

BMTECH Fire prevention plan

Plan version: V1

Date of plan: 22.07.22



Site details

Site name: BMTECH LTD

Site address: Uttoxeter Road, off Watery Lane, Foston, Derbyshire. DE65 5PX

Operator name: BMTECH LTD - B Morley MD

Plan is relevant to:

BMTECH Employees

Fire service

Environment and H&SE agencies & Local authority.

Visitors will be briefed on main elements of the plan.

BMTECH Fire prevention plan

Record of changes

Date	Page & Section	Detail	By whom
		Planned Review following Fire service schedule visit 16.08.22	

BMTECH Fire prevention plan

Contents

Types of combustible materials	4
Using this fire prevention plan.....	5
Fire prevention plan contents.....	5
Manage common causes of fire.....	8
Prevent self-combustion.....	14
Manage waste piles.....	15
Prevent fire spreading	17
Quarantine area.....	17
Detecting fires.....	17
Suppressing fires.....	18
Fire fighting techniques	18
Water supplies.....	18
Managing fire water	18
During and after an incident	19

BMTECH Fire prevention plan

Types of combustible materials

Combustible waste

General municipal waste - welfare / domestic type municipal waste – 1,100L metal wheelie bin with the collection service provided by South Derbyshire District Council.
[Business and commercial waste | South Derbyshire District Council](#)

Wood:

- Pallets - 100 pallets
- separated fractions from pre cleaning - 10m² bay with concrete partition walls

Note: *PVC Plastic waste & product is self-extinguishing non-combustible see technical data*

Persistent organic pollutants - No combustible waste material contains POP

Other combustible material

Gas Cylinders -

Oxygen and acetylene (90kg) x 1 of each - when in use stored in purpose built trolley.
When not in use taken outside and caged in independent cage (see site plan for location).
Welding gases (3 x argon and CO₂ gas mix (90kg)) - inert
Compressed Air x 1(250L) - low pressure

Fuel and Oil storage:

Diesel Tanks - 4000l and 1000l
Hydraulic oil - 2 x 205L drum
Engine oil - 2 x 205L drum

Rubber conveyor belt main feed - risk only from hot works (maintenance or development of machinery)

Wood panelling materials inside buildings - risk of ignition from exhaust proximity and hot works.

(see site plan for location)

Note: *PVC Plastic waste and product is self-extinguishing non-combustible see technical data*

See site plan and waste storage plan for details.

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Using this fire prevention plan

Where the plan is kept and how staff know how to use it

Fire prevention plan is kept in main site office and a summary of the plan for staff is displayed in site welfare and notice boards on site.

Briefings are undertaken with staff on a 6 monthly basis and records of this training are recorded on the BMTECH Competency Matrix.

Fire extinguisher training is undertaken with Key staff - see competency matrix.

Testing the plan and staff training

Fire equipment is supplied by a competent contractor who has carried out an assessment of the premises. An inspection and maintenance contract is in place with this contractor.

Weekly site inspections include fire prevention and compliance checks. See Weekly inspection checklist. Actions required are logged and tracked via the BMTECH Attainments & Improvements Log.

Plan tests will consist of:

Weekly alarm tests - site siren / air horn

Desktop exercises with staff on fire scenarios or physical drill on site at least 6 monthly with all staff.

Staff will be briefed on the contents of the plan at induction and following tests and changes where relevant.

Fire prevention plan contents

Activities at the site:

Activity	Description	Where this is carried out on site	How it is carried out	What machinery is used
Tipping and storage awaiting treatment:	If necessary, dampen plastic tipped in designated area to suppress dust	Intake Yard	See description Prepare and sign documentation	HGV and Telehandler
Precleaning of plastic	Dirty plastic to Large foreign object removal (concrete,	Intake yard	Using plant to load precleaner.	Tracked 360° excavator and Pre cleaner

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	steel and wood removal) stone trap / settlement dewatering screen		Precleaner plant - including conveyors	plant.
Main plant Processing	Intake conveyor Primary Shredder 1st Wash Dewatering Quality Control - water check and flocculent additives as required. 2nd Size reduction - (hammer mill) Float sink Tank Rinse and dewatering Drying Transfer to bulk storage - blower Bulk storage Quality control - visual check of flake size and contamination and possible return through plastic process.	Shed 1	Plant runs automatically with operators to oversee Telehandler is used to load material to the intake conveyor	Telehandler
Post grading	Size Screening - Over, medium, fine and under size. Oversize Size reduction (Hammer mill) to bulk store Medium , fine and under to holding bin Quality Control - visual size	Shed 1	Plant runs automatically with operator to oversee	Screener Dust extractor
Bagging	Load material into big bags	Bagging area (Regrind / flake)	One operator on bagging station, one on forklift	Augers and bagging station Dust extractor

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				Forklift
Dispatch	Articulated lorry load and transport off site	Yard	Operator on forklift to load and oversee securing of load. Prepare and sign documentation	HGV Forklift
Waste removal	Waste contractor to site and picks up waste wood, steel, soil and municipal wastes.	Yard various	Prepare and sign documentation	HGV skip or RoRo skip type (contractor) and telehandler
Fuel delivery	Fuel supplier delivers fuel to site.	To fuel tanks on site (see site plans)	Prepare and sign documentation	Fuel delivery vehicle from supplier.
Consumables delivery	Supplier delivery	Gate 1	Prepare and sign documentation	Delivery vehicle - van type or similar

Site plan

Site Emergency plan and general site layout plans refs:

Plan of sensitive receptors near the site

Receptor address	Distance to Development
Office buildings adjacent to site, Uttoxeter Road	20m
Heath Farm, Uttoxeter Road	265m
The Lodge, Uttoxeter Road	365m
Cote House, Watery Lane	315m
Lemons Holme Watery Lane	600m
A50	75m
Uttoxeter Road	>5m
Watery Lane	15m

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Foston Interchange	25m
Drainage Ditch on north side boundary of site	>5m
Road drainage in Uttoxeter road on south side of site	>5m

Manage common causes of fire

Arson

- Site Boundary fenced and locked - day and night
- Authorised access only
- Good relationship with Highways next door (operate 24hrs) - have emergency contact with BMTECH. They also have CCTV.
- Hot works permit ensures likelihood low for fires caused by BMTECH works.

Plant and equipment

BMTECH operate a Preventative Maintenance Plan for all plant and equipment on site. See PMP for details.

Plant and Equipment includes:

- Telehandler x 2
- Tracked 360° excavator
- Forklift Truck (counterbalance)
- Static Precleaning plant
- Static Main process plant (includes x 2 diesel engines)
- Screening and bagging plant
- Generators x 2 capacity 510kVA and 82.5kVA
- Compressors x 1

Fire extinguishers are available around the site, see site plan for locations.

Mobile plant is used away from combustible waste and is stored in designated areas when not in use.

Electrical faults including damaged or exposed electrical cables

Electrics certification

The site currently doesn't have a mains electricity grid connection and generates electricity via diesel generator. Associated electrical equipment and cabling is serviced and maintained as below.

Electrical equipment maintenance arrangements

Electrical equipment and associated cabling is PAT inspected in accordance with the BMTECH Preventative Maintenance Plan.

Weekly site inspections also include general inspection of plant and equipment.

Daily equipment checks are undertaken in accordance with the BMTECH Plant and Equipment daily check form.

See PAT test schedule for complete list of electrical equipment on site.

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Discarded smoking materials

Smoking on site policies

A designated smoking area is provided at the main entrance gate (Gate 1 - see site plan for details). Staff are briefed on the requirements to use the designated smoking area and risks of fire from smoking on site.

Employees smoking on site outside the designated area will be subject to disciplinary procedures.

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Hot works safe working practices

Hot works on site will be undertaken under a hot works permit which includes a fire watch for a suitable period after hot works have ended, including the end of a working day. See BMTECH Hot Works Permit to work.

Industrial heaters

BMTECH do not use industrial heaters.

Hot exhausts and engine parts

Fire watch procedures

Fire watch checks will be undertaken at regular intervals (start-up, mid morning, Lunchtime, mid afternoon, shut down and end of day) in accordance with the BMTECH Fire watch checks form in order to detect signs of a fire caused by dust settling on hot exhausts and engine parts.

Ignition sources

See site plan: Fire prevention for specific locations

Ignition Source	How they are kept away from combustible and flammable waste	Distance away from combustible and flammable waste
Discarded cigarettes	The designated smoking area at Gate 1 is remote from any combustible or flammable waste	>6m see site plan
Hot works	Use of hot works permit to control and risk assess activities before undertaken. Fire watch checks undertaken throughout the operational day. Daily risk assessment briefing - include ambient weather checks.	>6m see site plan
Stationary plant engine Motors over heating	SOW for Process plant operation. Daily risk assessment briefing - include ambient weather checks. Fire watch checks undertaken throughout the	>6m see site plan

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	operational day. Daily plant and maintenance checks.	
Stationary generator and plant engine exhausts (there used to be 3 diesel engines on the plant but one has been replaced with an electric motor to significantly reduce risk)	SOW for Process plant operation. Daily risk assessment briefing - include ambient weather checks. Fire watch checks undertaken throughout the operational day. Daily plant and maintenance checks.	
Whole plant is a combined heat and power plant - heat captured to dry plastic - heat recovery ducting is at risk of ignition.	SOW for Process plant operation. Daily risk assessment briefing - include ambient weather checks. Fire watch checks undertaken throughout the operational day. Daily plant and maintenance checks.	
Oxyacetylene bottles exposed to high temperature	Hot works permit will include siting of Oxyacetylene trolley during works.	

Batteries

Waste vehicle batteries are recycled at a licensed site. No waste batteries are stored on site.

Leaks and spillages of oils and fuels

- Weekly site inspections include visual inspection of fuel storage tanks on site.
- Fuel deliveries undertaken by competent supplier.
- Spillage kits available with fuel & substance storage and near to plant and equipment.
- BMTECH colleagues trained in spillage kit use.
- Fuel tank fuel volume consolidation undertaken on a regular basis. See BMTECH Performance monitoring Log.
- Plant and equipment subject to daily checks including leak detection.

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- Site operates an enclosed drainage system which drains to a central sump which in turn is pumped out to the water treatment tank.
- Any leakage / spillage detected will be contained at the sump in preference and the pump shut off to prevent ingress to the water treatment tank.
- If spilled / leaked fuels and oils have not been isolated at the sump then plant operation will be stopped immediately and all movements of vehicles in the vicinity of the leaked / spilled oil / fuel will be stopped. Oils / fuels will be captured in the water treatment tank. Treatment water will be cleaned up using spillage kits equipment and tested where necessary to ensure an acceptable level of cleaning has been undertaken in order to continue main process operations using the water.
- Where water in the treatment tank cannot be adequately cleaned / treated then external resources will be engaged to tanker off contaminated water for compliant disposal in accordance with BMTECH Operational procedure with reference to Waste duty of care checks and disposal of waste from site.
- Contaminated materials such as spill kits will be bagged and disposed of in accordance with BMTECH Operational procedure with reference to Waste duty of care checks and disposal of waste form site.
- In the unlikely event of the water settlement tank leaking when it contains contaminated water, leakage is anticipated to be held on site and gully suckers will be arranged to suck up liquids for return to tank or removal off site for disposal in accordance with BMTECH Operational procedure with reference to Waste duty of care checks and disposal of waste form site.
- Road drains in the immediate vicinity of the site will be protected with spillage equipment as a precaution. Any spilled materials entering drainage ditches at the site boundary will be contained in that section of ditch and clean up arranged. Disposal of materials will be in accordance with BMTECH Operational procedure with reference to Waste duty of care checks and disposal of waste form site.
- Oil / fuel spillage from delivery HGVs on the road immediately outside the site (Uttoxeter road) will be prevented from entering road drains where safe to do so. The transportation contractor will take primary responsibility for any oil / fuel leakages from their vehicles on highways when delivering or collecting materials to the BMTECH site.

Build-up of loose combustible waste, dust and fluff

Fire watch checks, weekly site inspections and daily plant and equipment checks include inspection for the build-up of loose combustible waste, dust and fluff and proximity of combustible materials to ignition sources.

Regular waste collection - when container is full, collection will be organised.

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Preventative Maintenance Plan includes scheduled site cleaning requirements. See PMP for specific details.

Reactions between wastes

Oxygen and acetylene (90kg) x 1 of each - are stored in a purpose built trolley. When not in use taken outside and caged in independent cage (see site plan for location).

Note: Quarantine area will be provided for any unexpected wastes, these are not expected to be combustible sources at this time due to where the PVC plastic waste is sourced (power stations and water treatment plants). See site plan and waste storage plan for details.

Waste acceptance and deposited hot loads

Not applicable, waste received by the site is self extinguishing grade PVC (see Technical data sheet for PVC materials accepted by BMTECH).

Waste is also received wet / damp as it is subject to dust suppression during the compaction process undertaken at the client's site prior to acceptance at the Foston BMTECH processing site.

Waste is not received 'Hot', elevated temperatures would be as a result of weather conditions and nothing else.

TECHNICAL DATA SHEET



Rigid PVC sheeting:	459/01
Colour:	09702 - dark grey
Thickness range:	150...900 mic
Surface:	400 - matt / matt

Specific properties:

- medium impact strength
- thermoformable
- good chemical resistance
- self extinguishing

Properties	Value / Unit	Method / Remarks
Thickness-tolerances	± 10 %	DIN 53370 (≤ 200 mic) (201...400 mic) (> 400 mic)
	± 7 %	
	± 5 %	
Density	1,36 ± 0,04 g/cm ³	DIN 53479
Tensile* strength	≥ 41 N/mm ²	DIN 53455, test speed V, 50 mm/min; measured lengthwise
Elongation* at break	≥ 50 %	DIN 53455, test speed V, measured lengthwise

Hot and dry weather

Hot and dry weather will not increase the risk of combustible wastes.

Plant operations may be ceased in hot weather due to engine and motor temperatures. This will be assessed on a daily basis and will be part of the daily staff briefing.

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Prevent self-combustion

General self-combustion measures

Manage storage time

N/A - Waste PVC plastic material is not self combusting and is self extinguishing. However, BMTECH will work to a first in / first out dirty plastic procedure as referenced in the BMTECH waste storage plan and supporting BMTECH Operational procedure

Method used to record and manage the storage of all waste on site

Waste and product movements will be recorded via the BMTECH Waste and Product Log in accordance with the BMTECH waste storage plan and supporting BMTECH Operational procedure.

Stock rotation policy

Note: Not applicable, waste PVC plastic material is not self combusting and is self extinguishing.

Monitor and control temperature

Reduce the exposed metal content and proportion of 'fines'

N/A small amounts of metal contamination on dirty plastic are removed at the pre cleaner stage. Compaction and precleaning stages of the plastic process are wet processes.

Monitoring temperature

Note: Not applicable, waste PVC plastic material is not self combusting and is self extinguishing.

Controlling temperature

Note: Not applicable, waste PVC plastic material is not self combusting and is self extinguishing.

Dealing with hot weather and heating from sunlight

Note: Not applicable, waste PVC plastic material is not self combusting and is self extinguishing.

Waste bale storage

BMTECH do not handle baled wastes and *waste PVC plastic material is not self combusting and is self extinguishing.*

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Manage waste piles

Planning requires max pile heights of 3.4m.

BMTECH currently have historic piles of plastic on site above the 3.4m height. They are currently processing and selling plastic regrind to reduce piles to zero. In future there will be minimum storage of PVC plastic. PVC plastic waste will be processed as soon as it is delivered to site.

Current Pile locations can be seen on the site plan, for detail.

Note: *Not applicable, waste PVC plastic material is not self combusting and is self extinguishing.*

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Storing waste materials in their largest form

Maximum pile sizes & Waste stored in containers for the waste on your site

Waste stream	Location (must match site plan)	How it is stored For example this may include piles, bays, containers, skips, racks, bales (with size).	Accessibility	Can waste / waste containers be moved in a fire?	Max. length / m	Max. width / m	Max. height / m	Volume / m³	Max. time it will be stored
Dirty plastic	Intake yard	Piles concrete partitioned bay	Yes	Yes	20m	20m	3.5m	1,400 m ³	12 months
Soil	Topsoil yard	Pile in concrete partitioned bay	Yes	Yes	22m	17m	3.5m	1,309 m ³	12 months
Wood (preclean removed)	Quarantine area	RORO skip / concrete partitioned bay	Yes	Yes	6.09m	2.44m	1.81m	13.1 m ³	2 months
Wood (pallets)	Yard inside Gate 1	Stacked on the ground	Yes	Yes	6.09m	2.44m	2.00m	29.7m ³	1 month
Municipal waste	Yard inside Gate 1	1,100L wheelie bin	Yes	Yes	1.4m	1.2m	0.65m	1.1m ³	1 week
Metal	Quarantine area	RORO skip / concrete partitioned bay	Yes	Yes	6.09m	2.44m	1.81m	13.1 m ³	2 months
Quarantined waste	Quarantine area	Concrete yard in front of shed 2	Yes	Yes	19m	17m	3.5m	1,130 m ³	Max 2 weeks

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Prevent fire spreading

Separation distances

PVC plastic is not combustible therefore separation distances not applicable.

Wood waste will be stored 6m from buildings.

Fire walls construction standards

Fire walls within the building include a concrete wall between shed 1 and 2 to mid building height.

Storing waste in bays

Concrete bay separators are used for soil, PVC plastics and wood.

***Note:** Not applicable, waste PVC plastic material is not self combusting and is self extinguishing.*

Quarantine area

Quarantine area location and size

The quarantine area is marked on the site plan and is 6m from other wastes and buildings.

How to use the quarantine area if there is a fire

Quarantine area can be used to move burning waste into and therefore avoid spread of fire.

Procedure to remove material stored temporarily if there is a fire

Material likely to be stored in the quarantine area would be dirty PVC plastic which is self-extinguishing and therefore not at risk of spreading the fire.

Detecting fires

Detection systems in use

Fire watch checks and hot works permit used as detection of fire and fire prevention during the day.

As works do not continue outside of working day hours at present the risk of fire out of hours is very low.

Certification for the systems

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Not applicable. No certifiable systems used.

Suppressing fires

Suppression systems in use

BMTECH don't store wastes in buildings, PVC Plastic is self-extinguishing (see technical data above).

Certification for the systems

Not applicable. No certifiable systems used.

Fire fighting techniques

Active fire fighting

Resources:

- Plant that can be used to move waste around the site - 2 x telehandlers and 1 x 360° tracked excavator
- People - 5 x full time staff

Fire fighting techniques that are available:

- applying water to cool unburned material and other hazards
- separating unburned material from the fire using heavy plant
- separating burning material from the fire to quench it with hoses or in pools or tanks of water

Water supplies

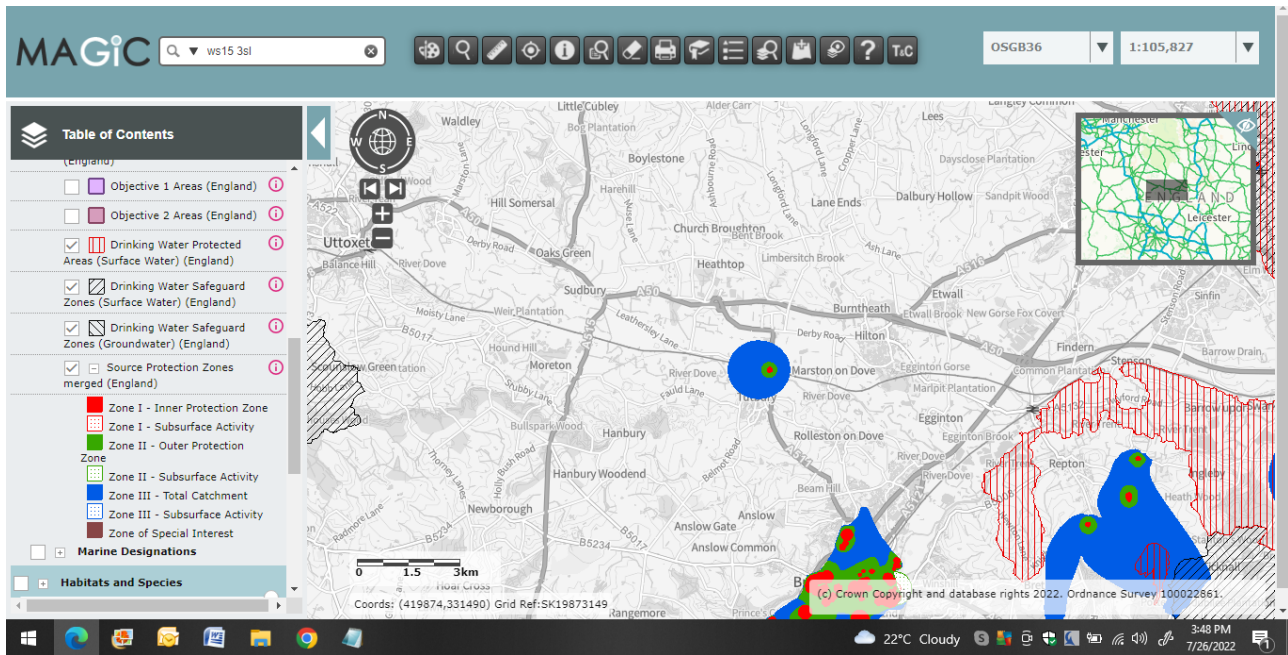
Available water supply

Available water supply - mains water connection, fire hydrant in Uttoxeter road and 1M litre capacity water settlement tank on site

Managing fire water

Not within a Ground water protection, vulnerability or drinking water abstraction site.

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Containing the run-off from fire water

Fire runoff water can be contained in the sump and ultimately the water treatment tank for holding until testing and disposal can be arranged (if necessary)
Site has enclosed drainage.

Low risk to road surface drains in Uttoxeter Road and associated perimeter drainage ditches. As above under spillage, any entry of waters can be contained and cleaned up as necessary.

During and after an incident

Dealing with issues during a fire

Any waste in transit to site would be held in the transport vessel or held / re tipped at client's site until BMTECH was able to receive or make alternative temporary storage arrangements.

Notifying residents and businesses

The following would be notified of fire on site:

- Highways next door and Highways A50
- Industrial park - landlord
- Sensitive receptors - via local authority day, out of hours telephone call or physical visit (if required i.e. dependant on wind direction).

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Clearing and decontamination after a fire

- As above fire water will be held in sump and water treatment tank. Any unlikely escape of waters to surface water drain in Uttoxeter road and perimeter drainage ditches will be contained and analysis conducted and appropriate disposal in accordance with the BMTECH Operational Control procedure with reference to Waste duty of care checks and disposal of waste from site. This will also be the case for any fire damaged materials which require removal from site.

Making the site operational after a fire

Following a fire at site:

- There will be a full inspection of the site to establish what has been subject to fire and heat.
- A Full service of plant and equipment in these areas to ensure safe workings.
- Replacement of fire damaged equipment and building fabric, containers etc.
- Replacement and replenishment of emergency equipment such as spillage and fire extinguishers.
- Review of the incident (report and investigation (where required)) to establish any amendments to the Fire prevention plan, risk assessments and any relevant procedures and systems for continual improvement and prevention in the future.