FIRE PREVENTION PLAN

High Carr Recycling Centre, No 2, Talke Road, Chesterton, Newcastle Under Lyme, Staffordshire, ST5 7AL

Cherry Hill Waste Limited

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THIS DOCUMENT IS DUE FOR REVIEW IN <u>OCTOBER 2024</u> OR AS A RESULT OF ANY INCIDENTS WHICH MAY LEAD TO THE REQUIREMENT FOR IMMEDIATE REVIEW, WHICHEVER IS THE SOONER

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Site Information & Key Contacts List

Site Address:	High Carr Recycling Centre, No 2, Talke Road, Chesterton, Newcastle Under Lyme, Staffordshire, ST5 7AL					
Site Operator:	Cherry Hill Waste Limited	National Grid Ref:	SJ 8376351356			

CONTACT	DESCRIPTION	OFFICE HOURS	OUT OF HOURS
Jenna Bailey	Director & TCM	01782 624209	
Liam Bailey	Site Manager	01782 624209	
Royal Stoke University Hospital	Main NHS Hospital	01782 715444	999
Newcastle Road, Stoke-on- Trent, Staffordshire ST4 6QG	Accident & Emergency (A&E) – 12-hour service	999	999
Heathcote Street Surgery 2 Heathcote Street, Chesterton, Newcastle- Under-Lyme, Staffordshire ST5 7EB	Local Doctor Surgery (GP)	01782 561057	999 or 112
Staffordshire Police	Local Police Non-	101 or 03003	999 or 112
Tunstall Police Station, Scotia	Emergency	333000	999 or 112
Road, Tunstall ST6 6BG	Police Emergency	999 or 112	
Staffordshire Fire & Rescue Service Sandyford Community Fire Station, Marlborough Way, Stoke-on-Trent ST6 5ED	Fire and Rescue Service (in Emergency Dial 999)	999	999 or 112
Environment Agency Hafren House, Welshpool Road, Lower Shelton, SY3 8BB	Local Environment Agency Office	03708 506506	0800 80 70 60
Staffordshire County Council Staffordshire Place, Stafford ST16 2LP	County Council General Enquiries	0300 111 8000	999
Oaktree Environmental Ltd Lime House, 2 Road Two, Winsford, Cheshire CW7 3QZ	Specialist Advisor (Waste and Planning Issues)	01606 558833	999

KEY RECEPTOR CONTACT LIST

CONTACT	DESCRIPTION	NUMBER
Voyage Care: Peacock Hay – 888 Peacock Hay, Stoke-on-Trent, ST7 1UN	Nursing Agency	0800 328 6091
Travelodge Stoke Talke – Newcastle Road, Talke, Stoke-on-Trent, ST7 1UP	Hotel	0871 984 6106
Red Street Community Centre – 62 Talke Road, Red Street, Newcastle, ST5 7AH	Village Hall	07757 747691
N T N & E M Baskeyfield - 51 Liverpool Road, Red Street, Newcastle, ST5 7AF	Butchers	07714 208525
St Chad's C E Primary School - Gateway, Newcastle, ST5 7AB	Primary School	01782 567750
Premier Inn – Talke Road, Chesterton, Newcastle-under-Lyme, Newcastle, ST5 7EH	Hotel	0333 321 1349
Makro Stoke – Speedwell Road, Newcastle, ST5 7QJ	Wholesaler	01782 569260
James T Blakeman Services Ltd – High Carr Business Park, 1 Millennium Way, Newcastle, ST5 7UF	Food Manufacturer	01782 569610
Cubic Systems – High Carr Business Park, Millennium Way, Newcastle, ST5 7UG	Manufacturer	028 3831 3100
Bathpool Southern Car Park – Stoke-on-Trent ST6 4QH	Car Park	01782 234234

N.B. – list will be reviewed every 6 months or sooner if required

1 Introduction

1.1 Overview of site operations

1.1.1 This document considers the risks associated with a fire at High Carr Recycling Centre, No 2, Talke Road, Chesterton, Newcastle Under Lyme, Staffordshire, ST5 7AL. The site is operated by Cherry Hill Waste Limited and the permit allows the acceptance, storage and treatment of Household, commercial & industrial (HCI) waste.

1.2 Fire prevention objectives

- 1.2.1 This FPP has been designed to meet the following objectives:
 - To minimise the likelihood of a fire happening;
 - To aim for a fire to be extinguished within 4 hours;
 - To minimise the spread of a fire within the site and to surrounding neighbouring sites;
 and,
 - To minimise impact of fire on people, environment and businesses.
- 1.2.2 This FPP document will be kept in the site office to ensure all operational site staff and contractors are aware and understand the contents of FPP and what they must do during a fire.

1.3 Reviewing and monitoring this FPP

- 1.3.1 This document will be due for review two years from the date of approval, as a result of any incidents which may lead to the requirement for immediate review, or the FPP guidance changing, whichever is the sooner. The circumstances which would warrant a review are the following:
 - Experiencing a fire incident.
 - Additional combustible waste streams accepted on site.
 - Increase in waste storage volumes
 - Development of site infrastructure new buildings

• Installation of new equipment or plant – baler/loading shovel/sort-line/ etc.

1.4 **Summary of site operations**

- 1.4.1 In summary the main operations which take place at the site are as follows:
 - Compacting (by loading shovel/360° excavator)
 - Sorting (with loading shovel/360° excavator or by hand)
 - Screening (by using appropriate mechanical screening plant and equipment)
 - Blending (by using appropriate mechanical plant and equipment)
 - Separation (by using appropriate mechanical screening plant and equipment)
 - Shredding (by using appropriate plant and equipment)
 - Baling (by using appropriate plant and equipment)
 - Magnetic separation of ferrous metals
 - Crushing (by Crusher)
- 1.4.2 The above activities are clearly shown on the Site Layout & Fire Plan which is referenced as Drawing No. HCRC/2628/03 and shown in Appendix I of this FPP.

1.5 **Hours of operation**

1.5.1 The site is permitted to be open during the following hours for the receipt, treatment and removal of waste; including depositing, sorting, moving, storing and removing waste:

Monday to Friday 07:00 - 19:00 Saturday 07:00 - 16:00

Sundays, Bank/Public holidays No operations

1.5.2 The only activities on site which will be permitted outside of these hours are maintenance works, general administrative duties and emergency processing due to unavoidable events such as staff shortages, plant breakdowns or poor weather conditions.

1.5.3 During times where the site is closed or not in operation, the site will be locked and secured to prevent unauthorised vehicular or pedestrian access.

1.6 **Staffing and Management**

1.6.1 The site will open for the deposit of waste or for other essential operations during the hours listed in Section 1.4. The table below details the staff structure of the site when operating at full capacity. Positions in bold italic print below are the minimum staff requirements when the site is open for the reception of waste:

Table 1.1 - Staffing Levels

Position	Employees	Responsibilities
Managing director	2	Overall management of the business
Site manager	1 (1)	Overseeing and co-ordinating all activities which take place at the site
TCM	1 (1)	Ensuring that the site is being operated in accordance with Health & Safety Legislation
Health & Safety / First Aider	3 (1)	Managing H&S on site
Fire Marshall	1	Carrying fire watches site
Machine / Plant Operator's /	3 (1)	Waste handling/processing, reception and plant operation
General operatives	5 (2)	To conduct site patrols when the site is not manned / operational
Administration staff	2 (1)	Office/administrative duties
Mechanic	1	Plant & equipment repairs / maintenance

1.7 Plant and Equipment

1.7.1 Waste will be handled using the plant listed in Table 1.2 below. Additional plant will be hired to cover any very busy periods. Only trained operators will be permitted to drive/operate the plant listed below. Any changes to the list will be notified to the EA prior to implementation. The minimum requirements when the site is operational are shown in bold italic print.

Table 1.2 - Plant & Equipment

ITEM	NUMBER	FUNCTION
Loading shovel	1 (1)	Loading/unloading/movement/sorting
360 ^o excavators	3 (1)	Loading/unloading/movement/sorting
Telehandler	1 (1)	Loading/unloading/movement/sorting
Double deck screen	1	Separation of <25mm fines, <5mm fines from mixed waste
Blowers	2	Removal of light waste from mixed waste
Tractor with water bowser	1	Dust suppression
Overband magnets	2	Removal of metals from mixed wastes
4-bay picking cabin/station	1	Sorting of recyclables wastes i.e wood, plastic etc. from mixed waste
Weighbridge	2	Accurately weighing of loads
Wheelwash	1	Removal of mud/debris from vehicles
Shredder (not currently on site)	1	Shredding/size reduction of waste
Crusher	1	Crushing of hardcore, stone

1.7.2 Note: The plant/equipment on site may vary and additional equipment may be hired-in to cope with larger jobs, jobs with specific requirements or to prevent over stockpiling leading to a breach of permitting conditions.

1.7.4 The additional table below details the plant available to aid in fire suppression or manoeuvring of waste to reduce the spread of fire.

Table 1.3 - Item of plant available for fire-fighting, number and function

Item	Number	Function
Loading shovel	3	Collection/deposit of skips
360° excavator	2	Collection/deposit of roll on roll off skips
Forklift truck	3	Loading/unloading/movement/sorting

1.7.5 Maintenance of all site plant is described in Section 2.5 of this FPP.

1.8 Correspondence with Fire and Rescue Service

- 1.8.1 Cherry Hill Waste Limited will seek a two-yearly response from the EA and FRS (or sooner should a fire incident occur) with regards to their FPP and associated operations on site. This regular correspondence will ensure all measures to prevent, mitigate and contain fires on site are up to date and deemed sufficient by the FRS.
- 1.8.2 The FRS were contacted during the preparation to obtain information relating to the nearest fire hydrants to the site. This information is shown on Drawing No. HCRC/2628/03 and in Section 10.3 of this document.

1.9 **Sensitive Receptors**

- 1.9.1 A Sensitive Receptors Plan has been provided in Appendix I to highlight all main receptors within 1,000m of the site which could be affected by a fire at the site. To minimise the impact on the local area and associated receptors from a fire on site, this document details mitigation measures which will decrease the likelihood of a fire occurring on site and limit the size and duration of a fire if it does occur (as per Section 1.2 above). These measures will ensure the potential impact on any of the surrounding land is as minimal as practicably possible.
- 1.9.2 Contact details for surrounding industrial, commercial, retail and leisure premises are shown in Section 8.3 including and procedures of how receptors with human population would be notified of a fire.
- 1.9.3 The table overleaf details a risk assessment of all the receptor types within 1km radius of site, and likely impacts on each e.g. smoke, road closures, impacts on businesses etc...

Table 1.4 – Receptor information and fire mitigation

Receptor	Receptor Type	Source	Harm	Pathway	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management
Numerous surrounding industrial and commercial uses	Industrial / commercial premises	Fire causing the release of polluting materials to air (smoke, fumes and particulate matter)	Respiratory irritation, illness and nuisance to local population. Financial loss of businesses due to closure of adjacent roads/evacuation of premises.	Air transport of smoke.	High	Medium	Medium	Procedures set out in this FPP. Toolbox talks and liaison meetings with receptors to review procedures in the event the site is subject of a fire.
Residential dwellings in the surrounding area	Residential	As above	Respiratory irritation, illness and nuisance to local population.	Air transport of smoke.	High	Medium	Medium	As above
Bradwell Woods, Bathpool Park Local Nature Reserves	Local Nature Reserves	Direct run off of fire water across site or to surface waters. Fire causing the release of polluting materials to air (smoke, fumes and particulate matter).	Loss of amenity, deterioration of water quality, killing of flora / fauna and other local wildlife	Air transport of smoke. Direct run off of fire water across site to surface waters.	Med	Medium	Low	As above. The site has a sealed drainage system.
Surrounding highway networks (A500 and A34)	Major road networks	As above	Closure of roads due to excessive smoke fumes. Increased risk of accidents due to poor visibility.	Air transport of smoke.	High	Medium	Medium	As above
Nearby leisure / retail	Leisure / retail	As above	Respiratory irritation, illness and nuisance to local population. Financial loss of businesses due to closure of adjacent roads/evacuation of premises.	Air transport of smoke.	Medium	Medium	Low	Procedures set out in this FPP. Toolbox talks and liaison meetings with receptors to review procedures in the event the site is subject of a fire.
Surface Waters	Surface Waters	Direct run off of fire water across site or to surface waters. Fire causing the release of polluting materials to air (smoke, fumes and particulate matter).	Loss of amenity, deterioration of water quality, killing of flora / fauna and other local wildlife	Air transport of smoke. Direct run off of fire water across site to surface waters.	Med	Medium	Low	Procedures set out in this FPP. The site has a sealed drainage system.
Habitats and species including Deciduous Woodlands and protected species	Protected sites and species	As above	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Air transport of smoke.	Med	Medium	Low	Procedures set out in this FPP

2 Managing Common Causes of Fire

2.1 **Details**

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

Table 2.1 - Common fire sources and mitigation

Source	Risk	Magnitude of Risk / Likelihood	Brief outline of Mitigation (refer to Section 4 for storage/monitoring procedures)	Magnitude of risk / likelihood following mitigation
Arson or vandalism	Deliberate ignition of wastes by intruder(s) and/or vandalism of site infrastructure, plant and/or machinery which may give rise to malfunction or compromise the integrity of waste storage/containment measures	Medium	 Suitable site security infrastructure. Vehicle checks on arrival to the site. Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer. Staff training / toolbox talks. 	Near-zero
Plant or equipment	Spillages of fuel, sparks from machinery or malfunction caused by ineffective maintenance	Medium	 Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer. Any liquid/fuel/oil storage is double bunded in a workshop 6m away from any combustible waste storage or other flammable material. Daily checks of site surfacing and spill kits. Staff training / toolbox talks. 	Near zero
Electrical appliances and cabling	Faulty appliances or damaged/ exposed electrical cables may spark as a result of a power surge	Medium	 Fixed wiring testing is carried out 5 years and portable appliances are PAT tested 12 months in accordance with Legislation. Daily checks for dust and fluff on wiring / electrical appliances. 	Low
Discarded smoking materials	Risk of ignition of stored wastes from smoking materials which have not been fully distinguished	Low	 Smoking in dedicated area of the site away from waste storage areas Smoking policy on site 	Near-zero
Sparks from loading buckets/shovels	Scraping of loading buckets/shovels causing sparks which may ignite stored wastes	Low	 Fire extinguishers are fitted in the cab of all loading plant. Staff training / toolbox talks. Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer. 	Low
Hot works	e.g. welding, soldering, cutting, etc. which involve the use of high temperature equipment which may be a source of both primary and residual heat to stored wastes	Medium	 Only trained staff can use 'hot works' equipment i.e. oxy-acetylene. Staff and contractors follow safe working practices including a permit to works system when carrying out hot works. Daily fire watch for a suitable period after hot works have ended, particularly at the end of a working day. 	Low
Industrial heating	Industrial heaters and/or pipework used to heat internal and external areas on site which may, in turn, supply heat to stored wastes increasing the risk of combustion	Low	There are no industrial heaters (or associated pipework) used heat areas of the site.	Low
Hot exhausts	Potential source of both primary and residual heat to stored wastes	High	 Fire extinguishers are fitted in the cab of all mobile plant. Staff training / toolbox talks for continuous monitoring throughout the day to detect signs of a fire caused by dust settling on hot exhausts and engine parts. Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer. Out-of-hours storage of plant & equipment away from combustible or flammable wastes. Daily checks for dust and fluff on plant/equipment before and use of equipment. 	Low

Source	Risk	Magnitude of Risk / Likelihood	Brief outline of Mitigation (refer to Section 4 for storage/monitoring procedures)	Magnitude of risk / likelihood following mitigation
Build-up of loose combustible waste, dust and fluff	Light waste and ambient particulates with high combustibility settling and building up in key areas in and around plant/machinery and around exhausts	High	 Fire extinguishers are fitted in the cab of all loading plant. Staff training / toolbox talks for continuous monitoring throughout the day to detect signs of a fire caused by dust settling on hot exhausts and engine parts. Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer. Minimum daily checks for dust and fluff on plant/equipment before and use of equipment at the start/end of each working day. 	Low
Hot loads	Imported wastes which may contain materials which are above ambient temperature	High	 All loads are inspected in accordance with strict waste acceptance procedures. Quarantine area and rejected waste containers on site for quick isolation of load. 	Low
Overhead power lines	Any overhead power lines on or around the site may ignite in the event of a fire and worsen the effects	Low	There are no overhead power lines which traverse the site.	Near-zero
Ignition sources	Activities or appliances which use a source of both primary and residual heat to treat waste or manufacturer material or plant/equipment	Medium	 Hot works procedures in place. Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer. Minimum daily checks for dust and fluff on plant/equipment before and use of equipment at the start/end of each working day. Out-of-hours storage of plant & equipment away from combustible or flammable wastes No idling policy in place 	Low
Other combustible non-waste materials on or near the site not mentioned above i.e. gas cylinders / LPG tanks	Any combustible non-waste materials on or near the site may ignite in the event of a fire and worsen the effects	High	 All loads are inspected in accordance with strict waste acceptance procedures. Quarantine area and rejected waste containers on site for quick isolation of load. Dedicated storage areas for cylinders and LPG tanks on site. 	Low
Reaction between wastes	Combustible waste piles may ignite in the event of a fire and worsen the effects if wastes react	High	 All loads are inspected in accordance with strict waste acceptance procedures. Quarantine area and rejected waste containers on site for quick isolation of load. 	Low
Leaks and spillages of oils and fuels	Fuels and combustible liquids leaking or trailing from site vehicles and ELVs can combust or cause accidents leading to combustion	High	 Spill kits available throughout the site. Suitable and sealed drainage system. Continuous (minimum twice daily) checks for spillages around the site. Staff training / toolbox talks. Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer. 	Low
"Tramp" metal	Metal could be hot from mechanical processing and interact with lighter waste causing a fire	High	 All loads are inspected in accordance with strict waste acceptance procedures. Quarantine area and rejected waste containers on site for quick isolation of load containing batteries. Minimum daily checks on mechanically processed scrap metal at the start/end of each working day. Staff training / toolbox talks for continuous monitoring throughout the day to detect signs of a fire caused by dust settling on hot exhausts and engine parts. No mechanical treatment of scrap metal expected to take place at the site 	Low

2.2 <u>Fuel & Hazardous Fluids Storage</u>

- 2.2.1 The location of the above areas are shown on Drawing No. HCRC/2628/03 and will comprise red and white diesel and AdBlue. The storage of these fluids will take place in a dedicated workshop area stored >6m from any waste material or other combustible/flammable material. The procedures for fuel storage on site are as follows:
 - Tanks are surrounded by a bund capable of containing a minimum of 110% of the volume of fuel stored in the tank.
 - All pipework and associated infrastructure will be enclosed within the bund.
 - A lock will be fitted to the tank valve to prevent unauthorised operation.
 - All valves and gauges on the bund will be constructed to prevent damage caused by frost.
 - No combustible waste will be stored within 6 metres of any fuel/fluid's storage without a fire wall in place.
- 2.2.2 The tanks are clearly marked showing the product within and their capacity. In addition to daily checks by staff for the tank's integrity, the tanks are also alarmed to ensure the operator notified in advance prior to the tanks being full.

2.3 Hot Works Procedure

2.3.1 Hot works and repairs will mainly take place in the workshop and the site's hot works procedure permit to work example is show in Appendix III.

2.4 **Smoking Policy**

- 2.4.1 A designated smoking area is available on site as shown on Drawing No. HCRC/2628/03. Any smoking on site including the use of e-cigarettes will be done in accordance with the operator's smoking policy which is available in the site office.
- 2.4.2 No smoking will take place within 6m of combustible or flammable material and all personnel on site who wish to smoke will be told to discard their cigarettes within a dedicated bin adjacent to the smoking shelter.

2.5 **Mobile and fixed plant maintenance**

- 2.5.1 All mobile and fixed plant on site including vehicles in the fleet are subject to annual manufacturer maintenance to ensure proper working order in the form of service contracts.
- 2.5.2 Site management will undertake or delegate additional preventative maintenance checks on a more frequent basis i.e. daily, before, during and 1 hour at the end of each working day using a checklist similar to that in Appendix II to ensure the following:
 - Machinery is mechanically sound for use and no presence of black fumes or trailing liquids visible prior to use or following shutoff of plant/equipment.
 - Mobile plant is stored in the out-of-hours plant storage area as shown on Drawing No HCRC/2628/03 following cessation of activities and external separation distances of 6m are observed between plant and any combustible or flammable material.
 - No plant will be stored in the building out-of-hours
 - Plant which is not in use for any extended period is stored at least 6 metres from combustible waste in the dedicated area on site.
 - All plant and equipment vehicles are fitted with fire extinguishers in the cab. Rubber strips are not considered appropriate as they are usually removed via uneven and bumpy ground.
 - Dust from processing/treatment operations on site can settle throughout the working
 day onto processing plant, plant exhausts and engine parts so a fire-watch will be
 implemented after cessation of works and equipment powered down for 1 hour each
 day to remove any dust/fluff using brushes, hoses etc... Any build of dust/fluff will be
 removed from the equipment and deposited into a container to await removal from site
 and site management informed.

2.6 **Site Security**

- 2.6.1 Due to the site's location within a larger industrial complex, there is no provision for security fencing, however, it is considered the site is secure by having the following in place around the site perimeters as shown on Drawing No. HCRC/2628/03:
 - a) Large / tall areas of vegetation
 - b) 3m 6m high earth bunding
- 2.6.2 It must also be noted the site has been operational since 1998 and has never had any incidents in terms of intrusions for unauthorised personnel.
- 2.6.3 **CCTV system** The site will have a 24-hour CCTV system which is remotely accessible by the three no. staff members of Cherry Hill Waste Limited. The CCTV is HIK-vision and installed with motion sensor lasers which are activated when the site is closed.
- 2.6.4 The site security will be inspected daily and any defects which impair the effectiveness of the security will be repaired to the same or better standard within a suitable timescale. All repairs will be noted on the site diary repaired as soon as practically possible. The checklist in Appendix II provides further information.

2.7 Electrical Faults or Damaged/Exposed Electrical Cables

- 2.7.1 All fixed wiring electrical cabling on site will be inspected daily by staff and serviced in accordance with Legislation (3/5 years) by fully qualified and certified electrical contractors to undertake both Planned Preventative Maintenance and Reactive Maintenance (under contract) of the following:
 - a) Fire detection & alarm system;
 - b) Emergency lighting;
 - c) Machinery checks / services (as per manufacturers' instructions).
- 2.7.2 In terms of portable appliance testing (PAT), this will be serviced annually by qualified and certified electrical contractors.

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

3 Waste acceptance procedures

3.1 **General**

- 3.1.1 Strict waste acceptance procedures are in place at the site and are summarised below. The waste is delivered to the site via an existing access to the east and upon arrival all waste will undergo a visual inspection on arrival at site prior to progressing through to the weighbridge. Once the vehicle has passed the initial inspection, the vehicle will be directed to the weighbridge where the waste transfer documentation will be fully checked to ensure the waste matches the pre-acceptance information received.
- 3.1.2 Any wastes identified during the incoming waste inspections which do not conform to site acceptance criteria will not be accepted and removed/quarantined immediately to await safe removal from site. The EA will be contacted (where necessary) if the non-conforming waste discovered is likely to lead to a breach of permit conditions or a potential risk of combustion.

3.2 Waste storage and treatment procedure

- 3.2.1 In summary the site will accept waste in mixed loads from HCI sourced and tip them in the main reception area inside the open-fronted transfer building (AREA 7) and the waste is then subject to the following:
 - i) All waste tipped is spread on the floor so any non-conforming material i.e. pressurised vessels, hot loads, batteries (if any discovered) can be picked out and immediately quarantined either in the quarantine area or a skip (location may vary).
 - ii) Once the waste has passed inspection, the bulkier items i.e. mattresses, sofa's etc.. will be removed by a grab and stored in **AREA 5** in an open fronted bay, any plasterboard identified in **AREA 7** will be handpicked and stored in this also.
 - iii) The non-recyclable refuse derive fuel (RDF) material will be removed by grab then bulked and stored in **AREA 6**, the remaining items comprising the mixed C&D material will be removed by grab and stored in **AREA 9** to await processing via the mechanical treatment

- plant. The waste in **AREA 9** will comprise mainly inert material and it is considered the risk of combustion would be very low.
- iv) The waste in **AREAS 5** & **6** will not be processed and removed from the site once capacity in the areas are reached.
- v) The mixed C&D material from **AREA 9** will then be loaded into the first process of the mechanical treatment plant comprising the hopper by a 360° excavator
- vi) The hopper then feeds a double deck screen by conveyor which will discharge the <25mm, <5mm fines and small light fragments onto a separate conveyor below, an overband magnet on this conveyor removes any fragments of metal within the load and discharges into an open topped skip below (AREA 10), this conveyor then discharges the fines/light material into the three storage bays below i.e. AREAS 11 13.
- vii)Larger items of the waste then travel through the screen onto the next conveyor, a further blower removes larger lights into the cage below (AREA 15), the remaining waste then passes into a 4-bay picking station where recyclables are hand-picked by staff and deposited in the bays below (AREAS 16 19).
- viii) After the picking line, a further overband magnet removes larger items of metal and deposits them into an open-topped container below (AREA 20).
- ix) Following the above, the waste remaining should be heavier items consisting of inert material which fall off the end of the plant and discharge in the bay below (AREA 21). waste.
- x) The above wastes which are recycled during the treatment process drop into the bays below which are monitored continuously by staff and then any bays which are full will be emptied and transferred to the external bays to the west of the site (AREAS 1 4) if they cannot be removed from the site quickly.
- 3.2.2 The site will not mix or mechanically process any hazardous waste on site.

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

4.1 **General**

- 4.1.1 The site will store the following waste types shown in Section 9.1 of the FPP guidance:
 - HIC Wastes comprising wood, paper/cardboard, plastic, plasterboard, and other mixed wastes
- 4.1.2 The site will comply with Section 9.1 of the EA's FPP guidance in terms of pile sizes guidance and reference should be made to Drawing No. HCRC/2628/03 which shows the indicative locations of the above wastes. The waste storage table in section 4.2 details the maximum pile sizes which the site will comply with when the relevant areas are not in operation. During operational hours the piles may appear larger due to the constant throughput and quick turnaround of wastes however the operator will minimise pile sizes and store waste materials in their largest form during all instances of out-of-hours as shown below

4.2 Waste storage table

4.2.1 The following table overleaf details the maximum pile sizes and duration for all wastes and other flammable/combustible material stored on site when the site is not operational. This ensures all piles are stored within Section 9.1 the FPP guidance and a minimum 0.5m freeboard is maintained outside of operational hours.

Table 4.1 – Storage Table Details

Plan Ref	Description	Storage type	Containment	Height / width of	Max Width (m)	Max Length (m)	Height (m)	Max area (m2)	Conversion factor used	Volume (m3)	Tonnage (approx.)	Maximum storage
AREA 1	Sorted recyclables i.e. wood, green, C&D, residual waste	Unprocessed	Free-standing (partly contained) inside concrete sleeper storage	3 / 0.2	15	11	2	165	0.5	165	100 - 200 (depending on	durations <14 days
	etc (contents in each bay may vary		bay								waste stored	
AREA 2	As above	Hand sorted or by treatment plant (picking line)	Free-standing inside three-sided concrete sleeper storage bay	3 / 0.2	12	10.5	2	126	0.75	189	As above	<14 days
AREA 3	As above	Hand sorted or using excavator	As above	3 / 0.2	12	10.5	2	126	0.75	189	As above	<14 days
AREA 4	As above	Hand sorted or using excavator	As above	3 / 0.2	12	10.5	2	126	0.5	126	As above	<14 days
AREA 5	Plasterboard bay	Hand sorted from AREA 7	Free standing inside a three- sided concrete interlocking block storage bay	3.2 / 0.8	4.8	4.8	2	23.04	0.75	35	17	<5 days
AREA 6	Mixed municipal waste	Partly hand sorted arising from tipping area below	Free-standing inside two-sided concrete panel wall	4 / 0.18	12	12	3	144	0.333	144	47	<72 hours
AREA 7	Waste reception (tipping), inspection and sorting area (clear out-of-hours)	Free-standing / unprocessed	N/A	N/A	10	10	1	100	0.333	33	11	<2 hours
AREA 8	Bulky waste skips	Hand sorted or by grab	Open topped, moveable 40 cubic yard roll on roll off skips / concrete panel wall	4 / 0.18	6.1	2.44	2.62	14.884	1	39	20 - 30	<5 days
AREA 9	Mixed C&D waste (80% inert)	Partly hand sorted arising from tipping area (AREA 7)	Free-standing against front of concrete panel wall	4 / 0.18	7	20	2	140	0.5	140	168	<72 hours
AREA 10	Metals	Sorted by overband magnet	Open topped, moveable 20 cubic yard roll on roll off skip	N/A	6.1	2.44	1.4	14.884	1	21	25	<5 days
AREA 11	<5mm screened (qualifying) fines	Sorted (by double deck shaker screen)	Free-standing inside a three-sided concrete panel wall	3.0 / 0.18	8.5	4.5	2	38.25	0.75	57	57	<5 days
AREA 12	<25mm screened fines for landfill	As above	As above	3.0 / 0.18	4	4	2	16	0.75	24	24	<5 days
AREA 13	Lights (mixed waste)	Sorted (by double deck screen & blower)	Free standing inside a three-sided concrete panel storage bay and cage at the front	3.0 / 0.18	4	4	2	16	0.75	24	8	<5 days
AREA 14	Wood	Hand sorted	Free-standing inside two-sided concrete sleeper storage bay	3 / 0.18	5.5	4	1.5	22	0.75	25	12	<72 hours
AREA 15	As above	As above	As above	3.0 / 0.18	4	3.5	2	14	0.75	21	7	<5 days
AREAS 16 - 19	Hand sorted recyclables i.e. wood, plastic, residual waste etc	Hand sorted from the picking line	Free standing inside a three-sided concrete panel storage bay	3.0 / 0.18	4	3.5	2	14	0.75	21	11	<5 days
AREA 20	Metals	Sorted by overband magnet	Open topped, moveable 40 cubic yard roll on roll off skip inside a three-sided concrete panel storage bay	3.0 / 0.18	6.1	2.44	2.62	14.884	1	39	47	<5 days
AREA 21	Stone/concrete/hardcore	End of mechanical treatment process	Free standing inside a three-sided concrete panel storage bay	3.0 / 0.18	4	3.5	2	14	0.75	21	25	<5 days
AREAS 22	Crushed stone/concrete/hardcore	Free-standing	No containment	N/A	8	8	2	64	0.333	43	51	<5 days
AREAS 23	Sorted soils/clay	Free-standing	No containment	N/A	15	15	4	225	0.333	300	360	<3-6

4.3 **Conversion factors**

4.3.1 The following conversion factors for calculating waste pile sizes are set out below.

Table 4.2 – Conversion Factors

_	•		
CONV	PLISTA	Factors	

Conversion factors for waste piles are worked out using the following methods set out by the Environment Agency

The maximum length width pile is based on the largest dimension – the volume of the pile has been calculated using the area x height x relevant conversion factor

Conversion of 1 for materials stored within containers, area of storage in stackable containers and waste/bale stacks

Conversion of 0.75 for waste stored within a bay comprising volume of rectangle + pyramid

Conversion of 0.3333 for waste stored in a free-standing stockpile

All containers can be moved and are accessible from one side so a fire can be extinguished

4.4 Waste storage residence times

- 4.4.1 The site will ensure more than one contract is set up with destination sites who can take their recycled waste to prevent a backlog building up on site.
- 4.4.2 Each pile is inspected throughout the day by operational staff and in the event of a fire has suitable techniques shown in various sections of this FPP to ensure any fire could be extinguished within the limitations set out in the FPP guidance.
- 4.4.3 The waste material will be stored in its largest form for as long as practicably possible before treating and moving it off site. Currently no shredding of waste takes place so all material will be stored in its largest form. This FPP will updated if the operator decides to shred waste.

4.5 **Free standing piles**

4.5.1 The table overleaf details the combustible waste piles stored on site and procedures to reduce the risk of the waste combusting. It must be noted **AREAS 11, 12, 21 – 23** are not included in the table as they are not combustible wastes.

Table 4.3 – Combustible waste storage table for waste stored free-standing piles or bays

Pile Ref:	Storage/monitoring procedures to reduce the risk of fire
AREAS 1 - 4 Sorted recyclables i.e. wood, green, C&D, residual waste etc. (contents in each bay may vary	 These are external storage bays which store wastes which will have been delivered to the site pre-separated or as a result from the wastes sorted in the treatment plant. The waste stored in these bays will have not undergone any form of mechanical treatment i.e. shredding which is likely to raise the temperature of the waste. The waste in these stockpiles will be tipped at right hand side of the stockpile and extracted from the left in an anti-clockwise formation ensuring the first in first out principle will applies. The stockpiles are therefore dynamic and, given the material throughput of the site, waste will not be stored in these piles for longer than two weeks, which is a worst-case scenario in the event of a breakdown or plant malfunctions. All waste is stored is within a concrete firewall bay. As the piles are largely free standing, the waste will be 2m at the top centre of the pile which will form a dome shape so there is a suitable free board of at least 1m between the top of the pile and where the waste hits the wall at a 45-degree angle. All bays are 3m in height. The piles are visually monitored throughout the day by site operatives and trained personnel who will be trained via toolbox talks in recognition of fire. Apart from the use of loading equipment no other mechanical processing of waste takes place within 6m of waste piles. A full deep clean of the bay will take place every 12 weeks to ensure there are no contrary items of waste which have been stored longer than necessary. In addition to the CCTV, the waste will be visually monitored throughout the day by site operatives. All site staff will be given instructions and advised of the importance of stock rotation as part of their training. The external CCTV located near the piles to the south of the building would detect movement when the site is closed and as the waste will not be stored for
AREA 5 Plasterboard bay	 Ionger than 2 weeks, it is considered that no further monitoring required. This storage area comprises an interlocking block concrete storage bay for storage of plasterboard which comes to the site source segregated or has been segregated from the AREA 7. The waste will be stored 1m below the height of bay ensuring a freeboard is always maintained. The bay is open at the front meaning access is available in the event of a fire at all times. Stock rotation – It is proposed the maximum duration of waste stored in this bay will be 5 days i.e. during a Bank Holiday if the waste cannot be processed or moved prior to shut down before. It is proposed to limit the amount of waste stored internally by continually transferring the waste in this bay off site to prevent contamination of plasterboard into other waste streams. To comply fully with the FPP guidance, the entire pile will be cleared every 12 weeks and deep cleaned to prevent any build-up of material. As the waste in this area is source segregated or picked from the tipping area, the waste is unlikely to contain any material which is likely to cause combustion i.e. a hot load or lithium battery. Other procedures are similar to the above. When the site is closed, the smoke detection will be initiated and checked to see if it is working before the site closes. As the waste internally is stored for no longer than >48 hours, it is considered no further automated detection/monitoring is required.

AREA 6	This area contains mixed (RDF) municipal waste which has been removed and stored here from the tipping area.
Mixed municipal waste	 The waste is within the 3m high wall confines of the building in the corner and has not undergone any form of mechanical treatment i.e. shredding which is likely to raise the temperature of the waste. The waste in these stockpiles will be tipped at right hand side of the stockpile and extracted from the left in an anti-clockwise formation ensuring the first in first out principle will applies. The stockpiles are therefore dynamic and, given the material throughput of the site, waste will not be stored in these piles for longer than two weeks, which is a worst-case scenario in the event of a breakdown or plant malfunctions. As the piles are largely free standing, the waste will be 3m at the top centre of the pile which will form a dome shape so there is a suitable free board of at least 1m between the top of the pile and where the waste hits the wall at a 45-degree angle. The surrounding wall is 4m in height. The bay is open at the front meaning access is always available in the event a fire breaks out in the pile. The pile is visually monitored throughout the day by site operatives and trained personnel who will be trained via toolbox talks in recognition of fire. Apart from the use of loading equipment, no other mechanical processing of waste takes place within 6m of this pile. A full deep clean of this area will take place every 12 weeks to ensure no contrary items of waste are stored here longer than necessary. In addition to the CCTV, the waste will be visually monitored throughout the day by site operatives. All site staff will be given instructions and advised of the importance of stock rotation as part of their training. The external CCTV located near the piles to the south of the building would detect movement when the site is closed and as the waste will not be stored for longer than 2 weeks, it is considered that no further storage or monitoring required.
AREA 7 Waste reception (tipping), inspection and sorting area	 AREA 7 will act as the main waste reception / tipping area for mixed HCI waste. Any large visible recyclables will be hand-picked or extracted using the mechanical grab and placed into one of relevant storage areas at the site (see Section 3.2. In the event of non-conforming or reactive waste discovered, the waste will be immediately consigned to the quarantine area using the above plant or loaded back onto the delivery vehicle and removed off site. Stock rotation – It is proposed the maximum duration of waste stored in this area would be 1-2 hours and clear 1 hour before the site closes. As the stockpiles are dynamic, the process of tipping and excavating from the pile will be ongoing which will reduce the actual amount of time the piles will be stored prior to processing. The pile is easily accessible for firefighting purposes as the building is open fronted. The pile will be visually monitored continuously throughout the day by trained site operatives. The operatives have been trained via toolbox talks from site management in recognition of fire i.e. the early signs. No further storage or monitoring required.
AREAS 13 & 15	 These wastes are deposited into sealed cages by a blower. The cages are monitored daily, and once full, the contents are removed into an
Light wastes	 articulated bulker material which will also remove the waste from AREA 6. Due to the processing capability of the treatment plant, the waste in these cages is unlikely to be stored for longer than 5 days which is considered a contingency.
	No further storage or monitoring required.

AREA 14	 This area contains small amounts of handpicked wood from AREA 7, once this area is full, it will be removed to AREAS 1-4.
Sorted wood	 The wood here will not be stored for longer than 5 days which is considered a contingency.
	 The same procedures in terms of storage and monitoring will take place as per AREAS 1 & 7.
	No further storage or monitoring required.
AREAS 16 - 19	• These storage areas comprise concrete storage bays below a picking cabin for various waste types which staff have removed from the conveyor. The contents in the bays may vary on day-to-day basis.
Hand sorted recyclables i.e. wood,	 The waste will be stored 1m below the height of bay ensuring a freeboard is always maintained. All bays are open at the front meaning access is available in the event of a fire at all times.
plastic, residual waste etc	 Stock rotation – It is proposed the maximum duration of waste stored in these areas will be 5 days i.e. during a Bank Holiday if the waste cannot be processed or moved prior to shut down before.
	 It is proposed to limit the amount of waste stored internally by continually transferring the waste in these bays to the external bays with the exception of any odorous waste i.e. residual.
	 To comply fully with the FPP guidance, the entire pile will be cleared every 12 weeks and deep cleaned to prevent any build-up of material.
	• As the waste in these areas have been sorted, the waste is unlikely to contain any material which is likely to cause combustion i.e. a hot load or lithium battery.
	 In the event of a fire breaking out in these piles during operational hours, the waste can be dragged into the quarantine area (if safe to do so) by mobile plant through the various shutter doors to reduce the spread i.e. to an adjacent waste pile.
	 In terms of moving the waste in a fire incident, site management or the FRS will decide on the best course of action from a practical and safety point of view.
	 When the site is closed, the smoke detection will be initiated and checked to see if it is working before the site closes. As the waste internally is stored for no longer than >48 hours, it is considered no further automated detection/monitoring is required.
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4.6 Waste stored in baled form

4.6.1 The site does not currently store any baled waste, however, if the site decides to bale any material, this FPP will be updated.

4.7 **Waste stored in containers**

4.7.1 The table below details the waste types which are stored in containers at the site.

Table 4.4 - Combustible waste storage table for waste stored in containers

Pile Ref:	Storage/monitoring procedures to reduce the risk of fire
AREAS 5, 8, 10 & 20	The waste stored in these containers will comprise sorted bulky waste, plasterboard and scrap metal separated by the overband magnet from the treatment plant. The metal from the treatment plant is stored in a container
Metals and	to ensure the easier transfer and movement of waste from the site.
sorted waste containers	 All containers are stored on the ground and replaced by empty containers once removed off site.
	 The waste in containers has been sorted so unlikely to contain any hot loads or incompatible waste which could lead to a spark or overheating causing a fire.
	The containers will be removed from site within 5-days or sooner if full.
	The containers are accessible from at least on side and from the top in the
	event of a fire occurring in the skip to allow access for firefighting.
	The waste will not exceed the height of the containers.
	 In the event of a fire breaking out in the containers, all can be dragged into the quarantine area by mobile plant to reduce the spread i.e. to another skip or adjacent waste piles.
	 Waste can be visually monitored 24/7 throughout the day by site operatives and CCTV. In addition to the CCTV, the waste will be visually monitored throughout the day by site operatives.
	 In terms of moving the waste in a fire incident, site management or the FRS will decide on the best course of action from a practical and safety point of view.
	 When the site is closed, the smoke detection will be initiated and checked to see if it is working before the site closes. As the waste internally is stored for
	no longer than >48 hours, it is considered no further or automated
	detection/monitoring is required.

4.8 Fire walls and bays

- 4.8.1 There are two different sets of firewalls used which:
 - Reduce the need for 6m separation distances between different waste piles; and
 - Reduce the need to provide a 6m separation from the waste and permit or site boundary.
- 4.8.2 The table overleaf details the type of wall and demonstrates their properties to:
 - a) resist fire (both radiative heat and flaming); and,
 - b) have a fire resistance period of at least 120 minutes to allow waste to be isolated and to enable a fire to be extinguished within 4 hours.

Table 4.5 - Fire wall details and specifications

Firewall type	Width	Site location / use	Specification
Concrete panels	0.18m	INTERNAL & EXTERNAL	Concrete panels - Class A1 in accordance with Clause 4.3 4.4 of EN:13369 - >120 minutes
Concrete sleepers	0.2m	EXTERNAL	Concrete sleepers - Class A1 in accordance with Clause 4.3 4.4 of EN:13369 - >120 minutes

- 4.8.3 The above walls are checked throughout the day by staff via daily inspections if any gaps or damage to the walls are present which could compromise their integrity, the walls will be repaired and sealed as soon as practically possible.
- 4.8.4 For waste which is stored in and against walls, a suitable freeboard will be visually monitored throughout the day by operational staff who are loading/removing waste to/from the bay to ensure waste stockpiles don't exceed the freeboard height of the bay. The stockpile will be reduced immediately i.e. by moving wastes to quarantine area if a freeboard cannot be maintained. In the event of breakdowns, the operator will divert waste material to an alternative site until the freeboard is maintained. It is not possible to scientifically calculate the flame height as each waste pile is different

and could contain a number of different sizes/grades of waste leading to a lesser or greater flame height.

4.9 **External heating from hot weather**

- 4.9.1 It is considered that external waste will not be at risk from over-heating as the only combustible waste stored externally will be sorted waste in bays and as waste in each bay will be subject to continual movement and monitoring, the waste will not be stored for a period where it could combust from exposure to sunlight.
- 4.9.2 To further reduce the risk of self-combustion:
 - Any rags will be stored in sealed containers inside the building out of direct sunlight to prevent self-ignition and stored away from heat sources, these containers are monitored throughout the day for heat build-up.
 - no hot works or cutting take place in external areas of the site near combustible waste piles.
 - All fuels and fluid storage are shaded from direct sunlight due to their position in the workshop.
- 4.9.3 Due to the volume, type and duration of other wastes stored at the site, it is considered that exposure from sunlight will not lead to the waste combusting.

4.10 Stock rotation and seasonal variations

- 4.10.1 Details of stock rotation are clearly shown in Sections 4.5– 4.7 for all wastes which are stored and processed on site.
- 4.10.2 In the event of destination site closures or seasonal demands for wastes leading to a longer storage duration, the operator can divert incoming waste and send stored waste to alternative site's using the EAs public register for alternative sites who could take this material or they would contact the destination sites where waste from the site will be sent.

- 4.10.3 The operational outputs and residues produced by the site and the disposal or recovery routes are detailed as follows which the operator has outlets for:
 - a) Brick/rubble for crushing to produce 6F2 aggregate or similar product under the operator's Aggregates Protocol.
 - b) Some materials will not be recovered after processing (or will not be fit for use at recovery sites) such as clays and some soils. These materials may be disposed at suitably permitted landfill site.
 - c) Fines as material for site restoration works on site or used as landfill cover.
 - d) Soils used on site for site restoration works or blend with compost for topsoil creation for re-sale.
 - e) Metals metals removed from the overband magnet will be taken to a suitably permitted site for further recovery.
 - f) Rejected material will be removed from site as detailed in Section 2.6.
 - g) Wood Used for biomass or animal bedding
 - h) Paper/cardboard and plastic Sent to paper/plastic recycler for further treatment
 - i) Waste unsuitable for processing will be sent to a suitably permitted site.
- 4.10.4 The list of outlets has not been provided due to confidentiality purposes however the contracts will range from weekly monthly depending on seasonal variations and demand for material.

4.11 **Wind**

- 4.11.1 As can be seen from Drawing No. HCRC/2628/03, the vast majority of wastes are stored internally or externally within concrete bays (with a minimum 1.0m freeboard), and a sheltered from the wind.
- 4.11.2 In the event of a fire, the largest stockpiles (i.e. **AREAS 1 4**) will be reduced in height using mobile plant if it is safe to do so.

4.11.3 In the event large quantities of fire water are used, impermeable areas are sealed by kerbing and all water is engineered to fall into interceptor and not off site.

5 <u>Site inspection programme</u>

5.1 **Daily checks**

- 5.1.1 Site management are responsible for carrying out daily site walks for checking drainage systems, security measures and waste storage areas. Site management can reference the Fire Checklist shown in Appendix II. The site also carries out weekly inspections for firefighting equipment to ensure they are fit for purpose.
- 5.1.2 Carrying out the above checks daily will keep the levels of dust, fibre, paper and other loose combustible materials, which could aid in the acceleration of a fire, on site surfaces to a minimum and ensure all containment of wastes on site are functioning effectively in accordance with the storage limitations provided in the table on Drawing No. HCRC/2628/03.

5.2 **Staff training**

- 5.2.1 Operational staff are subject to site inductions which includes basic fire emergency procedures. Site management are suitably trained to carry out these inductions.
- 5.2.2 A full test (drill) of the procedures in this document will be carried out every 12 months to test that the plan works. The first test will take place within one month of the agreement of this document with the EA. The outcome and any follow up training for staff will be documented in the site diary and relevant forms in the operator's EMS. The Fire Checklist and training form in this FPP may also be used during the drill.

5.3 **Toolbox talks**

5.3.1 All operational staff on site have received fire awareness training / toolbox talks off trained staff i.e. the operations, site or technically competence manager on their staff induction to detect early signs of fire and to minimise the chance of a fire breaking out in order to meet the three objectives.

6 Quarantine Area

- 6.1.1 In accordance with the EA's FPP guidance an area of the site has been designated as the quarantine area as shown on Drawing No. HCRC/2628/03 which is accessible at all times. This area also allows for a 6-metre buffer from the site perimeter and other stored waste or materials on site.
- 6.1.2 It is considered the largest waste pile/area on site is **AREAS 2 & 3** and if the areas were full would have a volume of approximately <189³ of waste material. The quarantine area proposed has an area of 105m² and a volume capacity of <100m³ (if wastes are piled 3m high using 0.333 conversion factor) which is capable of holding more than 50% of the waste in these stockpiles.
- 6.1.3 Waste would be moved to the quarantine area using mobile plant available at the site i.e. telehandlers. The out-of-hours storage locations for mobile plant is shown on Drawing No. HCRC/2628/03.
- 6.1.4 In the event of a fire, the quarantine area will be used to either isolate wastes which are smouldering to allow safe dissipation of heat without placing other areas on site at risk of ignition; or, to remove any wastes stored in piles/containers near any material affected by a fire to prevent fire spreading to adjacent piles.
- 6.1.5 Waste will only be moved to the quarantine area if safe to do so following judgement by site management co-ordinating the fire response procedure or the FRS.

7 Detecting Fires & Response Procedures

7.1 Fire detection procedure (manual)

- 7.1.1 If a fire is detected or suspected by a member of staff during operational hours, the relevant person will conduct the following procedure report to site management:
 - Raise the fire alarm (if not already done by another staff member) or sound fire alarms/communicate via radio or ring out-of-hours key holders. Timescale for this will be upon detection i.e. seconds
 - b) Assess the intensity and scale of the fire and make a judgment as to whether the fire can be managed without the requirement for assistance from the emergency services i.e. using the hose or fire extinguishers. This process should take less than 60 seconds. If fire requires further assistance, a call will be logged to the FRS then the procedures in 8.1 followed.
 - c) Initiate evacuation of staff and visitors on site to the meeting point and instruct delegated person(s) to conduct a roll-call to ensure all site users are accounted for.
 Timescale variable depending on staff on site estimated within 5 minutes.
 - d) If viable and safe, instruct necessary site staff to commence extinguishment.

 Timescale variable depending on size of fire, suppression can be within minutes if safe to do so.

7.2 Automated/out-of-hours detection

7.2.1 Both all internal and external areas of the site benefit from a 24 hour remotely accessible motion sensor CCTV system. The motion sensors have laser beams which will be activated when the site is closed. The site will not be operational during the following:

Monday to Friday 18:00 – 07:00

Saturday – Monday 16:00 – 07:00

Sundays, Bank/Public holidays All day

7.2.2 During the above hours, the motion detection cameras will detect any sudden movements such as animals, falling debris/waste, intruders. Although not specifically designed for detecting fires, the system due to how it functions would likely pick up flames so if a fire were to occur out-of-hours, the operator would be provided with a call or alert by system which would detect the incident and then conduct the following procedures shown in Section 8.1.

8 Fire response procedures

8.1 Response procedure

- 8.1.1 Further to the measures detailed in Section 7, the following procedure would apply in the event of an incident:
 - a) Call the Fire Response Service (FRS) immediately using 999.
 - b) Call the EA's Emergency Contact Number.
 - c) Competent person to ensure suitably trained employee initiates the three penstock valves in the site's surface water drainage system shown on t Drawing No. HCRC/2628/03.
 - d) Prior to the FRS arriving, inform all neighbouring premises likely to be affected as a result of the fire in terms of potential road closures, smoke inhalation and action to be taken i.e. **stay indoors** (see Section 8.3).
 - e) If not previously informed, senior management of the company will be informed at this point of the details, nature and extent of the fire and whether assistance from staff from other depots is required.
 - f) Ensure access routes are clear (see Section 8.2).
 - g) If safe to do so, site management will inspect the location of the fire, to identify immediate risks to surrounding premises and the FRS.
 - h) Ensure operators of appropriate machinery are standing by in a safe location to help create fire breaks, under the direction of the FRS when they arrive.
 - i) Ensure relevant site staff are standing by in a safe location to deploy additional surface water protection equipment where required under the direction of the FRS when they arrive (booms, etc.).
 - j) Site management will identify themselves to the FRS as soon as they arrive on site and will provide them with a copy of this document and update them with relevant information in terms of fire location, possible reason, waste on fire and projected impact which will assist them in dealing with a fire more effectively.
 - k) Implement pollution control measures) if safe to do so.

8.1.2 In the event of site management being absent from site, the operator will ensure the TCM or a suitably competent deputy is available during operating hours to take command of an incident should one occur.

8.2 Access for emergency services

- 8.2.1 The site has clear access points for the emergency services as shown on Drawing No. HCRC/2628/03. The nearest fire station is Sandyford Community Fire Station, situated 2.4 miles away on Marlborough Way and the anticipated response time following a call to the FRS is for them to be on site within <7 minutes. The out-of-hours contact for the site will be situated on the site notice board at the entrance off the A34. There are also six other fire stations located within a 10km radius of the site.
- 8.2.2 The width of the surrounding roads and gateway exceeds the minimum required by the FRS which is 3.7m. Site management will also ensure the 3.7m access routes are maintained throughout the working day and before cessation of works during site inspections.

8.3 **Notifying receptors**

- 8.3.1 The contact numbers of key sensitive receptors identified within 1km of the site who could be directly affected in the event of a fire along with the Receptor Plan will be stored within the site office. The numbers/contacts are also shown in the pre-pages of this FPP. Other numbers may be added to this list or existing numbers changed throughout the lifetime of this FPP.
- 8.3.2 As it isn't feasible for a contact number to be provided for every individual residential receptor and individual business within 1km, the most sensitive receptors and closest business receptors have been included within the table overleaf. it is considered these receptors could pass on the incident to adjacent premises who contact information hasn't been provided in this FPP.

- 8.3.3 Following discussions with Staffordshire County Council, they have advised that once Emergency Services arrive on site i.e. FRS, Police, the lead authority (usually the Police) will co-ordinate a systematic approach to ensure all the relevant sensitive receptors within 1,000m are notified. This will involve via telephone calls, personal visits (knocking on doors) and or using a load speaker while driving around the associated catchment. In addition to this, the Emergency Services would also publicise the fire on their Social Media outlets and contact local news websites, radios who can also provide updates on the incident. The Council will not commit in providing written communication to demonstrate their approach as it would depend on the type/size of fire as they have numerous approaches.
- 8.3.4 The police with the assistance of ECSS and any other attending authority will ensure all relevant properties are informed of the fire event and given clear instructions of the actions they need to take.

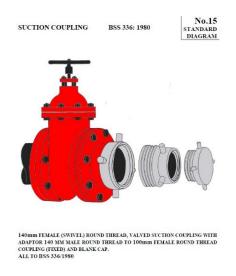
8.4 **Control of Combustion Products**

- 8.4.1 Combustion products likely to be associated with the waste stored at the site include PAHs, dioxins and particulate matter including black smoke from general mixed waste and scrap metal. The receptors will be advised of this during notification.
- 8.4.2 The release of combustion products may be controlled by the low size of waste piles at the site and the swift removal of burning wastes to the quarantine area (thus reducing spread of fire and reducing the amount of combustion products created).

9 Suppressing fires & firefighting techniques

9.1 <u>Site-wide suppression</u>

- 9.1.1 The site has the following on site suppression measures which are indicatively shown on Drawing No. HCRC/2628/03:
 - i) Three no. 20,000-litre water storage tanks installed with the following connection ensuring the FRS can access instantaneously. The tanks will be filled prior upon approval of this FPP. If any leaks are found, the tank will be repaired, and the water replenished as soon as practicable. The tank will be filled from the main hose connection at the site.



- ii) Hose reels strategically placed providing coverage to areas storing combustible and flammable materials.
- iii) Mixture of water, foam, powder and CO₂ fire extinguishers located in close proximity to waste piles.
- iv) 1,500 litre water bowser and water cannon (used primarily for dust suppression)
- 9.1.2 During normal operational hours, there are at numerous members of staff who are fully trained in using mobile plant to assist with firefighting which would include suppression using the above and isolating waste at risk of combusting using mobile plant as shown below.

9.1.3 In addition to the above:

- The buildings also have strategically placed water, foam and CO2 extinguishers.
- Out-of-hours plant storage (shovels and forklifts) to isolate waste at risk of combusting in the event of a fire.
- Direct access into the building for external suppression from the FRS (if required).
- All waste piles stored internally are below the limits shown within the FPP guidance in terms of size and duration reducing the size of a fire.
- All staff working in the building can operate the hoses and extinguishers.
- 9.1.4 Mobile plant i.e. shovels, excavators, forklifts will be used to move unburned material to the quarantine area and away from waste that is on fire to prevent it from spreading. The waste on fire which will have been separated will be quenched using suppression by staff or the FRS. The waste will be kept here until the fire has been extinguished.
- 9.1.5 The site could also fill a sealed skip with water and load burning waste into it. Access routes into and out of buildings including out-of-hours plant storage is clearly shown on Drawing No. HCRC/2628/03.

10 Water supplies

10.1 **General**

- 10.1.1 Section 16 of the EA's FPP mentions the site should have enough water available for firefighting to take place and to manage a worst-case scenario. A worst-case scenario would be the largest waste pile catching fire. As the site has reduced stockpiles since the previous fires, it is considered that a fire would not spread into adjacent piles due to the measures implemented throughout site which are documented in this FPP.
- 10.1.2 The largest combustible waste pile on site equates to <189m³ and to extinguish within 3 hours it would require approximately 241,120 litres (241m³) of water requiring a flow of approximately 1,334 litres per minute based on the calculation provided in the table below.

Table 10.1 - Water supply calculations (Largest Stockpile)

Maximum pile volume in m ³	Water supply needed in litres per minute	Overall water supply needed over 3 hours in litres	Total water available on/off site in litres
189	189 x 6.67 = 1,261	1,261 x 180	226,980 (227m³)

10.2 **On-site water supply**

- 10.2.1 Reference should be made to section 9.2.1 in terms of the 60,000 litres of water available and although this falls short of the required 226,980 litres, it will provide a quick method of suppression to prevent a large-scale incident and with the other measures below, it is considered the FPP objectives will be met. The site will rely on quick detection and suppression to prevent a large-scale incident occurring requiring the maximum of water.
- 10.2.2 The site will have access to on-site hoses which connect to the mains water supply which can be used for dousing any hot loads i.e. in the quarantine area or for any small fires which could break out. There will also be a 1,500-litre water bowser which can be

re-filled using the hose. A standard hose will have a flow of approximately 30/40 l/m in connected to a high-pressure washer.

10.2.3 There is also access to several fire extinguishers which are strategically placed around the site.

10.3 External suppression - Fire Hydrants

10.3.1 The site is situated approximately 475m from the main road (A34) and there are no hydrants located on the wider site so it is considered the use of hydrants would not be suitable.

10.4 Other suppression methods

10.4.1 This will have approximately 2,000 – 3,000 tonne of non-combustible inert material comprising soils and aggregates. With the mobile plant available, this material can be accessed easily, collected by a grab and dropped on the fire from height to starve it of oxygen thus reducing the flames and heat of the fire. If this method was used and considered safe, the material would be tested and disposed of at a suitably permitted site.

10.5 **Automated suppression**

10.5.1 Although waste is being stored inside a building, the building is 55m wide, 10m high to the eaves and completely open at the front so as there is access to a fire from the external area of the building, it is considered that no automated suppression is required for the waste stored in the transfer building.

11 Managing Fire Water

11.1 Drainage

11.1.1 The drainage arrangements for the site are clearly shown on Drawing No. HCRC/2628/03 and as all of the site operational area is concreted, essentially all surface (rain) water falls generally to the north and north-east of the site into gully catchment pits, the gully's drain into a full retention interceptor and silt trap before entering a soakaway. The interceptor is serviced annually will be monitored at least weekly or daily during heavy rainfall events so a drainage contractor can be called in advance to empty the tank if it becomes close to capacity.

11.2 **Containment of Fire Water**

- 11.2.1 The site surface is generally falling towards the north/north-east (away from the access) and is entirely sealed by a mixture of 0.1m kerbing and concrete walls with no escape points. It is proposed to block all drainage outlets by initiating the closure valve on the interceptor meaning the fire water will back up and flood the site creating a lagoon effect.
- As detailed in Section 10.1.2, the largest pile on site would require containment for litres 227m³ of water in accordance with the FPP guidance as demonstrated in the table below. The table below also details suitable firewater containment on site of 0.04m³.

Table 11.1 - Firewater Containment Calculation for External yard

Volume of Water (m³)	Containment Area (m²)	Containment Required	Total Containment On Site
227	3,655 (sealed concrete pad)	227/3,655= 0.06m ³	0.1m high kerb and 3m high concrete walls

11.3 Removal of fire water

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

12 After an incident

12.1 **Contingency Planning**

- 12.1.1 In the event of a fire the site will cease accepting waste. All customers who wish to deliver wastes during a fire will be notified by site admin staff and any who arrive without prior notification will be turned away. If urgent, deliveries will be directed to an alternative waste facility in the borough; details of which can be found on the EA's public register.
- 12.1.2 No waste will be accepted on site until the post-fire site recovery procedures outlined in the section below have been fully implemented and the site is authorised to re-open for trade and waste acceptance.

12.2 **General recovery procedure**

- 12.2.1 When the fire has been successfully dealt with the following actions will take place:
 - a) All fires will be reported to the EA on the working day that they occur including all steps taken by site staff, management and/or emergency services to deal with the fire.
 - b) Removal of burnt material to a suitably permitted site.
 - c) Investigation into the cause of the fire, to ensure it does not reoccur.
 - d) A review of the FPP and EMS, associated amendments will be implemented.
 - e) Review of any additional training requirements for site personnel as a result of the incident.
 - f) All fire extinguishers used to tackle the fire will be serviced and replaced after use.
- 12.2.2 In addition to the abovementioned procedures, the sections below outline specific procedures following a fire.

12.3 **Site decontamination**

- 12.3.1 Surface water on site will be cleared using the following method:
 - a) Using a tanker/sucker, all standing fire water should be sucked up and taken off site or stored in a tank/bowser prior to removal off site.
 - b) Using all available resources, manually clean out the surface drainage system and underground interceptors/drains removing the debris to the pile of fire damaged waste for removal to landfill or permitted site.
 - c) Using a road sweeper, sweep the yard (damp as required using the bowser) until all ash and clinker has been removed.
 - d) All debris has now been isolated and all contaminated water holding areas have been cleaned and emptied.
 - e) Wash the yard down in entirety using clean water or allow a reasonably heavy rain shower to wash the yard down.
 - f) It is at this stage that site management should decide whether to repeat areas of the clean-up.
- 12.3.2 If the clean-up operation has been deemed complete and the site is deemed suitable for accepting waste, the site will ensure the following:
 - a) Account for all consumables that have been used in the fire and re-order / replace immediately.
 - b) Restack, and re-locate all items used for the surface water protection during the fire to their storage locations ready for future deployment.
 - c) Check monthly that items are still present and correct and still serviceable for use in an emergency.
- 12.3.3 The operator will liaise with the EA throughout the event ensuring they are satisfied with the clean-up programme and notify the operator when the site can begin accepting waste again onto site.

12.3.4 Due to the nature of the site's customers, there are no regular waste contracts which need to be dealt with if the site is closed for a period due to any incidents.

12.4 **Post fire site recovery**

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

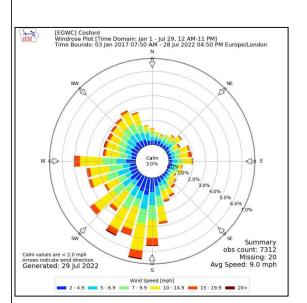
Appendix I

Drawings

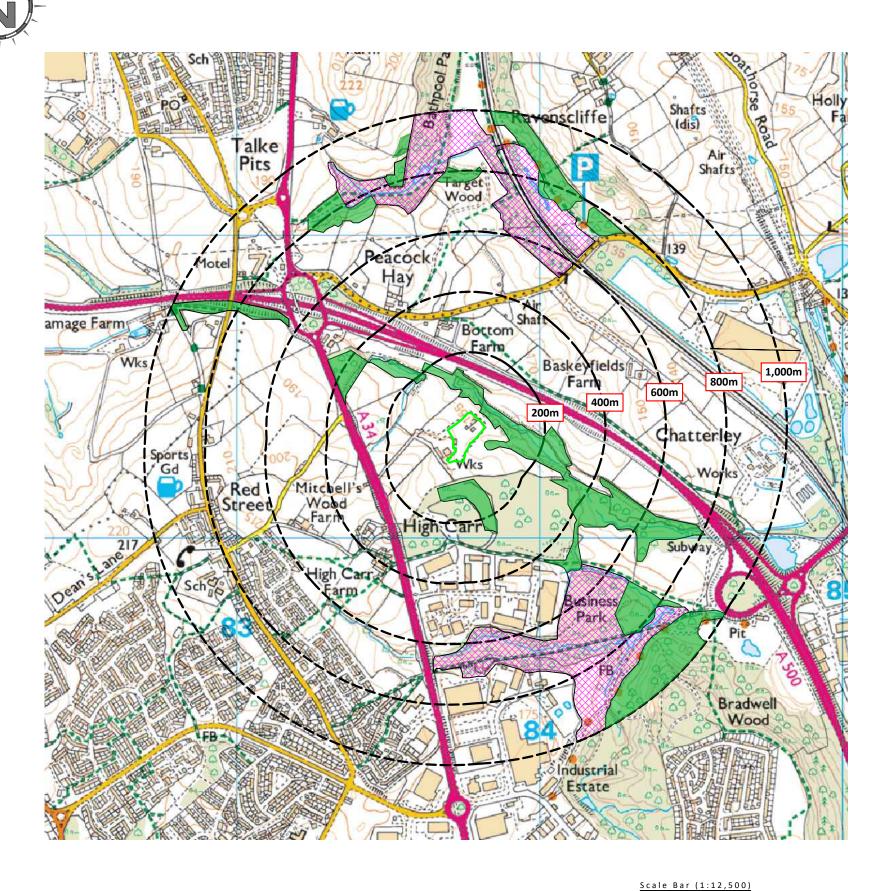


REY: Permit boundary Surface water body (pond / pool / lake) Stream, river, beck Buildings includes Agricultural, industry, commerce and retail - could also include small houses) Residential blocks Class A roads Class B roads Class C roads Places of worship Public footpath Sch Schools Priority Habitat - Deciduous Woodland

Local Nature Reserves



Compass Wind Rose for Cosford (EGWC) Period 2017-2022 - source: Iowa State University



NOTES

- 1. Boundaries are shown indicatively.
- 2. Wind rose data shows the prevailing wind direction to be blowing North from the South.

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REVISION HISTORY

Rev:	Date:	Init:	Description:	
-	29.07.22	СР	Initial drawing	

Oaktree Environmental Ltd





DRAWING TITLE
RECEPTOR PLAN

CLIENT Cherry Hill Waste Ltd

DOJECT (CITE

500 m

High Carr Recycling Centre, High Carr Farm, No 2, Talke Road, Chesterton, Newcastle Under Lyme, __Staffordshire_ST5_7AL

1:12,500	CLIENT NO 2628	ов по 002
DRAWING NUMBER	REV	status
HCRC/2628/04	-	Issued

DRAWN BY	CHECKED	DATE
CP		29.07.22

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

Appendix II

Record Keeping Forms

CHERRY HILL WASTE LIMITED SITE INSPECTION FORM (DAILY INSPECTIONS) – CHW/RF/4

WEE	K STARTING							
TYPE OF INSPECTION					DAY			
THE OF INSPECTION		M	Т	W	T	F	S	S
FIRE EXITS, ESCAPE ROUTE	S AND CALL POINTS FREE FROM		-		-			
STORAGE OF WASTES/COM	NTAINERS							
SITE ENTRANCE/NOTICE BO	OARD							
SECURITY - GATES								
SECURITY - FENCING								
SITE ROADS (CLEAR FROM	HAZARDS)							
IMPERMEABLE CONCRETE	AREAS (INTEGRITY)							
INTERCEPTOR								
FUEL STORAGE AREAS								
BAY WALLS (STRUCTURAL	INTEGRITY)							
FIRE BREAKS IMPLEMENTE	D (WHERE NECESSARY)							
WASTE STORAGE LIMITS	MIXED WASTE							
WASTE STORAGE LIMITS	CONTAINERS/SKIPS/BAYS							
STORAGE LIMITS	OTHER WASTE							
COMBUSTIBLE WASTES (A SOURCES)	AWAY FROM POTENTIAL IGNITION							
REJECTED WASTE TYPES / S	STORAGE							
NOISE LEVELS								
FIRES (ANY INCIDENTS REP	ORTED)							
QUARANTINE AREA CLEAR	OF WASTE							
NO SMOKING SIGNS IN PLA	ACE							
FIRE FIGHTING EQUIPMEN	Т							
PLANT/EQUIPMENT MAIN	TENANCE CHECKS							
HOT EXHAUSTS FIRE	WATCH (DUST/FLUFF CLEANED							
REMOVED)								
OFFICE/WELFARE FIRE RISI	KS CHECKED							
LITTER								
DUST								
ODOUR								
VERMIN								
RECORDS								
COMPLAINTS RECEIVED								
OTHER (SEE NOTES BELOW	/)							
INSPECTION CARRIED OUT	BY							
NOTES/ACTION (CO	ONTINUE ON A SEPARATE SHE	ET IF N	NECESS	ARY):				
CHECKED BY		SIGN	ATURE					
POSITION		DAT	E		_	_	_	
Sheet		of						

CHERRY HILL WASTE LIMITED PREVENTATIVE MAINTENANCE CHECKLIST

CHECKED BY	POSITION
DATE	DATE OF LAST CHECKLIST

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

CHERRY HILL WASTE LIMITED - EMPLOYEE TRAINING NEEDS ASSESSMENT / REVIEW

EMPLOYEE TRAINING NEEDS ASSESSMENT / REVIEW

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

Appendix III

Hot Works (Permit to Work)

Hot-work permits are required for any operation involving open flames or producing heat and/or sparks and must be prepared by a competent person. Hot works include brazing, torch cutting, grinding, soldering and welding.

Company Name			Project title				
Location			Project no.				
Supervisor			Permit no				
Equipment used							
Date of works		between	hr	s and			hrs
Precautions to be tak		Yes	No	N/A			
Hot work must cease at	least one hour befo	re end of shift.	Areas where hot works have b	een carried out			
should be checked befo	re leaving site.						
Services affected must I	be isolated before w	ork commences	<u>.</u>				
Isolate smoke detectors	in the vicinity of ho	t works.					
A suitable fire extinguis	her must be availabl	e and be kept c	lose at hand, at all times.				
Supervisors must ensur	e suitable personal p	rotective equip	ment (PPE) is provided and w	orn by			
operatives.							
All cylinders must be tra	ansported and secur	ed upright.					
Valves and hoses must be in good condition.							
All cylinders must have	flashback arrestors t	fitted.					
When not in use, cylind	ers must be shut off	and returned to	store.				
LPG cylinders must not	be left in the buildin	g overnight wit	hout formal approval.				
Arc welding equipment	will comply with cur	rent standards.					
Spent welding rods mus	st be immersed in a l	oucket of water	<u>.</u>				
Minimum radius of hot	work must be 2 m fr	om other perso	ns working. Screens should be	erected			
if needed.							
Where hot works are re	quired adjacent to c	ombustible mat	terial, a fireproof protective m	at should be			
placed between the ma	terial and the heat s	ource during th	e hot works. (Check both side:	of partition walls			
Precautions to be tak	en				Yes	No	N/A
understand the perm	it conditions and t	he fire and saf	ety precautions				
be in possession of a	permit at all times						
stop work if required	to do so by an aut	horised persor	1				
immediately report a	ny hazard likely to	affect the fire	and safety precautions				
ensure satisfactory ac	ccess to and egress	from the wor	k area.				

Confirmation by contractor's supervisor: I confirm that the precautions specified above will be complied with and I will ensure that the persons carrying out the work described above are fully briefed on the safe method of work.

Name Position Signature Date

Confirmation by operator: I understand the precautions to be taken in carrying out the hot works.

Name Position Signature Date

Site management authorisation: I certify that the above work can commence with the precautions listed above.

Cancellation of permit by operator: (Note: hot works must cease at least one hour before end of shift.) I confirm that the work has been completed and the area has been checked and is safe.								
Name		Position		Signature		Date		
Cancellation of permit by site management								
Name		Position		Signature		Date		
Inspection of area covered by hot-work permit by fire warden/site			by fire warden/site	Inspection comp	oleted after			
management after cancellation of permit						hr (s)		
е		Position		Signature		Date		