



Halifax
Fire Prevention Plan
(FPPHA.v16)

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1.0 INTRODUCTION

- 1.1 This Fire Prevention Plan has been prepared with reference to the Environment Agency's FPP guidance dated 11th January 2021.
- 1.2 The plan has been developed for WasteCare Thatcham, which is located at the following site address:
- Units 1-6
 - North Dean Business Park
 - Stainland Road
 - Halifax
 - HX4 8LR
- 1.3 It is the objective of this plan to minimise the risk of a fire starting and to ensure that, in the event of a fire occurring, it is identified as early as possible and effective measures are implemented to extinguish it, whilst minimising the environmental impact. The Fire Prevention Plan has therefore been prepared in order to minimise the potential for a fire event at the site and to maximise the potential to extinguish any fire within a maximum of 4 hours.
- 1.4 The Fire Prevention Plan covers staff training and awareness, Combustible Wastes that may be stored on site, how the common causes of fire are managed, how waste is managed to minimise self-heating and prevent the spread of fire, provision of a quarantine area, fire detection and suppression, contingency plans for incoming waste, water supply and management of fire water and cleaning up after a fire.

2.0 MANAGEMENT OF THE SITE STAFF AWARENESS

- 2.1 An Environmental Management System (EMS) has been prepared, which is specific to the site, and both electronic and hard copies are stored in the Site Office. All staff will receive training regarding the EMS procedures, so that the site is operated correctly and risks to the environment are minimised. Such training will include awareness of the Fire Prevention Plan and how to respond in an emergency situation. Every 6 months the site will carry out a practice emergency incident which will include the scenario of a fire on site, this will be carried out by the Site Manager and Area Manager, all other members of staff on site will be unaware of the planned event. The practice incident will ensure that all staff on site are aware of their roles during the incident these include raising the alarm, how to tackle the fire if safe to do so, how to evacuate the site, where the firefighting equipment is located, how to move other wastes and / or vehicles away from the area safely, how to call the emergency services, how to direct emergency services to the fire, how to use the emergency pack located at the entrance to the property, how to alert neighbouring properties and businesses. The trained Fire Marshalls on site will assume control of their teams and areas on site. A full record of the practice event will be kept on site, this will include any improvement actions required. Contractors will also be made aware of the environmental permit, EMS and this Fire Prevention Plan as it relates to their work.
- 2.2 All new employees will receive company induction training. This training includes Health and Safety, Quality and Environmental management and covers key areas such as fire safety, first aid, incident and emergency procedures and workplace hazards. A signature will be required from the employee to confirm that they have understood the contents. A copy of this form will be kept on their personnel file.

- 2.3 Once the company induction is complete, each employee will complete training on five mandatory health and safety topics, one of these being fire action training and another being fire extinguisher training. Again, once the training is complete, the training topic is signed and a copy is held in the employee training file.
- 2.4 A training matrix is held electronically showing the training dates for each employee on site and will be used to ensure that each employee completes refresher training in fire prevention and emergency response at least annually.
- 2.5 The site manager will be responsible for maintaining and reviewing this Fire Management Plan at least once every four years or following an incident.

3.0 RELEVANT COMBUSTIBLE MATERIALS

3.1 The list of potentially combustible materials that may be present on site is provided below in Table 3.1 This Fire Prevention Plan only applies to the materials confirmed as being relevant to site activities. Further information on waste types, storage capacities is provided in Section 4.

| Table 3.1: Combustible Materials | | |
|--|--|-------------------------------------|
| Materials listed in EA FPP Guidance | Materials Stored on Site | Relevant to site activities? |
| Paper or Cardboard | Paper/card packaging and separators from batteries | Yes |
| Plastics | Plastic packaging and plastic battery components | Yes |
| Rags and textiles | Not accepted | No |
| Scrap Metals | Steel, zinc, manganese and potassium and similar materials as metals or compounds arising from battery cases, anodes, cathodes | Yes |
| End of life vehicles | Not accepted | No |
| Refuse derived fuel | Not accepted | No |
| Compost and plant material | Not accepted | No |
| Biomass | Not accepted | No |
| Mixed waste containing combustible wastes | Not accepted | No |
| Rubber (including tyres) | Not accepted | No |
| Wood pallets | Wood pallets on site, arriving carrying drums wrapped to the pallet | Yes |
| WEEE | Small WEEE containing batteries | Yes |
| Fragmentiser Waste | Not accepted | No |
| Not listed in EA FPP guidance | Mixed batteries | Yes |

Table 3.1: Combustible Materials

| Materials listed in EA FPP Guidance | Materials Stored on Site | Relevant to site activities? |
|--|---|-------------------------------------|
| Not listed in EA FPP guidance | Black mass from batteries (carbon black/graphite) | Yes |

4.0 SITE LOCATION AND LAYOUT

4.1 The site is approximately 2 acres in size and comprises waste treatment and storage buildings and external waste storage areas. The site will accept waste mixed loads of batteries which will be sorted into type, with only portable alkaline and zinc chloride batteries being subject to further physical treatment to recover the following individual material streams:

- Mixed paper and plastics;
- Ferrous and non-ferrous metal; and
- Carbon Black (known as Black Mass, a hazardous material which is not covered by the Fire Prevention Plan).

4.2 The site plans are located in the following appendices:

Appendix 4: Site layout and infrastructure (HXSP1)

Shows the following:

- *Waste storage areas for all wastes on site*
- *Detailed layout of buildings*
- *Drainage systems and surface water drains*

Appendix 5: Waste Storage Plan (HXSP1 - FPP)

Shows the following:

- *Arrows showing direction of water flow*
- *Main access routes for fire engines (traffic flow) and any alternative access*
- *Nearest fire hydrants to site*

4.1 The site is located within an area of both commercial and residential development. Table 4.1 lists the potential receptors within 1km of the site:

| Table 4.1: Potentially Sensitive Receptors | | |
|---|---------------------------|--------------------------------|
| Receptor | Distance from Site | Direction |
| Residential | | |
| Housing | 220m | North East |
| Lindwell Town (shops and houses) | 490m | South |
| Banktop Farm | 490m | South |
| Exley Hall Farm | 545m | East |
| Upper Exley Village | 545m | East |
| Housing | 595m | North |
| Blackhold Avenue residential area | 685m | North East |
| Upper Scholes Farm | 790m | West |
| Schools | | |
| Park Lane High School | 685m | East-north east |
| All Saints Junior & Infants School | 735m | North |
| Westvale Primary School | 750m | South |
| Copley Primary School | 945m | North west |
| Public Open Spaces | | |
| Playing field | 300m | East |
| Sports ground | 385m | South east |
| Elland Cemetery | 790m | South east |
| Recreation ground | 980m | West |
| Infrastructure | | |
| Railway line | <50m | South <u>and</u> west |
| Sewage Treatment works | <150m | North west |
| A6026/A629 major junction | 175m | North east |
| B6112 road | 175m | East |
| A629 road | 175m | East |
| Mast | 210m | West |
| A6026 Road | 290m | North |
| Railway line | 455m | North |
| Environmental | | |
| River Calder | <100m | North and east |
| Priority Woodland habitats | Within 500m | Various points around the site |
| Commercial/retail | | |
| Newbank Garden Centre | 500m | South east |

5.0 MANAGING THE COMMON CAUSES OF FIRE

5.1 Fires can be caused in a number of ways and simple housekeeping procedures and common-sense actions can help to manage some these risks. Systems in place to help minimise the risk of a fire occurring are described in Table 5.1.

| Table 5.1 : Managing Common Causes of Fire | |
|---|---|
| Potential Cause of Fire | Managed by |
| Arson | <p>Site security will include security fencing and lockable gates. Only authorised personnel are allowed on site, visitors are allowed on site only by prior arrangement and must report to reception and be accompanied by a company employee whilst on site.</p> <p>The majority of waste will be stored inside secure buildings with any waste stored externally placed in covered bins or bays. All waste storage will be 6 metres or more from buildings, the site perimeter and any flammable materials. Waste cannot be accessed from outside.</p> <p>The site has 24-hour CCTV and intruder / fire alarms in operation across the whole site; these are monitored by an external company. In the event of an emergency / alarm activation out of operational hours, the CCTV monitoring company will notify the key holders and emergency services.</p> <p>The site operates a site-specific Incident and Emergency procedure which forms part of the EMS. All site personnel are trained on the incident and emergency procedures.</p> |
| Faulty equipment (including heaters) or exposed wires | <p>The site operates a preventative maintenance programme for all plant and equipment on site. Statutory requirements for inspections and maintenance will be followed. Staff will also be trained to alert management to any issues noted on a day to day basis.</p> <p>A weekly site walk around will be completed, including checking all switches, distribution boards and sockets for damage and checking for exposed cables.</p> <p>Faulty equipment will be taken out of use until repairs can be completed.</p> <p>Waste will not be stockpiled close to operational plant.</p> <p>Mobile plant will be stored at least 6 metres away from combustible waste when not in use.</p> <p>All site mobile plant will be equipped with fire extinguishers.</p> <p>Specialist external contractors will be used, and all servicing and repairs will be completed by competent staff.</p> <p>Heaters will be subject to safety checks before use and will be included in the inspection and maintenance schedule. A distance of 6m will be maintained between heaters waste stockpiles.</p> <p>Any sources of ignition on site will be kept at least 6 metres away from combustible and flammable waste at all times.</p> |

Table 5.1 : Managing Common Causes of Fire

| Potential Cause of Fire | Managed by |
|--------------------------------|--|
| Discarded smoking materials | The site has been designated a no smoking site. Smoking will only be permitted outside of the site and anyone wishing to smoke must exit the main gate to do so. |
| Hot works | <p>All welding and cutting must be authorised by the Site manager via the site permit to work system.</p> <p>Hot works are only completed in a safe / shielded area. If it is not possible to move the equipment / machinery to a safe area, then all plant and equipment in that area is shut down and isolated.</p> <p>Any wastes in that area will be removed to avoid any possibility of hot works leading to a fire. Wastes may be returned only once the work has been completed and when a check has been made to ensure that there are no remaining sources of heat present that could cause combustion.</p> <p>Hot works will be carried out at least 6m away from waste.</p> <p>A fire watch will be undertaken for a minimum of 1 hour after works are completed. Should a longer period be required this will be arranged on a case by case basis.</p> |
| Hot exhausts | A visual inspection will be made of hot exhausts and other surfaces that may become hot once an hour whilst the machinery is in use. Plant and equipment will be cleaned regularly preventing dust and debris build up on hot surfaces |
| Ignition Sources | <p>It is WasteCare company policy to ensure that any combustible materials are kept away from any buildings by a distance of 6 metres.</p> <p>Hot Works – all welding and cutting is authorised by the Site manager via the site permit to work system. Hot works are only completed in a safe / shielded area. If it is not possible to move the equipment / machinery to a safe area, then all plant and equipment in that area is shut down and isolated, all wastes in that area are removed to avoid any possibility of hot works leading to a fire.</p> <p>The site is a no smoking site, smoking is allowed outside of the main gates only.</p> <p>There are no security patrols on site.</p> <p>The site does not accept hot loads of Weee.</p> |
| Leaks and spills of fuel | <p>Only diesel is stored on site in a double skinned tank.</p> <p>A site management and monitoring regime is in place which requires thorough site inspections at regular intervals. Inspections will be carried out at daily, weekly and monthly intervals. Additionally, pre-use inspections will</p> |

Table 5.1 : Managing Common Causes of Fire

| Potential Cause of Fire | Managed by |
|---|---|
| | <p>be conducted to identify any leaks. A spill procedure is in place at the site. This involves immediate clean-up of spillages and requires will require operations in the vicinity to be suspended if any risks are identified.</p> <p>We operate a company Spillage procedure, which includes the use of spill kits, spill booms and drain covers amongst other items for use when managing a spillage. All members of staff are trained on the company spillage procedure when they join the company, the training is reviewed annually and recorded on the training matrices held for each site on the company intranet system.</p> |
| <p>Build-up of loose combustible materials</p> | <p>Combustible materials will be stored in appropriate containers and will be collected for recycling on a regular basis.</p> <p>At the end of each day a check will made and any loose litter will be collected and returned to the appropriate storage bin or bay.</p> <p>The EMS contains both a daily check list and a weekly site inspections check list which contains checks on site security, litter and checking that there is no evidence of site operations breaching the site boundary, integrity checks of storage areas, pest checks and drainage checks. This inspection check lists also ensure that there is no build-up of loose materials including dust and fluff on equipment or machinery. Check lists are filed on site.</p> <p>This site switch off all machines and equipment 1 hour prior to leaving the site, during the last hour, operatives clean their work stations and ensure that the area is safe, clean and tidy for the next working day, this includes sweeping their areas and removing any loose dusts.</p> <p>If there are any issues, these are recorded on the inspection sheet and then rectified immediately. Site Management will authorise any major actions i.e. repairs to concrete storage areas.</p> <p>Bi-annual site audits are completed, these are very in-depth internal audits which include Health & Safety questions including fire action and fire equipment checks, also Environmental and Quality questions which check that records are kept on site and the volumes and types of wastes currently stored on site.</p> |
| <p>Reactions between wastes/deposited hot loads</p> | <p>Only batteries and small WEEE are received on site so the potential for reactions between incompatible wastes are negligible. There is potential for a fire due to short circuiting of batteries. Batteries will therefore be stored remote from combustible wastes such as plastic and card within fire rated concrete block 3-sided bunkers. A quarantine area will be provided to isolate effected batteries where necessary.</p> <p>Incompatible batteries will be stored in different areas of the site.</p> <p>There is potential for a fire due to short circuiting of batteries. Batteries are therefore stored in a dedicated concrete bunker at least 6m away from</p> |

Table 5.1 : Managing Common Causes of Fire

| Potential Cause of Fire | Managed by |
|--------------------------------|--|
| | <p>All lithium type batteries are packed to a high standard, detailed within a specific work instruction / training document, the packing requires inert packing material to be used to prevent terminals touching, sealed in a plastic bag to reduce oxygen levels and lastly sealed in a metal drum to prevent ingress of moisture and oxygen – all of these steps ensure that lithium batteries are packed in their lowest risk form.</p> <p>The site also has specific fire extinguisher balls which when thrown at a battery fire will extinguish the fire within seconds.</p> <p>Due to the nature and type of wastes arriving on site, they are not deemed as a hot load.</p> |

6.0 MANAGING WASTE STORAGE

- 6.1 Table 6.1 sets out the preventative measures that will be employed at the site to minimise the potential for a fire event to occur. These measures apply year round. Due to the nature of the incoming wastes there are no seasonal variations in waste types or waste quantities that need to be taken into account.
- 6.2 Full details regarding waste pre-acceptance, acceptance, storage and treatment are provided in the Environmental Management system document for the site.
- 6.3 Wastes arrive in containers, the smallest being 20lt to the largest 1000lt. Typically an IBC will weigh 1 tonne and will be 1m³ in volume, a pallet of drums can weigh up to 850 kilos and will be 1m³ in volume. Each of the storage bays will store no more than 24m³ in volume and a maximum of 24 tonnes in weight. The bays are designed to hold one artic load of waste, which equates to a maximum of 24 tonnes legal road weight.

Table 6.1: Management of Waste Storage

| Issue | Preventative Action |
|-------------------------------------|---|
| Pile sizes / volumes and dimensions | See tables 7.1 and 7.2 |
| Storage Duration | <p>Daily deliveries and dispatch of waste will occur with most wastes being sorted, and repacked into the lowest risk status within 72 hours on arrival.</p> <p>Packed batteries will be stored in the designated area for longer than 6 months. This is due to reduced outlet for the batteries, the batteries are packaged in such away that they present the lowest risk possible and the designated areas are protected using fire rated concrete blocks</p> <p>A stock control system will be in place to ensure that wastes are not stored for an excessive period. The stock control system utilises the company computer system which assigns a unique job number to all wastes arriving at site the site will also mark every container with the date of arrival, this can be clearly seen by site operatives. The storage locations ensure that there is suitable access to all locations meaning that all site personnel can inspect the storage location to check the dates of receipt. The company computer system is able to report on volumes on site by EWC code and date of receipt this helps the site staff to make sure that the wastes are despatched in priority order by date.</p> |

Table 6.1: Management of Waste Storage

| Issue | Preventative Action |
|--------------------------------|---|
| Monitoring | <p>Visual checks will made of all waste storage areas at least once a day.</p> <p>Wastes stored on site will be temperature checked using a non- contact digital infrared thermometer at the end of each day, the temperature will be recorded and all records are retained on site.</p> <p>Any storage area showing a temperature of 50°C or above or a sudden increase in temperature will be investigated by the Site Manager immediately, the storage area will be emptied to ascertain the cause of the increase in temperature. The senior management team will also be informed.</p> <p>The waste streams produced by the crushing plant exit the treatment process at temperatures between 20oC and 30oC, these streams will be monitored to ensure there are no sudden temperature changes using the Thermal Cameras detailed below.</p> <p>Outside of operational hours the site has 24 hour CCTV monitoring, the monitoring company will inform the key holders and emergency services if they see any changes in the waste storage areas.</p> |
| Actions to limit self- heating | <p>There are no waste stockpiles on site so turning of piles is unnecessary. There are no baled wastes on site.</p> <p>Wastes are stored in IBCs or bags of similar size so they can be easily moved if necessary.</p> <p>The amount of time that waste is stored on site is kept to a minimum. The amounts of waste stored are kept to the capacities as detailed in Table 7.1.</p> <p>Self-heating in WEEE wastes will be detected at an early stage via the stringent monitoring regime (non-contact digital infrared thermometer monitoring at the end of each day). This is documented as part of the site safety and environmental checks.</p> <p>The quick turn round times limit the opportunity for self-heating.</p> <p>If high temperatures are recorded or in the event of hot weather, wastes may be dampened with water to keep them cool.</p> <p>Lithium batteries are stored within a three sided concrete block structure which is protected from rain and direct sunlight. This prevents containers from heating.</p> |

Table 6.1: Management of Waste Storage


| Issue | Preventative Action | | | | | | | | | | | | | | | | | | |
|--|---|----------------|--|----------|--|----------|------------------------|---------------|--|---------------------|-------------|---------------|----------------|-------|---|--------------------------|---------------------------------|--------------------------|---------|
| <p>Infrastructure and site inspections</p> | <p>The EMS contains a weekly site inspection checklist which requires checks on site security, litter, evidence of site operations breaching the site boundary, integrity checks of storage areas and drainage checks. Brief checks will be carried out daily. Checks on the integrity of Lego block joints will form part of the site’s PPM programme. These will be recorded in the maintenance logs onsite.</p> <p>We currently use a FLIR TG165 spot Thermal Camera, to carry out temperature checks of both storage and processing areas, please see image below:</p>  <p>“The FLIR TG165 Spot Thermal Cameras bridge the gap between single spot infrared thermometers and FLIR's legendary thermal cameras. Equipped with FLIR's exclusive Lepton® micro thermal sensor, these cameras let you see the heat so you know exactly where to target the measurement spot. Easily find unseen hot and cold spots for instant troubleshooting, and store images and data to show customers and include in reports.”</p> <table border="1" data-bbox="416 1272 1302 1581"> <thead> <tr> <th colspan="2">SPECIFICATIONS</th> </tr> <tr> <th colspan="2">OVERVIEW</th> </tr> </thead> <tbody> <tr> <td>Accuracy</td> <td>±1.5% or 1.5°C (2.7°F)</td> </tr> <tr> <td>Detector Type</td> <td>Focal plane array (FPA), uncooled microbolometer</td> </tr> <tr> <td>Field of view (FOV)</td> <td>50° x 38.6°</td> </tr> <tr> <td>IR Resolution</td> <td>80 x 60 pixels</td> </tr> <tr> <td>Laser</td> <td>Dual diverging lasers indicate the temperature measurement area, activated by pulling the trigger</td> </tr> <tr> <td>Object Temperature Range</td> <td>-25°C to 380°C (-13°F to 716°F)</td> </tr> <tr> <td>Thermal Sensitivity/NETD</td> <td><150 mK</td> </tr> </tbody> </table> <p>If there are any issues, these are recorded on the inspection sheet and then rectified immediately. Site Management will authorise any major actions i.e. repairs to concrete storage areas.</p> <p>The infrared camera is capable of measuring the temperature in the storage areas due to the inspection gaps left for personnel access in these areas.</p> <p>The camera will detect temperature changes on the outside of the container and acts as an early warning to site staff and gives them time to investigate and remove containers if required.</p> <p>It is not possible to probe the batteries as they are stacked in containers in rows, they</p> | SPECIFICATIONS | | OVERVIEW | | Accuracy | ±1.5% or 1.5°C (2.7°F) | Detector Type | Focal plane array (FPA), uncooled microbolometer | Field of view (FOV) | 50° x 38.6° | IR Resolution | 80 x 60 pixels | Laser | Dual diverging lasers indicate the temperature measurement area, activated by pulling the trigger | Object Temperature Range | -25°C to 380°C (-13°F to 716°F) | Thermal Sensitivity/NETD | <150 mK |
| SPECIFICATIONS | | | | | | | | | | | | | | | | | | | |
| OVERVIEW | | | | | | | | | | | | | | | | | | | |
| Accuracy | ±1.5% or 1.5°C (2.7°F) | | | | | | | | | | | | | | | | | | |
| Detector Type | Focal plane array (FPA), uncooled microbolometer | | | | | | | | | | | | | | | | | | |
| Field of view (FOV) | 50° x 38.6° | | | | | | | | | | | | | | | | | | |
| IR Resolution | 80 x 60 pixels | | | | | | | | | | | | | | | | | | |
| Laser | Dual diverging lasers indicate the temperature measurement area, activated by pulling the trigger | | | | | | | | | | | | | | | | | | |
| Object Temperature Range | -25°C to 380°C (-13°F to 716°F) | | | | | | | | | | | | | | | | | | |
| Thermal Sensitivity/NETD | <150 mK | | | | | | | | | | | | | | | | | | |

Table 6.1: Management of Waste Storage

| Issue | Preventative Action |
|-------|---|
| | <p>are not loose. Putting a probe against the side of a container holding batteries would be ineffective and would not give you a true reflection of the temperature inside the container.</p> <p>We have found the infrared camera to be the perfect piece of equipment to give the site staff an overview of the storage areas and act if they need to.</p> <p>The infrared camera also allows for ambient temperature, so we can still see if there is a container getting warm within a row even on a warm day.</p> <p>The metal stream is stored in metal bins / stillage's which are filled directly from the crushing plant, each bin / stillage holds approx. 900kg. The amount of time taken to fill the metal bin / stillage approx. 60 minutes ensures that the metal is cooled before the bin is removed from the filling point and placed into storage.</p> <p>There is also extraction present over the filling station, this will remove any emissions and warm air.</p> <p>The metal bins / stillage's are stored in such a way that an inspection gap is allowed between the rows in the storage area, this along with site procedures ensures that the temperature is checked and recorded in these areas during the day and especially at the end of each shift.</p> <p>Lithium batteries are stored in containers in the three sided storage bunkers next to unit 6 near the entrance to the site.</p> <p>The Lithium batteries are checked and packed in accordance with the Carriage of Dangerous goods regulations prior to being placed in the storage area, the safe packing ensures that there is very little oxygen in the container, so is there was a problem with a lithium battery and a sudden evolution of heat, the battery could not / would not burst into flames and burn due to being packed in inert packing material and no presence of oxygen.</p> <p>We use the same guidance for storing lithium batteries as required by transport, these are the safest set of rules we can find.</p> <p>For example: Lithium batteries, packed in sand or vermiculite, contained in a sealed lined drum (200lt maximum). The drum is lined with a thick plastic bag (not a thin bag like a black refuse sack). Once the drum is filled with batteries and sand or vermiculite in layers, extra sand / vermiculite is poured on top to ensure all spaces are filled, the bag is then sealed with a cable tie and the lid placed on top, these ensures that there is no oxygen in the container.</p> <p>The EMS also contains a monthly more comprehensive site inspection, the inspection form is completed and kept on site, detailing any areas of concern and / or defects along with any actions required and completed to rectify the issue.</p> <p>Bi-annual site audits are completed, these are in-depth internal audits which include Health & Safety questions, including fire action and fire equipment checks, and Environmental and Quality questions, which check that records are kept on site and the volumes and types of wastes currently stored are correctly recorded.</p> |

Table 6.1: Management of Waste Storage

| Issue | Preventative Action |
|---|--|
| | <p>Any non-compliance found at the time of the internal audit will be reported to the Site Management and a timetable of corrective actions will be generated. Follow-up checks from the Compliance Team will ensure that all corrective actions are completed.</p> |
| <p>Heat and Spark prevention</p> | <p>There is no requirement to fit plant and equipment with heat and spark prevention and due to the nature of the materials stored there is no need for zoned areas within the warehouse.</p> <p>Only fork lift trucks are used to move materials within the warehouse. Delivery vehicles do not enter the building. Fixed plant will be wired into the mains and is earthed correctly.</p> <p>The operative will complete daily checks which include checking for damaged wiring before using any machine.</p> <p>Electrics on site will be certified by a qualified electrician.</p> <p>The maintenance process will be PLC controlled, with a state-of-the-art safety system incorporated. Fixed wiring and portable appliance testing is in place at the plant.</p> |
| <p>Gas bottles and other flammable items including fuels, oils etc.</p> | <p>Any gas bottles used on site are stored in isolation from the buildings, in a purpose built locked cage bolted to the ground. Gas bottles are for on-site use only and are not brought onto site as waste, they are maintained and serviced as part of a specialist contract with the supplier.</p> <p>Where it cannot be returned direct to the waste producer any non- conforming waste that could be flammable will be quarantined and segregated from other wastes and the buildings by a separation gap of at least 10 metres.</p> <p>Site Operatives will check all waste storage on a daily basis.</p> <p>An inventory of flammable materials will be kept on site so that site staff, management and the emergency services are able to identify these if needed.</p> |

Table 6.1: Management of Waste Storage

| Issue | Preventative Action |
|--------------|---|
| Fire Watch | <p>The EMS details an End of Day / site lock down procedure, the procedure explains what must be checked at the end of each day and how the site should be locked down safely to ensure that nothing is left switched on unnecessarily and that the site is safe overnight and at weekends. This includes all equipment, waste storage areas and areas where hot works have been carried out.</p> <p>A fire watch will be undertaken in the event of hot works. Fire watch procedures will be covered by the PLC system. The hot works area will be checked hourly after completion until the end of the operational working day. The process has been designed to run clear phasing of all plant on shut down.</p> |
| Largest form | <p>Wastes will be stored in their largest form where possible, e.g. cardboard packaging will not be shredded. Furthermore, waste streams from the hammermill will not be subject to further treatment.</p> |

7.0 STORAGE OF COMBUSTIBLE AND FLAMMABLE MATERIALS ON SITE

7.1 All wastes will be stored at least 6m from other flammable materials. Wastes stored externally will be at least 6m from any of the buildings, plant and equipment. Table 7.1 details stockpile sizes and storage times for the different types of waste.

| Table 7.1: Storage of Combustible Materials | | | | | | |
|---|------------------------------------|---|---|---|--|----------------------|
| Combustible material | Form | Quantity Stored | Storage capacity (comparison with EA limit) | Location | Stored Dimensions (l) x (w) x (h) | Maximum storage time |
| Metal | Containers | 150t | 150m ³ (750m ³) | Bunker A: 3 sided concrete block bunker | 13m x 4m x 2m And 13m x 2m x 2m | 6 months |
| Separated combustible batteries – lithium | Drums/boxes | Bunker No 1: 65t Bunker No 2: 65t Bunker No 3: 65t | 65m ³ (450m ³) 65m ³ (450m ³) 65m ³ (450m ³) | 3 sided concrete block bunkers No 1, 2 & 3 <i>(total size each: 8m x 6m x 4m)</i> | 8m x 4m x 2m 8m x 4m x 2m 8m x 4m x 2m | 6 months |
| Cardboard | Loose packaging | 1t | 6m ³ (750m ³) | Unit 5 | 3m x 2m x 2m | 6 months |
| Plastics | Empty plastic drums | 5t | 100m ³ (300m ³) | Yard area | 12m x 3m x 3m | 1 month |
| WEEE | Electronic equipment in containers | 50t | 50m ³ (450m ³) | Unit 5 | 8m x 3m x 2m | 1 month |
| Mixed batteries | Drums/boxes | 25t | 25m ³ (450m ³) | Reception Area | 4m x 3m x 2m | 24 hours. |
| | Drums/boxes | 400t | 400m ³ (450m ³) | Unit 6 | 14m x 14m x 3m | 6 months |
| | Drums/boxes | 80t | 80m ³ (450m ³) | Bunker E | 8m x 6m x 2m | 6 months |

7.2 Combustible lithium batteries will be stored in the 3 sided bunkers on site.

Table 7.2 below details all storage locations, volumes and packaging types for combustible (**) and non / low - combustible (*) batteries on sites

| Table 7.2: Battery Storage Areas | | | |
|---|---|--------------------------------|--|
| Storage Area | Battery Type | Storage weight (tonnes) | Storage Arrangements |
| Reception Area | Mixed Batteries ** | 25 (25m ³) | UK and EU approved sealed plastic drum or lidded box. No overnight storage in this area. |
| Unit 3 | Mixed batteries ** | 30 (30m ³) | UK and EU approved sealed plastic drum or lidded box |
| Unit 3 | Sorted Batteries * | 30 (30m ³) | UK and EU approved sealed plastic drum or lidded box |
| Unit 4 | Lead Acid * | 200 (200m ³) | In battery boxes stacked 3 high |
| Unit 5 | Nickel Metal Hydride * | 50 (50m ³) | UK and EU approved sealed plastic drum or lidded box or bulk bag |
| Unit 6 | Mixed batteries ** | 400 (400m ³) | UK and EU approved sealed plastic drum or lidded box |
| Bunker 1 | Lithium Ion / Lithium ion Polymer ** | 65 (65m ³) | Packed in sand / vermiculite in sealed drums on pallets, stacked 2 high |
| Bunker 2 | Lithium Ion / Lithium ion Polymer ** | 65 (65m ³) | Packed in sand / vermiculite in sealed drums on pallets, stacked 2 high |
| Bunker 3 | Lithium Primary / Lithium Button Cells ** | 65 (65m ³) | Packed in sand / vermiculite in sealed drums on pallets, stacked 2 high |
| Bunker B | Alkaline batteries * | 300 (300m ³) | UK and EU approved sealed plastic drum or lidded box or bulk bag |
| Bunker C | Alkaline batteries * | 120 (120m ³) | UK and EU approved sealed plastic drum or lidded box or bulk bag |
| Bunker D | Alkaline batteries * | 100 (100m ³) | UK and EU approved sealed plastic drum or lidded box or bulk bag |
| Bunker E | Mixed Batteries ** | 80 (80m ³) | UK and EU approved sealed plastic drum or lidded box |
| Bunker F | Alkaline batteries * | 80 (80m ³) | UK and EU approved sealed plastic drum or lidded box or bulk bag |
| Bunker G | Alkaline batteries * | 80 (80m ³) | UK and EU approved sealed plastic drum or lidded box or bulk bag |
| Bunker H | Alkaline batteries * | 80 (80m ³) | UK and EU approved sealed plastic drum or lidded box or bulk bag |
| Bunker I | NiCd (portable and Industrial) * | 120 (120m ³) | In bulk bags with weather proof covering, stacked 2 high |
| Bunker J | Alkaline batteries * | 200 (200m ³) | UK and EU approved sealed plastic drum or lidded box or bulk bag |

| | | | |
|-----------------|--|---------------------------|--|
| Quarantine Area | Emergency Battery storage for 50% of the largest pile (200m ³) | 200t (200m ³) | Single stacked space 15m x 15m x 1m to allow room to place 50% of the largest pile. Mixed containers in the event of an emergency |
|-----------------|--|---------------------------|--|

8.0 PREVENTING SPREAD OF FIRE

- 8.1 The sites storage arrangements, using approved containers, limiting storage capacities and fast throughput of materials are designed to minimise the potential for fire on the site.
- 8.2 A combination of the site’s detection equipment for early identification of fire and storage arrangements allows for the separation of materials as appropriate and the fast directed response to any incident.
- 8.3 All plant equipment will run empty at the end of shifts to clear the process. This will ensure all combustible material is stored utilising suitable containers and storage arrangements and no materials are left within the plant whilst it is not in use.
- 8.4 Visual checks will be made of waste storage areas at least once a day, and wastes will be temperature checked using a non-contact digital infrared thermometer at the end of each day. These measures will ensure that if wastes are showing any signs of heating or combustion, this will be identified and managed at an early stage using the measures as described within the Fire Prevention Plan.
- 8.5 Measures in place to prevent fire spreading are largely as outlined above. These measures will include management of stockpile sizes and adequate separation distances between stockpiles and between external storage areas and the site buildings. Stockpiles will be formed of tidily stacked bags or containers with no large piles of loose material on site.
- 8.6 Class A1 fire resistant Interlocking concrete “lego” blocks are used at the site. The blocks are 600mm wide and have a fire rating of 240 minutes. The walls meet the requirements of the Fire Prevention Plan guidance, which states that firewalls should have a fire resistance time of at least 120 minutes with properly constructed and sealed joints.
- 8.7 A freeboard of at least 1m will be allowed in each bay to minimise the risk of flames catching and spreading from one bay to another across the top of the bays.
- 8.8 Batteries are packed to prevent short-circuiting in the sorting plant and for dispatch for offsite treatment. Terminals are sealed and packing media is used as required (vermiculite or similar). Cyclon batteries are shrink wrapped individually.
- 8.9 Adequate fire suppression will be provided as described in Section 10 below.

9.0 QUARANTINE AREA

- 9.1 A quarantine area will be provided to isolate wastes at risk of combustion or that are alight. Where a fire is suspected and it is safe to do so the wastes will be moved to the quarantine area as soon as possible to prevent the fire spreading to other wastes stored near-by.
- 9.2 The quarantine will be provided with impermeable surfacing and sealed drainage. It is located 6m from any buildings or stockpiles on site. The quarantine area measures [4m by 4m] and is be large enough to hold 50% of the largest stockpile on site, i.e. 12m³ of waste.
- 9.3 The quarantine area is located on the site plan in Appendix 1.

10.0 REDUCING THE IMPACT OF FIRE

- 10.1 In the event of a fire, the following measures will minimise the impact and scale of any fire. These measures include systems for detecting fires, suppressing fires and fighting fires.

Table 10.1: Fire Detection and Suppression

| System | Measures in Place |
|-----------------|--|
| Early detection | <p>CCTV will be in place and will cover all waste storage areas. The system will use both visible and infra-red cameras allowing any fire to be visible on the monitor.</p> <p>In addition, all of the buildings where waste is stored or treated will be fitted with a state of the art VESDA System (very early smoke detection apparatus). The system that is installed is a FFAST aspiration fire detection system. The system was installed by Rosse Systems. The design and installation of the system is covered by a UKAS accredited scheme. The system operates by drawing air through a network of pipes with holes strategically placed within them. The pipes are connected to an aspirating device which houses an air quality detector / sensor that samples the air drawn through the pipe network and alerts if there is a change in the air quality.</p> <p>The system alerts if the air quality changes, this could be due to increase in dust when one of the roller shutter doors is left open. The system is designed to alert 3 times with different levels before smoke is detected in the air, this means the area can be investigated, stock removed and staff evacuated before a fire takes hold. This alert system is the same outside of operational hours, where key holders will respond to the first alert.</p> <p>The system is able to detect smoke at an early stage of a fire. This will allow for firefighting to be undertaken promptly, and the emergency services contacted if necessary as soon as possible. Early detection will allow for the site to meet the objective for a fire to be extinguished within 4 hours.</p> <p>These systems will be linked to a fire alarm, alerting staff to any issues.</p> <p>Further details in relation to the FFAST system are provided in Appendix 2.</p> |

Table 10.1: Fire Detection and Suppression

| System | Measures in Place |
|---------------------------------|--|
| <p>Fire suppression systems</p> | <p>Waste Batteries are stored in relatively small quantities in operational areas, where there is a larger volume of waste batteries stored they are stored in areas protected by A1 fire rated concrete blocks with no activities carried out in close proximity.</p> <p>Waste activities in operational areas increase the risk of fire from mishandling of waste batteries, therefore sorting, handling and packing procedures have been issued to all staff on site and training has been completed.</p> <p>Daily walk round checks of all areas of the site are carried out, this ensures that any batteries that have the potential to start a fire are assessed and moved to a safe area. The daily checks include all storage areas. Daily checks are recorded on site.</p> <p>Daily checks of storage areas is carried out using a thermal camera to ensure any heating of batteries / wastes in storage is identified and can be actioned before an actual fire starts</p> <p>Security measure that have been implemented across the site to prevent intruders intending to commit arson accessing the site. The security measures included CCTV, intruder alarms with motion detectors, infrared cameras, security fencing and roller shutter doors across all entrances to the buildings.</p> <p>All electrical systems are installed by a professional and qualified contractor (NICEIC-approved). Frequent and thorough testing and inspections reduce the risk of an electrical fire.</p> <p>No portable appliances are allowed on site. There is no Gas supply on site.</p> <p>Storage times are limited to prevent a build-up of stocks on site, batteries arrive on site and are processed / sorted as soon as possible, this ensures that batteries are stored by the correct chemistry type, packaged correctly with terminals taped to prevent short circuit and batteries that are despatched from site for processing are stored in a segregated area in preparation for leaving site.</p> <p>Site specific Incident and Emergency procedures are detailed in the EMS. All site operatives are trained in the Fire Action, Fire Extinguisher and Incident and Emergency procedures. Their fire-fighting actions will be such that they are not putting their own safety at risk.</p> <p>Small fires will be tackled on site by trained and competent site operatives, under the supervision of the Site Management. This will utilise the existing fire-fighting extinguishers.</p> <p>Fire extinguishers and hoses are available on site; these are both water and foam. Firefighting equipment is subject to annual inspections by an independent</p> <p>Containers holding dry sand are located around the site and in increased number in areas where there are battery processing activities being carried out including re-packing. Sand has the ability to smother a fire and starve it of oxygen.</p> |

Table 10.1: Fire Detection and Suppression

| System | Measures in Place |
|--------|---|
| | <p>Operatives are able to use the buckets of sand to either pour onto a battery that is starting to burn or place damaged batteries into the sand to prevent them from bursting into flames and causing a larger fire. Sand can also be used in the event of a larger fire, where the use of water has the potential to make the situation worse i.e. when lithium batteries have already started to burn, use of a small amount of water can cause further reactions, sand does not burn and smothers the fire preventing it from getting worse and extinguishes the flames.</p> <p>In addition, all of the buildings where waste is stored or treated will be fitted with a state of the art VESDA System (very early smoke detection apparatus). The system that is installed is a FFAST aspiration fire detection system. The system was installed by Rosse Systems. The design and installation of the system is covered by a UKAS accredited scheme. The system operates by drawing air through a network of pipes with holes strategically placed within them. The pipes are connected to an aspirating device which houses an air quality detector / sensor that samples the air drawn through the pipe network and alerts if there is a change in the air quality.</p> <p>The system alerts if the air quality changes, this could be due to increase in dust when one of the roller shutter doors is left open. The system is designed to alert 3 times with different levels before any smoke from a fire is detected in the air, this means the area can be investigated, stock removed and staff evacuated before a fire takes hold. This alert system is the same outside of operational hours, where key holders will respond to the first alert.</p> <p>The system is able to detect smoke at an early stage of a fire. This will allow for firefighting to be undertaken promptly, and the emergency services contacted if necessary as soon as possible. Early detection will allow for the site to meet the objective for a fire to be extinguished within 4 hours.</p> <p>These systems will be linked to a fire alarm, alerting staff to any issues.</p> <p>The battery storage areas that contain a large volume of low combustible alkaline batteries i.e. the external bunkers are constructed from A1 fire rated concrete blocks which are able to prevent a fire spreading for in excess of 240 minutes</p> <p>The site has specific fire extinguisher balls installed in areas where combustible wastes are stored, the extinguisher balls are attached to the wall and when naked flame or heat of 70°C reaches the ball it will activate and immediately extinguish the fire. These are extremely effective and need no manual intervention.</p> <p>The specification of the extinguisher ball is:</p> <p><i>Ideal for high risk areas and secluded places. Can also be used as fire stopper by throwing in fire. CE SGS SNAS mark</i></p> <p><i>Easy, compact and safe to use by anyone; CE, SGS and SNAS marked There are no service or maintenance required for 5 years</i></p> |

Table 10.1: Fire Detection and Suppression

| System | Measures in Place |
|--------|--|
| | <p><i>Non-toxic dry chemical powder and environmentally friendly</i> <i>Suitable for any common fire – Class A B C D E F</i> <i>Portable and lightweight.</i> <i>Weight of extinguishing powder mixture 1.3+/-0.2Kg</i> <i>Diameter: 147mm</i> <i>Warning audio signal 120dB(Impulse Noise)</i> <i>Activation time 3-10 sec with flame</i> <i>Effective extinguish area 1.3 Kg: 3 cubic meter</i> <i>Lifespan: 5 years</i> <i>Certificates CE, Rohs(SGS)</i></p> <p>The fire extinguisher balls have been installed next to battery storage areas and on the outside of the building ready to be used by staff on site in any area. The fire extinguisher balls can be used in the waste storage bays as these are enclosed spaces and within drums, cut off IBC's and corners of the site.</p> <p>The concrete block specification for use in the construction of the storage bays are as follows: The blocks are 600 mm wide and have a fire rating of 240 minutes, manufactured by LegioBlock. Elite cast product blocks have a fire rating of A1, again the blocks are 600mm wide. Below is clause 4.3.4.4 extract taken from EN 13369 referenced on the elite cast products specification:</p> <p>4.3.4.4 Reaction to fire Concrete products made with maximum 1 % organic materials in the concrete composition (by mass or volume whichever is the more onerous) may be declared as reaction to fire class A1 without the need for testing. Concrete products which include organic materials in the concrete composition greater than 1 % by mass or volume shall be tested and classified according to EN 13501-1.</p> <p>The waste storage next to Unit 6 are constructed using concrete blocks on three sides, open at the front and using steel beams to support a sheet metal roof. The bunkers 1, 2 and 3 are constructed using concrete blocks on four sides and using a visqueen roof.</p> <p>Please see extract below taken from the Concrete Safety report:</p> <p>Concrete's Performance In fire There are two key components to concrete's successful performance in fire: first its basic properties as a building material and secondly, its functionality in a structure. Concrete is non-combustible (it does not burn) and it has a low rate of temperature rise across a section (it is fire shielding), which means that in most structures concrete can be used without any additional fire protection. Many of concrete's fire resisting properties are consistent no matter whether it is structurally normal or lightweight, or</p> |

Table 10.1: Fire Detection and Suppression

| System | Measures in Place |
|--------|---|
| | <p>produced as concrete masonry or autoclaved aerated concrete. In essence, no other material can make such a comprehensive case for its fire safety performance.</p> <p><u>Concrete does not burn</u></p> <p>Concrete simply cannot be set on fire like some other materials in a building. It is resistant to smouldering materials, which can reach very high temperatures, igniting or even re-igniting a fire, and flames from burning contents cannot ignite concrete. So, because it does not burn, concrete does not emit any smoke, gases or toxic fumes when affected by fire. It will also not drip molten particles, which can cause ignition, unlike some plastics and metals.</p> <p>There is no way in which concrete can contribute to the breakout and spread of fire or add to the fire load.</p> <p>Authoritative evidence of concrete’s fire performance properties is presented in European standards. All building materials have been classified in terms of their reaction to fire and their resistance to fire, which will determine whether or not a material can be used and when additional fire protection needs to be applied to it. Based on the European Construction Products Directive, EN 13501–1: 2002: Fire classification of construction products and building elements classifies materials into seven grades with the designations, A1, A2, B, C, D, E and F, according to their reaction to fire.</p> <p>The highest possible designation is A1 (non-combustible materials) and the European Commission has published a binding list of approved materials for this classification, which includes the various types of concrete and also the mineral constituent materials of concrete. Concrete fulfils the requirements of class A1 because its mineral constituents are effectively non-combustible (i.e. do not ignite at the temperatures that normally occur in fire).</p> <p><u>Concrete is a protective material</u></p> <p>Concrete has a high degree of fire resistance and, in the majority of applications, can be described as fireproof when properly designed. Concrete is a very effective fire shield. The mass of concrete confers a high heat storage capacity. Also its porous structure provides a low rate of temperature rise across a section. These properties result in a low rate of temperature rise that enables concrete to act as an effective fire shield.</p> <p>Due to the low rate of increase of temperature through the cross section of a concrete element, internal zones do not reach the same high temperatures as a surface exposed to flames. The standard ISO 834 fire test on 160 mm wide x 300 mm deep concrete beams exposed three sides to fire for one hour. While a temperature of 600°C was reached at 16 mm from the surface, this was halved to just 300°C at 42 mm from the surface – a temperature gradient of 300°C in just 26 mm of concrete! (Kordina, Meyer-Ottens, 1981). This shows clearly how concrete’s relatively low rate of increase of temperature ensures that its internal zones remain well protected.</p> <p>Even after a prolonged period, the internal temperature of concrete remains relatively low; this enables it to retain structural capacity and fire shielding properties as a separating element.</p> |

Table 10.1: Fire Detection and Suppression

| System | Measures in Place |
|-------------------------------------|---|
| | <p>Fire classification and A1 fire rating explanation</p> <p>Fire safety requirements in the national building regulations are often based on fire development (standard fire curve). The requirements for the materials used and the structures are determined by the building use, size, fire load and operation.</p> <div data-bbox="582 392 1021 705" data-label="Diagram"> </div> <p>The main properties to determine the Euroclass for a specific product is its non-combustibility, ignitability, flame spread, calorific value as well as the development of smoke and burning droplets. Depending on the outcome of the various properties, the product is assigned a fire classification as shown below.</p> <div data-bbox="375 963 957 1276" data-label="Diagram"> </div> <p>The site is located next to within 50 metres of one neighbour, however the battery storage areas are behind brick constructed buildings protected by A1 rated concrete blocks. The other neighbour has a wooden boundary fence between the battery storage area and the neighbours car park, there are no batteries stored between the wooden fence and the buildings there is approx. 30 metres of tarmac carpark between the boundary fence and their building.</p> <p>The battery sorting area is housed in a brick built building with a bonded asbestos roof, the brick construction acts as a fire wall. The battery crushing building has an A1 fire rated concrete block wall to two sides and a portal steel frame. The concrete blocks act as a fire wall between our site and the neighbours property.</p> |
| <p>Response to fire/smoke alarm</p> | <p>If the detection system is activated, then the personnel on site follow the emergency evacuation procedure and the Site Manager / trained personnel will investigate the reason for the alarm. They will then tackle the fire themselves, if safe to do so, whilst the emergency services are alerted. The 24hr CCTV monitoring company will alert key holders and emergency services out of operational hours.</p> |

Table 10.1: Fire Detection and Suppression

| System | Measures in Place |
|----------------------|---|
| Active fire fighting | <p>Site specific Incident and Emergency procedures are detailed in the EMS. All site operatives are trained in the Fire Action, Fire Extinguisher and Incident and Emergency procedures. Their fire-fighting actions will be such that they are not putting their own safety at risk.</p> <p>Small fires will be tackled on site by trained and competent site operatives, under the supervision of the Site Management. This will utilise the existing fire-fighting extinguishers and water / foam fed hose pipes. Personnel will also move wastes away from the affected area to prevent the spread of fire if safe to do so.</p> <p>Access for emergency vehicles will be maintained at all times via the main site entrance.</p> <p>See table 11.2 below for water supply calculations and containment. The largest stockpile of combustible batteries in each area has been calculated based on the calculation provided in the Fire Prevention Plan Guidance.</p> <p>There are two fire hydrants located close by; one at the corner of the site and another slightly further along the road. Each fire hydrant should be capable of delivering 1200 litres per minute of water. This equates to 2,400 litres per minute if both fire hydrants were employed. The River Calder is located directly next to (40m) the site should additional water be required. There is therefore an adequate water supply for firefighting.</p> <p>To ensure that fire water collection capacity remains available, the sump will be checked on a daily basis and will be emptied by tanker when required or on a daily basis especially during winter and periods of heavy rainfall.</p> |

Table 11.2 Water Supply and Containment

| Area of Site | Maximum pile volume in cubic metres | Water supply needed in litres per minute (pile volume * 6.67) | Overall water supply needed over 3 hours in litres (Water supply per minute x 180) | Total water available on site in litres for 3 hours | Total Containment on site |
|--------------|-------------------------------------|---|--|---|---------------------------|
| Unit 6 | 400 | 2,668 | 480,240 | 432,000 (plus unlimited from river) | 1,265,000 |

11.0 MANAGING FIRE WATER

11.1 The site infrastructure has been designed to ensure that firewater is fully contained. Firewater will be managed as set out in table 11.1, below.

Table 11.1: Managing Firewater

| System | Measures in Place |
|-------------|---|
| Containment | <p>Table 11.2 above details the site capacity to contain fire water within 3 separate areas of the site.</p> <p>The area outside bunkers 1 , 2 & 3 benefits from a kerb edge around 4 sides with ground that slopes towards a sump to contain all fire water. The ground slopes away from the kerb edges. Any water that is captured in this area is contained in a sealed sump which is located near the front corner of bunker 1. FPP site plan HXSP1 - FPP shows blue arrows which highlight the direction of water flow in that area.</p> <p>Unit 6 benefits from a purpose built 30cm high bund around 3 sides and partially across the front of the building, there is a roll over bund across the door, this ensures full containment of fire water. Any water captured in Unit 6 is contained within the bund and flows towards a sealed sump in the right rear corner of the building. There is an external bund at the rear of unit 6 water pools in this bund, there is no flow of water therefore the water must be pumped from this bund.</p> <p>Units 3, 4 & 5 are all attached to a sealed concrete yard with bunding, sealed drainage system and arco drain covers, there is also an additional sump which can be utilised near units 3, 4 & 5 which is concrete lined and will be subject to regular inspection to maintain its integrity.</p> |

| | |
|----------|--|
| | <p>The impermeable surface, bunds and drainage system are also checked regularly. Any water used for firefighting inside units 3, 4 & 5 will pool within the unit first and then flow to the rear of the buildings, towards the collection sump.</p> <p>To ensure no water escapes unit 3 there will be a flood barrier in place at all times, on the inside of the roller shutter door. The flood barrier can be removed if the roller shutter door needs to be opened, unit 3 also has a small sump inside the building which allows water to be pumped out manually if needed.</p> <p>The site has two over ground storage tanks in use for containing fire water, these are linked to the site drainage system via a pumping system. There is also a small underground tank and pumping chamber which is able to capture fire water from the area outside of bunkers D to H.</p> <p>Unit 4/5 have a roll over bund across the side roller shutter door and a bund across the rear pedestrian door.</p> |
| Disposal | Following a fire, the firewater will be collected by tanker and will be sent to an appropriately permitted waste management facility for disposal or treatment. |

12.0 DURING AND AFTER AN INCIDENT

12.1 Contingency measures are in place to allow waste to be diverted to another site if required. The site does not operate as a lone site; it is part of a larger group of 15 sites. The operator has the ability to close the site at short notice and divert inbound wastes to other sites within the group, the operator also has the ability to ask customers to hold their wastes for a short period of time, until alternative arrangements are made. This holding period will be a maximum of 5 working days.

12.2 Contingency measures are explained further in Table 12.1, below.

| Table 12.1: Contingency Measures | |
|----------------------------------|---|
| Item | Measures in Place |
| Emergency Plan | <p>The site will operate an Incident and Emergency Procedure (Appendix 3) and an Emergency Preparedness and Response procedure that ensures all incidents are correctly recorded, reviewed and monitored and that preventative measures are implemented appropriately. The procedures will make clear who has responsibility for contacting the emergency services and instructing staff on site. All staff will receive training in order to be able to apply the procedures correctly.</p> <p>Copies of the procedures and records will be kept in site office, along with the inventory of the wastes and materials present. These will be made available to the emergency services.</p> <p>The procedure will contain emergency contact numbers for the Senior Management team, the Company Health and Safety Manager, Site Management and Technical Staff and other useful contact numbers such as near-by hospitals, the Environment Agency, Health and Safety Executive and Local Council.</p> |

Table 12.1: Contingency Measures

| Item | Measures in Place |
|------------------------------|--|
| Liaison with External bodies | <p>A nominated manager will act as incident controller and will liaise with the Fire Service and Environment Agency during any incident to ensure that they are aware of the materials on site and any potential risks.</p> <p>In the event of a fire the emergency services will be contacted immediately. Halifax Fire Station is located approximately 2.6 miles to the north. The Fire Brigade should arrive within 10 minutes. The Environment Agency will be informed as soon as possible and in any case within 24 hours, once immediate health and safety issues have been addressed.</p> |
| Waste Diversion | <p>Once a fire is detected no further waste will be accepted on site until the fire has been extinguished and any necessary clean-up or repairs have been completed to ensure that waste can be accepted without harm to health of risk to the environment.</p> <p>Arrangements will be made to divert waste to another of WasteCare’s permitted waste transfer or treatment plants. Customers may be asked to hold waste for an additional few days whilst alternative arrangements are made.</p> <p>Wherever possible customers will be advised of these arrangements by telephone in advance of when the delivery is due.</p> |
| Site Clean up | <p>Following a fire all fire damaged materials will be removed to a suitable permitted site for disposal. The site will be swept clear and arrangements will be made for the collection and disposal of firewater.</p> <p>All site equipment and infrastructure will be inspected to check whether it is functioning correctly, and repairs will be schedule for anything that has been damaged. The site will not reopen unless sufficient functional waste storage areas are available.</p> |

12.3 Measures are in place to prevent fires and if necessary detect and fight fires and mitigate against the possible environmental impacts as required in the Environment Agency’s guidance.

APPENDICES

Appendix 1

Waste Acceptance, Storage and Processing
DATE: May 2023

WASTE ACCEPTANCE PROCEDURES

Pre-Acceptance

5.1 The waste types to be accepted on site arise from the centralised collection of household batteries at designated drop-off centres through national battery collection schemes. These schemes target the collection of mixed household batteries. Deliveries will be made by WasteCare from their other UK waste transfer stations and from third parties.

5.2 All deliveries from third parties will be pre-notified to WasteCare for agreement. Batteries to be delivered from other WasteCare facilities will be notified to the site manager, with waste pre-acceptance checks being undertaken at the consigning site

5.3 As part of the pre-acceptance checks applied to all suppliers a check list is used to ensure all relevant data is captured. This data sheet is included as Pre-acceptance Checks. Typically, data is gathered as a desk based exercise and will include photographs of the waste batteries, company website checks and phone calls. WasteCare apply the precautionary principle for all materials, and therefore all mixed loads will be over-classified as hazardous waste on the assumption they contain Lithium batteries.

All pre-acceptance information is inspected by a competent person, experienced and trained in the identification of hazardous batteries.

Acceptance

5.4 Materials to be processed at the site will be transported by a registered Waste Carrier and accompanied by a 'Waste Transfer Note' in accordance with the legal requirements of the Duty of Care for waste (non-hazardous waste) or a consignment note in accordance with the Hazardous Waste Regulations 2005 (hazardous waste). Waste will not be accepted if for any reason there is insufficient storage capacity available or if the site is inadequately manned.

Insufficient storage capacity means that the maximum storage capacity in the individual storage locations as per table 6.6 (page 20) would be reached or the total quantity of waste on site would exceed 1671 tonnes, if further wastes were accepted onto site .

The company computer system records all inbound and outbound wastes, this along with a manual weekly stock count ensure that the site can monitor stock levels. All WasteCare sites operate a site escalation procedure (See Appendix 1: SOP-GP-ENV-7) which is in place to support the site with issues including stock, the issues are escalated to the Senior Management to ensure the issue is rectified, this includes supporting the Site Manager to refuse loads if there is no capacity on site.

5.5 A HNC qualified technician will be present to accept all hazardous waste loads. Due to the nature of loads accepted at the facility it is more appropriate to have a technician available, involved in multiple activities, than a dedicated chemist.

5.6 All battery waste deliveries are pre-arranged with booking slots designated. Prior to delivery the quantity of material expected is recorded. A combination of these measures allow the operations team to schedule all deliveries to allow sufficient capacity for unloading and prevent backlogs in delivery. This system allows the operator to manage throughput of the facility to ensure that the permitted and operational capacities are efficiently controlled. The flow charts below show the processes for controlling the acceptance of wastes on site.

5.7 Daily walk round stock checks and storage area inspections are also used to make certain that the site has capacity to accept the daily scheduled deliveries

Waste Acceptance Controls

Authority to Approve or Refuse Inbound Loads:

Site Manager
Site Supervisor
COTC Holder on site (if different to above)

All Inbound loads are booked into site at least 1 week prior to the date of delivery

The inbound loads are agreed and authorised by the Site Manager and / or Site Supervisor along with the Processing Manager to ensure the plant is capable of processing the inbound material and no periods of maintenance are scheduled.

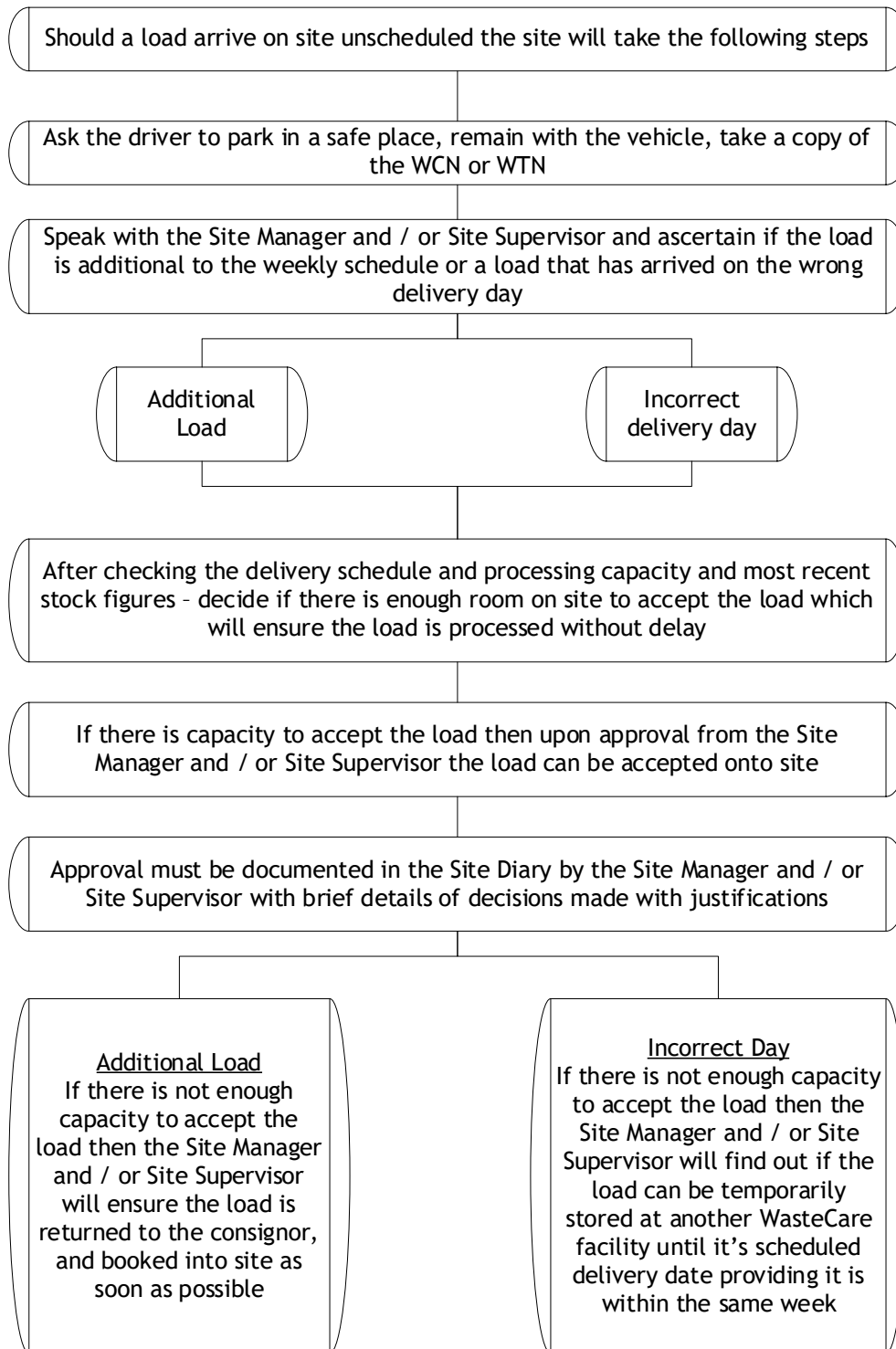
A weekly planning meeting is held between Site Manager and / or Site Supervisor and Processing Manager.

Planning Meeting Agenda:

1. Inbound load requests
2. Confirmed loads for despatch
3. Processing plant capacity
4. Staffing (inc. holiday and sickness)

The site will confirm the acceptance of the loads by return email and ensuring a copy of the agreed weekly schedule is placed on the notice board in the site office to make sure this is clearly visible to all employees.

Waste Acceptance Controls Unscheduled Deliveries

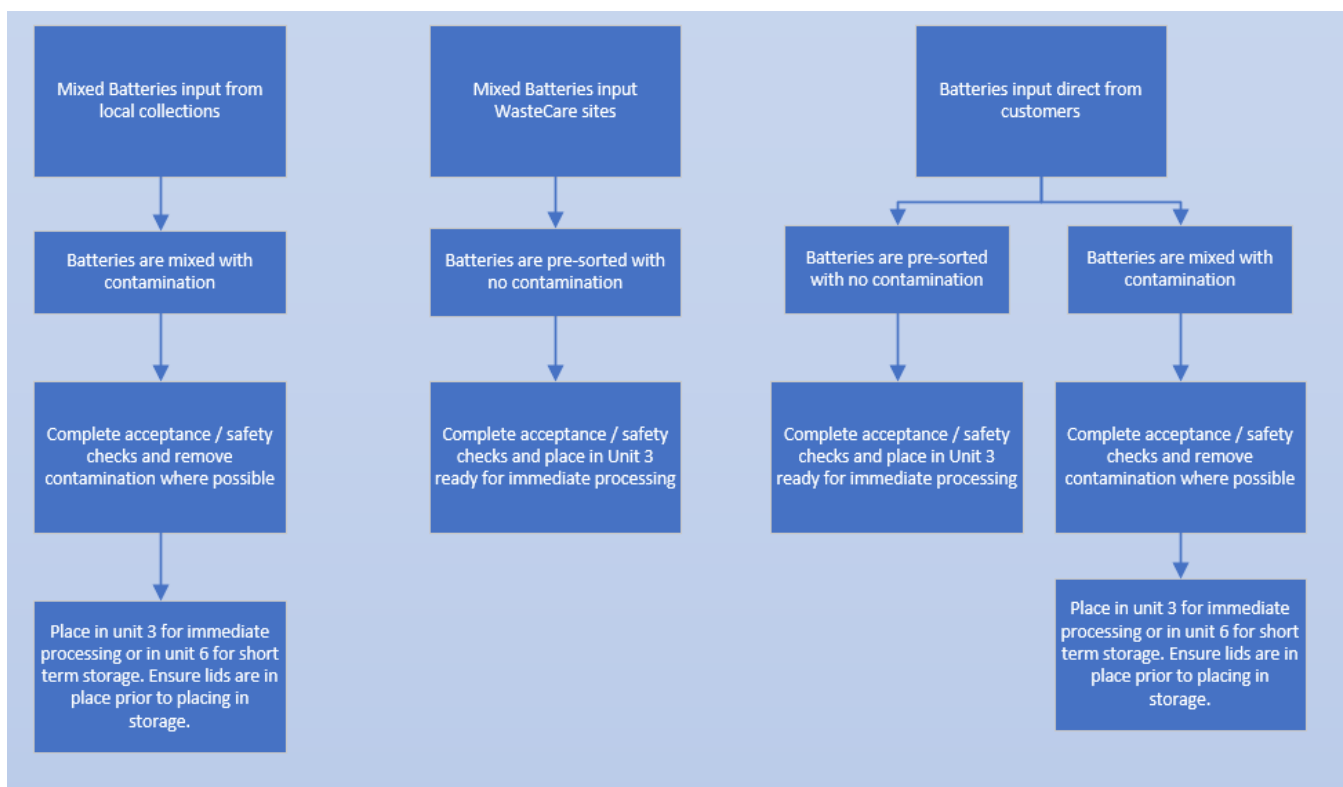


5.8 Incoming waste deliveries will be met at the site entrance where acceptance checks will be carried out. Transfer or consignment notes will be reviewed and where possible each load will be subject to visual inspection to ensure it appears in line with the pre-acceptance information.

5.9 Loads will initially be inspected by suitably trained personnel to ensure that only permitted waste is accepted and to establish that the wastes are safe to offload. This will include checking the integrity of containers and pallets and looking for any signs of damage to packaging or batteries. Where the contents can be easily checked, such as battery boxes, an inspection will be undertaken of each box to ensure that the box actually contains the type of batteries expected. If the load consists of many smaller packages, then the initial inspection will only cover the packaging condition. Weighing equipment is provided on site in the form of scales. All battery pallets (or otherwise) will be weighed on arrival to site. Typically, vehicles delivering material for processing will be backloaded with processed battery streams. The time on site will enable ample capacity to weigh all pallets unloaded before the vehicle has left site. In all cases, including where vehicles are not backloaded, all material accepted will be weighed before the vehicle is permitted to leave site.

Batteries arrive on site from three different origins, the batteries will be handled & checked differently depending on where they originate from, see process flow below:

Halifax Feedstock acceptance checks



5.10 Subject to delivery passing the initial acceptance checks, waste will then be directed to the waste reception area for unloading.

5.11 Any discrepancies found as a result of the checks detailed above will result in:

- referral to the technically competent manager;
- referral to the producer site, to confirm the nature of the waste load;
- a written record being made in the site log to record the nature of the waste and the action taken; and
- referral to the Environment Agency in the case of possible breaches of legislation or imminent pollution.

5.12 Where waste is not in compliance the load will be rejected and will be returned to the waste producer where possible. Where this is not possible the waste will be directed to the quarantine area and arrangements will be made for it to be removed to a permitted site as soon as possible.

5.13 Loads (or part loads) may be rejected or placed in quarantine following their unloading in the waste reception area when:

- the container is highly contaminated with WEEE without prior consent;
- the container is highly contaminated with burnt or unidentifiable batteries without prior consent;
- the container is highly contaminated with non-battery material; or
- the container is highly contaminated with water.

In relation to loads contaminated with water, the containers that contain water will be taken to the external covered area next to the waste acceptance area, photos will be taken and the waste producer notified. Rather than put the container back onto the vehicle and back on the road, to minimise risk the water will be pumped from the containers into IBC's using a chemical resistant pump with a filter on the inlet to prevent batteries being pumped into the IBC. The IBC will be pH tested to ascertain whether the liquid is acidic or alkaline. The IBC will be labelled accordingly and despatched from site to our treatment site in Liverpool. The waste producer will receive a surcharge and will be asked to collect the batteries if they cannot be treated on site.

Thorough checks will be made on all containers of batteries received on site prior to being placed in storage, if the batteries are showing signs of water or moisture within the container, the batteries will be placed into a new clean, dry container, the original label will be transferred to the new container prior to being placed in storage, this enables the operative time to inspect the contents and remove all water and moisture from around the batteries.

5.14 The WasteCare non-conformance procedure, which is included in the EMS, will be followed in all non-conformance events.

5.15 Records will be kept for each load arriving on site including details of:

- date of delivery;
- the waste producer;
- quantity of waste;
- waste type;
- pertinent details regarding the waste appearance (smell, colour and physical form);
- classification under the List of Waste Regulations;
- six figure code according to the European Waste Catalogue; and
- waste carrier name, address and registration number.

5.16 All pre-acceptance and acceptance documentation will be made available for inspection by authorised officers of the Environment Agency on request.

6 WASTE STORAGE AND PROCESSING

General - Drums and boxes are stored in accordance with SGN5.06 BAT indicative point 15. This includes a maximum stack height of 2 pallets of drums (based on the height of a 205l drum on each pallet) and 3 battery boxes, with an arrangement in rows to allow access on all sides. Empty containers are stored for re-use or disposal and in accordance with SGN5.06 BAT indicative point 15, however they can be stacked to a maximum height of 3 pallets when required.

Wastes and recovered materials are stacked to ensure all labels are visible, inspection by access rows are free at all times and fork lift access to storage areas is free to ensure that if required safe removal of wastes can be easily carried out to allow full detailed inspections. Site Health and Safety rules apply at all times.

6.1 The waste treatment process is undertaken in two phases. The initial phase sorts the mixed waste stream into the different component streams listed below in Table 6.1.

| Table 6.1: Battery Types to be Accepted and Sorted | | |
|---|--|---|
| Description | Includes | Classification |
| Zinc/manganese (often referred to as alkaline batteries) | Alkaline Zinc chloride Zinc air Oversize zinc/manganese | Non-hazardous |
| NiCad | Dry NiCad Wet NiCad | Hazardous |
| Lead Acid | Dry (VRLA – plastic case) Dry-Cyclon (steel case) Wet | Hazardous |
| Lithium Ion | Laptop and cells Power tools Mobile phones Video cameras E-cigarettes | Non-hazardous |
| Lithium Ion Polymer | Tablet/laptop Mobile phone | Non-hazardous |
| Lithium Primary | Coin cells Non-coin cells | Non-hazardous |
| Nickel Metal Hydride (NiMH) | All sizes | Non-hazardous |
| Button cells | Zinc air Silver oxide Alkaline | Hazardous Non-hazardous |
| Non-battery material | Small WEEE Water filters (incidental to battery loads only) Light bulbs (including CFL) Printer ink cartridges (incidental to battery loads only) | Non-hazardous, except small mixed weee and compact fluorescent lamps, which are hazardous |

| Table 6:1: Battery Types to be Accepted and Sorted | | |
|--|---|----------------|
| Description | Includes | Classification |
| | General litter (incidental to battery loads only) | |

6.2 The second phase treats only the non-hazardous portable alkaline batteries to separate the different components for recovery:

- black mass;
- ferrous metal;
- non-ferrous metal; and
- paper and plastic.

6.3 A site layout plan is provided as drawing reference HXSP1.

Waste Reception

6.4 Wastes will be unloaded in the waste reception area and transferred to the storage area for wastes pending treatment. Pre-sorted loads of alkaline batteries will be stored separately as these will be introduced to the process via a hopper connected to the conveyor that transfers portable alkaline batteries to the second phase of the treatment plant.

6.5 All sorted batteries will be weighed using pallet scales. The scales are calibrated annually by a third party and checked daily using battery boxes of sand of known weights, as well as confirming zero readings when unloaded. These daily checks will be recorded, signed for and filed.

6.6 Occasionally, staff will encounter a battery that they will not be able to identify. Any such batteries will be quarantined for further assessment. Site personnel will also have access to the internet so that they can investigate the chemistry or application of any unknown batteries after placing them in quarantine.

6.7 The facility has a laboratory, equipped with tools, scales and a voltage meter, where further work can be undertaken to try and establish the chemistry of the battery. Its weight can also be checked and visual inspection will establish if it is sealed. The battery cells may be removed from any casing to try and help establish its chemistry as this may be shown on individual cells in a pack. Magnets can also be used to establish if the battery casing is magnetic.

Quarantine Area

6.8 A quarantine area surrounded by concrete walls has been established to receive items that may need to be returned or require special control measures. The quarantine area provides a storage area of 25m². Batteries will be removed from this area within 48 hours following receipt. The batteries will either be correctly classified and correctly packaged and stored in the correct area or returned to the waste producer.

Waste Processing

6.9 The majority of batteries received at site are from public collection points and are suited to mechanical sorting due to the types of batteries in the mix. There are two separate phases at the facility.

Phase 1 – Sorting

6.10 The sorting phase will be undertaken in Unit 3 as shown on drawing HXSP1.

6.11 Sorting processes at the facility will utilise mechanical sorting equipment to sort batteries by size before presenting batteries to sorting personnel on conveyors for manual sorting by chemistry, where automated sorting is not possible.

6.12 A fork lift truck with a rotator will tip containerised batteries into the hopper at the start of the sorting line. The hopper will feed a conveyor for the manual removal of non-battery items such as litter and plastic bags. The batteries will then pass over a vibrating table with an initial small grid, which will allow the button cells to be separated. These will drop through the grid directly into an appropriate button cell box. The remaining batteries will pass over a larger grid which will separate the oversize batteries from standard household batteries. This sort is purely by size and not chemistry, type or weight.

6.13 The medium sized batteries will then pass along a conveyor, where batteries will be hand sorted according to chemistry. The portable alkaline batteries, which are suitable for further treatment, will be collected at the end of the conveyor.

6.14 Large batteries will also be sorted by hand and transferred to the appropriate storage areas.

6.15 Sorted batteries will be stored in appropriate containers as set out in Table 6.2 below.

| Battery types | Container type | Maximum Storage capacity (tonnes) |
|---------------------------------------|--|--|
| Mixed batteries | UK and EU approved plastic drum or box | 535 |
| Lithium | UK and EU approved plastic drum or box | 195 |
| Portable, Industrial, dry & wet NiCad | large fibre bags with weatherproof covering & weather proof containers | 120 |
| Lead acid | Plastic battery boxes | 200 |
| Nickel Metal Hydride | UK and EU approved plastic drum or box | 50 |
| Alkaline | UK and EU approved plastic drum or box | 960 |

6.16 Different types of batteries will be stored separately at the locations shown on Drawing HXSP1. Bunkers will be used to store Ni-Cad batteries in bulk bags, Lithium Ion and Lithium primary batteries packed in vermiculite in lined and sealed drums, mixed batteries and alkaline batteries prior to despatch off site, each with the following capacities:

- Bunker 1: Lithium 65 tonnes
- Bunker 2: Lithium 65 tonnes
- Bunker 3: Lithium 65 tonnes
- Bunker B: Alkaline Batteries 300 tonnes

- Bunker C: Alkaline Batteries 120 tonnes
- Bunker D: Alkaline Batteries 100 tonnes
- Bunker E: Mixed Batteries 80 tonnes
- Bunker F: Alkaline Batteries 80 tonnes
- Bunker G: Alkaline Batteries 80 tonnes
- Bunker H: Alkaline Batteries 80 tonnes
- Bunker I: NiCd Batteries 120 tonnes
- Bunker K: Alkaline Batteries 200 tonnes

6.17 The battery reception area has storage for 24 pallet spaces (25 tonnes) with dimensions of 12m x 2.5m

6.18 Batteries will be stored in appropriate areas and containers as set out in Table 6.3 below.

Table:6.3: Battery Storage Areas

| Storage Area | Battery Type | Storage weight (tonnes) | Storage Arrangements |
|----------------|--|-------------------------|--|
| Reception Area | Mixed Batteries | 25 | UK and EU approved sealed plastic drum or lidded box. No overnight storage in this area. |
| Unit 3 | Mixed batteries | 30 | UK and EU approved sealed plastic drum or lidded box |
| Unit 3 | Sorted Batteries | 30 | UK and EU approved sealed plastic drum or lidded box |
| Unit 4 | Lead Acid | 200 | In battery boxes stacked 3 high |
| Unit 5 | Nickel Metal Hydride | 50 | UK and EU approved sealed plastic drum or lidded box or bulk bag |
| Unit 6 | Mixed batteries | 400 | UK and EU approved sealed plastic drum or lidded box |
| Bunker 1 | Lithium Ion / Lithium ion Polymer | 65 | Packed in sand / vermiculite in sealed drums on pallets, stacked 2 high |
| Bunker 2 | Lithium Ion / Lithium ion Polymer | 65 | Packed in sand / vermiculite in sealed drums on pallets, stacked 2 high |
| Bunker 3 | Lithium Primary / Lithium Button Cells | 65 | Packed in sand / vermiculite in sealed drums on pallets, stacked 2 high |
| Bunker B | Alkaline batteries | 300 | UK and EU approved sealed plastic drum or lidded box or bulk bag |
| Bunker C | Alkaline batteries | 120 | UK and EU approved sealed plastic drum or lidded box or bulk bag |
| Bunker D | Alkaline batteries | 100 | UK and EU approved sealed plastic drum or lidded box or bulk bag |
| Bunker E | Mixed Batteries | 80 | UK and EU approved sealed plastic drum or lidded box |

| | | | |
|----------|--------------------------------|-----|--|
| Bunker F | Alkaline batteries | 80 | UK and EU approved sealed plastic drum or lidded box or bulk bag |
| Bunker G | Alkaline batteries | 80 | UK and EU approved sealed plastic drum or lidded box or bulk bag |
| Bunker H | Alkaline batteries | 80 | UK and EU approved sealed plastic drum or lidded box or bulk bag |
| Bunker I | NiCd (portable and Industrial) | 120 | In bulk bags with weather proof covering, stacked 2 high |
| Bunker K | Alkaline batteries | 200 | UK and EU approved sealed plastic drum or lidded box or bulk bag |

**No mixed batteries are stored in Unit 3 or Reception Area overnight / outside of operational hours

6.19 Wet lead acid and wet NiCad could be viewed as incompatible and will not be stored together or adjacent to each other.

6.20 All recovered battery streams will be sent for recycling.

6.21 WEEE and residual waste will be stored separately in suitable bags or sealed containers. Where possible these wastes will be sent on for recycling. Paper, plastic and similar wastes may be sent for energy recovery.

6.22 All staff involved in sorting will be trained to classify batteries into the correct category and chemistry. Training will consist of a mixture of tool box talks and documents that are posted around site. The training room at the site is also stocked with various types and chemistries of batteries to assist training sessions on battery classification by type and chemistry, as well as safety. A notice board in the sorting area will be used to reinforce the key messages for staff working on battery sorting.

Phase 2 – Treatment of Portable Alkaline Batteries

6.23 Portable alkaline batteries will be transferred via enclosed conveyor to the hammermill, located in treatment building as shown on drawing HXSP1. The treatment process is designed to separate out the following material streams as listed in Table 6:4 below:

| Table:6:4: Recovered Material Streams from Treated Batteries | | |
|---|-----------|--|
| Material Stream | % | Fate |
| Black mass & paper/plastic | 73 | Recycling & Energy recovery |
| Ferrous metal | 25 | Recycling |
| Non-ferrous metal | 2 | Recycling |

6.24 To ensure other types of battery to not enter the hammermill there is a process in place which includes the sorting of unknown / damaged / unidentifiable batteries by the operators on the sorting line.

The operators are trained to pick out any batteries that they cannot be readily identified as Alkaline & Zinc Chloride batteries and place them into a container for fine sorting later, this ensures that the operators do not let any batteries progress to the feed hopper without knowing what they are.

The Unknowns / Unidentifiable and damaged batteries are then fine sorted by the site supervisor to establish the chemistry type of the battery, the supervisor will establish the correct route for the batteries and if he / she cannot confidently identify the batteries then these will be quarantined and the Technical Director will personally assess the batteries. The Technical Director will consult third party battery recyclers for assistance if required.

6.25 Batteries will be crushed within the enclosed hammermill and removal of ferrous metals by a drum magnet (metals fall into a container equipped with a hood to prevent emissions of dust and / or gas), the resultant material passes onto a vibro-separator via a sealed conveyor belt. The vibro-separator allows for the grading of materials, in this instance sorting the treated materials by particle size. The resultant mixed material will pass over a drum magnet to remove any ferrous metal before being treated by a vibro-separator to remove the black mass fraction from the remaining material. The black mass will pass through the screen and will be collected in an enclosed conveyor and passed via a screw mechanism into sealed bags.

6.26 Once the black mass stream has been separated it is transferred into a feed chute via an Archimedes screw. The Archimedes screw is a totally enclosed system which is used to prevent fugitive emissions. The black mass feed chute is connected directly into UN bags, meaning that there will be no emissions produced during filling. Two bags are provided at the bagging area; only one will be filled at any one time with the filling switching automatically to the other bag when the first bag is full. The system includes a counter pressure ring which seals the bag to the system during filling and prevents fugitive emissions. The feed of black mass into the UN bags is controlled using the SCADA PLC control system.

Once filling of a bag is completed, the system will notify site operatives, allowing for the bag to be sealed and removed. The remaining paper and plastic that is recovered at the end of the process falls into a container that is equipped with a hood. This will ensure that there will be no emissions of dust or gas at the final stage of the process.

6.27 The alkaline battery treatment plant will treat between 2.5 and 4.5 tonnes of batteries per hour, depending on the feedstock.

6.28 Recovered material streams will be stored in appropriate bags or stillages at the location shown on drawing HXSP1.

| Table:6:5: Recovered Material Storage arrangements | | | | | |
|---|--|------------------------------|--|--|-----------------------------|
| Material | Conversion rate | Quantity Stored | Location | Stored Dimensions (l) x (w) x (h) | Maximum storage time |
| Black Mass & paper / plastic (bags) | Each bag of Black mass weighs 1 tonne. Volume = 1m ³ | 200t (200m ³) | Inside Unit 1 building | 12m x 9m x 2m | 6 Months |
| Ferrous Metal (stillages) | Each stillage of metal weighs 1 tonne. Volume = 1m ³ | 100t (100m ³) | Bunker A: 3 sided concrete block bunker | 13m x 4m x 2m | 6 months |
| Non Ferrous Metal (stillages) | Each stillage of metal weighs 1 tonne. Volume = 1m ³ | 50t (50m ³) | Bunker A: 3 sided concrete block bunker | 13m x 2m x 2m | 6 months |

6.29 Safe stacking of bulk bag procedures will apply at all times, ensuring bags are stable using a layering system making sure that bag weight is evenly distributed. Only UN approved bags are used when stacking black mass this ensures that load weights are adhered to.

An example of the UN marking on the bulk bags is: UN 13H4/X/0915/IND/71447444/**1809**/1005


The **1809** within the UN marking above denotes the stacking test load in kilograms i.e. 1.8 times the maximum permissible gross weight that may be stacked on top.

The bulk bags are stacked 2 high where the load in the top layer spread between 4 bottom layer bags, using the Pyramid method see picture below:

Only stack FIBCs if they are designed to be stacked, you are sure of their stability and they are stacked using a "Pyramid" or "Supported" stacking method:

Pyramid Stacking
Each bag above the first layer must sit on at least four lower bags. Each layer is subsequently tiered inwards forming a pyramid structure.

Supported Stacking
Bags are stacked against two retaining walls of sufficient strength.



**taken from FIBC Safe Handling Guidelines v2 published by the Flexible Intermediate Bulk Container Association July 2017.

The site operates in accordance with HSE guidance HSG76

6.30 There is an air blade system installed, which will decrease the level of contamination on the metal, paper and plastic streams coming from the plant. However we will take grab samples directly underneath the chute which will enable us to analyse the waste stream before it has chance to settle out in the stillage.

Also, the stillages are quite small and are removed from site every couple of days so this prevents a build-up of black mass within the waste streams. There are in-house test methods to analyse the recovered material streams for black mass contamination, the in-house test method references are:

1. Determination of Metals by ICP OES - LIT test method
2. EK WI LAB 017 - XRF Procedure and Maintenance (Initial Revision)

6.31 Table 6.6 below details the storage arrangements for all wastes and recovered materials on site

| Table:6:6: All Wastes & Recovered Material Storage arrangements | | | |
|--|--------------------------------|---|--|
| Location | Maximum Quantity Stored | Maximum Quantity Stored (tonnes) | Waste Type |
| Reception | 25t (25m ³) | 25 | Batteries (mixed) |
| Unit 1 | 200t (200m ³) | 200 | Black Mass from Battery treatment plant |
| Unit 3 | 30t (30m ³) | 30 | Batteries (mixed) Stored in sealed drums prior to sorting. |
| Unit 3 | 30t (30m ³) | 30 | Batteries (sorted) |
| Unit 3 | 5t (5m ³) | 5 | WEEE, water filters, printer ink cartridges, general litter, light bulbs |
| Unit 4 | 200t (200m ³) | 200 | Batteries (lead Acid) |
| Unit 5 | 50t (50m ³) | 50 | Batteries (Nickel Metal hydride) |
| Unit 5 | 1t (6m ³) | 1 | Loose Cardboard (rarely stored on site) |
| Unit 5 | 50t (50m ³) | 50 | Small mixed weee for processing |
| Unit 6 | 400t (400m ³) | 400 | Batteries (mixed) |
| Bunker 1 behind Unit 6 | 65t (65m ³) | 65 | Batteries – Lithium Ion (inc. Lithium Ion Polymer) |
| Bunker 2 behind Unit 6 | 65t (65m ³) | 65 | Batteries – Lithium Ion (inc. Lithium Ion Polymer) |
| Bunker 3 behind Unit 6 | 65t (65m ³) | 65 | Batteries – Lithium Primary (inc. button cells) |
| Bunker A | 150t (150m ³) | 150 | Metal fragments from Battery treatment plant |
| Bunker B | 300t (300m ³) | 300 | Batteries – Alkaline |
| Bunker C | 120t (120m ³) | 120 | Batteries – Alkaline |
| Bunker D | 100t (100m ³) | 100 | Batteries – Alkaline |
| Bunker E | 80t (80m ³) | 80 | Batteries (mixed) |
| Bunker F | 80t (80m ³) | 80 | Batteries – Alkaline |

| | | | |
|--------------|---------------------------|-----|---------------------------------------|
| Bunker G | 80t (80m ³) | 80 | Batteries – Alkaline |
| Bunker H | 80t (80m ³) | 80 | Batteries – Alkaline |
| Bunker I | 120t (120m ³) | 120 | Batteries - NiCad |
| Bunker J | 5t (100m ³) | 5 | Empty plastic drums / boxes for reuse |
| Bunker K | 200t (200m ³) | 200 | Batteries – Alkaline |
| Pallet Store | 3t (20m ³) | 3 | Pallets |

Appendix 2

FAAST System Details

DATE: March 2020

Halifax Fire Detection System Information



The battery treatment facility has a FAAST aspiration fire detection system installed, installed by Rosse Systems. Rosse Systems hold the following accreditations:



Aspirating Fire & Smoke Detection Systems

Aspirating smoke detectors operate by drawing air in through a network of pipes with holes strategically placed within them to allow air to be drawn through the pipe network. The pipes are connected to an aspirating device which houses a smoke detector that samples the air drawn through the pipe network for smoke particles.

The specification for the aspirating Fire Detection system that is employed at the site is detailed below:

Special Equipment

Aspirating Systems

FAAST LT Stand alone version



- Configurable sensitivity - 9 levels from 0.06% to 6% obs/m
- Multiple event logging up to 2240 events
- Programmable alarm thresholds
- Ultrasonic airflow sensing
- A single device covers up to 2000m² (2 channel detector with 2x80m pipes with 9 holes per pipe per channel in Class C)
- Particulate graph displays subtle environmental changes for early problem indication
- PipelQ™LT software provides intuitive system layout and configuration all in one package
- User friendly air flow pendulum graph for verification of pipe network functionality
- Protected electronics from air flow and accidental damage during installation or maintenance
- Easily replaceable and reusable filter without affecting the rest of the device
- Designed for efficient wiring and installation: cable gland holes, easy access to the wiring area and no special tools required.
- Easy access to parts requiring routine maintenance: filter(s) or sensor(s).
- Single & Dual channel versions with independent channels including fan, sensor and flow monitoring
- IP65 enclosure

The FAAST LT Aspirating Smoke Detector is designed with the installer and end user in mind. It serves the wide variety of Class C applications where maintenance is difficult, other smoke detection methods are inappropriate or prone to fail due to harsh environments or areas where aesthetics matters. It is also suitable for smaller mission critical applications where very early warning - Class A or B detection is required.

FAAST LT combines proven aspiration detection technologies to deliver reliable smoke detection and efficient installation and maintenance. The device includes high sensitivity laser fire detection, ultrasonic flow sensors, and internal design features to protect vulnerable components from environmental and human threats. The device is fast to install and easy to commission thanks to PIPE IQ LT pipe design and configuration software which is included as standard.

FAAST LT stand alone devices are available as single channel and dual channel devices, offering flexibility for different detection strategies. A range of customisable settings are geared towards maximizing device performance and meeting different application needs.

The detector provides alarm, pre-alarm and fault relays with auxiliary events relay as an option. These can be set as latched or non-latched. To accommodate local installation standards or environments, flow and general fault delays can also be set. Day/Night/Weekend mode enables technicians to pre-set alarm thresholds based on routine changes in the environment's usage.

Specifications

| | |
|--------------------------------|--------------------------------|
| • Dimensions (H x W x D): | 403 mm x 356 mm x 135 mm |
| • Weight: | 6.5kg |
| • External supply voltage: | 18.5-31.5VDC |
| • Remote reset time: | 1 sec. |
| • Power reset: | 0.5 sec. |
| • Avg. operating current: | 200mA @ 24VDC (excl. sounders) |
| • Max. avg. operating current: | 500mA @ 24VDC (excl. sounders) |
| • Operating temperature: | -10°C to 55°C |
| • Relative humidity: | 10 to 93% (non-condensing) |
| • IP rating: | IP65 |
| • Sensitivity range: | 0.06% - 6% obs/m |
| • Coverage area: | up to 2000m ² |

The specification for the fire alarm system that is connected to the Aspirating system is detailed below:

Intelligent Systems

Intelligent Fixed Dual Loop Panels

Pearl Intelligent Panels



The Pearl fire alarm control panel from Notifier by Honeywell is a robust and easy to use networkable 1 or 2 loop panel. It exploits Notifier's class leading Opal digital protocol to maximise the speed and efficiency of fire detection and alarm.

The large display with its intuitive interface and menu driven features allows quick and easy operation of the system. Coupled with more power and devices on the loop than other panels in its class, the simple design will allow for trouble-free first fix installation.

The Pearl panel is supported by an integrated tools suite to enhance and simplify the system management.

BOSEC & VDS system approvals in process.
EN54 & CPD approved.

- 1 or 2 loop models available
- Supports up to 636 loop devices (159 detectors + 159 modules (AV, MCP, input/output interface modules) per loop
- Longer loops give the opportunity to save on installation time, cost and wiring
- Powerful networking capability, up to 16 panels, controlling over 10,000 devices, can be networked prioritising a fire signal to communicate across a network in under 3 seconds
- Intuitive on-site management, backlit buttons for fast, error free situation management, and large display giving complete information at a glance
- Fast system set up and commissioning via the panel, loop "Autolearn" and advanced PC tools suite
- 2 programmable outputs - monitored
- 2 programmable inputs
- Advanced Cause and Effect
- Cable entry through punched holes
- Custom logo on quiscent screen Day/ Night mode configurable for site specific requirements
- Blacklit buttons and on screen help for user guidance
- Approved for control of 512 fire devices to EN54-2
- Unique first fix bracket with adaptations for 19" rack or flush mounting

Specifications

- | | |
|-----------------------------|---|
| • Power supply: | 3 A |
| • Battery space: | Min. 2 x 12Ah; max. 2 x 38Ah/12V (when using PRL-BOX) |
| • Aux DC output: | 500mA max. |
| • Dimensions (WxHxD): | 435 mm x 355 mm x 145 mm |
| • Weight: | 6kg without batteries; 12kg with 12Ah batteries (standard battery size) |
| • Construction: | ABS UL94-H40 plastic front cover and main enclosure |
| • Mounting holes: | 4 (on first fix bracket) |
| • Cable entry holes (20mm): | 20 (op), 2 (bottom) |
| • External connections: | Plug-in screw terminals 0.5mm ² to 2.5mm ² (14-22AWG) |
| • Max. loop current: | 750mA per loop |
| • Max. loop length: | 3500m (screened cable; usable length may be less depending on loop loading) |
| • Max. number of detectors: | 159/loop |
| • Max. number of modules: | 159/loop |
| • Operating temperature: | 0°C to +40°C |
| • Relative humidity: | 5% to 95% (non-condensing) |
| • IP rating: | IP30 (EN60529) |

CPD number: 0832-CPD-1775

Appendix 3

INCIDENT AND EMERGENCY PROCEDURE WasteCare Ltd

DATE: May 2023

ISSUE NUMBER: 4

THIS IS TO FORM PART OF THE MANAGEMENT SYSTEMS OF THE SITE

All units 2, 3, 4, 5 & 6 are monitored by a fire detection system and CCTV both internal and external, the CCTV system covers the full site. The out of hours operator (4Site) monitor our sites when the sites are closed, if there is an event a signal is received by 4Site, this alerts 4Site and tells them to investigate further. Following an alert 4Site will switch between CCTV cameras on site and move the cameras around and zoom in and out to ascertain the exact location of alarm activation.

WasteCare's response procedure is that 4Site will call the WasteCare keyholders when they receive an alert, whether it's a false alert or not, unless smoke and / or fire can be clearly seen, in which case 4Site will call the Fire Service immediately.

WasteCare keyholders also have access to the same on site CCTV cameras and will work with 4Site to determine whether the alert is false, by accessing the CCTV cameras on their company mobile phone or company laptop. To make 100% sure, the closest WasteCare keyholder will attend site in person to investigate fully and communicate back to 4Site the confirmed status of the site. When there is a false alarm the fire alarm system may need resetting, this can be completed by the WasteCare keyholder. The WasteCare keyholder will not leave site until the system has fully reset and is in full working order.

The Halifax site also benefits from a rapid response keyholder service which is managed by 4Site, this means that they will send someone in a rapid response car whilst WasteCare key holders are on route. 4Site will have the rapid response personnel on site within 15 minutes. The 4Site personnel have access to all areas on site including buildings, they will allow access for emergency services. The 4Site personnel communicate back to the 4Site control room and update WasteCare keyholders when they arrive on site. The 4Site personal complete a full event report when they are dismissed from site by the most senior WasteCare employee.

The CCTV camera system will enable whoever is looking to see people, movement, heat, smoke and fire.

When an alert is received and a fire has been confirmed on site by 4Site, 4Site will call the Fire Service immediately, they will despatch their rapid response personnel and call all listed WasteCare keyholders for the site. 4Site will monitor the situation via remote monitoring through the incident and ensure all footage is recorded to aid in any WasteCare investigation at a later date.

All sites have a minimum of three keyholders listed at contacts for their local site, along with a member of the senior management team – this ensures that holidays and sickness is covered. Halifax also has a rapid response key holder on 24/7 call in addition to the WasteCare keyholders.

In response to an emergency the Site Manager, Site Supervisor / team leader and a lead operative will attend site, along with the Compliance Director and another member of the Senior Management team if required.

Response times from initial alert from 4Site:

Site Manager: 30 minutes

Site Supervisor: 20 Minutes

Lead Operatives x 2: 10 minutes

Compliance Director: 30 Minutes

Company Directors: 30 – 45 Minutes

All attendees can access the site, assist emergency services, give advice and work with emergency services as required. WasteCare Site Manager, Lead Operative, Site Supervisor in attendance are able to operate plant and equipment including fork lift trucks and waste collection vehicles at the request of the Fire Service

Halifax site can be accessed by emergency services, without the need for a keyholder, gates and padlocks can be cut, roller shutter doors can be cut and emergency doors at the rear of the site can be broken open with the correct cutting tools. This form of access can be agreed quickly by the WasteCare staff attending site and / or the 4Site rapid response personnel.

Quick Guide Emergency protocol:

1. Alert received by CCTV system in 4Site control Room
2. 4Site investigates by viewing live CCTV cameras on site
3. 4Site despatch their own rapid response keyholder (15 minutes from site)
4. 4Site contact WasteCare keyholders and key contacts
5. 4Site monitor situation via live CCTV images
6. If a fire and or intruder is confirmed 4Site call emergency services
7. 4Site update Rapid response keyholder and WasteCare staff
8. 4Site monitor CCTV ongoing until end of event

INCIDENT AND EMERGENCY PROCEDURE

IMPORTANT

This section is divided into 8 parts. Turn to Part 3 in the event of an accident. All employees should read Parts 1, 2 and 3 and familiarise themselves with emergency procedures in the areas within which they work.

| | |
|---------------|--|
| Part 1 | Definitions |
| Part 2 | Resources |
| Part 3 | Action During Incident |
| Part 4 | Assembly Points and Site Plan |
| Part 5 | Telephone Numbers |
| Part 6 | Incident and Emergency Procedures for Contractors |
| Part 7 | Incident and Emergency Procedures for Drivers |
| Part 8 | Waste and Fire Water disposal |

1 PART 1 DEFINITIONS

- 1.1 The INCIDENT most likely to arise at the Halifax site are:
- Release of substances – liquids – chemicals .
 - Fire.
 - Collisions from vehicles.
 - Incidents outside the site affecting the site.
- 1.2 An **INCIDENT** is a situation which involves one or more of the following:
- Fire or threat of fire of any size or damage to a part of the plant or site or injury to people.
 - Release of material which could make a section of the site unworkable or which may affect people's health immediately or later.
 - The mobilisation of incident teams, first aiders, fire or the emergency service.
- 1.3 An **EMERGENCY** is a situation which involves one or more of the following:
- The possibility of multiple casualties which may require hospital treatment.
 - Damage or loss on more than one part of the site.
 - Release of material likely to render untenable a significant proportion of the site.
 - Release of material likely to cause significant effects on the local environment and areas surrounding the site.
- 1.4 A **DISASTER** is a situation where the emergency resources of the Company are deemed to be inadequate and outside assistance is required.
- 1.5 The INCIDENT ZONE is that part of the site likely to be affected by events and will be defined by the Incident and Emergency Controller after consideration of:
- Nature of the work/process involved.
 - Nature of the incident.
 - The proximity and character of other plant buildings.
 - Physical factors, especially wind force and direction.
- 1.6 The INCIDENT PROCEDURE can be summarised as follows:
- Attendance to the incident by personnel in the working areas.
 - Attendance by the Incident Controller.
 - Action limited to minor firefighting or to control of emissions or spillages at source.
 - First aid treatment.
 - Preparation of an incident report and review of procedures and working practices in the light of the incident.

- 1.7 The EMERGENCY PROCEDURE can be summarised as follows:
- a. Attendance to the incident by personnel in the working area.
 - b. Escalation of the incident to an emergency because of fire or by decision of the Incident Controller.
 - c. Establishment of the emergency control centre and callout of the emergency services.
 - d. Works or office evacuation or the whole site and call out public services.
 - e. Preparation of reports. Enquiries into caused and methods of future prevention. Revision of procedures.

2 PART 2 RESOURCES

- 2.1 The EMERGENCY CONTROL CENTRE is established in the office block. This has the telephone points for call out of emergency services if required and will have an emergency kit, this will comprise of:
- a. Copies of EMERGENCY PROCEDURE for site.
 - b. Site Plan, showing storage area of absorbent for spillage retention and fire extinguisher points.
 - c. Current list of all employees for this site.
- 2.2 If the office block is not safe for use, the assembly point will be used as a control centre and emergency services will be contacted by the use of mobile telephones.
- 2.3 The INCIDENT TEAM shall be as follows:
- a. The Facility Manager / nominated person
 - b. Chemical Advisor.
 - c. First Aider(s).
 - d. Area Supervisor.

Emergency Equipment

- a. EXTINGUISHERS & FIXED FIRE FIGHTING EQUIPMENT – Suitable types are distributed throughout the site and employees should familiarise themselves with their position and use.
- b. FIRE HYDRANT – Four hydrant points are located within 1 metre of the site.

3 PART 3 ACTION DURING AN INCIDENT

Raising the Alarm

- 3.1 During Working Hours – On Release of a Substance
- a. Report the details to the Site Supervisor or Facility Manager.
 - b. Take ALL possible action to stop any further spillage or emission, and to contain the release without taking any personal risk.
 - c. The Site Supervisor or Facility Manager will decide whether or not to activate the emergency procedures.
- 3.2 On Discovery of a Fire
- a. RAISE THE ALARM and seek immediate assistance. If possible attack fire with extinguishers without taking any personal risk.
 - b. If the fire is not controllable with extinguishers inform the Site Supervisor or Facility Manager who will assess if external emergency services are required.
 - c. The Facility Manager, Site Supervisor, or when they are not available the individual discovering the fire will call the emergency services.
 - d. If possible SWITCH OFF ELECTRICAL POWER to any equipment in that area.
 - e. Ensure that the discharge point on site is closed, to prevent any contaminated water leaving site.
 - f. If external emergency services have been called follow the EVACUATION PROCEDURE (Section 3.2).
- 3.3 Outside Normal Working Hours
- a. In the event of a fire contact Emergency Services.
 - b. In the event of a release of a substance phone Key Personnel i.e. Facility Manager or Site Supervisor.

Emergency Evacuation

- 3.4 On instruction of Site Supervisor / Facility Manager evacuation will proceed as follows:
- a. Except for people engaged with the Incident or Emergency, all personnel will evacuate their work area and proceed in an orderly manner to the designated Assembly Points.
 - b. No attempt must be made to collect personnel belongings or remove cars from the site unless directed to do so by the Facility Manager/nominated person, Fire Officer or Police.
 - c. Drivers of commercial vehicles on the site roads must leave their keys in the ignition in case the vehicle requires moving after evacuation.
 - d. Supervisors will hold a roll call and any discrepancies reported to the Facility Manager/nominated person or Emergency Services.
 - e. Employees will not leave their Assembly Points unless told to do so by Facility Manager/nominated person or Emergency Services.
 - f. The work areas will be re-occupied on the instructions of the Facility Manager/nominated person or Emergency Services.

Responsibilities Of The Facility Manager/Nominated Person

- a. When notified of the Incident/Emergency and its location, proceed immediately to the scene.
- b. Assess the scale of the Incident, define the Incident Zone and decide if an emergency exists or is likely. On his decision he will activate the Emergency Procedures.
- c. Direct all operations within the Incident Zone with the following priorities.
- d. Secure the safety of the personnel.
- e. Minimise the damage to plant, property and the environment
- f. Minimise the loss of material.
- g. Direct all operations within the Incident Zone.
- h. Direct Rescue and Incident Control Operations until the arrival of the Emergency Service.
- i. Ensure the Incident Zone is searched for casualties.
- j. Ensure non-essential workers are evacuated from the Incident Area.
- k. Establish communications by mobile phone with the Emergency Control Centre.
- l. Pending the arrival of the Emergency Services, direct the shutting down and evacuation of the plant and areas threatened by the Emergency

Responsibilities of First Aiders

- 3.5 The First Aider(s) will proceed to treat and/or assess any injuries and arrange through Supervisor/Facility Manager if hospital treatment is necessary. He will also be responsible for recording names and nature of the injuries of any casualties.

Responsibilities of The Chemical Advisor

- 3.6 The Chemical Advisor will work with the Emergency Services to:
- a. Identify chemicals in the incident zone
 - b. Identify potential hazards.
 - c. Advise on safe practice in the incident zone.
 - d. Make recommendations on neutralising any hazardous substance.

Public Services

- a. FIRE BRIGADE – The Senior Fire Officer present has total authority. His main aim will be to contain the emergency as rapidly as possible so as to protect life. In practice, the Fire Brigade will certainly make full use of any advice and assistance available on site and will certainly make full use of any advice and assistance available on site and will share our interest in reducing the overall consequences of the emergency. The Fire Brigade will be called to any incident involving FIRE or an EMISSION where the source cannot be isolated to prevent escalation of the incident.
- b. POLICE – The Police have over-riding authority where the public is threatened or where life is lost or where investigation may be necessary. Personnel will be requested to give whatever assistance they can. In other matters (e.g. site security,) the site administrations will liaise with the Police.

- c. ENVIRONMENTAL CONTROL – The Facility Manager/Duty Technician will involve the Environment Agency, Health & Safety Executive and Local Environmental Health Officers as appropriate. The Environmental Agency & Environmental Health must be informed whenever an emission occurs affecting the general public.

Local Residents, Members Of The Public And The Media

- 3.7 The Facility Manager or Nominated Person will ensure that all local residents have been notified of the nature of the incident and the potential that they may be affected by smoke in the event of a fire on site.
- 3.8 The Facility Manager or Nominated Person will work with the Environment Agency & Environmental Health to ensure that the local residents have the correct information and instructions as to how to prevent harm to themselves and their property.
- 3.9 The Facility Manager or Nominated Person will give local residents the contact details for the Facility Manager and the Environment Agency & Environmental Health, so that they can raise their own concerns.
- 3.10 DO NOT allow them to access the site under any circumstances. Treat them with respect at all times and inform them that statements will be issued in due course. If it is a member of the public that has raised the alarm, take the name, address and contact telephone number and assure them that the Company will contact them as soon as possible. DO NOT SPECULATE AS TO THE CAUSE OF THE EMERGENCY.

Incident Reports

- 3.11 Apart from any reports required by outside bodies (e.g. HSE) a brief report of all incidents has to be submitted to the Health and Safety Manager as soon as reasonably possibly after the event.

PART 4 ASSEMBLY POINT

- 4.1 This has been designated as outside of the main gates, away from any traffic, the area is clearly marked. The Site Supervisor must be responsible for checking all the employees assembled at this point.

5 PART 5 TELEPHONE NUMBERS

| Function | Name | Home/Night Tel No |
|---|-----------------------|-------------------|
| Facility Manager | Mr Graeme Penny | 07890 794946 |
| Site Supervisor | Mr Chris Horler | 07917 738130 |
| Managing Director | Mr Peter Hunt | 07796 612543 |
| Director of QHSE & Compliance Services and DGSA | Mrs Helen Kellett | 07795 400071 |
| Group Chemical Advisor | Miss Caroline Shelton | 07747 807229 |
| Head of Engineering | Mr Glenn Walton | 07425 621315 |
| Environment Agency | National Number | 0800 80 70 60 |
| Yorkshire Water | | 0345 1 24 24 24 |
| Health and Safety Executive | | 0345 300 9923 |
| Fire Station | | 999 |
| Out of hours security / CCTV | 4 Site Security Ltd | 0113 200 2060 |

Out of Hours Contact Details

- 5.1 Telephone any of the above numbers for information regarding the site.
- 5.2 The site has 24/7 CCTV and alarm system monitoring, the contact details are: 4 Site Security Services Ltd.
- 5.3 4 Site Security Services Ltd
Bank House
Parkfield Street
Leeds
LS11 5PH
www.4sitesecurity.co.uk
Telephone: 0113 200 2060
- 5.4 4 Site Security Services Ltd holds an up to date list of key holders for the site, along with contact names and numbers. 4 Site Security can also remotely access the site; this would allow emergency services onto site without the need for a key, key holder or security access fob.

6 PART 6 INCIDENT AND EMERGENCY PROCEDURES FOR CONTRACTORS

- a. On arrival at site, contractors must report to the Facility Manager. Contractors working in offices must ensure that the administration staff or other responsible person is aware of their presence.
- b. Contractors must receive a copy of these procedures on arrival on site.
- c. Whilst it is the contractors' responsibility to ensure their work methods are safe, the Company has the power and legal obligation to ensure that ANYONE working on the Company's premises does so in compliance with the law and safe practices. You must therefore observe any reasonable instructions given by a company employee with regard to safety.
- d. No hot work or confined space work may commence without a signed Work Permit which is obtained from the Facility Manager.
- e. Contractors and their employees must familiarise themselves with the location of the nearest firefighting equipment to their work.
- d. The following section lay down the procedure in case of an emergency.

On Discovery of a Fire During Working Hours

- a. RAISE THE ALARM and seek immediate assistance and if possible attack the fire with the firefighting equipment without taking any personal risks.
- b. If the fire is controllable, inform a Supervisor or the Facility Manager.
- c. If possible, switch off electrical power to anything affected or threatened by the fire.
- d. If the alarm has been sounded, follow the evacuation procedure.

On Release of a Substance During Working Hours

- a. Report the details to nearest company employee.
- b. Take all possible action to prevent further spillage or emission and contain the release without taking any personal risk.

- 6.1 The Facility Manager/nominated person will decide whether or not to activate the alarm and evacuation will procedure.

7 PART 7 INCIDENT AND EMERGENCY PROCEDURES FOR DRIVERS

- a. The site is open for deliveries between 0600hrs and 1800hrs. Deliveries after normal hours must be notified beforehand to ensure offloading personnel are available.
- b. Drivers must receive a copy of this procedure.
- c. Whilst it is the drivers' responsibility to ensure their work methods are safe, the company has the power and legal obligation to ensure that ANYONE working on the Company's premises does so in compliance with the law and safe practices. You must therefore observe any reasonable instructions given by Company employee with regard to safety.
- d. On arrival on site, all vehicles must report to the Site Supervisor to receive instructions. They will need to be directed to the loading/unloading points where they must report to the Facility Manager/Site Supervisor.
- e. Drivers must familiarise themselves with the location of the nearest Fire Fighting equipment to their work.

7.1 The following sections lay down the procedure in case of an Emergency:

On Discovery of a Fire During Working Hours

- a. RAISE THE ALARM and seek immediate assistance. If possible attack the fire with the site's firefighting equipment without taking any personal risks.
- b. If the fire is controllable, inform a Site Supervisor or the Facility Manager.
- c. If possible, switch off electrical power to anything affected or threatened by the fire d. If the alarm has been sounded, follow the evacuation procedure.

On Release of a Substance During Working Hours

- a. Report the details to nearest company employee.
- b. Take all responsible action to prevent further spillage or emission and contain the release without taking any personal risk.
- c. The Facility Manager/nominated person will decide whether or not to activate the Emergency Procedure.
- d. If the incident justifies Emergency Evacuation, the Facility Manager/nominated person will activate the alarm and evacuation will proceed.
- e. If evacuation is necessary, then keys must be left in the ignition of all vehicles

8 PART 8 WASTE AND FIRE WATER DISPOSAL PROCEDURE

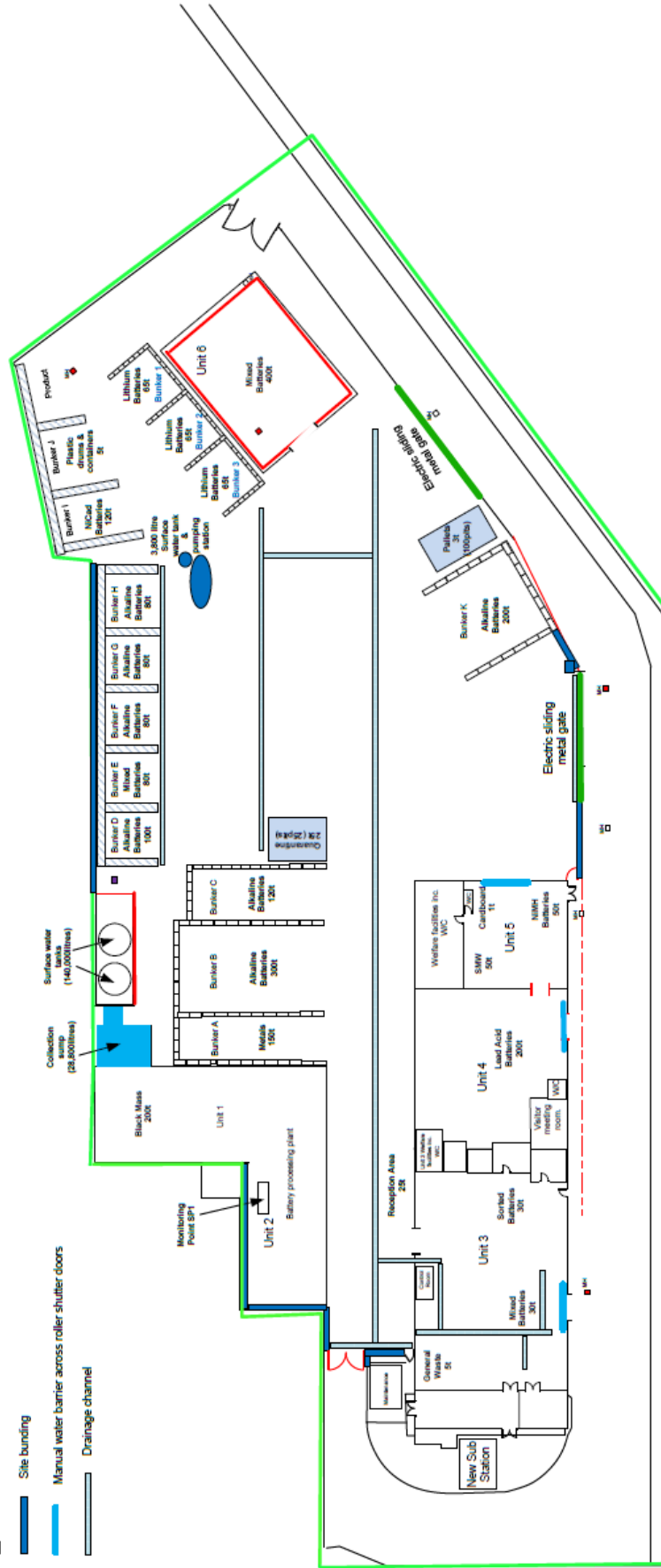
- 8.1 After an incident, there is likely to be an amount of waste on site will have been affected by the incident. Following a fire on site, the water contained on site will need to be sent for treatment using a third party.
- 8.2 In the event of emergency, the fire water is required to be removed off site immediately to avoid it entering the main sewage system.
- 8.3 A local tanker company must be sourced along with a treatment facility to keep the volume of water on site at a minimum. The company chemical advisor, the Environmental Compliance Manager and the Environment Agency will agree that the treatment facility is suitable and permitted to treat the volume of fire water and any contaminants.
- a. The company chemical advisor will sample wastes on site and all contained fire water
 - b. The company chemical advisor will arrange for samples to be analysed by either the laboratory based at the company's Leeds based facility or if more convenient a laboratory offering a nationwide service. The company's preferred external laboratory is Alcontrol.
 - c. The company Chemical Advisor, Technical Manager and Environmental Compliance Manager will decide where the wastes will go for final disposal or further treatment after analysing the laboratory results and sending pre- acceptance samples to the potential outlets.
 - d. Despatch all wastes and fire waters using the correct consignment note and copies retained by the company.
 - e. The company Chemical Advisor will keep in touch with the fire water treatment facility and the waste disposal/treatment outlets to ensure that there are no issues.

Appendix 4

Units 1-6 North Dean Business Park
 Stainland Road
 Halifax
 HX4 8LR
 Drawn By : Helen Kellett
 Date : 28th June 2023
 Document ID : HXSP1
 Rev: 17
 Scale / Print Size 1 : 500 at A3



- Environmental permit boundary
- MH – sealed man hole
- MH – man hole
- Site bunding
- Manual water barrier across roller shutter doors
- Drainage channel



Appendix 5

Units 1-6 North Dean Business Park
 Stainland Road
 Halifax
 HX4 8LR
 Drawn By : Helen Kellelt
 Date : 28th June 2023
 Document ID : HXSP1 - FPP
 Rev: 17
 Scale / Print Size 1 : 500 at A3



Site layout for Halifax Battery Treatment Facility

- Environmental permit boundary
- MH – sealed man hole
- MH – man hole
- Site bunding
- Manual water barrier across roller shutter doors
- Direction of water flow
- Emergency Vehicle Access
- Drainage channel

