The permit to work system is an online system that replicates the paper based HSE version. Permits to work are obtained electronically, the site also has supplies of the paper ones in case of electrical failure, below is the system in use;



7.3. **Smoking:** The permitted area operates a no-smoking policy in all areas of the site. Management will bring the rules on smoking to the attention of all workers and visitors to the site and enforce them:

- No smoking is allowed on site.

7.4. **Electrical Installations:** Should be of enough capacity for the intended use and designed, installed, inspected, and maintained by competent people.

A maintenance programme is in place to inspect and service equipment in accordance with manufacturers recommendations; attention shall be made to accumulations of dusts/fluff near sources of ignition such as build up on or around electrical equipment, panels etc.

7.5. **Bonfires:** Under no circumstances shall an open fire be allowed on site.

7.6. **Arson:** Measures are in place to prevent unauthorised access to the site.

- Site security is robust with it being enclosed within a purpose built industrial building with roller shutter doors that will be sealed and locked at the end of each working day. The site is surrounded by a perimeter fence measuring 2.4m in height. The site is operational 24 hours a

day, 7 days a week, and there are staff on site all of the operational hours. There are patrols of the site each day to ensure that the site is secure.

- The security system consisting of CCTV cameras with motion sensors will alert site management through text immediately if there is an intrusion. Cameras are backed up to the cloud.
- The site will be manned 24/7, and during any non-operational periods the site will be manned by site security.
- A FireShield heat detection system has also been installed to alert site management if there is a fire during operational hours or out of hours. Staff will monitor the sensors through a mobile application during operational hours and will be alerted out of hours by text if a fire is detected. The specifications for the heat detection system are provided in Appendix 12.

7.7. **Accumulation of materials**: Whilst not strictly a source of ignition, build-up of dusts/fluff/litter can provide ideal material for a fire to start.

- The site operates in accordance with a strict cleaning schedule that ensures that there is no build-up of dusts, fluff, and litter. The cleaning regime is a dynamic activity and will be completed by team members throughout operational periods.
- The industrial building is equipped with a comprehensive Local Exhaust Ventilation (LEV) heat fume and plastic dust extraction and filtration system.
- The site also operates in accordance with a Dust & Emissions Management Plan Ref: EK.PT.DEMP.2501 which is reviewed annually.
- The site shall be inspected daily by the Site Manager who is also a COTC holder. Any accumulations of dusts, debris, fluff etc., shall be brought to the attention of site management. Any accumulations shall be recorded on the site inspection sheet and cleaned immediately.
- Attention shall be particularly made to accumulations near sources of ignition such as dust/fluff build up on or around electrical equipment, panels etc.

7.8. **Self-combustion:** In certain circumstances certain waste materials can have the ability to generate heat through biodegradation or oxidation, to a point where self-combustion occurs. Such wastes are stored site with 6m separation distances or separated by firewalls and monitored daily by site management in order to check that self-heating is not occurring.

7.9. **Hot Exhausts**: Hot exhausts are always kept away from flammable and combustible waste. There is plant used onsite in the form of forklift trucks. The storage of such plant is kept to the specific plant storage area as shown on Drawing Ref: 250108E101 which is 6m away from any combustible stockpile.

7.10. **Industrial Heaters**: No industrial heaters, incinerators or braziers will be used on site.

7.11. **Incompatible Wastes:** As the scale of the site's operation is relatively low the issue of incompatible and unstable wastes is possible but unlikely, as the site operates a waste acceptance procedure which aims to deal with this eventuality, and which is described in Section 8.

7.12. **Processing plant:** [redacted] In the event of a failure or suspected fault with an item of plant or piece of equipment, the operator will ensure that the equipment is shut off in a safe manner and not used until the equipment can be repaired or replaced. General housekeeping and cleaning of the plant and equipment, and the surrounding area, should also be carried out regularly to ensure there is no build-up of waste or dust that can be an ignition source.

7.13. **Battery charging:** Forklift truck battery charging will occur in a separate, fire-rated area, specifically designated for this purpose, which is equipped with adequate ventilation.

8. WASTE ACCEPTANCE

8.1. The site has procedures designed to ensure that wastes received at site do not present a risk of fire. Checks to ensure the suitability of wastes accepted begin on receipt.

8.2. Incoming waste materials (raw materials for recycling) are received in bales. The incoming vehicle drives to the weighbridge and the driver goes to the office to deliver the paperwork.

8.3. Wastes are inspected by staff on arrival at site by staff prior to being accepted. The vehicle is directed to a loading dock or bay, where it will then be unloaded. Offloads are supervised so that any issues which were hidden and not identified prior to receipt can be seen. The aim of this is to ensure that a problematic load is not accepted and allowed to stand for a long period, potentially allowing a fire to develop.

8.4. The site will receive sorted and unsorted plastic waste. Sorted waste refers to plastic waste of a single polymer, whereas the unsorted waste can comprise of mixed plastics / different polymers. The sorted waste will mostly be received from Eurokey's site in Kettering where they have undergone a mechanical sortation process to produce baled materials of a single polymer type. Additionally, they may also be received directly from a supplier but will be of a high-quality single polymer type. The unsorted wastes received to site will be of mixed polymers, also baled, these are stored temporarily, before being transported to Eurokey's site in Kettering, for sortation into a single polymer, before then returning to this site, to undergo final reprocessing. The received waste steams will not contain lithium batteries, other hazardous batteries, or other similarly flammable waste that is not of a post-industrial plastic waste type.

8.5. The site does not accept hazardous waste, and due to the types of wastes accepted, the potential for hazardous waste, or incompatible wastes is limited. However, if such a load is identified at collection it shall be rejected and site management advised.

8.6. If such an issue is identified, site management will be alerted. Action taken may be to segregate and remove the problematic waste to the quarantine area or to sort the load, pending removal to a suitable permitted facility. If the non-conforming waste cannot be separated from the load, the entire load shall be rejected, and transferred to the quarantine area, pending removal to a suitable permitted facility.

8.7. In the loading dock the 11 bays would not all be used all at the same time. Incoming loads of plastic waste will be on a drop and swap basis. Waste at dock / bay will be in the process of being removed to the internal storage area.

9. QUARANTINE AREA

9.1. The site has a quarantine area of 316m² located in the external yard and includes a 6m buffer zone. The size of the site does allow a 6m distance between the quarantine area and any of the flammable stockpiles on site.

9.2. The Quarantine area would support 1m high stockpiles, allowing for a total stockpile size of 316m^3. The largest stockpile is 330m^3, therefore the quarantine area can hold more than 71% of the largest stockpile. This is greater than the minimum quarantine area size required in the Fire Prevention Plan guidance, which requires quarantine areas to hold at least 50% of the volume of the largest stockpile on site.

9.3. The location of the quarantine area allows for ease of access from the roller shutter doors to the eastern façade and from the remaining areas of the site when moving stockpiles, and for quick access by the fire service.

9.4. Despite the potential storage capacity of the quarantine area, it is intended that waste fires will be tackled in-situ if one should occur within the building (with use of fire extinguishers or the installed Fire Shield automatic fire suppression system) rather than moving potentially burning waste into other areas of the site. In this instance the site area would be available for use by the Fire and Rescue Service to park fire tenders and allow them to tackle the fire effectively. The quarantine area will then be used to move some of the non-burning wastes from the affected stockpile to reduce the potential scale of the fire.

10. FIRE PREVENTION AND DETECTION MEASURES

10.1. Several measures are taken to prevent fire, these include:

- Fire risk assessment in place.
- Fire exit and fire safety warning signs displayed.
- Fire awareness raised as part of employee induction training.
- There are 16 fire extinguishers on site; located throughout the building, that will be used in the early stages of a fire by staff that are trained in the use of fire extinguishers. The extinguishers are maintained by an external service contractor that is suitably experienced, and UKAS accredited.
- Fire Shield heat detection system installed consisting of ten heat detection cameras within the building. The heat detection system is maintained by an external service contractor in accordance with the specifications of the manufacturer. Details on the fire detection system are given in Appendix 12.
- Fire Shield Fire Suppression system installed throughout the building consisting of a modular foam pumping system, wetting agent dosing system, automatic foam cannons and automatic

sprinklers. Further detail on the automatic fire suppression system can be found in Appendix 12.

- Daily check to ensure correct operation of fire-fighting equipment by employees.
- Material inspection procedure.
- Dedicated hot work procedure.
- No naked flames on site and all naked flames or other sources of ignition to be kept at least 6m away from combustible wastes.
- No space heaters, burners, furnaces etc. will be used on site.
- Contractor control program which includes a site induction.
- No smoking anywhere on site enforced by site management.
- Plant that is operated on site consists of 4 x Electric Clamp Trucks. However, these will be operated at a 6m distance from flammable stockpiles and stored on site in the designated plant storage area which is a minimum of 6m away from any flammable stockpiles. All mobile plant is fitted with fire extinguishers.
- Ensuring electrical equipment is routinely tested and certified by a qualified electrician.
- Maintaining site security through a 24 hour CCTV security system consisting of several CCTV cameras with motion sensors and roller shutter doors that are sealed and locked at the end of every day to stop the risk of arson and detect incidents. Site management monitor the security system through a mobile application during operational hours and are alerted out of hours by text if the security system detects an intrusion. The permitter fencing and site entrance gate is also locked and patrolled at the end of each working day.
- The site is manned 24/7.
- Ensuring all equipment is kept in good condition and undergoes routine maintenance.
- The site shall be inspected daily by the site manager. Any accumulations of dust, debris, fluff etc., shall be brought to the attention of site management. any accumulations shall be recorded on the site inspection sheet and cleaned immediately.
- Particular attention shall be paid to accumulations near sources of ignition such as dust/fluff build-up on or around electrical equipment, panels etc.

- Ensuring that spill kits are used to clear up any spillages on site immediately. Spill kits will be kept in the building. All site operatives will be trained in the deployment of spill kits. However, the site management will be responsible for ensuring that they have been deployed appropriately.

10.2. Fire Alarm

10.2.1. The site's fire alarm system consists of a Fire Shield early warning heat detection system. The system consists of ten multi-detection cameras, with heat, smoke and flame detection, and sounder beacons. The sensors will work alongside the CCTV security system which will alert staff by text in the event of arson. The fire alarm system will be monitored by site management during operational hours. Out of hours, site management will be immediately alerted by text if the fire alarm system is triggered. It is crucial to note that the site is manned 24/7, and during any non-operational periods the site will be manned by site security. Further detail on the heat detection system is provided in Appendix 12.

10.3. Fire Watch

10.3.1. Throughout the day the shift fire spotter will conduct dynamic fire inspections on an ongoing basis. These involve a visual inspection of waste stockpiles and exhausts.

10.3.2. After any hot work is carried out, an operative will keep the area under observation for an hour to ensure that a fire does not occur. The Fire Shield system also covers all areas of the site with ten heat, smoke and flame detection cameras.

10.3.3. At management meetings, any incidents will be reviewed, and any concerns identified will be addressed at this point. The changes could involve changes in the procedures, purchasing of new equipment or re-training staff as deemed necessary.

10.4. Inspections & Monitoring

10.4.1. In addition to the Hot / Fire Watch, dynamic inspections will be carried out by the site staff throughout the working day with further daily inspections carried out by the COTC holder to ensure that stockpile sizes and rotation remain within the limits.

10.4.2. These inspections will all involve perimeter and security inspections, together with a review of Fire Watch records and temperature monitoring.

10.5. Site Design

10.5.1. The site layout is designed to ensure freedom of movement. Waste is brought onto site by third party vehicles. The site will accept deliveries of waste 24 hours a day, 7 days a week. Upon arrival, the waste vehicles will drive over the weighbridge located at the site entrance prior to delivering the

waste to one of the eleven HGV loading dock bays, or one of the two roller shutter doors on the eastern façade of the building.

10.5.2. [redacted]

10.5. [redacted]

10.5.4. [redacted]

10.5.5. To the southeast of the building, there is a split level water recycling plant. Up to 95% of the water used in the processing of the plastics is treated and recycled back into the system, requiring only 5% fresh water per hour per line. Waste water from the water recycling plant will be discharged (once consent is obtained) to the Anglian Water sewer.

10.5.6. There is a baler on site for the baling of plastics, such as the non-target plastics picked off the picking lines to be later processed.

10.5.7. All processing of waste occurs indoors within the building.

10.5.8. [redacted]

10.5.9. The building also contains the mobile plant storage area. Within the building there is also a forklift truck charging and battery charging station. Additionally, in the south of the building there is a workshop and an office block. The building is equipped with a Fire Shield flame detection and automatic fire suppression system as detailed in Appendix 12.

10.5.10. The quarantine area is located to the northeast of the site in the external yard.

10.5.11. There will be water gate barrier deployment at along the site entrances for fire water containment or to protect the site from flooding. The site perimeter consists of a mixture of fencing ranging from 2.4m high steel palisade fencing that runs along the northern boundary of the site, and approximately halfway along the east and west boundary of the site, before it then changes to steel palisade fencing at 2.1m to 2.2m high for the remaining half of the east and west boundary. The southern boundary consists of black paladin fencing at 2.4m high.

10.6. Drainage

10.6.1. The site has a comprehensive drainage system which includes surface and foul water drainage.

10.6.2. The surface of the site comprises of impermeable concrete, asphalt and block paving.

10.6.3. Wastes stored externally are stored only on the concrete surface. The block paving area is for pedestrian use, and the asphalt is the entrance to the site and the car parking area only. All surface water run-off from the external areas of the site that are used for waste storage will pass through an interceptor, before entering the foul water sewer. The interceptor is located towards the south of the permitted area, which is to the south-west of the main building. The interceptor will filter potential contaminated water from the site.

10.6.4. The site has SuDS measures in the form of an attenuation tank, located beneath car parking area. The site is also equipped with a hydrobrake in order to attenuate the surface water flows prior to discharge towards the Anglian Water foul water sewer located in Princewood Road. The designed flow rate is 17.5 litres per second. The flows from site are controlled by proprietary flow control units with the excess water temporarily stored on site in attenuation tanks. The drainage system reduces run off and eliminates the risk of groundwater contamination.

10.6.5. Drains, located around the site, will be covered by clay mats in the event of a fire or spillage / pollution incident. Any potential spillages will be dealt with appropriately within the permitted area, using the spill kit that is provided on site.

10.6.6. In addition to the sealed drainage system, any contaminated water will be held within the site using a Water Gate barrier. The barrier has the advantage of allowing FRS to still gain access to the

site as they can drive over the barrier without the contained water being released. No flammable materials are placed outside of the concrete surface of the site; therefore, no contaminated water will escape the site as it will all be contained by use of a Water Gate Barrier. The quantity of firefighting water means that there is minimal time for leaching of contaminants from wastes. All staff are trained in deployment of the barriers, which can be deployed by a single person. Further detail on the water gate barriers is provided in Appendix 10.

10.6.7. The site is situated within a Flood Zone 1 and is not at risk of any other form of flooding.

10.7. Incoming Waste

10.7.1. Incoming waste is only accepted by prior arrangement and the input of wastes is entirely within the control of site management and can be stopped at any time. During the event of a fire, no waste is delivered, and the entrance of the site will be manned by site operatives to stop all visitors at the access road and to ensure that the site is only accessed by the FRS.

10.8. Security

10.8.1. The site has not experienced any trespass or vandalism. The security system consists of CCTV cameras with motion sensors and that operate 24 hours a day that were designed, installed, and are maintained by a UKAS accredited installer. The location of the CCTV cameras is shown on Drawing Ref: 250108E101. The system is monitored on site by site management during operational hours via a mobile application and sends alerts to site management by text if the system detects an intrusion or fire. In the event of a fire the site operatives will first inform the FRS and then notify site management. If there is an intrusion or fire out of hours, the security alarm system and CCTV cameras alert staff immediately by text.

10.8.2. A fire alarm has been installed by a UKAS accredited installer to BS 5839-1:2002 on site. The system sensors alert staff during the day and at night and alter site management via text message.

10.8.3. The detection/security systems used are proportionate to the nature and scale of the waste management activities carried out on site. The design, installation and maintenance of all automated system are covered by an appropriate UKAS-accredited third-party certification scheme. The detection and security system installed on site will effectively contact site management by text in the event of a fire or an intrusion.

10.9. Housekeeping

10.9.1. The site shall be inspected weekly by the COTC holder. Any accumulations of dust, debris, fluff etc., shall be brought to the attention of site management. Any accumulations shall be recorded on

the site inspection sheet and cleaned immediately. The site operates in accordance with a Dust & Emissions Management Plan Ref: EK.PT.DEMP.2501.

10.9.2. Attention shall be paid to accumulations near sources of ignition such as dust/fluff build up on or around electrical equipment, panels etc.

10.9.3. The risk of fire is managed by very careful housekeeping, keeping areas clean, free from litter and detritus, especially electrical infrastructure, through inspections and monitoring, including temperature monitoring throughout the day and in particular as part of the end of day fire watch.

10.9.4. The self-ignition point of wastes is actually very high; plastic typically self-ignite above 260°C, petrol 247°C and diesel 210°C. By ensuring that there are no sources of ignition and no elevated temperatures at the end of a day, management is essentially ensuring that ignition overnight cannot occur.

10.10. Storage of Flammable Materials

10.10.1. Other than office paperwork and cardboard packaging, the only flammable materials held on site are:

- Unprocessed plastic waste (baled stockpiles stored in the bays within the building).
- Processed baled plastic waste (bulk bags on pallets stockpiles stored in the storage area within the building)
- Metal waste (external skip).
- Non-conforming wastes (stillages)

10.10.2. All flammable stockpiles stored within the building are covered by a Fire Shield roof mounted automatic fire suppression system. Further detail on the automatic fire suppression system is provided in Appendix 12.

10.10.3. All flammable stockpiles are stored on the impermeable concrete surface and are separated by a 6m distance or by a firewall. All storage areas are easily accessible from at least two sides to ensure that if a fire occurs inside of them, it can be put out.

10.10.4. There are no other flammable materials held on site other than those stated above.

10.11. Fire Exercises

10.11.1. Routine fire exercises will take place every year. This will take the form of a practice run through of the procedures to be followed on discovering a fire, from raising the alarm to notifying the authorities and evacuating the site.

10.11.2. A fire procedure has been produced and forms part of the site's management plan. Each exercise shall be recorded and any deficiencies in the exercise shall be noted, reviewed by site management and any appropriate corrective action taken.

10.11.3. Corrective action taken may include re-training of staff, amendments to procedures, or purchase of alternative equipment as deemed necessary.

10.12. Plant and Vehicles

10.12.1. The site will have a mix of mobile and fixed plant. The mobile plant will consist of 4 x electric clamp trucks (specialised forklift trucks). The fixed plant will consist of plastic recycling machinery including washing lines and extrusion/pelletising lines. The fixed plant is located in the processing and storage area within the building. Mobile plant is stored in the designated plant storage area within the building, as shown on Drawing Ref: 250108E101. All mobile plant and vehicles are fitted with a fire extinguisher.

10.12.2. The site also uses articulated lorries for the transportation of waste. All waste is delivered using these vehicles only which are not stored on site.

10.12.3. Spill kits are retained on site to deal with any spillages which may occur. These are located within the building as shown on Drawing Ref: 250108E101.

10.13. Plant and Vehicle Maintenance

10.13.1. Mobile plant used on site includes Forklift Trucks which will be stored in the designated plant storage area within the building as shown on Drawing Ref: 250108E101.

10.13.2. Maintenance is required on all site vehicles and plant; this includes a mix of daily checks by site staff and routine planned maintenance by specialist sub-contractors. A service schedule is maintained to ensure all servicing and statutory testing is undertaken at the specified intervals. All equipment used on site will be maintained and repaired to the manufacturer's recommendations.

10.13.3. If a defect is discovered during the routine daily inspection, this shall be rectified as soon as possible. Generally, this will mean within 48 hours. If the defect is on a part which could give rise to a source of ignition or on a fire suppression system, the equipment will be immediately taken out of service until a repair can be affected.

10.13.4. Part of a daily maintenance is also a detailed clean to prevent the build-up of dusts, waste etc. in parts that may not be readily visible. Attention shall be paid to the vehicles entering the site and the exhaust systems. This is subject to a Site Working Procedure.

10.13.5. All fixed plant will remain in the storage location shown on the drawing; 250108E101.

10.13.6. Any equipment showing evidence of a leak, either through damage or expansion of fuel within the tank, will be removed from the permitted area to the vehicle storage area and repairs effected immediately. Any spillages will be cleared using Spill-Dri or similar and the residues disposed of to a suitably authorised facility.

10.13.7. All maintenance will be carried out by certified contractors.

10.14. Electrical Safety

10.14.1. The site has a current electrical test certificate, and electrical infrastructure is included in the service schedule to ensure that this is maintained. All plug-in equipment is tested annually, and electrical infrastructure is tested every 3 years.

10.14.2. All testing and maintenance of electrical equipment and infrastructure is carried out by a suitably qualified and accredited electrician.

10.15. Training

10.15.1. The requirements of the FPP and the Site Management Plan shall be communicated to all staff and copies made available on site in site welfare facilities. Staff shall be trained by the use of induction training, reinforced annually or when the FPP is amended. Refresher training will be carried out to ensure that all site staff are up to date on how to tackle the occurrence of fires.

10.15.2. Toolbox talks will be conducted as needed, such as before starting a new task, introducing new equipment, or after an incident.

10.15.3. All training that is carried out on site will be recorded in either site folders, site diaries, or on a computer.

11. INCIDENT MANAGEMENT

11.1. In the event of a fire being reported by a person, site management will immediately investigate. Once a fire is confirmed, several actions will take place (concurrently not sequentially).

- Site management will immediately assess the extent and scale of the fire and decide on the next stage, whether to fight the fire using site infrastructure and personnel or to notify the emergency services.
    - Site management direct staff to fight the fire or
    - Shall notify the Fire and Rescue Service (FRS).

- If deemed safe and practical to do so, before the arrival of the FRS, designated site staff will attempt to extinguish the fire using the site's fire extinguishers. Automatic fire foam cannons and / or sprinklers, which are activated by the IR heat sensors of the system, will be triggered to target the fire area.
- A member of staff will be detailed to guide the FRS on arrival and to provide the senior officer with a copy of the up to date Fire Prevention Plan.
- Site management will then direct staff to deploy water gate barrier.
- Site management will order the evacuation of the site in accordance with the fire drill and for all events of fire will assist in the safe evacuation of all staff, contractors, and visitors.
- A fire however small will be considered an emergency. In addition to this, the Site Manager will immediately cancel all inputs to the site and all vehicles present on site at the time will be sent off site as a precaution until management are assured that the fire is out, and risk of re-ignition has passed.
- Site management will inform the Environment Agency of the incident.
- The site would cease all operations instantly and would direct all its efforts into fighting the fire. The site gates would remain open and would be manned to allow access for the FRS. No other vehicles would be allowed to access to the site other than the FRS or Environment Agency. Throughout the duration of the site and the cleaning process afterwards, no wastes will be accepted on site.
- Following a fire, once the FRS deem the site to be safe, an inspection of the site shall be made, and a decontamination plan produced.
- Residual wastes will be sent for recycling or disposal to landfill as appropriate. Once the site is cleared of the products of the products of combustion, an inspection of the site infrastructure shall take place to determine the extent of damage to site surfacing, buildings, etc.
- A plan of action shall then be created to repair or replace any elements of site infrastructure damage by fire and such remedial works as are required shall be carried out before the site is re-opened and any wastes are accepted (see Section 19 for the detailed fire procedure).

12. FIRE SUPPRESSION

The site handles non-hazardous commercial plastic waste, all of which is flammable. The two key forms of fire suppression used on site are AFFF fire extinguishers and a Fire Shield Automatic Fire Suppression system.

12.1. Fire Extinguishers

12.1.1. There are 16 AFFF foam fire extinguishers on site that will be used in the early stages of a fire, if it is small enough, by staff that are trained in the use of fire extinguishers, prior to the arrival of the FRS.

12.1.2. The storage areas ensure ease of access in the early stages of a fire and the extinguishers will be used alongside the automatic fire suppression system to extinguish a fire on stockpiles.

12.1.3. The fire extinguishers on site are 6 litre 10kg extinguishers and are maintained in accordance with the manufacturer's recommendations.

12.2. Automatic Fire Suppression

12.2.1. The site does benefit from an automated foam cannon system and automated foam sprinkler system that is detailed below in section 12.3, and the has a low level of risk in regard to a fire occurring due to there being 6m separation distances or fire walls between all flammable stockpiles, as well as numerous alternative measures in place to ensure the risk of the start and spread of a fire is reduced. Alternative measures are detailed below in Section 12.4.

12.2.2. The flammable waste on site is not only covered by the roof mounted automatic foam cannons, but also by the Fire Shield flame detectors that are positioned over the flammable waste stored indoors. The flame detectors will detect a fire immediately and the automatic foam and wetting agent system will be triggered by the increase in temperature, therefore taking immediate action in the event of a fire. Additionally, there are localised sprinkler systems installed covering each of the pelletising lines / extruders, and covering the shredders at the front of each of the wash lines.

12.2.3. The automatic foam cannons and sprinklers distributed throughout the building are operational 24 hours a day and will be deployed immediately if a fire is detected. Further detail on the automatic fire suppression system is provided in Appendix 12.

12.3. Automatic Foam and Wetting Agent System

12.3.1. The site benefits from a roof mounted Fire Shield automatic foam cannon and foam sprinkler system which is installed throughout the building. The system consists of a modular foam pumping system, a wetting agent dosing system, two automatic foam cannons and eight sprinklers. Specific

details of the automatic foam and wetting agent system are provided in the fire suppression plan in Appendix 12. The automatic suppression system is powered by a pump station which is connected to the 100,000 litre water tank.

12.3.2. The automatic fire suppression system is designed, installed, and maintained by an accredited supplier in accordance with the manufacturers recommendations.

12.4. Alternative Measures

12.4.1. The constraints of the site mean that it is not possible to entirely comply with all aspects of the published Fire Prevention Guidance; the sections of which are detailed below. However, with the alternative measures in place, the site will meet the three main aims of the guidance:

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

Separation Distances and Storage

Due to the nature of the site, it is not possible to have 6m separation distances between all of the flammable stockpiles. The following alternative measures are in place to ensure fire prevention despite there not being 6m separation distances between every flammable stockpile on site:

- All flammable stockpile volumes are within the maximum stockpile volumes given in the Environment Agency fire prevention plan guidance.
- All flammable stockpiles stored indoors are covered by the roof mounted automatic fire suppression system.
- The central area of the external yard and areas adjacent to the roller shutter doors are kept clear which allows ease of access for the FRS in the event of a fire.
- Each stockpile is accessible from more than one side to allow for it to be easily extinguished in the event of a fire.
- All unprocessed wastes are stored within the building to remove the risk of flammable material being exposed to the sun.
- Waste acceptance procedures ensure that the risk of waste contamination is effectively reduced through thorough inspection of loads on receipt to secure that there is no hazardous

waste accepted on site. The only waste that arrives on site is waste that has been pre-arranged and is delivered by third party vehicles only.

- The risk of arson is reduced by the presence of the 24 hour security system and the use of the automatic fire suppression system.

These alternative measures minimise the likelihood of a fire occurring, will allow for a fire to be extinguished within 4 hours and minimise the spread of fire within the site and to neighbouring sites.

Detection Systems

A fire detection system consisting of 10 multi-detection cameras (combining thermal, flame and smoke detection), located throughout the building and covering the waste storage areas, ensure that a fire is immediately identified. This will work alongside the Fire Watch Procedure provided in Section 10.3. and Appendix 6 and other alternative measures discussed in this section to prevent a fire occurring on site where the plan deviates from the Environment Agency guidance.

- The locations of the sensors and detectors are shown on Drawing Ref: 250108E101. The sensors will work alongside the CCTV security system which will alert staff by text in the event of arson. Further details on the heat detection system are provided in Appendix 12.
- CCTV cameras monitored by site management during operational hours and site management will be alerted by text out of hours if the security system is triggered by an intrusion.

These alternative measures will allow for a fire to be extinguished within 4 hours and minimise the spread of fire within the site and to neighbouring sites in relation to the detection of fire.

Housekeeping

In addition to the weekly visit of a COTC holder, the staff will be trained on induction in the prevention of a fire occurring on site through good housekeeping:

- End of day Hot/ Fire Watch using hand-held thermal imaging device and temperature monitoring and actions.
- Documented call out rota / procedure.
- Daily, weekly, and six-monthly inspection and cleaning schedules in place and implemented.
- Retraining of staff through toolbox talks of the Fire Prevention Plan procedures.

12.4.2. When deviating from the Environment Agency guidelines, all of the above alternative measures operate in unison to minimise the likelihood of a fire occurring, allow for a fire to be extinguished within 4 hours and minimise the spread of fire within the site and to neighbouring sites.

13. FIRE FIGHTING MEASURES

13.1. The site has many ways to deal with any outbreak of fire.

- Fire Hydrants
- Fire Extinguishers
- Automatic fire foam cannon system
- Automatic fire foam sprinkler system
- Fire and Rescue Response

13.2. Any fire on site will be treated as a potential emergency and dealt with accordingly. Site staff are trained to inform site of a fire immediately. Site Management at Site Manager or Director level shall take control of actions to deal with the fire and shall deploy staff as the situation demands. Fire equipment will be used to reduce or put out any fire, if practical. If a fire is too large to be controlled by on site staff the Fire and Rescue service will be called immediately on 999.

13.3. During an incident the implementation of this FPP shall be managed by the Site Manager or a Director of the company.

13.4. On the arrival of the FRS, site staff will work, as required, under their direction to assist in fighting the fire.

13.5. Fire may occur in relation to:

- Plant failure.
- In containers of waste being delivered to site. Containers will be accessible from each side.
- Waste stored at the site.

A. Plant failure

- All plant and vehicles undergo daily inspections before work starts. This includes checking for functionality, checking electrics, checking fluid levels and checking for leaks. As previously stated, any vehicles which have any issues detected are removed and repaired.

B. Containers of waste being delivered to site

- Containers of waste delivered to site are inspected upon arrival and segregated into appropriate stockpiles. The waste will be examined to identify any potential waste which could cause a fire. Potential fire risks will be removed from the waste containers and taken off site. No waste with a potential fire risk will be stored in skips.

- Any loads which are brought to site and identified as hot/smouldering/on fire before tipping are sent to the quarantine area. Site operations will be ceased until the load is dealt with. Site management will inspect the load and decide on what action needs to be taken. Extinguished waste will be kept away from other stockpiles until the temperature of the load is deemed acceptable. This load will be continuously monitored ensuring that re-ignition won't occur throughout the load cooling process.

C. Waste stored at the site

- Waste stored on site will be properly inspected and maintained daily. Each stockpile is kept within the appropriate dimensions and are either 6m apart or are separated by a concrete firewall.

- AFFF fire extinguishers are readily available throughout the site, and staff are trained in the use of these. This can be used for controlling minor fires and aiding in reducing major fires.

- In the event that deposited waste is found to be burning, which is very unlikely due to the nature of the wastes, the material will be pushed away from previously deposited wastes which will stop fire from spreading. Fire extinguishers can then be used to put out any burning wastes. The same procedure can also apply to minor fire occurring within waste stockpiles.

- If a major fire occurs within stored wastes, which can't be readily dealt with by site staff, the site will be evacuated, and the Fire Service will be called immediately.

14. NORTHAMPTONSHIRE FIRE AND RESCUE SERVICE

14.1. The nearest fire station is Corby Fire Station, located at Phoenix Parkway, Corby, NN17 5DT. Another fire station is Desborough Fire Station on King Street, Desborough, NN14 2RD.

14.2. The site lies some 3.5km to the northwest of Corby Fire Station, which implies a travel time of 5 minutes. However, this is expected to be considerably lower for Emergency Services.

14.3. A second station, Desborough Fire Station, lies approximately 14.1km to the southwest of the site, implying a travel time of 16 minutes. However, this is expected to be considerably lower for Emergency Services.

14.4. The stations have the following appliances:

- 1 x Fire Appliance
- 1 x Initial Intervention Vehicle (IIV)
- 1 x Pump (WrL)
- 1 x high-volume pump (HVP)
- 1 x Aerial Rescue Pump

14.5. A third station, Rothwell Fire Station, on Tresham Street, Rothwell, NN14 6ES, lies approximately 14.4km to the southwest of the site, implying a travel time of 17 minutes. However, this is expected to be considerably lower for Emergency Services. This station has the following appliances:

- 1 x Fire Appliance
- 1 x Initial Intervention Vehicle (IIV)

14.6. A fire hydrant is located approximately 3.6m south of site entrance to the east of the site on Princewood Road. The hydrant is maintained and serviced by Northamptonshire Fire and Rescue Service, and does conform to British Standard 750 or equivalent, providing a minimum of 1500l/min of water.

15. WATER SUPPLY

15.1. The site has mains water, and a fire hydrant is located on Princewood Road, located approximately 3.6m south of the site entrance to the east of the site, on Princewood Road. Northamptonshire Fire and Rescue Service are responsible for all the fire hydrants in the area, however, they do not undertake flow and pressure tests, as shown by Appendix 11.

15.2. In addition to the Fire Hydrant, the site has an onsite water supply in the form of a 100,000 litre water tank which will be used in the event of a fire. This will be used for the fire suppression system.

15.3. The tank has a standard fire hose fitting to allow the Fire Service to connect their equipment to the tank for use in firefighting.

15.4. For the purpose of this Fire Prevention Plan, the water supply calculations have been separated into the amount of water needed to extinguish a fire in the largest stockpile within the building, and the amount of water needed to extinguish a fire in the largest stockpile in the external yard. This is due to the fact that in the event of a fire, the fire can be dealt in situ, either in the building or in the external yard. A fire and the associated fire water can be prevented from moving between the building and the external yard if one should occur.

15.5. The largest flammable stockpile within the building is 330m³. In accordance with the guidance, a total supply of 396,000 litres ($(\frac{330}{300} \times 2000) \times 180)$) would be needed to extinguish a fire. As the fire would need to be extinguished within 4 hours, a flow rate of 1,650L/min (396,000l / 240min) would be required.

15.6. The largest flammable stockpile in the external yard is 58.6m³. A total supply of 70,320 litres ($(\frac{58.6}{300} \times 2000) \times 180)$) would be needed to extinguish a fire in the external yard. As the fire would need to be extinguished within 4 hours, a flow rate of 293 L/min (70,320l / 240min) would be required.

15.7. The site's water tank holds 100,000 litres in total, leaving a requirement of 366,320 litres (466,320 litres minus 100,000 litres) to be supplied by the hydrant at the site entrance. However, as demonstrated in Section 16.6, the Field Shield Automatic Fire Suppression system uses foam, and so reduces the quantity of water required.

15.8. Northamptonshire Fire and Rescue Service have confirmed that the hydrant is not flow or pressure checked, but it is inspected every 6-12 months. Where they believe a hydrant will not provide sufficient firefighting water during the inspection, the hydrant issue is flagged, and the Fire and Rescue service liaise with Anglian Water to rectify the issue (see Appendix 11).

16. FIRE WATER CONTAINMENT

16.1. The site has been built on a sealed impermeable concrete surface. We have therefore assessed the potential effect of water on:

- The local groundwater and surface water bodies.
- Any well, spring or borehole within 50 metres used for the supply of water for human consumption, including private water supplies.

16.2. For the purpose of this Fire Prevention Plan, the fire water containment calculations have been separated into the height of fire water containment needed in the event of a fire within the external yard's largest stockpile, which is the combined volume of the metal skip and the general waste skip (total 58.6m^3), and within the building, a storage bay (330m^3).

16.3. The maximum volume of water required to extinguish a fire in the largest outdoor stockpile in the external yard (58.6m^3) is calculated to be 70,320L ($(\frac{58.6}{300} \times 2000) \times 180)$). This equates to 70.32m^3 of water.

16.4. The maximum volume of water required to extinguish a fire in the largest stockpile within the building (330m^3) is calculated to be 396,000L ($(\frac{330}{300} \times 2000) \times 180)$). This equates to 396m^3 of water.

16.5. Fire Water Containment Calculations

Within the building

Volume of firewater = 396m^3

Area = 7739.26m^2

Height of containment required = 0.051m ($\frac{396}{7739.26}$). This is equivalent to 5.1cm.

Within the external yard

Volume of firewater = 70.32m^3

Area = 4,837.95m^2

Height of containment required = 0.015m ($\frac{70.32}{4837.95}$). This is equivalent to 1.5cm.

16.6. Water calculation

16.6.1. Fire water will be contained by concrete surfacing throughout the suit, together with perimeter kerbing and the water gate barrier deployment. The site is manned 24 hours a day and in the event of an incident staff will promptly deploy the water gate barriers on the external yard. If the incident is within the building, Hydrosnakes will be deployed to contain fire water in the building.

Fig 1. Example of watergate barrier

16.6.2. Aqueous Film Forming Foam (AFFF) will also be used to tackle fires on site. The foam extinguishes a fire by rapidly cutting the oxygen supply by expanding over the surface of the stockpile. This has an average expansion rate of 5:1 to 7:1. AFFF are considered the most suitable to operate during the early stages of a fire prior to the arrival of the FRS. The foam works in the following ways:

- "The foam blankets the fuel surface smothering the fire".
- "The foam blanket separates the flames/ignition source from the fuel surface".
- "The foam cools the fuel and any adjacent metal surfaces".
- "The foam blanket suppresses the release of flammable vapours that can mix with air". (Chemguard, 2005).

16.6.3. Based on the worse-case scenario (e.g. 5:1 water to foam solution ratio), the use of foam would mean that the volume of foam to be retained, in the event of a fire in the largest flammable stockpile in the yard, would be 70.32m^3 / 5 = 14.06m^3. Over an area of 4,837.95m^2 this equates to a foam depth of 0.003m (14.06m^3 / 4,837.95m^2), easily retained by the water gate barrier.

16.6.4. In a worst-case scenario, a fire in the largest flammable stockpile in the building, the use of foam would mean that the volume of foam to be retained on site would be 396m^3 / 5 = 79.2m^3. Over an area of 7739.26m^2 this equates to a foam depth of 0.010m (79.2m^3 / 7739.26m^2), easily retained by the Hydrosnakes.

16.6.5. Using AFFF greatly reduces the runoff and potential for pollution which is also a concern for the Fire Service. However, whilst it is likely that the FRS will use AFFF as best practice when tackling a fire, the site has been designed assuming that only water is used to extinguish fires, and the site is capable of retaining 0.015m of firewater using the flood gate barrier system, and 0.01m of firewater using the Hydrosnakes.

16.6.6. Fire water will be contained by concrete surfacing throughout the external yard, together with the sealed drainage system, the 100mm kerbing and the water gate barrier deployment across the site entrance. If there is an incident out of hours, site management are alerted through the fire alarm/security system by text and will promptly arrive at the site to deploy the water gate barrier.

16.6.7. In the event of a fire, any contaminated water will be held within the external yard using a Water Gate barrier. The barrier has the advantage of allowing FRS to still gain access to the site as they can drive over the barrier without the contained water being released. No flammable materials are placed outside of the concrete surface of the site; therefore, no contaminated water will escape

the site as it will all be contained by use of a Water Gate Barrier. The quantity of firefighting water means that there is minimal time for leaching of contaminants from wastes. All staff are trained in deployment of the barriers, which can be deployed by a single person. It takes around 1-2 minutes to deploy 50m of barrier.

16.6.8. The kerbing measuring 100mm in height is more than sufficient in containing the height of water containment needed (0.015m). The water gate barrier system will also effectively contain firewater within the site. It takes around 1-2 minutes to deploy 50m of barrier. The entrance gate of the external yard measures 9.75m in width and therefore it will take a matter of seconds to deploy the water gate barriers at the entrance gate. Further detail on the water gate barrier system is provided in Appendix 10.

16.6.9. Hydrosnakes will be deployed to all entrance / exit doors, including roller shutters in the event of a fire in the building. One hydrosnake is capable of retaining water up to a height of 5cm. Because the firewater depth may be up to 5.1cm the Hydrosnakes will require stacking two high. 80 Hydrosnakes will therefore be required to contain fire water within the building.

17. SENSITIVE RECEPTORS

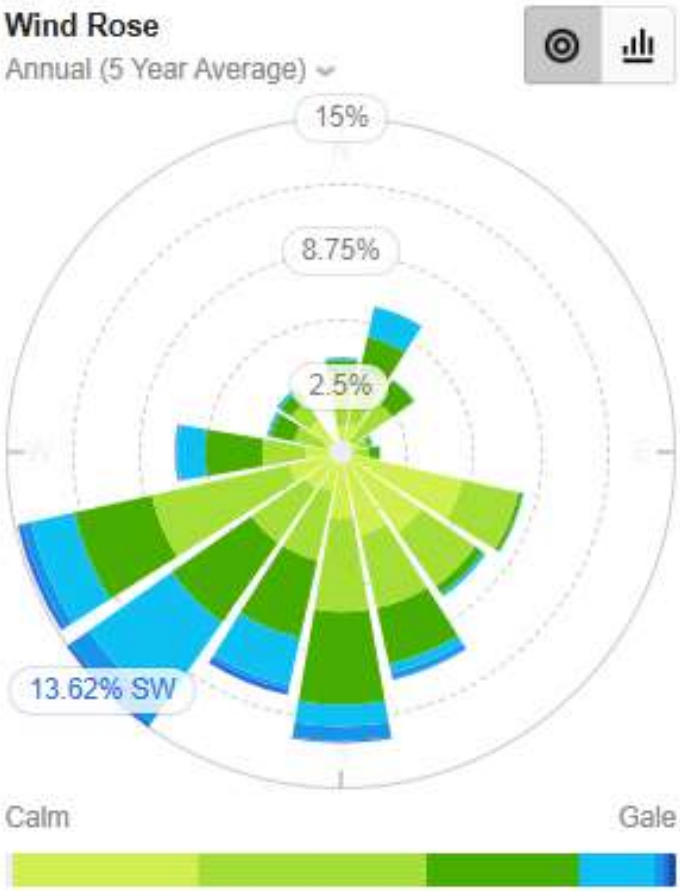
17.1. Current guidance from the Environment Agency on Fire Prevention Plans, states that schools, nursing homes, residential area, workplaces etc are all sensitive receptors. In a fire event, sensitive receptors will be contacted by either knocking on doors or by a phone call. They will be advised to close all doors and windows until the fire has been extinguished. This will be achieved by site management calling where possible and by staff being deployed to knock on doors of neighbouring properties.

17.2. A plan of sensitive receptors has been produced. The contact information for these different sensitive receptors is shown in Appendix 1, with the drawing shown as Appendix 3.

18. PRODUCTS OF COMBUSTION

18.1. Smoke Plume / Dispersion

A wind rose for Corby has been obtained.



18.1.1. In the case of the site, it has a flat concrete surface and is entirely sheltered by the industrial building as all operations and storage are indoors. It is therefore difficult to accurately predict the likely direction of smoke travel as winds tend to be lighter in sheltered locations and more unpredictable.

18.1.2. The prevailing south-westerly winds mean that the wind will blow smoke north-easterly and will move towards the neighbouring industrial units and then the open fields beyond, before it will disperse towards the village of Gretton, approximately 3km northeast of the site.

18.2. Storage and Disposal of Residues

18.2.1. Following any fire, an assessment of the products requiring disposal shall be made by site management and a plan produced for the most appropriate means of disposal. Following approval by the fire services, Environment Agency and site manager, the residues from the fire will be disposed of accordingly at a suitably permitted facility.

18.3. Staff Training & Awareness

18.3.1. The key to any plan is to ensure that all staff are aware of their duties and act accordingly. This plan and the duties required of staff in accordance with related procedures is communicated to staff through induction training and toolbox talks.

18.3.2. The Fire Prevention Plan is distributed freely, in full, to all staff. All copies of the FPP, both individual staff members' copies and the Master Copy are kept in the site office. Staff are trained in the requirements of the FPP at induction and at toolbox talks. Quarterly exercises are held to test the response to an incidence of fire. All such exercises shall be recorded in the site diary.

19. FIRE PROCEDURE

19.1. In the event of a fire the following procedures are:

- Site management will immediately be informed, and all operations will cease. All expected vehicles will be notified and unable to enter the site.
- Site staff will be trained in the use of fire extinguishers. They will attempt to tackle minor fires in the early stages to extinguish or prevent a fire from spreading. The FRS and emergency services will be contacted by site management during this time if the site cannot be dealt with using onsite resources.
- If the fire becomes uncontrollable for site staff, the site shall be completely evacuated until the emergency services arrive.
- Neighbours and other receptors within a 1km range will be notified of the site.
- Once fires have been tackled the site will inform the Environment Agency of the fire and make amendments and actions to prevent this from happening again in the future.

19.2. After fires have been extinguished, procedures are taken to decontaminate and get the site to an operational use again. Procedures taken are dependent on the severity of the fire. These may include:

- Informing the Environment Agency of the incident and review of the site management and fire prevention plans.
- The retained fire water will be removed from site by a tanker and disposed of to a suitable permitted facility.
- PPE will also be removed and disposed of at a suitably permitted facility.

- Certain wastes may need to be disposed of as they may no longer be allowed to be treated and recycled.
- If the fire is severe and large, then the concrete may become damaged. In this event the site may need to be resurfaced prior to re-opening. Any other repairs to removals that are required e.g. buildings will be carried out to manufacturers recommendations.
- Once the contaminated water has been removed, the concrete has been deemed acceptable, other repairs have been made and the quarantines and contaminated waste have been removed, the site will be inspected by the COTC holder. If after the inspection the site is of an acceptable nature, then it can reopen and continue with its usual operations.

20. DURING AND AFTER AN EVENT

20.1. The Operator would cease operations until the Fire Service advised that the site could be reopened.

20.2. The Operator will inform those who may be affected by fire, such as nearby residents and businesses, via word of mouth. During fire event training sessions, specific site staff will be given specific areas to visit during a fire event – the site staff will be asked to inform those affected that there is a fire event on site and will give useful information such as to close windows and doors if possible and to avoid the area until the fire is under control. The site staff will also pass on any specific instructions from the fire brigade.

20.3. The Operator will ensure that if the waste has become hazardous in nature as a result of the fire, the waste will be tested and fully assessed prior to removal from site, and that consignment notes will be issued and that the receiving permitted site is fully aware of the potential hazards associated with the wastes.

20.4. The Operator will ensure that all fire-damaged wastes, hazardous and non-hazardous, will be removed from site to an authorised facility with the requisite paperwork.

APPENDIX 1 – SENSITIVE RECEPTORS CONTACT NUMBERS

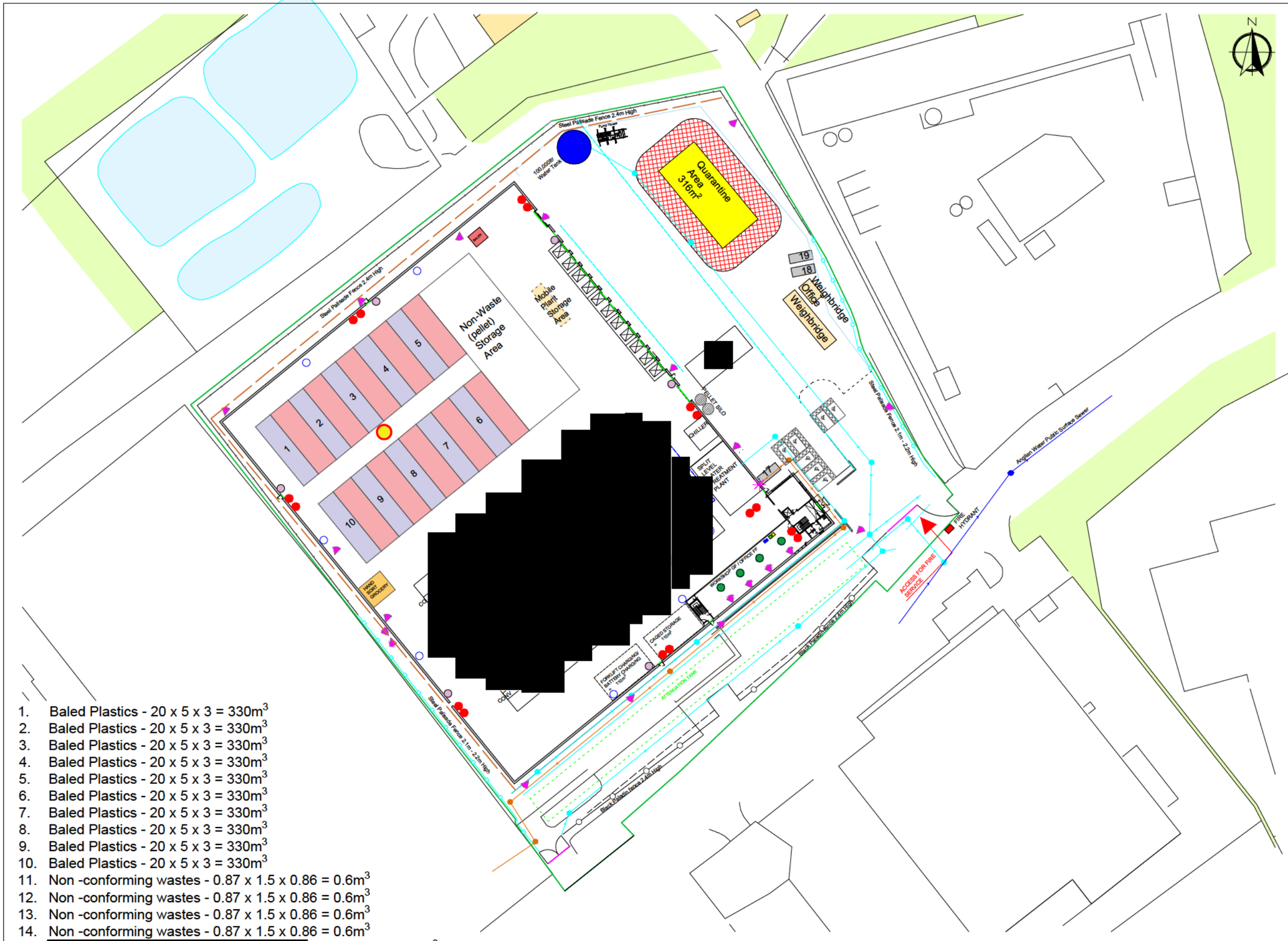
Sensitive Receptor	**Contact Number**
Shield Membranes Ltd	02077409279
Mademoiselle Desserts CORBY	01536463250
Loc-Box Self Storage	01536267700
The Hope Centre	01536736577
Wise Logistics	01933623211
Sky Cabs	01536202020
Blue Zone Club	01536570304
M G S Motors	01536261919
Bibby Distribution	01536 266797
Menzies	0131 467 8070 (Headquarters number)
Caswell Adhesives	01536464800
Gormley Vehicle Refinishers	01536201619
A6116	Unavailable
Chemence	01536402600
RK Modular	01536601900
Golder wonders	01536204200
LT Print UK	01536269686
United Beauty Products Ltd	01536463350
Display Mode	01536460805
Spraylat International	01536408409
7formation	01536202954
Watford Control Instruments	03332102240
Carmichael Engineering	01536261431
UtlimaDisplays	01536272250
Tayto Group	01536204200
Fastrax Conveyor Rollers Limited	01536269141
Premier Laser Cutting	01536 200 808
NDLT	01536201755
Spirol UK	01536444800
Stephen Sanderson Transport	01858289348
Curtiss-Wright Valve Group	01308455500
CB Training (UK) Ltd	01536201871
Ball & Young Ltd	01536200502
SKG CRP Display	Unavailable
Technical Foam Services	01536443000
Cartell-UK	01536264222
Puredrive Fine Food	01536463000
Aluminium Shapes	01536262437
Anytime Fitness	01536609595
Subway	01536262412

Greggs	01536212722
Domino's Pizza	01536264444
Tablecraft	01536400091
Gravity Active Corby	03301595815
Multy UK	01536269150
Chequered Flag	01536263035
Residents on Watson Close	Unavailable
Quantum Windows	01536260300
The VAG Yard	Unavailable
Sun International Recycling Group	01536400017
Auto Union	01536201398
JKS UK	01536262769
Goto Healthcare	01536675914
Connect Motorcycles	01536219091
CTS (Corby)	01536463100
The Samuel Lloyd	01536447910
Hampton by Hilton	01536211001
Aldi	08000420800
Taste Original Food Concepts & Puredrive Fine Foods	01536463000
McLean Racing	07907781680
Northamptonshire Pallets	01536266844
LM Window Tinting	07477657546
Rapid Windscreens	07885295134
Accuma Plastics	01536263461
Residents on Shire Lodge Close	Unavailable
County Powder Coaters	01536261082
Planet Aid UK	01536400721
WS Customs Automotive	07960604361
Food Utopia Limited	+48723364510
Northants MX5	07889733238
Avon	01536 402402
Saint Gobain Performance Plastics	01536276000
Residents on Spey Close	Unavailable
Retro Ford	01536204823
Scuffs 'n' Buffs	07952725560
We R Sports	01536682320
Auto Direct Services Corby Ltd	01536268395
Beetle Garage	07522574716
Central Autopoint Car Service Repairs & MOT	01536261619
Corby Mot Pro by Tenen UK	01536260062
Samm Engineering	01536601121
Mida's Autos	01536407766

Tyres in Corby	01536 261619
Phils Autos	01536200274
RiiRoo Limited	01536682268
Residents on Willow Brook Road	Unavailable
Shire Lodge Lawn Cemetery	01536525722
Geddington Service Station	01536261970
Paula's Diner	01536260992
Residents on Rockingham Road	Unavailable
Residents on Tay Close	Unavailable
G Grant Monumental Masons	01536205319
Emerald House Associates	01536411295
Architile	01536211545
Cleavey Glass	01604931423
Impact Handling	01536463900
Waste 4 generation	01536266840
Residents on Beech Close	Unavailable
FAAST24	03300437993
Best Western Rockingham Forest Hotel	01536401348
Verty Furniture	02079934564
Shopfusion	01536601056
JMJ Bulk Packaging	01536274400
Monarch Drives & Patios	01536737684
Maxim Logistics Group Limited	01536406000
Indian Hub	01536201000
The Shire Horse Pub	01536400321
EPM Engineering Group	01536264355
Home Furniture Trading	01536682683
SR MOT and Service Centre	01536202302
Osbourne Park and Leisure Home Chassis Ltd	01536206434
ECS Group	01536650722
Chemi Supply	01536402522
Corby Rugby Club	01536204466
The Chartered Institute of Logistics and Transport	01536740100
Cake Maternity	01536 662662
Corby Graphix	01536771772
Residents on Sycamore Close	Unavailable
Astabridge	01536267796
Residents on Shire Road	Unavailable
MD Photography	07983870152
CD Commercial Centre	01536409999
Shuttercraft Northants	01604529365
Valour Performance Technology	07498 379458
Recycle Force	08454593815

Utopia Waste Management	Unavailable
Hamilton House Mailings	01536399000
Residents on Trent Road	Unavailable
Innovate Logistics	01536 662662
A J B Woodworking	01536267139
Corby Fleming Road Depot	Unavailable
Chestnut Park	Unavailable
Premier Roofing Systems	01536422942
Ennerdale Community Centre	Unavailable
HC Forklifts UK	08456009790
Land Rover Experience	01536772238
Corby Tennis Centre	01536407851
Residents on Don Close	Unavailable
Residents on Welland Vale Road	Unavailable
Residents on Ennerdale Road	Unavailable
Residents on Calder Close	Unavailable
CEVA Logistics UK Ltd	01536271822
Earlstrees Road Play Area	Unavailable
Corby Gymnastics Academy	01536268943
Residents on Pascal Close	Unavailable
Residents on Larch Road	Unavailable
Residents on Yew Close	Unavailable
Residents on Chestnut Avenue	Unavailable
Nickerson PMS	01536206653
Residents on Cedar Crescent	Unavailable
Blinds Outlet	01476249220
Residents on Poplar Road	Unavailable
Weetabix Corby 2	01536722181
NIK'S Garage	07455500554
Waterworks Window Cleaning	01536384434
Robinsons auto Logistics	01536400293
A6003	Unavailable
Residents on Teviot Close	Unavailable
Residents on Tyne Road	Unavailable
Residents on Babbage Crescent	Unavailable
Sterling Training & Assessment Services	01536400802
CTR Group	01536 856699
Residents on Carron Close	Unavailable
Polyeco Greenhouses	01473561072
Residents on Wharfedale Road	Unavailable
In-Line Containers	01536601714
Apex Glass	01536263570

APPENDIX 2 – DRAWING REF: 250108E101



1. Baled Plastics - 20 x 5 x 3 = 330m^3
2. Baled Plastics - 20 x 5 x 3 = 330m^3
3. Baled Plastics - 20 x 5 x 3 = 330m^3
4. Baled Plastics - 20 x 5 x 3 = 330m^3
5. Baled Plastics - 20 x 5 x 3 = 330m^3
6. Baled Plastics - 20 x 5 x 3 = 330m^3
7. Baled Plastics - 20 x 5 x 3 = 330m^3
8. Baled Plastics - 20 x 5 x 3 = 330m^3
9. Baled Plastics - 20 x 5 x 3 = 330m^3
10. Baled Plastics - 20 x 5 x 3 = 330m^3
11. Non -conforming wastes - 0.87 x 1.5 x 0.86 = 0.6m^3
12. Non -conforming wastes - 0.87 x 1.5 x 0.86 = 0.6m^3
13. Non -conforming wastes - 0.87 x 1.5 x 0.86 = 0.6m^3
14. Non -conforming wastes - 0.87 x 1.5 x 0.86 = 0.6m^3
15. [redacted] x 1.5 x 0.86 = 0.6m^3
16. [redacted].87 x 1.5 x 0.86 = 0.6m^3
17. Sludge - 30cyd skip - 6.1 x 2.4 x 2 = 29.3m^3
18. Metals - 30cyd skip - 6.1 x 2.4 x 2 = 29.3m^3
19. General waste - 30cyd skip - 6.1 x 2.4 x 2 = 29.3m^3

0 10 20 40
Scale (meters)

AC ENVIRONMENTAL
Environment House
Werrington Road
Stoke-on-Trent
ST2 9AF

- Fire Shield Fire Cannon
- Quarantine Area showing 6m buffer zone
- Concrete Surface
- Sprinkler
- Air Extraction Point
- Permit Boundary
- Spill kit
- PPE Storage
- Hydrosnake Deployment
- Watergate Deployment
- Watergate Storage
- CCTV
- Fire Extinguisher
- Fire Alarm Manual Call Point
- Fire Shield Multi Detector with Sounder
- Fire Alarm Klaxon
- Surface Water Drainage
- Linear Drainage Channel
- Kerb Drain
- Foul Water Drainage
- Channels to water treatment
- Air Discharge Outlet
- Water recycling plant foul water connection

CLIENT: Eurokey - Corby

SITE:

REV	DATE	DETAIL

PROJECT: Permit Application

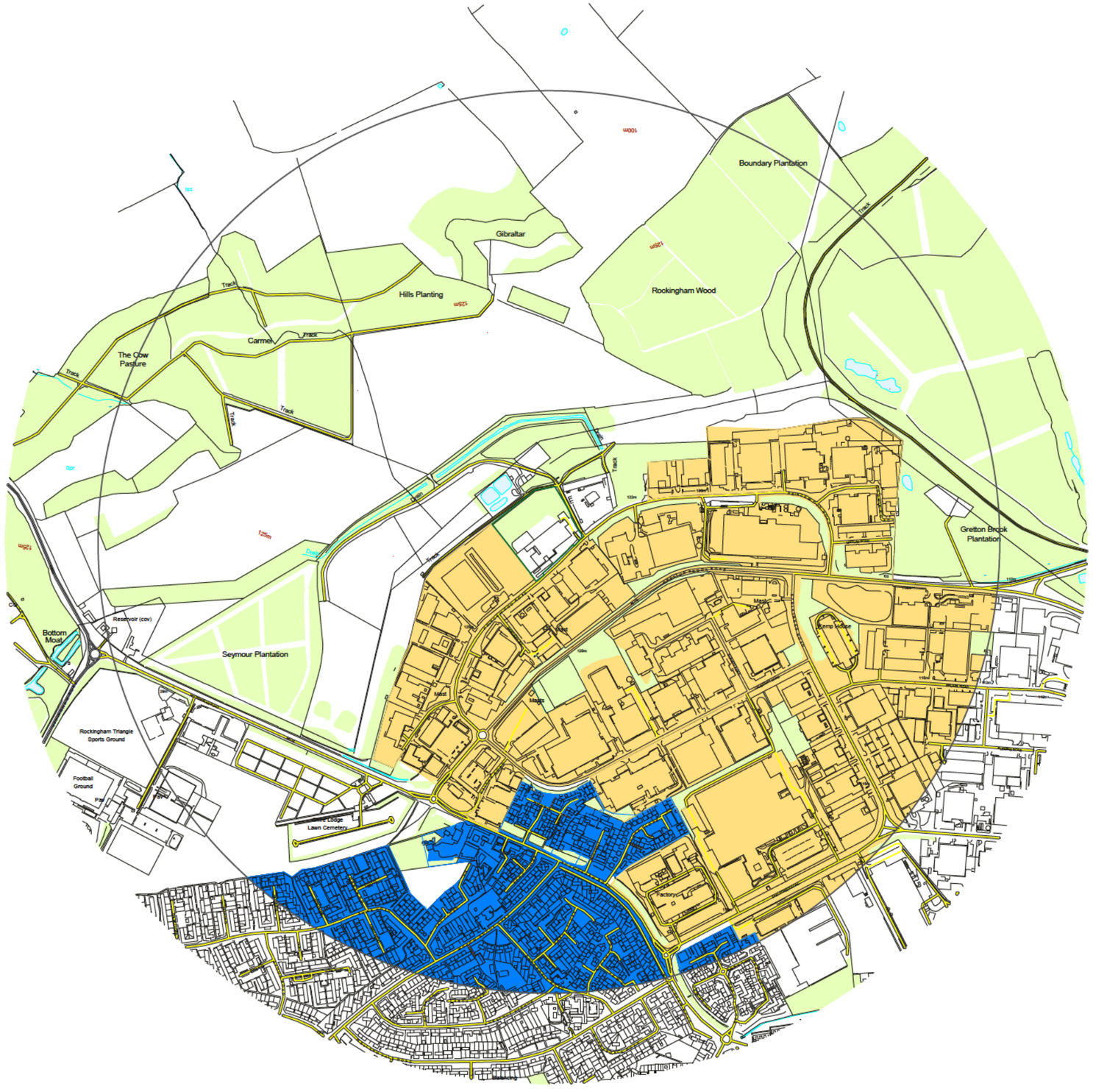
TITLE: Fire Prevention Plan

SCALE @A3	DATE	DRAWN BY	CHECKED BY
1:1000	Mar 2025	T Kearns	D Alcock

DRAWING NO: 250108E101

REVISION:

APPENDIX 3 – SENSITIVE RECEPTORS DRAWING

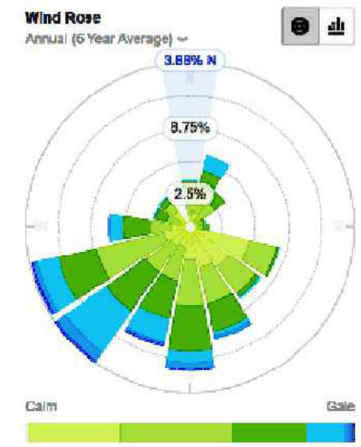


0 100 250 500

Scale (meters)

Environment House
Werrington Road
Stoke-on-Trent
ST2 9AF

N



- Residential
- Commercial / Industrial
- Road

CLIENT

Eurokey - Corby

SITE

Unit 2, Raven Park, Earlstree Industrial Estate, Corby, NN17 4DU

REV	DATE	DETAIL

PROJECT

PERMIT APPLICATION

TITLE

KEY RECEPTOR PLAN

SCALE @A3	DATE	DRAWN BY	CHECKED BY
1:10000	Jan 2025	T Kearns	D Alcock
	DRAWING NO		REVISION
	250108E103		

APPENDIX 4 – SITE LOCATION PLAN

AC ENVIRONMENTAL
Environment House
Werrington Road
Stoke-on-Trent
ST2 9AF

N

CLIENT
Eurokey - Corby

SITE
Unit 2, Raven
Park, Earlstree
Industrial Estate,
Corby, NN17 4DU

REV	DATE	DETAIL

PROJECT
PERMIT APPLICATION

TITLE
SITE LOCATION PLAN

SCALE @A3	DATE	DRAWN BY	CHECKED BY
1:2500	Jan 2025	T Kearns	D Alcock
	DRAWING NO		REVISION
	250108E102		

APPENDIX 5 – FIRE WATCH FORM

Fire Watch Form

To be completed every day by the Operations Manager or nominated person. Keep completed forms in file in Site Office. This is in addition to the Daily Diary

Fire Watch Inspection	**Checked by (initial)**	**Time**	**State condition & action taken**
Mobile and fixed plant and equipment - Hot exhausts and engines			
• Check for signs of fire, smoke, heat, and dust settling on hot exhausts & engines. • Ensure parked in correct overnight area at least 6m from waste or other combustible materials • Check for leaking fuels and oils from fixed and mobile plant and vehicles • Check all waste at least 6m from fixed plant, equipment, and mobile plant • Ensure that all WEEE and other portable electrical equipment is unplugged			
Forklift Trucks			
Baler			
[redacted]			
[redacted]			
[redacted]			
[redacted]			
All waste stockpiles and containers of waste			
• Check for signs of fire, smoke, heat, and dust settling on piles / containers • Check all containers are accessible on one side at all times • Check all stockpiles are accessible on one side			
Wastes			
Plastic			
External containers			
Skips			

APPENDIX 6 – FIRE WATCH PROCEDURE

Site Working Procedure - Fire Watch Procedure SWP021			
Issue:	1	Date:	28/01/2025
Written/Revised By:	Leisl Heath	Approved By:	Ben McClelland

1. Purpose

1.1 To identify situations that may lead to fire and to discover fire early to minimise the impact of any fire and to ensure that the safety of site staff, visitors and neighbours and to ensure that actions comply with the Fire Prevention Plan, Environmental Permit and the planning permission.

2. Responsibility

2.1 It is the responsibility of all site staff to follow this procedure and the site manager to ensure this procedure is implemented & followed.

2.2 Failure to follow this procedure will be considered a disciplinary matter and may lead to dismissal.

3. Fire Watch

3.1 A fire watch is a formal inspection of all stockpiles of waste held on site, whether contained in bays or skips.

3.2 The fire watch shall be carried out by the nominated person, usually the Site Manager or supervisor.

3.3 The fire watch shall take place at the start and end of each day with one further inspection in the middle of the operating day.

3.4 The fire watch shall be a visual inspection of all stockpiles to identify steam, vapours, smoke of charring, the precursors of a fire. In addition to the visual inspection, temperature monitoring shall be undertaken to identify heating within stockpiles.

4. Actions in the event of discovering an issue

4.1 If a fire is discovered, the Fire Procedure (SWP020) shall be implemented immediately.

4.2 If one of the precursors to fire (smoke, charring etc) is discovered, site management shall immediately investigate further. Investigations shall include excavation of suspicious materials to identify the extent of the issue discovered. If localised heating of materials is discovered, then this can be dealt with by smothering with inert waste or turning to allow cooling in the air.

4.3 Any stockpile which has been identified as having the potential to ignite due to evidence of smoke charring etc., once the immediate issue has been dealt with, shall be prioritised for removal from site for disposal at the earliest opportunity.

5. Actions to be taken

5.1 The site roller shutter doors shall be closed to prevent unauthorised access by shall be manned to allow access for emergency services.

5.2 Site staff trained in the use of extinguishers and firefighting shall tackle the fire to attempt to extinguish it or to prevent the fire spreading. The fire may be fought with extinguishers, or pumped water from the on-site fire water tank. Site management shall direct efforts to fight the fire until the emergency services arrive.

5.3 At all times full consideration shall be given to staff safety and if there is any doubt as to the ability of site staff to extinguish the fire, the site shall be fully evacuated until the emergency services arrive.

5.4 If the fire is large enough to warrant attendance of the emergency services, then neighbours shall be visited by site staff and advised to close windows and doors until such time as the Fire Service declare the fire is over and there are no lingering effects from smoke.

6. Reporting

6.1 The immediate actions of staff shall be to ensure the safety of staff and visitors. The secondary actions shall be to minimise the effect of the fire by attempting to extinguish the fire with a fire extinguisher, to prevent it from spreading.

6.2 When it is safe to do so, site management shall next notify the Environment Agency of the fire, providing details of the incident and the actions being undertaken.

APPENDIX 7 – SITE INSPECTION PROCEDURE

Site Working Procedure – Site Inspections SWP016			
Issue:	1	Date:	28/01/2025
Written/Revised By:	Leisl Heath	Approved By:	Ben McClelland

1. Purpose

1.1 To ensure the efficient operation of the site, mitigation of risk and to fulfil the requirements of the environment permitting regulations.

2. Responsibility

2.1 It is the responsibility of site manager to ensure this procedure is implemented & followed.

2.2 It is the responsibility of the site manager or duty COTC holder to carry out supporting inspections and monitor the operation of the site.

3. Daily and Weekly Inspections

3.1 The site manager will undertake a daily inspection of the site and record their findings in the Site Diary.

3.2 The COTC holder shall carry out regular visual checks of the site and to check for procedural integrity.

3.3 Either the Site Manager of the COTC holder shall undertake a formal weekly inspection and record findings on the Site Inspection Sheet.

3.4 In the event that the Site Manager conducts the Inspection, the COTC holder shall review this and countersign the Site Inspection Sheet as evidence of such review being carried out.

3.5 All issues to be reported to the site manager, who will allocate responsibilities to action any remedies that can be completed.

3.6 Complaints or reports of problems from neighbours or visitors shall be investigated in accordance with the Complaints Procedure.

4. Reporting & Records

4.1 Any problems to be noted in the site diary and incident logbook.

4.2 Any incident or breach of this procedure must be reported immediately to the site manager.

4.3 Records must be kept for 3 years.

APPENDIX 8 – FIRE PROCEDURE

Site Working Procedure - Fire Procedure SWP020			
Issue:	1	Date:	28/01/2025
Written/Revised By:	Leisl Heath	Approved By:	Ben McClelland

1. Purpose

1.1 To minimise the impact of any fire and to ensure that the safety of site staff, visitors and neighbours and to ensure that actions comply with the Fire Prevention Plan, Environmental Permit and planning permission.

2. Responsibility

2.1 It is the responsibility of all staff to follow this procedure and the site manager to ensure this procedure is implemented and followed.

2.2 Failure to follow this procedure will be considered a disciplinary matter and may lead to dismissal.

3. Discovering a Fire

3.1 A fire may begin in any stockpile of flammable waste or may be brought into site in a load of waste.

3.2 Fires may also be discovered through the FireShield heat detection cameras, routine daily fire watch, seeing smoke, charring or flame in flammable waste stockpiles.

3.3 Any sign of fire, however small, such as smoke or charring shall be treated as if it is a fire until proven otherwise.

4. Discovering a Fire

4.1 The person discovering the fire shall raise the alarm on site by shouting “FIRE” and shall then immediately notify site management in the site office.

4.2 Site management shall then assess the fire and if any doubt as to the ability of site staff and resources to effectively extinguish the fire immediately, shall call the Fire Service on 999.

5. Actions to be taken

5.1 The site roller shutter doors shall be closed to prevent unauthorised access but shall be manned to allow access for emergency services.

5.2 Site staff trained in the use of extinguishers and firefighting shall tackle the fire to attempt to extinguish it or prevent the fire spreading. The fire may be fought with extinguishers and pumped water from the on-site fire water tank. Site management shall direct efforts to fight the fire until the emergency services arrive.

5.3 At all times full considerations shall be given to staff safety and if there is any doubt as to the ability of site staff to extinguish the fire, the site shall be fully evacuated until the emergency services arrive.

5.4 Due to the scale of the site, the quarantine area is in a suitable location to move burning objects into it to be extinguished.

5.5 If the fire is large enough to warrant attendance of the emergency services, then neighbours shall be visited by site staff and advised to close windows and doors until such time as the Fire Service declare the fire is over and there are no lingering effects from smoke.

5.6 All actions will be taken in accordance with the approved Fire Prevention Plan.

6. Reporting

6.1 The immediate actions of staff shall be to ensure the safety of staff and visitors. The secondary actions shall be to minimise the effect of the site by attempting to extinguish the fire with fire extinguishers, to prevent it from spreading.

6.2 When it is safe to do so, site management shall next notify the Environment Agency of the fire, providing details of the incident and the actions being undertaken.

APPENDIX 9 – HOT WORKS

Hot Work Permit-to-Work

Department or Project:	Permit Number:	
Contractor / Person/s involved:		
Location:		
Description of Work:	Equipment:	

Date of Permit (Supervisor in charge of work to sign permit on day specified for single shifts)	Day and Date:	Time: Between And

Precautions to be taken:

- Hot works must cease one hour before the end of shift
- Hot works must be carried out more than 6m way from any flammable/combustible materials or liquids.
- All gas cylinders must be transported and kept upright
- Valves and hoses must be in good condition and all gas cylinders must be fitted with back arresters
- When not in use, gas cylinders must be shut off
- Gas cylinders must not be left in the building overnight without formal approval
- Minimum radius of hot works from other workers must be 1.5m (screens should be erected where necessary)
- Work areas to be kept tidy and free from combustible materials
- Services affected must be isolated before work commences
- A suitable fire extinguisher should be available
- The supervisor must ensure that suitable personal protective equipment is provided and worn, and that there is a good working platform
- Isolate smoke detectors in the vicinity of hot works
- Spent welding rods must be immersed in a bucket of water

Employees Must:

- Understand the fire and safety precautions and be in possession of a permit
- Stop work if required to do so by an authorised person
- Report immediately any hazard likely to affect the fire and safety precautions
- Remain in the area for 15 minutes following completion of work to check that no fire starts

Confirmation by Contractor or Supervisor

I can confirm that the precautions specified above will be maintained and I will ensure that the persons carrying out the work will comply with these precautions.

Signed:	Print Name:	Date:

Authorisation by Manager

I certify that the above work can commence with the precautions listed above.

Signed:	Print Name:	Date:

Cancellation by Contractor or Supervisor

I can confirm that the work has been completed / stopped and I have checked the area which is safe.

Signed:	Print Name:	Date:

Cancellation by Manager

I confirm that the work has been completed / stopped, and that I have checked the area which is safe.

Signed:	Print Name:	Date:

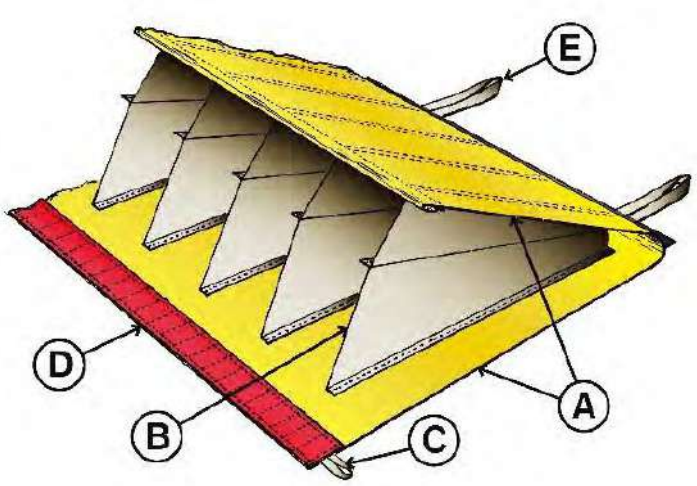
APPENDIX 10 – WATER GATE BARRIER

Water Gate Barrier

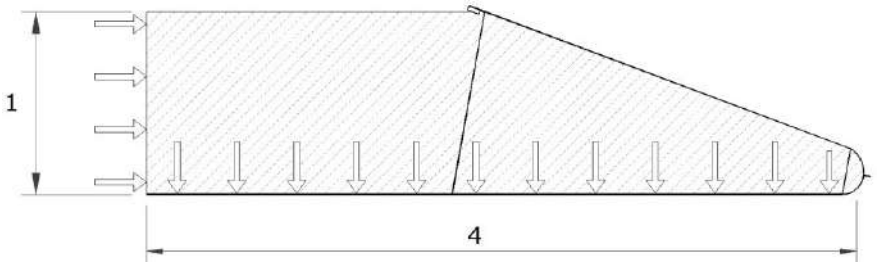
MAIN FEATURES OF THE WL SERIES

Designed for flood control (industrial use)

A. UV protected polyester fabric coated with super heavy-duty, abrasion-resistant PVC and suitable for use on all types of surfaces.
B. Stretched partitions providing better adherence to smooth surfaces.
C. Polypropylene straps to lift up the ends during specific installations.
D. Galvanized metal plate ballast weights held in polyester netting and sewn to the water barrier.
E. Extra resistant polypropylene straps to facilitate handling.



In order to receive the FM Certification, quality control was performed by FM Global on all components



Water holding back Water: The concept of the ***Water-Gate*** is simple: it's the weight of the water that stops and contains the water. Its unique design allows the liquid to enter the fabric barrier and instantly stabilise it onto the ground.

First, unroll the barrier to the proper position and correct configuration. Second, unfold the front bib equipped with integrated ballasts (WL Series). If using the WP or WA Series barrier, you willneed to fill and place the supplied ballasting bags or a uniform weight on the front bottom bib's edge. Just like a parachute deploys with incoming air, the barrier will deploy itself as water enters and unfolds it.

The Water-Gate is 4 times wider than its height, giving it a lot of retaining power as it can withstand 4 times more vertical than horizontal water pressure. The ***Water-Gate*** will remain stable on any surface.

Installation location: The ***Water-Gate*** can be installed anywhere and will fit snuggly on all types of surfaces. In some areas, a summary preparation of the area may be beneficial. If a large obstacle is behind the ***Water-Gate*** (tree, rock, etc.), you may rest the water barrier against the obstacle as this will not affect its efficiency. In some configuration, a few sandbags may be necessary to prevent water infiltration through the 90^{O} inside corners. The barrier should never be fixed onto the ground. All ***Water-Gate*** barriers dispose of strong handles for easy handling.

Manufactured entirely with resistant, corrosion proof components and capable of withstanding the majority of toxic products, the ***Water-Gate*** barrier is built 3 times stronger than required.

MegaSecur Environmental Security Inc. has developed several ***Water-Gate*** series, but our most popular and well-known is our yellow PVC Water-Gate barrier which can be seen on *YouTube*. Different height size barriers can be attached together.

❖ **WL Series** - The heavy-duty ***Water-Gate*** barrier made of yellow PVC fabric with integrated ballast weights. Specifically designed for emergency flood applications with a protection height of 6" to 78" (15,24cm to 2m) and lengths of 30' or 50' (9,15m to 15.24m). All barrier size can be attached to each other. **Mainly used for Flood Control.**

Water-Gate - WL Series			
Item #	**Rentention level**	**Length**	**Weight**
WL-0630	15cm / 6”	9.1m / 30’	19 kg / 41.8 lb
WL-1430	35cm / 14”	9.1m / 30’	24 kg / 53 lb
WL-1450	35cm / 14”	15.2m / 50’	39.7 kg / 87.5 lb
WL-2030	50cm / 20”	9.1m / 30’	30.4 kg / 67 lb
WL-2050	50cm / 20”	15.2m / 50’	50.2 kg / 110.6 lb
WL-2630	67cm / 26½”	9.1m / 30’	38.6 kg / 85.2 lb
WL-2650	67cm / 26½”	15.2m / 50’	62.9 kg / 138.6 lb
WL-3230	81cm / 32”	9.1m / 30’	62.9 kg / 138.6 lb
WL-3250	81cm / 32”	15.2m / 50’	103.9kg / 229 lb
WL-3930	1m / 39”	9.1m / 30’	76.8 kg / 169.4 lb
WL-3950	1m / 39”	15.2m / 50’	126.8 kg / 279.6 lb
WL-5030	1,3m / 50”	9.1m / 30’	117.5 kg / 259 lb
WL-5050	1,3m / 50”	15.2m / 50’	187.7 kg / 413.8 lb
WL-6030	1,5m / 60”	9.1m / 30’	123.8 kg / 273 lb
WL-6050	1,5m / 60”	15.2m / 50’	204.8 kg / 451 lb
Letters = Series / First 2 digits = Height / Last 2 digits = Length			
FM approved			

❖ **WA Series** - The standard heavy-duty ***Water-Gate*** made of strong yellow PVC fabric for damming streams, containment and diverting. Can also be used to control floods**. Mainly used for operations in streams or ditches, spill response, fire protection water supply (natural drafting points)**.

Water-Gate – WA Series			
Item #	**Retention Level**	**Length**	**Weight**
WA-1525	38cm / 15”	7,6m / 25’	12,7 kg / 28.2 lb
WA-1550	38cm / 15”	15,2m / 50’	24,6 kg / 54.2 lb
WA-2125	53cm / 21”	7,6m / 25’	17,5 kg / 38.6 lb
WA-2130	53cm / 21”	9,1m / 30’	20,6 kg / 45.4 lb
WA-2150	53cm / 21”	15,2m / 50’	33,5 kg / 73.8 lb
WA-2825	71cm / 28”	7,6m / 25’	24,1 kg / 53.2 lb

WA-2835	71cm / 28"	10,7m / 35'	34,1 kg / 75.2 lb
WA-2850	71cm / 28"	15,2m / 50'	46,7 kg / 103 lb
WA-3915	1m / 39"	4,6m / 15'	33 kg / 71.8 lb
WA-3930	1m / 39"	9,1m / 30'	65,1 kg / 143.6 lb
WA-3950	1m / 39"	15,2m / 50'	108,7 kg / 239.6 lb
WA-6030	1,5m / 60"	9,1m / 30'	106 kg / 233.6 lb
WA-6050	1,5m / 60"	15,2m / 50'	174,3 kg / 384.2 lb
Letters = Series / First two digits = Height / Last two digits = Length			

❖ *WT Series- Spill Response Dam equipped with bottom release holes*

This series is used as an underflow dam for HAZMAT containment. In order to have full control of the water flow, each hole is equipped with an individual flap. The first responders using the barrier may open or keep close as many flaps as needed to adjust the water or substance flow. The holes have a 4.5" (11.4 cm) diameter.

❖ **Absorbents booms** can be set under the dam floater or adjacent to the top edge tarp. The dam can be propped open with dowels. Sorbent booms, blankets or filter clothes can be attached to these dowels. With the deep recovery zone created by the dam, skimmers are conveniently introduced in a stream or ditch initially a few inches deep.

Mainly used for HAZMAT containment.

Water-Gate – WT Series				
Item #	**Retention Level**	**Length**	***Weight**	**Release Holes**
WT-2115	53cm / 21"	4,6m / 15'	14,74 kg / 32,5 lb	11
WT-2125	53cm / 21"	7,6m / 25'	21,87 kg / 48,1 lb	19
WT-2130	53cm / 21"	9,1m / 30'	25,89 kg / 56,9 lb	23
WT-2150	53cm / 21"	15,2m / 50'	42,47 kg / 93,3 lb	39
WT-2815	71cm / 28"	4,6m / 15'	18,33 kg / 40,4 lb	14
WT-2825	71cm / 28"	7,6m / 25'	29,62 kg / 65,2 lb	24
WT-2835	71cm / 28"	10,7m / 35'	41,92 kg / 92,2 lb	34
WT-2850	71cm / 28"	15,2m / 50'	57,97 kg / 127,5 lb	49
WT-3915	1m / 39"	4,6m / 15'	37,2 kg / 82 lb	14
WT-3930	1m / 39"	9,1m / 30'	71,97 kg / 158,1 lb	29
WT-3950	1m / 39"	15,2m / 50'	119,97 kg / 264,1 lb	49
Letters = Series / First two digits = Height / Last two digits = Length				**Release Holes are for Underflow Damming**

Carrying bags: the strong and sturdy handles contour the bag for easy handling and a top pocket keeps the instructions' manual handy. The bottom of the bag is made from polyethylene and PVC fabrics for maximum resistance to abrasions. Each barrier is labeled with the series/size/length code and a pictogram shows proper set-up and direction of the incoming water flow.

Rolled *Water-Gate* / Storage Bag

APPENDIX 11 – NORTHAMPTONSHIRE FIRE & RESCUE SERVICE CORRESPONDENCE

Leisl Heath

From: Reece AberdeenRoberts <RAberdeenRoberts@northantsfire.gov.uk>
Sent: 23 January 2025 12:03
To: Leisl Heath
Subject: Re: Fire Hydrant Enquiry

Good Afternoon Leisl,

These hydrants are regularly maintained and serviced by ourselves. The hydrants on this industrial estate have been assigned to the crew at Corby to inspect every 6-12 months

We do not generally conduct flow and pressure tests on hydrants unless there is a specific operational need e.g. hydrants next to particularly high risk sites. The crew at the station where they believe a hydrant will not provide sufficient firefighting water will flag the issue to me and I will liaise with Anglian Water to rectify the issue

All of these hydrants do conform to the British Standard and can be used by operational crews.

Please see the map of hydrants below.

If you have any further questions, I am always happy to help.

Many Thanks

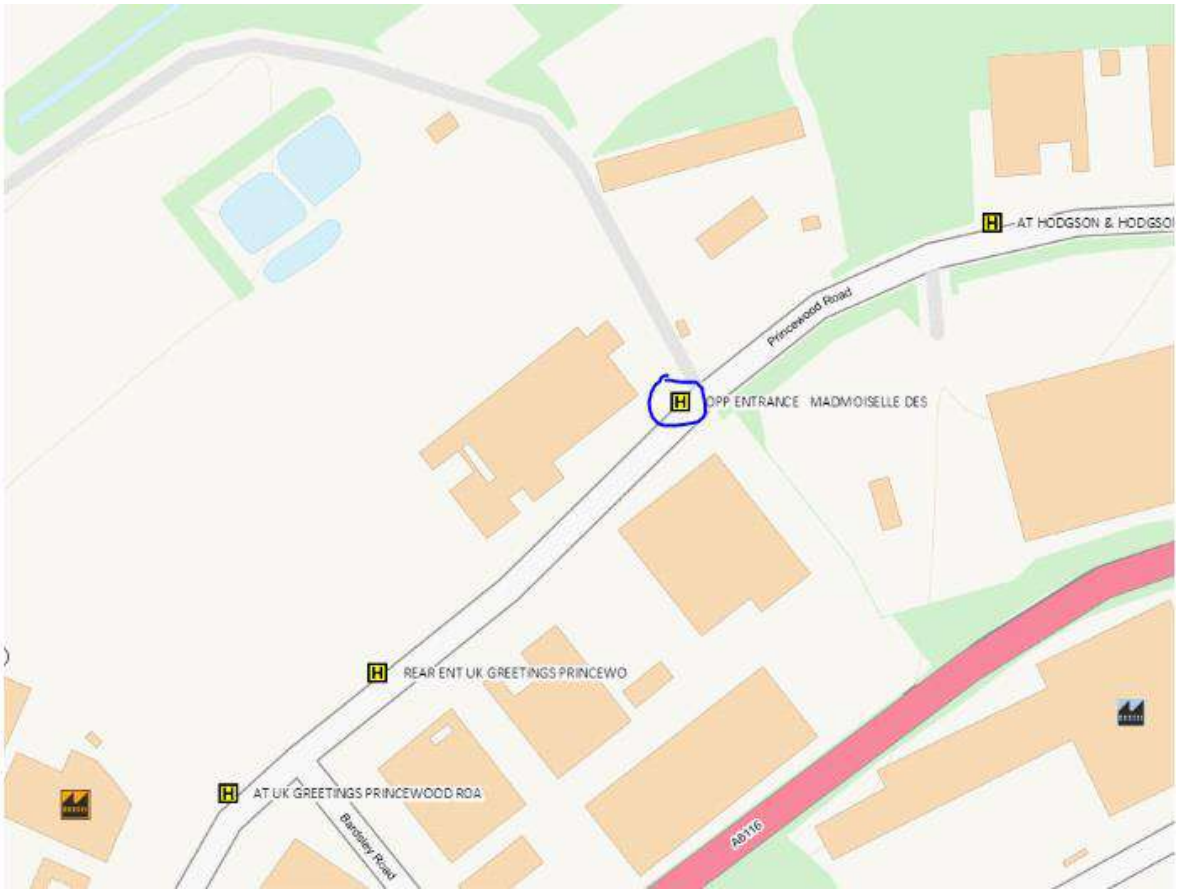
Reece Aberdeen-Roberts (He/Him)
Joint Operations Team - Water Officer
Northamptonshire Fire & Rescue Service

Email: raberdeenroberts@northantsfire.gov.uk

Desk: 01604 797125
Mobile: 07442846992

Address Darby House, Darby Cl,Park Farm Industrial Estate /// W3W dent.image.nearly

Website www.northantsfire.gov.uk

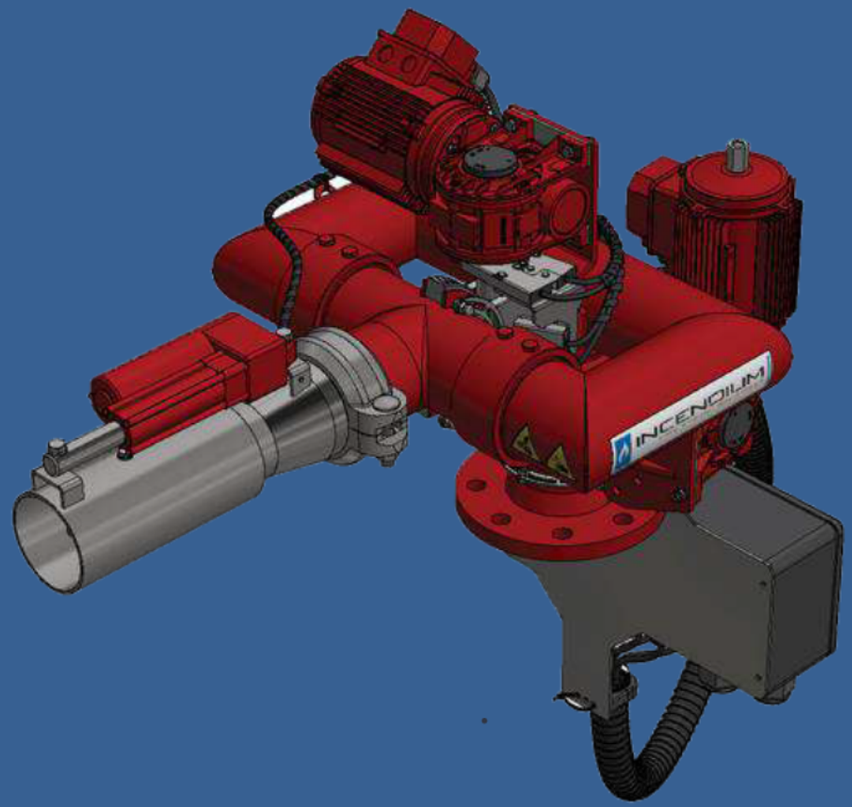

AT HODGSON & HODGSO
Princewood Road
OPP ENTRANCE MADMOISELLE DES
REAR ENT UK GREETINGS PRINCEWO
AT UK GREETINGS PRINCEWOOD ROA
Bardsley Road
A6116

APPENDIX 12 – FIRE SHIELD HEAT DETECTION AND FIRE SUPPRESSION SYSTEM

Fire Shield Systems Limited

Fire Protection for Your People, Your Assets and Our Environment

Multi-Detection Camera & Automatic Foam Cannon Solution inc. BS5839 Fire Alarm System



Fire Shield Systems Limited

eurokey a Reconomy Group company

Corby

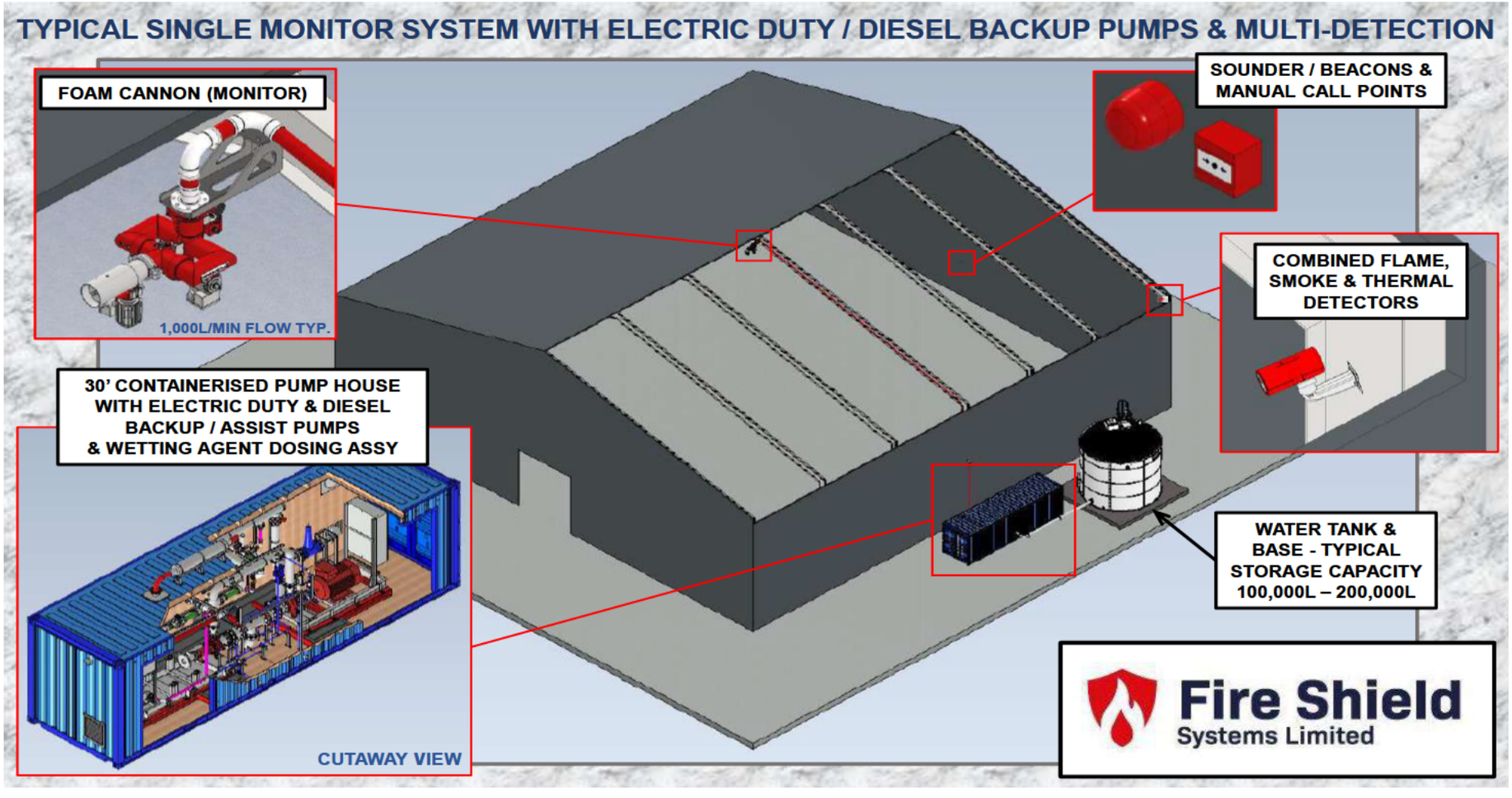
Fire Shield Systems Limited
Stump Cross House
London Road
Quarrington
Sleaford
NG34 8NX

2024

bsi ISO 9001 Quality Management Systems CERTIFIED | ISO 14001 Environmental Management CERTIFIED | ISO 45001 Occupational Health and Safety Management CERTIFIED

System Overview – Multi-Detection & Automatic Foam Cannon System

Further to the information provided and our assessment of your requirement to provide protection for the “Processing & Storage Building” we have proposed a multi-detection camera system to activate an automatic and remote-controlled foam cannon system (2 X cannons). The multi-detection cameras (10 X Cameras) will be located around the risk area to provide comprehensive coverage as per the agreement with the client including forklift charging area. The system includes an electric pump & diesel back up pump housed in a custom-built weatherproof pump house, a 90,000-litre water storage tank (providing an approximate 90-minute system run time), UPS back up, BS5839 fire alarm system including the office block, out of hours monitoring, all pipe work, cabling, design work, installation, system training and commissioning. On detection of a fire, the foam cannons will automatically be directed to target pre-set suppression zones providing oscillations to give maximum suppression and cooling into the area.



System Overview – Automatic Foam Cannon System

The Fire Shield Systems Multi-Detection Targeted Foam Cannon Solution Overview

The use of multi-detection cameras using a combination detection helps to both mitigate false activations by focusing on video analytics and IR heat signatures as opposed to looking at temperature alone, a factor that can be problematic for systems limited to thermal imaging only. The multi-detection camera can react fast to deep-seated smoldering fires where lower heat and no flame is present but where smoke is most prevalent. In addition, if there is a sudden flame "flare up" incident as is seen with rogue batteries, the flame detection feature will trigger the system. The multi-detection camera also has thermal technology to continually scan the waste piles looking for changes in surface temperature to activate the system. All three detection options can be configured and set to suit the specific application they are deployed in providing the ultimate detection solution.

The use of multi-detection cameras also provides a solution integrated into a **BS5839** compliant design with a fully integrated solution. Multiple cameras across plant and storage areas help to mitigate blind spots and to eliminate single point failure. Each risk area is broken down into a number of detection 'zones' within each of the risk areas and monitored in real time by multi-detection cameras, providing a visual feed and outputs monitored by the house fire alarm system and 3rd party monitoring company.

On detection of smoke, flame or pre-determined temperature with any of the detection zones the multi-detection camera system highlights the alarm issue on the corresponding monitor screen. An alarm output is provided to both the house alarm, activating the sounder beacons within the facility and also to the corresponding automatic foam cannon.

The foam cannon will be directed to and target the fire area and discharge onto and around the effected area at an application rate of approximately 950 litres per minute, continuously operating until the fire has been confirmed as no longer posing a threat and in accordance with **BS5839/EN12845**, until reset by trained/authorised personnel.

You can watch a short video showing the system in operation here > Waste & Recycling - Automatic Fire Detection & Suppression Systems

Fire Shield Systems Limited

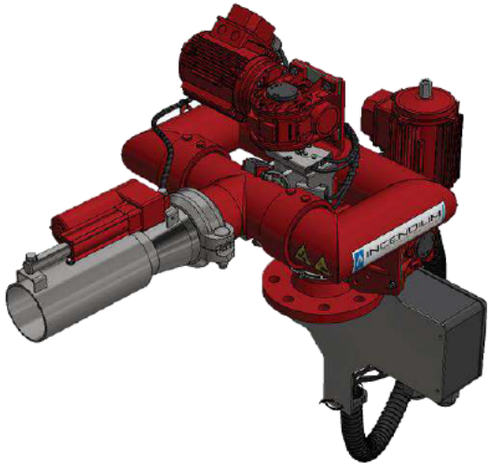
Pump House – Electric Duty & Diesel Back Up Pumps

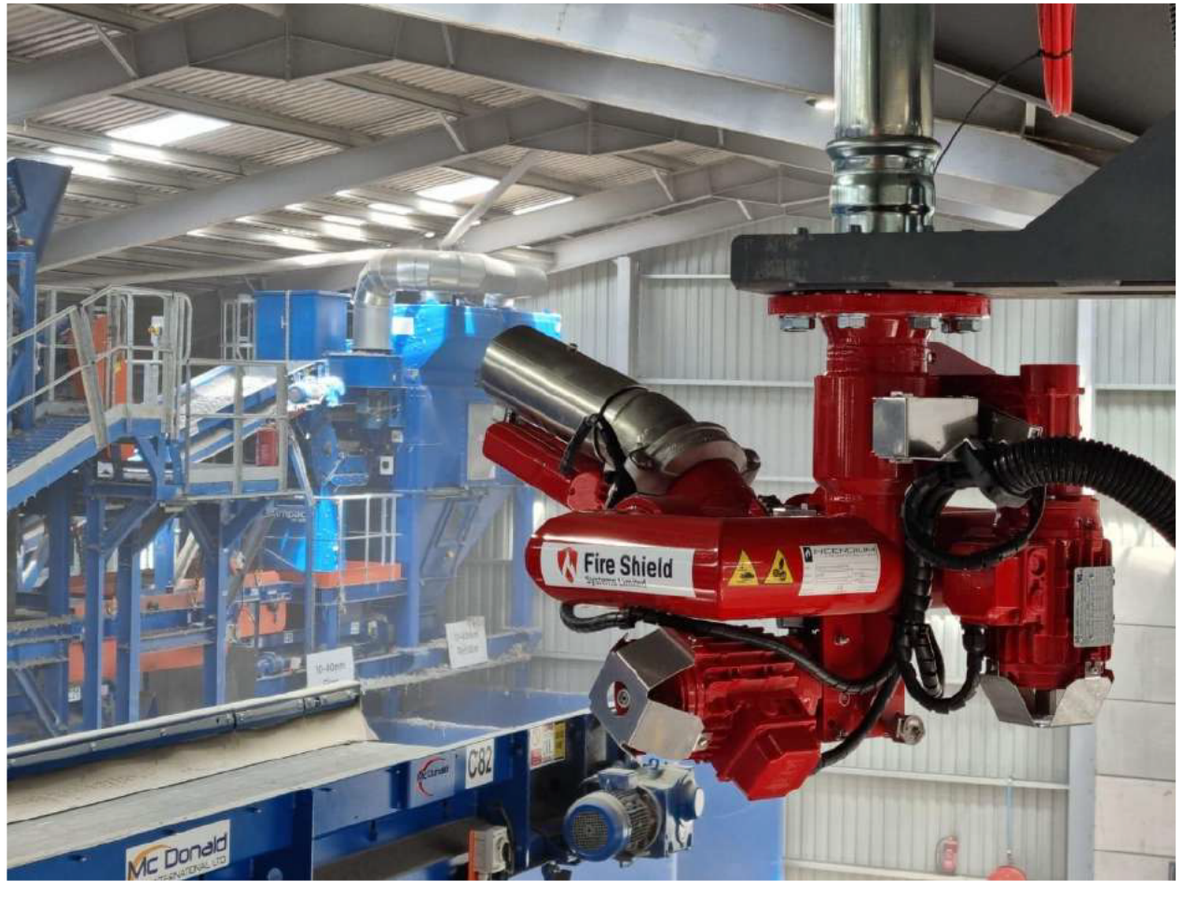
Containerised pumphouse housing electric and diesel back up pump.

FIREBOX® modular firefighting system Construction details -

- Carbon steel structure - 60 minutes fire resistant class (R60) - UNI EN 12845:2020 10.3.1
- Side closures insulated panels fully openable – total thickness 80 mm (reaction to fire class A2 s1 d0 - UNI 11292:2019 5.1).
- Roof sandwich panels for structural use.
- Internal hight 2,4 m – UNI 11292:2019 5.2.2
- Equipped with fire extinguishing protection: o No.1 sprinkler 141°C o No.1 flowmeter diam. 2” for sprinkler “in operation” detection o No. 1 test line – drain>15mm • Designed and manufactured according to standard:
- UNI EN 12845:2020
- UNI EN 1090 - Class EXC2
- UNI 11292:2019
- UNI 10779:2021

Automatic & Remote-controlled Foam Cannon





Designed to EN 13565-1, the RCM is an efficient, compact and reliable automatic and remote-controlled foam cannon with excellent flow characteristics.

Providing a flexible solution to cover open areas with a radius of up to 45m from the monitor at 360 degrees, our Monitors can be used with Water, AFFF or Class A wetting Agents and activated by any detection & alarm solution tailored for your risk.

Manufactured and developed initially for marine and off-shore oil and gas applications where the factors such as temperature and corrosion require robust and stringently tested components.

The cannon is designed to handle any situation with its modular design and as such, it can always be well adjusted to the customers needs. It can be fitted with a remote-controlled adjustable fog/jet nozzle (EON) or aspirating foam branch pipe (AFN) and has a flow of between 750 - 1400 l/m.

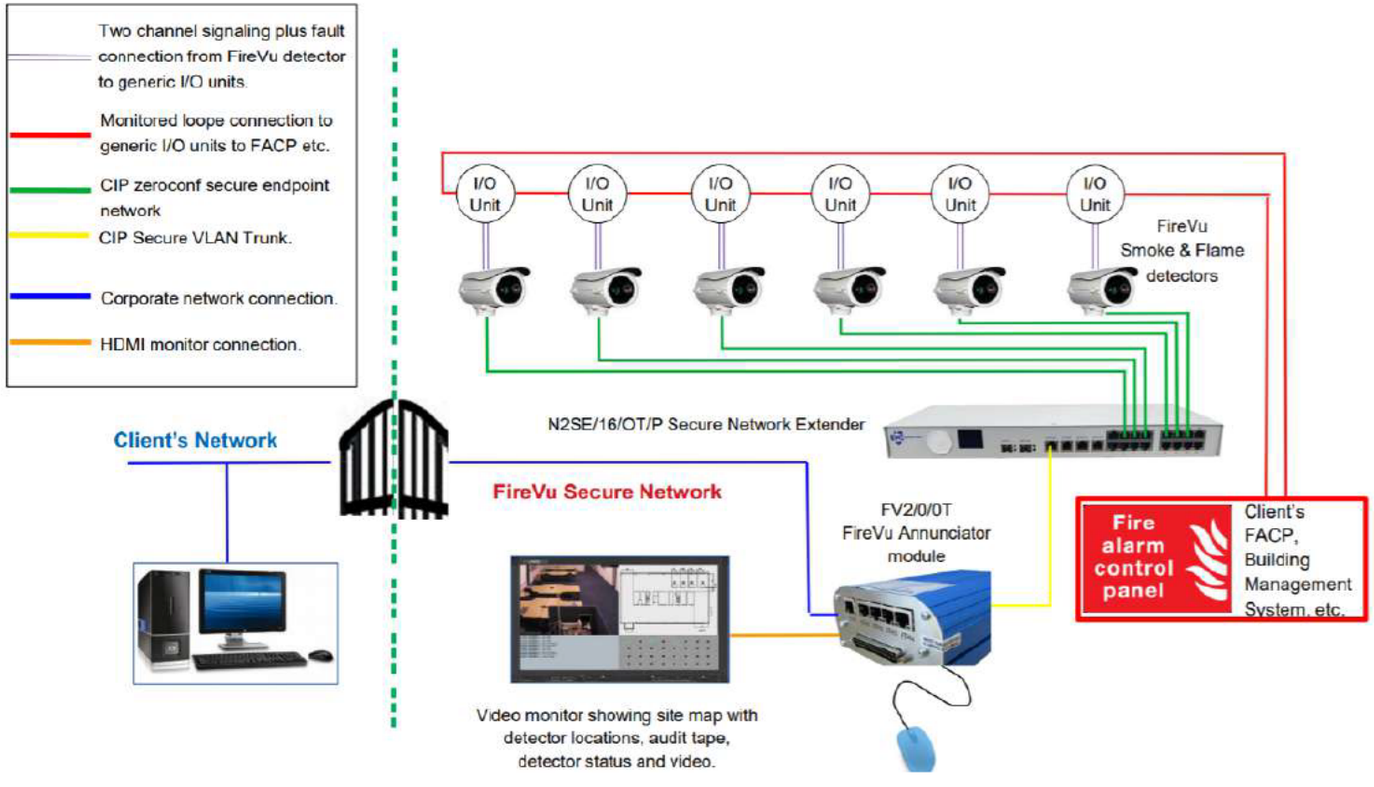
Multi-Detection Cameras

The Multi Detector is the complete fire detection solution – one camera with the capability of 3 different detection mediums. This includes built in options for Thermal, Flame and Smoke detection technology depending on the environment and application.

Fires can occur in a range of different scenarios and often the first sign of fire can depend on how and when the fire develops. The Multi Detector is continually looking for all 3 signs to give the best chance of early fire detection.

It can be set up to meet the demands and operating conditions of individual customers sites with pre alarms and/or immediate activation of the fire suppression system.

Using Thermal, Flame, Smoke detection or a combination, dynamic zone masking capabilities allow specific conditions to be excluded whist remaining monitored at all other times, the system can operate two separate sets of detection parameters for different periods to accommodate changes in operational processes.



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Systems Limited

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