

Valley Trading

Babdown Industrial Estate, Tetbury

Fire Prevention Plan

1st March 2023

Notice

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Contact Details:

LJ Binnie
tel: 01285 656391 07795143457
email: lb@landandmineral.co.uk
Web: www.landandmineral.co.uk

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1	Site Location

Drawings

Reference	Title
23503-1000-01	Fire Prevention Plan Layout – under separate cover

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Appendix A	Sensitive Receptors and Wind Rose
Appendix B	Permitted Waste Types
Appendix C	Concrete Details
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1 Introduction

Fire Prevention Plan

1.1 This document provides a bespoke Fire Prevention Plan (FPP) as required by Environment Agency (EA) as part of the suite of management documents controlling the waste operations at Babdown. The FPP is designed to:

- minimise the likelihood of a fire happening
- aim for a fire to be extinguished within 4 hours
- minimise the spread of fire within the site and to neighbouring sites

1.2 The FPP has been prepared in line with EA FPP guidance on the gov.uk website.

Operator

1.3 The operator is McCarthy Marland (Recycling) Limited trading as Valley Trading, a comprehensive waste management company with over 10 years' experience in recycling operations.

Permit

1.4 The site activities are for a Household, Commercial and Industrial Waste Transfer Station with waste treatment storage and treatment. This FPP forms part of an application to vary the existing Standard Rules 2008No3 reference no EPR/EB3106LX to a bespoke Permit for up to 100,000 tonnes a year of non-hazardous wastes.

Site Location

1.5 The site is known as the Babdown facility and the address is:

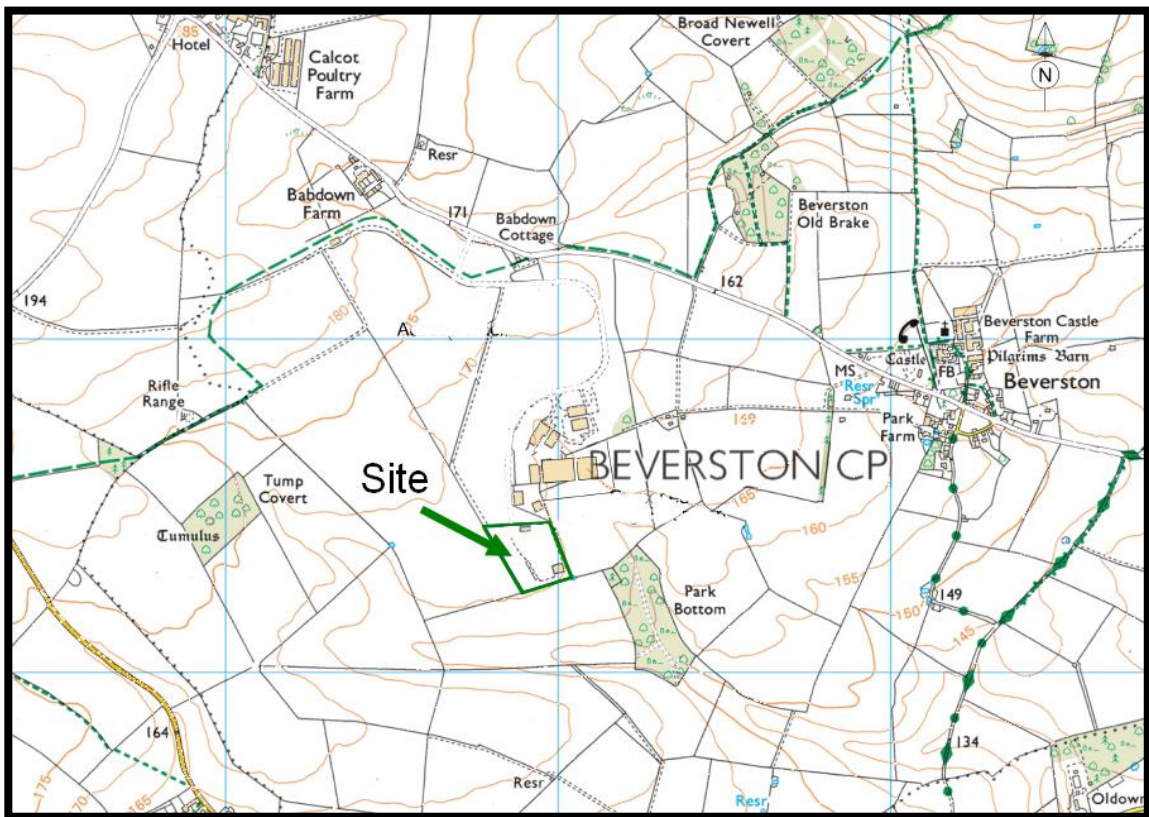
Babdown Industrial Estate, Beverston, Tetbury, Gloucestershire, GL8 8YL
Grid Reference: ST 8489 9337

Site Context including Sensitive Receptors

1.6 The site is located on the south western edge of Babdown Industrial Estate surrounded on three sides by open countryside, see Figure 1. Access to the site is via the industrial estate access road to the A4135.

1.7 Reflecting the rural location of the site there are few sensitive receptors other than the adjacent industrial estate, within a 1km radius of the site. Details of these are provided in Appendix A.

Figure 1: Site Location (nts)



Using this FPP

Who is this for

- 1.8 The FPP is for all members of management, site staff and contractors involved in the waste operations at Babdown Industrial Estate. All office staff based at the Babdown facility will also be made aware of the contents of this FPP.

FPP Document: Communication

- 1.9 An up-to-date copy of the FPP will be held at the front desk of site offices which are found at the entrance to the site available for inspection by all members of staff. In addition an electronic copy will be available.
- 1.10 Visitors to the site will be made aware of the fire prevention and fighting procedures to ensure they understand their responsibilities.

Review

- 1.11 The FPP will be reviewed at regular intervals together with the other site documents¹ or periodically reviewed as may be triggered by new site procedures/changes, guidance/legislation requirements or in response to findings at a training exercise or an actual incident.

Training

- 1.12 All staff are fully trained in fire procedures which includes up-date training and routine fire drills. Fire training forms part of the site induction training before staff can commence working on site. All nominated 'firefighting' operatives will have specific training provided by the Fire Service, provided at the site using the firefighting equipment and procedures of the FPP.
- 1.13 Refresher training with tool box talks and a full mock site incident exercise will take place at least once a year. Management will review the need to increase the frequency of fire training and exercises in response to staff turnover, changed site practises and any incidents or near misses. Full records are kept of all training events.

¹ Every 4 years.

2 Site Activities

Waste Types

- 2.1 The permitted waste types to be accepted are non-hazardous wastes, for a full list see Appendix B.

Site Activities - Non Waste Activities

- 2.2 The site entrance including two weighbridges, the site offices, workshop and parking areas are all located at the northern end of the site. A further area of non-waste activities comprising aggregate sales area and a skip storage area, are located in the north west and east corners of the site.

Site Activities - Waste Activities

- 2.3 The site's waste activities involve the storage, sorting, separation, screening, baling, shredding, crushing and compacting of the permitted waste types into different components for disposal or recovery.
- 2.4 Inert wastes represent the largest tonnage accepted at the site with processing and storage of inert wastes taking place in the northern part of the site. The inert wastes are processed by mobile crushing, screening and trommel plant into various recycled aggregate and soils products. The inert waste operations do not involve combustible wastes.
- 2.5 Mixed wastes activities take place in the Waste Reception Building (WRB) which is located in the south eastern corner of the site. Mixed waste is deposited on the floor of the WRB and processed through a materials recycling plant which is fixed plant including a variety of magnets and screens and a hand picking line which separates different fractions of the waste which includes metals, plastics, wood and inert materials.
- 2.6 The separated fractions of plasterboard, RDF fraction and the residual waste for landfill are stored inside the WRB before removal from site. The other separated fractions are moved throughout the working day to the corresponding storage area for the separated waste type i.e. that these are essentially working piles with the storage duration of any material in the WRB bays under the picking line is less than 24 hours.
- 2.7 The separated plastics and paper/cardboard fractions are baled, in the baling area to the north east of the WRB with the bales transferred to a storage area on the opposite side of the site.

2.8 Green waste is separated from incoming material in the WRB, or if a complete load, directed to the appropriate storage bay.

Combustible Wastes

2.9 Details of the combustible wastes that are kept on site are provided in table 1, see overleaf, which includes details of storage arrangements including pile sizes and maximum storage durations. None of the storage exceeds either the pile sizes or storage duration of the EA FPP guidance.

Other Combustible Materials

2.10 There are other combustible materials such as fuel, lubricants etc which are kept on site. These are listed in table 2 together with their storage arrangements.

Table 2: Storage Details Combustible Non-Wastes Materials

Item	Storage Arrangement	Location	Inspection
Diesel	Bunded tanks	Outside offices	Daily
Gas Cylinders	Cage	South of WRB	Daily
Grease	Undercover on impermeable surfacing	Workshop	Daily
Other liquids	Undercover on impermeable surfacing	Workshop	Daily

Table 1: Combustible Wastes: Pile Sizes and Storage Details

Material	Form	Location Pile Number	How Stored	Storage Duration	Dimensions (m)			Volume (m3)	EA Guidance max (m3)
				max	Length	Width	Height		
Wood	Loose & >150mm	1	External pile	1 week	10	9	4	324	750
Wood	Loose & >150mm	2	External pile	1 week	10	9	4	324	750
Wood	Loose & >150mm	3	External pile	1 week	10	9	4	324	750
Green Waste	Loose & >150mm	4	External pile	1 month	10	4	4	144	750
Plastic	Baled	5	External pile	1 week	10	4	4	144	300
UPVC	Loose & >150mm	6	External pile	1 Week	8	7	2.75	154	750
Scrap Metal (non ELV)	Loose & >150mm	7	External pile	1 month	8	7	2.75	154	750
Plastic	Loose & >150mm	8	External pile	1 week	16	7	2.75	308	750
Plasterboard	Loose & >150mm	9A	WRB	1 Week	9	7	3	189	750
RDF	Loose & >150mm	9B	WRB	2 days	7	7	3	147	450
Residual Waste	Loose & >150mm	9C	WRB	2 days	12	7	3	252	450
Paper and cardboard	Loose & >150mm	10	WRB	1 day	3	5	3	45	750
Plastic	Loose & >150mm	10	WRB	1 day	3	5	3	45	750
Wood	Loose & >150mm	10	WRB	1 day	3	5	3	45	750
Wood	Loose & >150mm	10	WRB	1 day	3	5	3	45	750
Residual	Loose & >150mm	10	WRB	1 day	3	5	3	45	750
Metals	Loose & >150mm	10	WRB	1 day	3	5	3	45	750
Total '10' pile size								270	
Hardcore	Loose & >150mm	10	WRB	1 day	5	5	3	75	
Residual bulky	Loose & >450mm	11	WRB	1 day	4	5	4	80	450
Mixed waste (feed)	Loose & >150mm	12	WRB	1 day	8	10	4	320	450
Residual bulky	Loose & >450mm	13	WRB	1 day	4	5	4	80	450
Residual bulky	Loose & >450mm	14	WRB	1 day	4	5	4	80	450

Notes:

1. The external storage piles 1 to 5 have had a 10% reduction on the volume to accommodate the side slope of the piles.
2. Storage Piles 6, 7 and 8 are a series of 'roro' bins (3,3 and 6 bins respectively) but the size quoted is the cumulative size of the roros added together (roro footprint is 7m x 2.5m footprint).
3. Drawing no. 23503-1000-01 provides the site layout and pile numbering corresponds to the Location Pile Number.

3 Prevention of Fires

Ignition Sources

- 3.1 Operations on site are designed to keep processing and storage areas and sources of ignition separate or minimise the risk of ignition as far as reasonably possible. The following section identifies the various potential ignition sources at the site and how operations are managed to minimise the risk of a fire.

Arson

Security

- 3.2 No members of the public are allowed on site. The site gates are only open during working hours and all site operatives are informed that on identifying any members of the public on the site they must be approached and asked to leave. The site is situated in open countryside but screened from public view by an extensive boundary bund. The boundary bund, fencing and site gates ensure the site is secure.

CCTV

- 3.3 There is an extensive CCTV system across the site, see drawing no. 23503-1000-01. The CCTV provides a continuous live feed and allows monitoring of the site both during the working day and outside working hours with notification of any unauthorised presence on site allowing appropriate action to be taken e.g. on site attendance/calling out the police.

Out of Hours

- 3.4 As noted above the CCTV provides for site monitoring out of hours and site staff can attend on site within 15minutes of a notification. Additionally the site gates have an alarm beam detector which if triggered outside operating hours will send automatic alerts sent to the site manager.

Plant and Equipment

Plant on Site

- 3.5 Mobile plant (including processing plant and plant used to move materials about site) and equipment on site is detailed in the table 3 including its use, fire prevention measures and maintenance arrangements.

Table 3: Site Plant

Mobile Plant (external – semi static)	Fire Prevention	Inspection	Maintenance
X1 Doppstadt SM518 profi trommel/ screen	N/A*	Daily	As per Manufacturer
X1 Sandvik QE341 Screener	N/A*	Daily	As per Manufacturer
X1 Sandvik QE341 Crusher	N/A*	Daily	As per Manufacturer
Mobile Plant (external – mobile)	Fire Prevention	Inspection	Maintenance
X2 Liebherr 906 excavators	Portable hand held	Daily	As per Manufacturer
X1 Hitachi Loading shovel	Portable hand held	Daily	As per Manufacturer
X1 Fuchs MHL 320 material handler	Portable hand held	Daily	As per Manufacturer
X1 Doosan DL250-3 loading shovel	Portable hand held	Daily	As per Manufacturer
X1 Case 1h MX 170T tractor and bowser	Portable hand held	Daily	As per Manufacturer
X1 Fire Engine	Portable hand held	Weekly	As per Manufacturer
Mobile Plant (internal)	Fire Prevention	Inspection	Maintenance
X1 Cat 307E mini excavator	Portable hand held	Daily	As per Manufacturer
X1 Fuchs MHL 310 material handler	In Built suppression	Daily	As per Manufacturer
X1 Liebherr T60-9 telehandler	Portable hand held	Daily	As per Manufacturer
Fixed Plant External	Fire Prevention	Inspection	Maintenance
Kiverco Picking Station	Portable hand held	Daily	As per Manufacture
Fixed Plant Internal	Fire Prevention	Inspection	Maintenance
X1 MRF sorting plant – Various makes and models	Bespoke suppression system (Deluge)	Daily	As per Manufacturer

* External mobile plant is only operation in tandem with external mobile plant which has fire prevention equipment.

Plant inspections

- 3.6 All persons engaged at the site are given appropriate induction and refresher training in the safe operation of plant and equipment. In the event of a failure or suspected fault, the relevant persons ensure that plant or equipment is shut off in a safe manner and not used until repaired or replaced. Any defects are recorded and actioned appropriately with full records of all inspection and maintenance works kept by the operator at the site office.

Parking of Plant

- 3.7 At the end of the working day the mobile plant is parked at the northern end of the site, see drawing no. 23503-1000-01, a minimum of 50m from areas with combustible wastes.

Electrical

- 3.8 A schedule is maintained for the regular inspection and maintenance by a certified electrician of all electrical works on site, buildings and plant. Periodic inspections will be undertaken by a suitably qualified electrician at least every 5 years; the inspection frequency will be based on recommendations from the electrician or where a potential risk is identified via the daily site inspections.
- 3.9 Records of regular safety checks, daily inspections and maintenance works are kept by the site operator.

Smoking

- 3.10 No smoking or burning is permitted with the exception of two staff smoking areas one located at the site offices located at the site entrance and the other at the WRB building, see drawing no. 23503-1000-01.

Hot Working

- 3.11 All hot works are undertaken by trained persons using a risk assessment and permit to work system, ensuring that safe working practices are followed:
- welding/cutting is undertaken with a hot work permit typically at the workshop where fire extinguishers are available;
 - no hot works are performed within 6m of waste or combustible/incompatible materials;
 - site signage is used to re-enforce the permit to work policy for welding;
 - a post works fire watch is made one hour after works, if the site has not cooled sufficiently further regular checks are made until cooling is confirmed.

Industrial Heaters

- 3.12 No industrial heaters are operated in any areas where there is combustible waste.

Exhausts and other Hot Machinery

- 3.13 All machinery, including exhausts will be constantly monitored whilst in use by the operative. Vehicles are turned off when not in use. All machinery will be cleaned down at the end of the day and moved away from combustible material, parked at least 6m from any waste. A fire watch of all on-site plant and equipment will be undertaken 1hour after its use and at the end of every working day to check the plant has cooled. Checks will be recorded in the site diary.

Batteries

- 3.14 Batteries are a possible ignition risk and the permitted waste types allow batteries to be accepted to site. However the site does not currently accept single loads of batteries and the FPP will be reviewed if this is to change. It is still possible that batteries could arrive at site contained in loads of mixed waste. To minimise the risk as a potential ignition source all site staff are instructed to be vigilant for batteries or items that could contain batteries e.g. old fire alarms. On identifying batteries or potential items with batteries staff are instructed to cease operations, isolate and remove the item which is to be put into a specified battery IVC container which is then transferred from site to an appropriate disposal facility.

Leaks and spillages of oils and fuels

- 3.15 All plant and machinery is regularly maintained and inspected. Any defects such as fluid leaks are dealt with immediately and any machine leaking oil or fuel will not be used until repaired are affected. Any leaks of oils or fuel will be immediately dealt with and contaminated materials removed off site to an appropriate disposal facility. Spill kits are kept on site, see drawing no. 23503-1000-01 for location, and any spillage/leak incidents will be fully recorded in the site diary.

Build-up of loose combustible waste, dust and fluff

- 3.16 Good housekeeping is employed to ensure that there is no build-up of loose combustible waste, dust and fluff in areas where combustible wastes are processed or stored. At the end of a working shift site staff are responsible for ensuring all surfaces of their working areas are clean. The Site Manager is responsible, as part of his daily site inspection, for checking surfaces for cleanliness.

- 3.17 When a combustible waste storage bay is cleared the Site Manager will inspect the empty bay to ensure any remaining residual loose debris is removed before any new storage takes place.

Incompatible Materials

- 3.18 Mixed waste is accepted to site and has the potential to contain incompatible materials which could give rise to a potential ignition risk. Waste acceptance procedures are robust providing for a number of stages to identify and remove unsuitable materials which includes pre-acceptance, pre-collection, pre-processing and processing stages. To further minimise the risk of incompatible materials starting a fire the mixed waste material is typically processed straight away when it arrives at site with the material separated into different fractions. The maximum storage period of any unsorted mixed waste is 24hr.

Hot and Dry Weather

- 3.19 During conditions of hot and dry weather additional daily checks will be carried out during the working day on the external combustible storage areas which are not shaded. If deemed necessary rotation of the material will take place to cool heated surfaces or the spraying of water on surfaces.

Neighbouring Site Activities

- 3.20 In line with EA FPP guidance there is a minimum 6m standoff between the permit boundary and any combustible waste operations. Surrounding the site on three sides is agricultural land which is considered to pose a low fire risk. The neighbouring occupants at the industrial estate to the north are located a minimum of 100m away at their closest to the areas where combustible waste activities take place. The operations on the industrial estate are essentially storage and not considered to represent a fire risk to the site due to the nature of their activities and the distances involved.

4 Preventing Self Combustion

Storage Times

- 4.1 All storage times for the different types of combustible wastes are detailed in table 1 with a maximum storage time of 1 month, well below the recommended storage times of the EA FPP guidance of a maximum duration of 6 months, with additional requirements in respect of monitoring required when storage exceeds 3 months.

Managing Storage Times

- 4.2 All waste is fully recorded as it enters site in accordance with waste acceptance procedures. The site operations involve the regular removal of all combustible waste and records are kept of the removal of each waste pile. The record of the removal provides the trigger for resetting the storage duration of a particular pile. The site manager conducts a weekly review of the material removed from site to ensure that piles do not exceed storage duration times². If for some reason material is not removed as programmed, for instance a vehicle breakdown, then the storage pile will be fully rotated and the site manager will make arrangements to ensure its removal within 7 days.
- 4.3 The storage times for the unsorted mixed wastes in the WRB, 24hours, essentially reflect the fact that these are feedstock piles with material continuously fed into the plant. At the end of the working day the site manager will check to ensure that any stored material in the WRB is in line with the storage details in table 1.

Stock Rotation

- 4.4 There are no provisions to routinely rotate the storage piles of combustible wastes given the limited storage durations of materials on site other than as noted in para 4.2.

Temperature Provisions

Metal Content and Fines

- 4.5 Metals are removed from the mixed waste within 24hours and stored separately from other wastes. There is no processing of the metals on site. It is not considered that the metals' site operations pose a self-combustion risk.

² In the unlikely event that storage times were exceeded the storage duration would still be well below the EA figure of 3 months, noting the maximum storage duration is 1 months,

- 4.6 The site processing operation do not involve any processing of the mixed wastes or other combustible wastes other than sorting which ensures that no fines are produced at the site with any potential for self-heating/combustion.

Monitoring and Controlling Temperature

- 4.7 The EA FPP guidance only requires measures to control heat to prevent self-combustion for any waste stored for more than three months. The storage times at Babdown are well below 3 months so there is no requirement to control or monitor temperature in storage piles.

Hot Weather

- 4.8 Given the short storage durations it is not considered that additional measures are necessary to monitor material in hot weather however in periods of hot weather the Site Manager will ensure that surfaces of external storage piles are dampened down.

Baled Waste

- 4.9 There is limited baled waste storage on site with the storage complying with the EA FPP guidance in terms of both pile dimensions and duration, see table 1. The EA FPP guidance only requires an FPP to have additional measures to address self combustion of baled wastes where the storage exceeds 3 months therefore no additional provisions are necessary for the storage of baled waste at Babdown.

Stored Wastes – Material Sizes

- 4.10 The site operations do not involve the physical reduction of any combustible wastes and all material is stored in its largest form, see table 1, which accords with the EA FPP guidance.

Stored Wastes – Pile Sizes

- 4.11 Full details of the combustible waste storage pile sizes are provided in table 1. All pile sizes are below the recommended maximum pile sizes of the EA FPP guidance.

ELVs (End of Life Vehicles)

- 4.12 The permit does not allow ELVs to be accepted to site and therefore there is no requirement for the FPP to address this.

Waste stored in containers

- 4.13 No combustible waste is stored in containers .
- 4.14 Any gas cylinders are stored in a separate locked cage, see drawing no. 23503-1000-01.

5 Preventing the Spread of Fire

Separation distances

- 5.1 There is a minimum standoff to the permit boundary of 6m from all waste activities including storage.
- 5.2 A minimum distance of 6m is kept clear between all storage piles of combustible wastes, where this does not occur and there are no fire walls separating the wastes then the storage has been assessed as a single pile³.
- 5.3 There are three distinct areas of storage areas in the WRB. The feedstock area, i.e. the mixed waste in the western end of the WRB, is stored in a series of piles with a minimum separation distances of 6m between the piles.
- 5.4 The wastes under the picking station are the second area, in the eastern end of the WRB. Here the separated wastes are in a series of bays with concrete panel walls in-between however for the purposes of this FPP they are treated as a single pile with a total capacity of 270 cubic metres (6 piles of 3m x 5m by 3m high but with the final bay of inerts not include as it is not combustible waste) which is still below the smallest EA maximum pile guidance level of 450 cubic metres. There is a minimum distance of 6m between this and any other waste storage areas.
- 5.5 The third area is where the plasterboard, RDF and residual waste is stored in the eastern end of the WRB on the opposite side to the picking station storage. The different wastes are separated by thick concrete block walling acting as fire walls, see Appendix C for details.s, for the purposes of this FPP they are treated as a single pile with a total capacity of 588 cubic metres which is below the EA maximum pile guidance level of 750 cubic metres. There is a minimum distance of 6m between this and any other waste storage areas.

Fire Walling

- 5.6 Fire walling is provided to separate piles using either concrete 'lego' blocks or concrete panelling, see Appendix C for fire resistant details. Piles 1 to 5 and piles 9A/B/C are separated by concrete blocks and concrete panelling separates the storage bays under the picking station (storage location 10). Waste is stored approximately 1m below the height of the concrete walling to ensure an appropriate 'free board' is maintained.

³ See table 1

Storage Bays

- 5.7 All waste stored in the WRB is against concrete panelling with the waste stored with a minimum free board of 1m from the top of the waste and top of the concrete walling. The concrete panelling is considered to have fire resistant properties however for the purposes of this FPP adjacent piles in the WRB have been assessed as single piles with appropriate separation distances (6m) maintained between the different waste storage areas as outlined above which accords with EA FPP guidance.
- 5.8 The walling will allow the removal of waste in adjacent bays should there be a fire incident in an adjacent bay.

Quarantine Area

- 5.9 Quarantine provision at the site is identified as drawing no 23503-1000-01. The quarantine area is a bare area of ground which is kept clear at all times unless in use during a fire incident. Excluding the surrounding separation distances, the quarantine area has a footprint in excess of 50m².
- 5.10 The requirements in the EA FPP guidance state the quarantine area has to accommodate 50% of the largest pile, at Babdown the largest storage pile has a footprint of 90m². In line with EA FPP guidance there is at least 6m separation around the quarantine area which is kept completely clear. The site manager will ensure that this zone is always free of waste as part of the daily site inspection (as recorded in the site diary).
- 5.11 The area is to be used to hold materials removed from a storage pile during an incident, to deposited heated material or to hold burnt material after a fire⁴. Burning material will not be moved into the quarantine area because of the unacceptable risk to staff and potential ignition to other storage areas.
- 5.12 When the area is used to cool heated material, initially material will be tipped onto the ground and spread over the ground. An assessment will be made of how to cool the material. Options to cool the material include simply spreading out the material and/or the application of inert material to smother the material.

⁴ If burnt material is placed in the quarantine area site operations will continue at a reduced levels i.e. that any subsequent storage is commensurate to the 'free' remaining area of the quarantine area.

- 5.13 If heated material has been deposited in the quarantine area there will be on going monitoring throughout the working day of the cooling operations. At the end of the working day a final assessment will be made and appropriate actions undertaken to ensure that no heated material is left outside working hours in a condition that might lead to self-combustion.
- 5.14 Once the material has been cooled sufficiently a further assessment will be made as to the condition of the cooled material. If it is no longer fit for purpose it will be disposed of at an appropriately permitted site, currently the nearest disposal facility is the Wingmoor Landfill Site at Bishop's Cleeve, Cheltenham. If the cooled material is suitable for use it will be returned to an appropriate storage area.
- 5.15 Full records will be maintained of materials brought to the quarantine area including the cooling treatment, monitoring and final removal either as product or for off-site disposal.

6 Detecting and Suppressing Fires

Detecting Fires: General

6.1 All site staff are aware are briefed to be aware of fires starting and to raise the alarm as soon as any signs of a potential fire are spotted and follow the response procedure in Appendix D.

Out of hours

6.2 All areas of the site are subject to 24 hours CCTV surveillance with motion activated alerts providing out of hours notification to nominated site operatives who are able to remotely assess the situation and the appropriate action required. Out of hours, nominated staff can attend on site within 15 minutes. The WRB has a bespoke 24 hour automatic detection and suppression system which is detailed below.

WRB: Automatic Detection and Suppression System

6.3 In line with EA guidance the WRB has an automatic, 24hour fire detection and suppression system. The principles of the operation of the system are as follows:

- Flame detectors with coverage corresponding to valves on the deluge system.
- Flame detector automatic activation of deluge system.
- Fire system contacts the associated key holder/out of hour contact with ability to view CCTV to determine if its an actual fire or false alarm.
 - If it's a genuine fire the key holder will let the system carry on its cycle (deluge will soak this area according to which flame detector activated).
 - If it's a false alarm the key holder can text the system to the relevant SIM card phone number 'RELAY OFF' this will interrupt the signal from the fire panel to the pump and prevent system start up (with in the time delay Approx. 2 mins).
- The fire system has call points in each area which can be used to activate the system anytime.

6.4 The deluge system is connected to the on-site water tank via a Clarke fire pump (model JU4H-LP24, 2800rpm). Plans of the layout of the detection arrangement and location of deluge valves are provided in Appendix E. The WRB suppression system is a bespoke system designed and installed by Gentek Fire & Security Ltd who install and commission of fire systems that are compliant to British standards.

Firefighting

Firefighting – General

- 6.5 Firefighting will be undertaken by site staff when safe to do. On discovering a fire during the working day, the Site Manager will be directly informed and fire-fighting actions will immediately be brought into action on the affected area. The system in the WRB is independently triggered and operated on detection of a fire in the WRB.
- 6.6 In the event of a fire during the working day all site processing operations will cease, no waste will be accepted to the site with all machines in the affected area switched off and moved to a safe location where possible. Contingency arrangements for the diversion of waste will be activated to redirect any incoming wastes to the other facilities.
- 6.7 Should the emergency services be called out the Site Manager will be responsible for liaising with them on their arrival.

Fire Fighting –Strategies

- 6.8 Should a fire break out in an external waste pile, the on-site fire engine will be used to apply water to the affected area. In addition to the fire engine the tractor and bowser will be available to assist with application of water. It is not anticipated that the WRB would require the use of additional fire fighting equipment but this can be assessed by the Site Manager and the fire engine can be deployed if considered necessary.
- 6.9 In the event of a fire in an external waste pile, when safe to do so, the loading shovels would push away the unaffected parts of the pile, either to the quarantine area, or using separation distances as temporary quarantine areas where this does not present a risk of combustion to other storage piles. This is to reduce the amount of material available to potentially burn. Any ‘moved’ material would be returned to a normal pile formation as soon as possible.
- 6.10 For safety reasons, no burning material will be moved across the site. After a fire, burnt material may be removed to the quarantine area if appropriate.

Fire & Rescue Service

- 6.11 Fighting a major fire would be undertaken by the fire service because of the safety risks to the staff. The Fire & Rescue Service will use their own high-volume pumps and hose equipment for firefighting. Site staff and equipment will be able to assist firefighting as requested by the fire service. The on-site water supply has fittings compatible for use with fire service equipment.

6.12 The Fire & Rescue Service will be summoned even if the site suppression system is adequate to control the fire.

Controlled Burn

6.13 It is not proposed to use 'controlled burn' as a firefighting technique. A controlled burn would only take place with prior agreement with the Environment Agency, Fire & Rescue Service and UK Health Security Agency.

Firefighting Equipment

6.14 Fire extinguishers are provided on each item of mobile plant and at strategic locations around the site (office and workshop and WRB); all are checked and serviced annually.

6.15 The on-site fire fighting equipment comprises:

- Fire Engine;
- Tractor and bowser;
- Fire pump;
- Mobile plant (shovels);
- Staff (including on-call for out of hours);
- Water tank with fire hose coupling suitable for fire service equipment – water supply and storage); and,
- Water borehole.

6.16 All firefighting equipment is subject to a regular inspection and maintenance regime to ensure it is fully operational and ready for use at any time. The fire engine and tractor and bowser parked adjacent to the water tank and pump.

6.17 When an inspection identifies any repair or maintenance work required for the effective operation of the equipment this will be undertaken as a matter of priority. All firefighting equipment shall be inspected following its use to ensure it is fully operational and effective. Records are kept of all inspections and maintenance works.

7 Managing Fire Waters

Water Supply

Available Water Supply

- 7.1 The water supply available for firefighting purposes is detailed in table 4 and the location of this is shown on drawing no 870F/FPP.

Table 4: Details of Water Supply Available on site

Water Supply	Amount	Avail for 3 hours (ltr)
Fixed tank	363392 litres	363392
Borehole	2m ³ /hr	6000
	Total	369392

- 7.2 The water in the tank is kept topped up by water from the borehole. The tank and borehole have fittings compatible for use with fire service appliances.

Required Water Supply

- 7.3 Based on the EA FPP guidance⁵ with a maximum pile size of 324m³ the total amount of water provided at the site must be 388800litres, see table 5.

Table 5: Site Water Requirement

Pile Size (cube)	Water Requirement (ltr)	Water Requirement (m ³)
320	388800	388.8

- 7.4 As demonstrated by the table above there water supply on site is approximate to the required water requirements. Further water supplies are maintained for fire fighting purposes in the adjacent industrial estate immediately to the north, Woodlodge Products have a retained water supply of 45,000litres for fire fighting purposes on their site and have confirmed these would be available for use Valley Trading on their site if required.

Containment

- 7.5 The site is fully surrounded by bunding, circa 4-5m high, which is continuous around the site except at the site entrance on the northern boundary. The site has a fall from north to south of

⁵ That for a 300 m³there must be sufficient water to provide for 2,000ltr/min for 3hrs

2m with all site waters draining to south eastern corner. The bunding gives a substantial storage capacity for surface waters, a conservative estimate of 0.25m over the southern part of the site (1ha) would equate to storage of 1,250m³ (1250000litres). This provides more than adequate containment for fire waters.

- 7.6 The contained water will be assessed as to its quality and as appropriate removed to a suitable site for disposal with removal within 24hours.

8 During and After an Incident

Contingency for During the Incident

- 8.1 In the event of a fire, occupants on the industrial estate will be informed. For the worst case scenario, it is anticipated that nearby workplaces would need to close windows and stay indoors.
- 8.2 If safe to do so, all site plant will be driven away from the location of the fire and parked elsewhere. No one will be allowed to re-enter any part of the site and traffic ingress will be prohibited with any incoming waste diverted to alternative permitted sites.
- 8.3 Contact details of neighbouring sites are included in Appendix F (their retention is subject to the GDPR 2018). The response procedure in the event of a fire is included in Appendix D.

After an Incident

- 8.4 Actions to be taken after a fire include:
- Visual assessment of site and all waste materials;
 - Drainage - pump out any drainage points with contaminated waters;
 - Waste - any burnt or damaged materials from a fire will be disposed of to a suitably permitted facility;
 - Repairs - all fire detection systems, suppression systems and alarms will be checked / repaired and be fully operational prior to reopening the site;
 - Complete fixed wiring inspection will be completed; and
 - Repairs / replacement to damaged elements of fixed and mobile plant.
- 8.5 The Site will only fully reopen once these measures have been implemented.
- 8.6 The Environment Agency will be notified in accordance with conditions within the permit regarding any incidents which may significantly affect the environment. This notification will include all necessary measures required to ensure that environmental consequences are limited and the measures to be taken to restore the operation and maintain compliance.

Disposal of Fire Residues

- 8.7 As mentioned above, burnt material will not be suitable for use and will be removed from site to an appropriately permitted disposal site.
- 8.8 The used fire waters will be contained within the site as previously detailed. After a fire incident the quality of the used fire waters will be assessed as to its treatment or disposal such that it does not pose any environmental risk, where necessary being removed from site to an appropriately permitted disposal site. Currently the nearest disposal facility able to accept the burnt material and used fire waters is the Wingmoor Landfill at Bishops Cleeve.

Reporting

- 8.9 All Fire incidents will be fully recorded, including investigation of the cause of the incident and any actions implemented. Full details will be provided to the Environment Agency.

Appendices

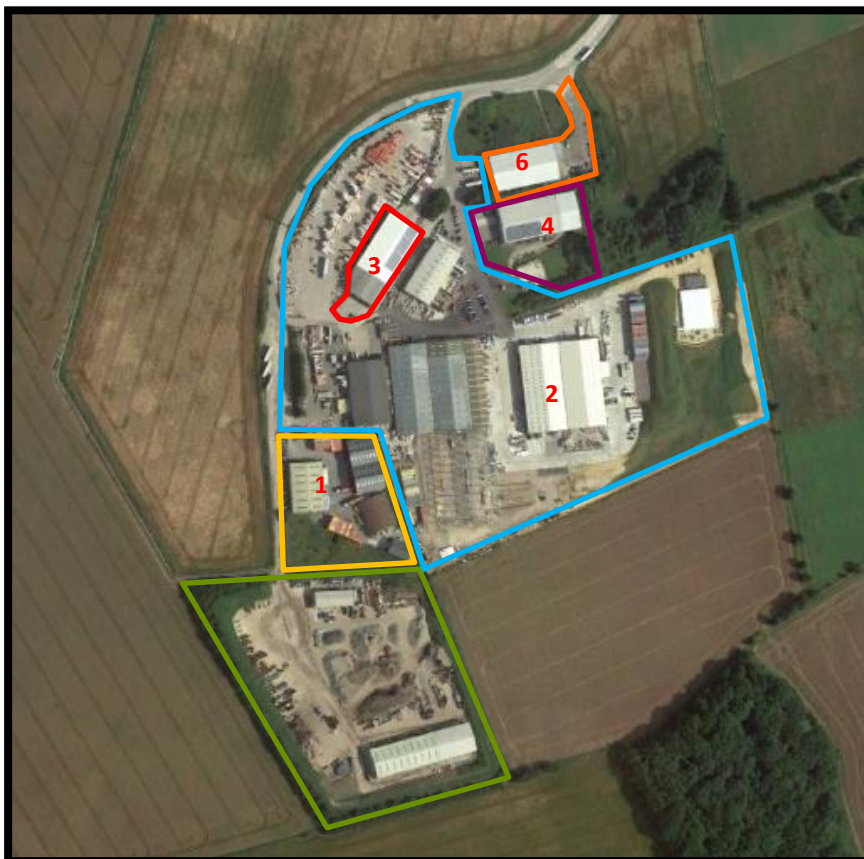
Appendix A – Sensitive Receptors and Wind Rose

Sensitive Receptors

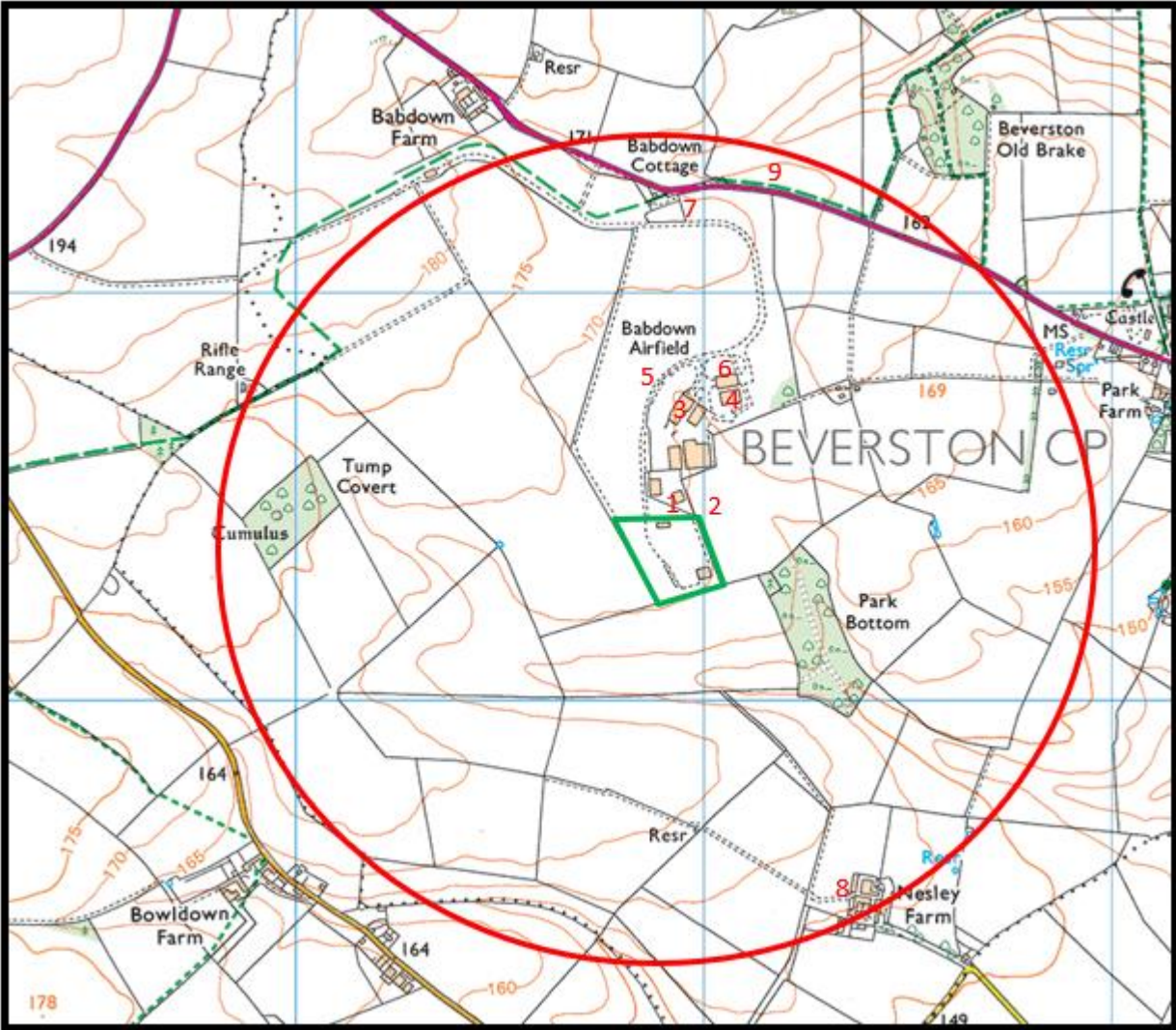
	Potential Receptor	Receptor Type	From Boundary of Permit	
			Distance	Direction
1	DF Sales	Industrial/commercial workplace	20	North
2	Woodlodge	Industrial/commercial workplace	20	North
3	Cotswold Steel	Industrial/commercial workplace	225	North
4	Uniwire	Industrial/commercial workplace	260	North
5	Wind turbines (x2)	Energy infrastructure	285m & 385m	North
6	Cotswold Collection	Industrial/commercial workplace	125	North
7	Babdown Cottage	Residential Property	795m	North
8	Nesley Farm	Agricultural Workplace & residential property	>800m	South
9	A4135	Infrastructure (road)	>800m	North

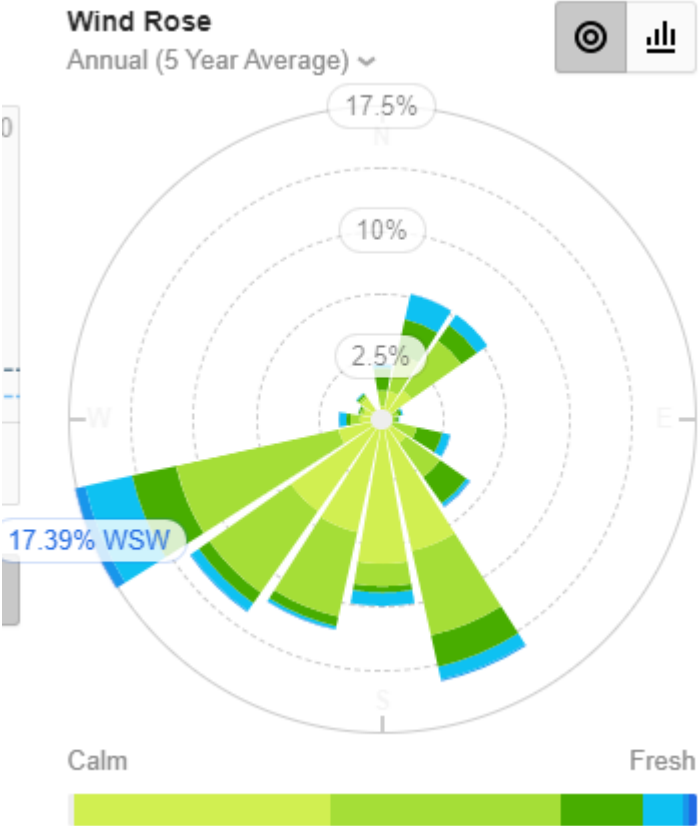
There are no surface water courses or designated conservation sites within 1000m of the site.

Annotated aerial image inset below confirms occupancy on the industrial estate.



Receptor Plan





<https://wind.willyweather.co.uk/sw/gloucestershire/tetbury.html>

**Appendix B – Permitted Waste Types
Will be updated as a result of Variation**

01	WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS
01 01	wastes from mineral excavation
01 01 01	wastes from mineral metalliferous excavation
01 01 02	wastes from mineral non-metalliferous excavation
01 03	wastes from physical and chemical processing of metalliferous minerals
01 03 06	tailings other than those mentioned in 01 03 04 and 01 03 05
01 03 09	red mud from alumina production other than the wastes mentioned in 01 03 07
01 04	wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
01 04 11	wastes from potash and rock salt processing other than those mentioned in 01 04 07
01 04 12	tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11
01 04 13	wastes from stone cutting and sawing other than those mentioned in 01 04 07
02	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 03	plant-tissue waste
02 01 04	waste plastics (except packaging)
02 01 07	wastes from forestry
02 01 10	waste metal
02 02	wastes from the preparation and processing of meat, fish and other foods of animal origin
02 02 03	materials unsuitable for consumption or processing
02 03	wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 03 04	materials unsuitable for consumption or processing
02 04	wastes from sugar processing
02 04 01	soil from cleaning and washing beet
02 04 02	off-specification calcium carbonate
02 05	wastes from the dairy products industry
02 05 01	materials unsuitable for consumption or processing
02 06	wastes from the baking and confectionery industry
02 06 01	materials unsuitable for consumption or processing
02 06 02	wastes from preserving agents
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	wastes from spirits distillation
02 07 04	materials unsuitable for consumption or processing
03	WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD
03 01	wastes from wood processing and the production of panels and furniture
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04

03 03	wastes from pulp, paper and cardboard production and processing
03 03 01	waste bark and wood
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	wastes from sorting of paper and cardboard destined for recycling
03 03 10	Fibre rejects, fibre-, filler- and coating-sludges from mechanical separation
04	WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES
04 01	Wastes from the leather and fur industry
04 01 08	waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium
04 01 09	wastes from dressing and finishing
04 02	wastes from the textile industry
04 02 21	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres
06	WASTES FROM INORGANIC CHEMICAL PROCESSES
06 09	wastes from the MSFU of phosphorous chemicals and phosphorous chemical processes
06 09 02	phosphorous slag
06 09 04	calcium-based reaction wastes other than those mentioned in 06 09 03
06 11	wastes from the manufacture of inorganic pigments and opacifiers
06 11 01	calcium-based reaction wastes from titanium dioxide production
07	WASTES FROM ORGANIC CHEMICAL PROCESSES
07 02	wastes from the MFSU of plastics, synthetic rubber and man-made fibres
07 02 13	waste plastic
09	WASTES FROM THE PHOTOGRAPHIC INDUSTRY
09 01	wastes from the photographic industry
09 01 07	photographic film and paper containing silver or silver compounds
09 01 08	photographic film and paper free of silver or silver compounds
09 01 10	single-use cameras without batteries
09 01 12	single-use cameras containing batteries other than those mentioned in 09 01 11
10	WASTES FROM THERMAL PROCESSES
10 01	wastes from power stations and other combustion plants (except 19)
10 01 01	bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 01 05	calcium-based reaction wastes from flue-gas desulphurisation in solid form
10 01 07	calcium-based reaction wastes from flue-gas desulphurisation in sludge form
10 01 15	bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14
10 01 19	wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18
10 01 24	sands from fluidised beds
10 02	wastes from the iron and steel industry
10 02 01	wastes from the processing of slag
10 02 02	unprocessed slag
10 02 08	solid wastes from gas treatment other than those mentioned in 10 02 07
10 02 10	mill scales
10 02 14	filter cakes from gas treatment other than those mentioned in 10 02 13
10 02 15	other filter cakes
10 03	wastes from aluminium thermal metallurgy
10 03 02	anode scraps
10 03 05	waste alumina
10 03 16	skimmings other than those mentioned in 10 03 15
10 03 18	carbon-containing wastes from anode manufacture other than those mentioned in 10 03 17
10 03 24	solid wastes from gas treatment other than those mentioned in 10 03 23
10 03 26	filter cakes from gas treatment other than those mentioned in 10 03 25
10 03 28	wastes from cooling-water treatment other than those mentioned in 10 03 27
10 03 30	wastes from treatment of salt slags and black drosses other than those mentioned in 10 03 29

10 04	wastes from lead thermal metallurgy
10 04 10	wastes from cooling-water treatment other than those mentioned in 10 04 09
10 05	wastes from zinc thermal metallurgy
10 05 01	slags from primary and secondary production
10 05 09	wastes from cooling-water treatment other than those mentioned in 10 05 08
10 05 11	dross and skimmings other than those mentioned in 10 05 10
10 06	wastes from copper thermal metallurgy
10 06 01	slags from primary and secondary production
10 06 02	dross and skimmings from primary and secondary production
10 06 10	wastes from cooling-water treatment other than those mentioned in 10 06 09
10 07	wastes from silver, gold and platinum thermal metallurgy
10 07 01	slags from primary and secondary production
10 07 02	dross and skimmings from primary and secondary production
10 07 03	solid wastes from gas treatment
10 07 05	filter cakes from gas treatment
10 07 08	wastes from cooling-water treatment other than those mentioned in 10 07 07
10 08	wastes from other non-ferrous thermal metallurgy
10 08 09	other slags
10 08 11	dross and skimmings other than those mentioned in 10 08 10
10 08 13	carbon-containing wastes from anode manufacture other than those mentioned in 10 08 12
10 08 14	anode scrap
10 08 18	filter cakes from flue-gas treatment other than those mentioned in 10 08 17
10 08 20	wastes from cooling-water treatment other than those mentioned in 10 08 19
10 09	wastes from casting of ferrous pieces
10 09 03	furnace slag
10 09 06	casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05
10 09 08	casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07
10 09 14	waste binders other than those mentioned in 10 09 13
10 09 16	waste crack-indicating agent other than those mentioned in 10 09 15
10 10	wastes from casting of non-ferrous pieces
10 10 03	furnace slag
10 10 06	casting cores and moulds which have not undergone pouring, other than those mentioned in 10 10 05
10 10 08	casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07
10 10 14	waste binders other than those mentioned in 10 10 13
10 10 16	waste crack-indicating agent other than those mentioned in 10 10 15
10 11	wastes from manufacture of glass and glass products
10 11 03	waste glass-based fibrous materials
10 11 10	waste preparation mixture before thermal processing, other than those mentioned in 10 11 09
10 11 12	waste glass other than those mentioned in 10 11 11
10 11 16	solid wastes from flue-gas treatment other than those mentioned in 10 11 15
10 11 18	filter cakes from flue-gas treatment other than those mentioned in 10 11 17
10 12	wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 01	waste preparation mixture before thermal processing
10 12 05	filter cakes from gas treatment
10 12 06	discarded moulds
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)
10 12 10	solid wastes from gas treatment other than those mentioned in 10.12 09

10 12 12	wastes from glazing other than those mentioned in 10.12.11
10 13	wastes from manufacture of cement, lime and plaster and articles and products made from them
10 13 01	waste preparation mixture before thermal processing
10 13 04	wastes from calcination and hydration of lime
10 13 07	filter cakes from gas treatment
10 13 10	wastes from asbestos-cement manufacture other than those mentioned in 10 13 09
10 13 11	wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10
10 13 13	solid wastes from gas treatment other than those mentioned in 10 13 12
10 13 14	waste concrete
11	WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO METALLURGY
11 01	wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising)
11 01 10	filter cakes other than those mentioned in 11 01 09
11 01 14	degreasing wastes other than those mentioned in 11 01 13
11 02	wastes from non-ferrous hydrometallurgical processes
11 02 03	wastes from the production of anodes for aqueous electrolytical processes
11 02 06	wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05
11 05	wastes from hot galvanising processes
11 05 01	hard zinc
11 05 02	zinc ash
12	WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS
12 01	wastes from shaping and physical and mechanical surface treatment of metals and plastics
12 01 01	ferrous metal filings and turnings
12 01 03	non-ferrous metal filings and turnings
12 01 05	plastics shavings and turnings
12 01 13	welding wastes
12 01 17	waste blasting material other than those mentioned in 12 01 16
12 01 21	spent grinding bodies and grinding materials other than those mentioned in 12 01 20
15	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01	packaging (including separately collected municipal packaging waste)
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 04	metallic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 07	glass packaging
15 01 09	textile packaging
15 02	absorbents, filter materials, wiping cloths and protective clothing
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
16	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 01	end-of-life vehicles from different means of transport [including off-road machinery] and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13.14, 16 06 and 16 08)
16 01 03	end-of-life tyres
16 02	wastes from electrical and electronic equipment
16 02 14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13

16 02 16	components removed from discarded equipment other than those mentioned in 16 02 15
16 03	off-specification batches and unused products
16 03 04	inorganic wastes other than those mentioned in 16 03 03
16 03 06	organic wastes other than those mentioned in 16 03 05
16 06	batteries and accumulators
16 06 04	alkaline batteries (except 16 06 03)
16 06 05	other batteries and accumulators
16 11	waste linings and refractories
16 11 02	carbon-based linings and refractories from metallurgical processes others than those mentioned in 16 11 01
16 11 04	other linings and refractories from metallurgical processes other than those mentioned in 16 11 03
16 11 06	linings and refractories from non-metallurgical processes others than those mentioned in 16 11 05
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 01	concrete, bricks, tiles and ceramics
17 01 01	Concrete
17 01 02	Bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	wood, glass and plastic
17 02 01	Wood
17 02 02	Glass
17 02 03	Plastic
17 03	bituminous mixtures, coal tar and tarred products
17 03 02	bituminous mixtures other than those mentioned in 17 03 01
17 04	metals (including their alloys)
17 04 01	copper, bronze, brass
17 04 02	Aluminium
17 04 03	Lead
17 04 04	Zinc
17 04 05	iron and steel
17 04 06	Tin
17 04 07	mixed metals
17 04 11	cables other than those mentioned in 17 04 10
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 06	track ballast other than those mentioned in 17 05 07
17 06	insulation materials and asbestos-containing construction materials
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03
17 06	gypsum-based construction material
17 06 02	gypsum-based construction materials other than those mentioned in 17 06 01
17 09	other construction and demolition wastes
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION/INDUSTRIAL USE
19 01	wastes from incineration or pyrolysis of waste
19 01 02	ferrous materials removed from bottom ash
19 01 12	bottom ash and slag other than those mentioned in 19 01 11

19 01 18	pyrolysis wastes other than those mentioned in 19 01 17
19 01 19	sands from fluidised beds
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 03	premixed wastes composed only of non-hazardous wastes
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09
19 04	vitrified waste and wastes from vitrification
19 04 01	vitrified waste
19 05	wastes from aerobic treatment of solid wastes
19 05 01	non-composted fraction of municipal and similar wastes
19 05 02	non-composted fraction of animal and vegetable waste
19 05 03	off-specification compost
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 01	paper and cardboard
19 12 02	ferrous metal
19 12 03	non-ferrous metal
19 12 04	plastic and rubber
19 12 05	Glass
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	Textiles
19 12 09	minerals (for example sand, stones)
19 12 10	combustible waste (refuse derived fuel)
19 13	wastes from soil and groundwater remediation
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01	separately collected fractions (except 15 01)
20 01 01	paper and cardboard
20 01 02	Glass
20 01 08	biodegradable kitchen and canteen waste
20 01 10	Clothes
20 01 11	Textiles
20 01 34	batteries and accumulators other than those mentioned in 20 01 33
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	Plastics
20 01 40	Metals
20 01 41	wastes from chimney sweeping
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 02 02	soil and stones
20 03	other municipal wastes
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 03	street-cleaning residues
20 03 07	bulky waste

Appendix C – Concrete Fire Resistance

Solid Dense Blocks				
Block mm	Loadbearing wall		Non-Loadbearing Wall	
	No Finish	VG plaster	No Finish	VG plaster
90	1 hours	2 hours	1.5 hours	3 hours
100	2 hours	4 hours	2 hours	4 hours
140	2 hours	4 hours	3 hours	6 hours

<http://www.thomasarmstrong.co.uk/downloads/Concrete%20Blocks%20Brochure%20-%20November%202016%201.pdf>

Fire Resistance Periods of Concrete Masonry Walls

Aggregate Type	Minimum Equivalent Thickness for Fire Resistance Rating in. (mm) ^{1,2}						
	½ hr	¾ hr	1 hr	1½ hr	2 hr	3 hr	4 hr
Calcareous or siliceous gravel (other than limestone)	2.0 (51)	2.4 (61)	2.8 (71)	3.6 (91)	4.2 (107)	5.3 (135)	6.2 (157)
Limestone, cinders, or air-cooled slag	1.9 (48)	2.3 (58)	2.7 (69)	3.4 (86)	4.0 (102)	5.0 (127)	5.9 (150)
Expanded clay, expanded shale or expanded slate	1.8 (46)	2.2 (56)	2.6 (66)	3.3 (84)	3.6 (91)	4.4 (112)	5.1 (130)
Expanded slag or pumice	1.5 (38)	1.8 (46)	2.1 (53)	2.7 (69)	3.2 (81)	4.0 (102)	4.7 (119)

1. Fire resistance periods between the hourly fire resistance rating listed shall be determined by linear interpolation based on the equivalent thickness value of the concrete masonry assembly.
2. Minimum required equivalent thickness corresponding to the fire resistance rating for units made with a combination of aggregates shall be determined by linear interpolation based on the percent by dry-rodded volume of each aggregate used in manufacturing the units.

<http://www.gobrick.com/portals/25/docs/technical%20notes/m16.pdf>

Fire Resistance of Brick Masonry, 2008 Brick Industry Association, Reston, Virginia

Fire Resistance Periods of Normal-Weight Concrete Panels

Aggregate Type	Minimum Equivalent Thickness for Fire Resistance Rating, in. (mm)				
	1 hr	1½ hr	2 hr	3 hr	4 hr
Siliceous	3.5 (89)	4.3 (109)	5.0 (127)	6.2 (157)	7.0 (178)
Carbonate	3.2 (81)	4.0 (102)	4.6 (117)	5.7 (145)	6.6 (168)
Semi-lightweight	2.7 (69)	3.3 (84)	3.8 (97)	4.6 (117)	5.4 (137)
Lightweight	2.5 (64)	3.1 (79)	3.6 (91)	4.4 (112)	5.1 (130)

<http://www.gobrick.com/portals/25/docs/technical%20notes/m16.pdf>

Fire Resistance of Brick Masonry, 2008 Brick Industry Association, Reston, Virginia

Appendix D – Response Procedure

Response Procedure

Raise the alarm if the WRB detection system has not been activated automatically;

- Assess whether the fire can be tackled in-house initially using on-site fire suppression equipment/strategies and WRB suppression system;
- Dial 999 to call the Fire & Rescue Service during work hours, even if as a contingency;
- Site Manager to contact the EA on 0800 80 70 60
- If the fire is not extinguished rapidly and the Fire & Rescue Service is required, Site Manager contacts the critical receptors listed in Appendix F;
- If smoke is dispersing towards industrial areas, the Site Manager will enact an appropriate emergency procedure;
- Site Manager contacts hauliers, contractors and couriers to delay deliveries or collections for a period contingent on the nature of the event.

On notification of a fire, all operatives not involved in fire fighting should:

- Leave the site quickly and calmly via the main site entrance, first ensuring all hauliers, customers, and their vehicles have also vacated the building;
- Do not stop to collect personal belongings;
- Do not re-enter the site for any reason unless authorised to do so;
- Report to the Site Manager at the assembly point outside the site entrance;
- Do not take risks.

Fire extinguishers are located at the office and workshop buildings and in the cabs of site plant/vehicles. Instruction signs on suitability and use are kept adjacent to fire extinguishers.

Appendix E – WRB Fire Detection and Suppression Details

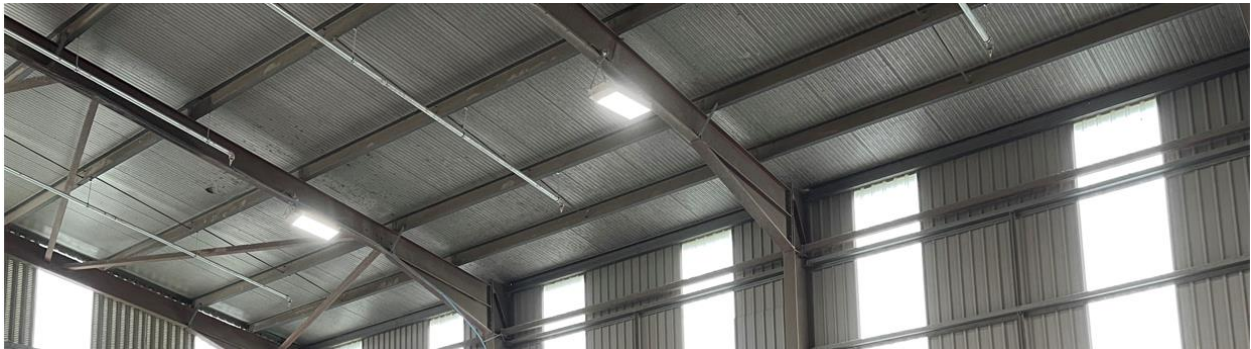
Fire Pump System

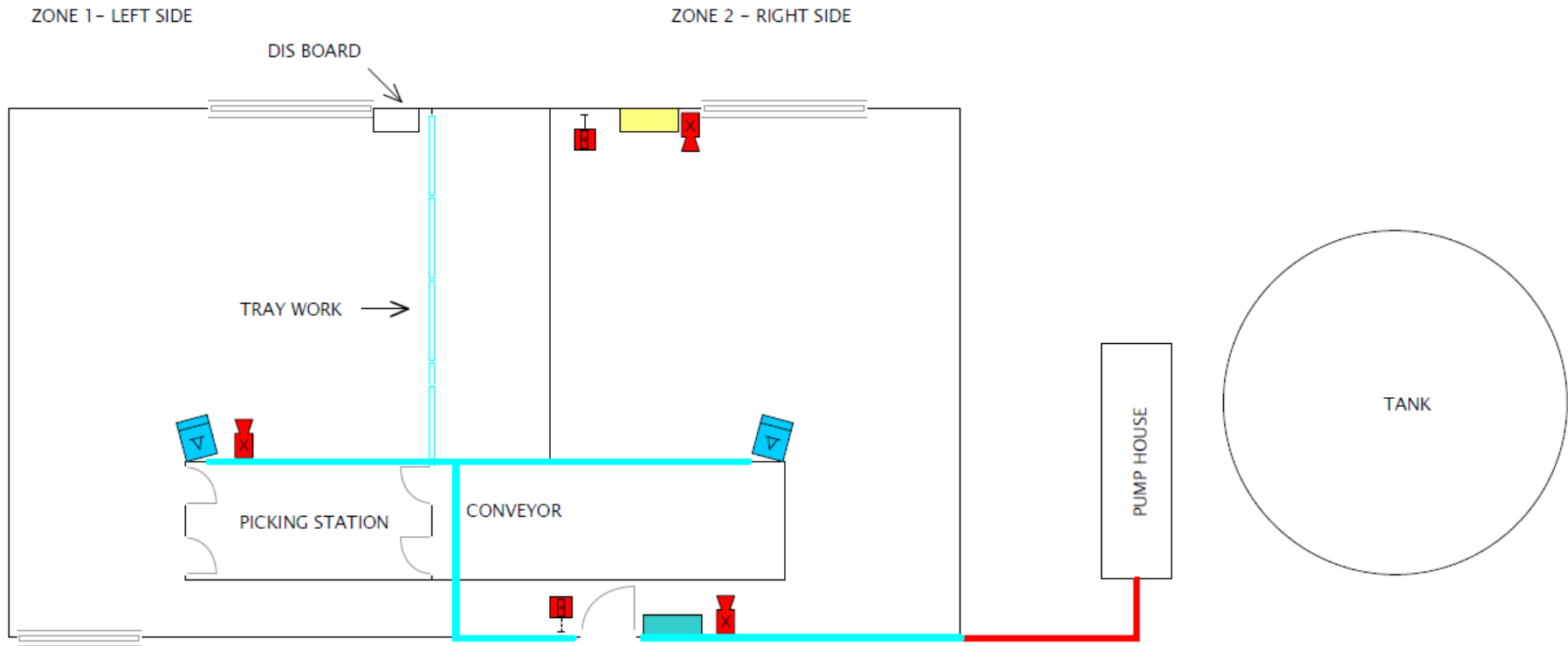







Water Tank and on site Fire Engine




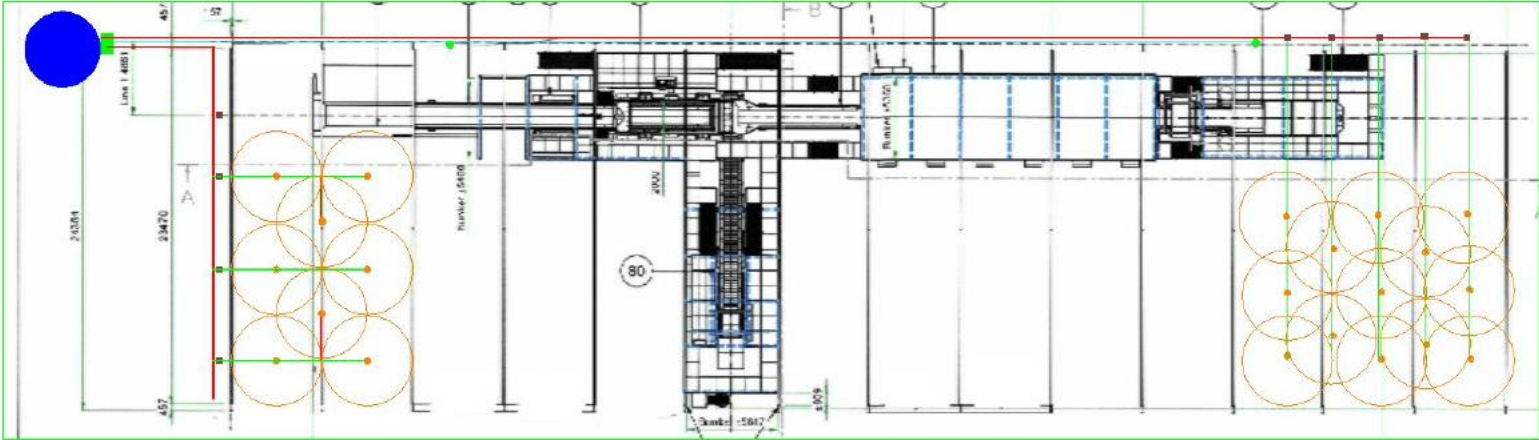
WRB Suppression System Pipework and Sprinklers






-  DUAL INPUT / OUTPUT UNIT
ZONAL CONTROL OF THE PUMPS
-  FIRE PANEL C/W WEATHER PROOF CABINET
-  CALL POINTS
-  OPEN AIR SOUNDER BEACONS
-  FLAME DETECTORS

Responsible dep. INSTALL	Technical reference VALLEY TRADING	Created S RUDDOCK	Approved S RUDDOCK	
		Document type FIRE INSTALL	Document status ACTIVE	Rev. 1
		Title, supplementary title FIRE INSTALL		Scale
		Date of issue 12/02/2021	Lang.	Sheet 1/1



 Ridge Farm, 323 Woodlands Southampton, SO40 7GE Tel : 0044(0)2380 817800 email : sales@wrightrain.co.uk Web : wrightrain.co.uk	Client: Valley Trading Tetbury		Drawn By: NRP
	Project Name: Fire sprinkler system		Date: 29-11-2020
	Drawing Title: Proposed sprinkler location		Sheet: A3 Scale: NTS SHT: 1 of 1
	Drawing Number: 29/11/20 Version: 1		Checked and approved by By: N. Palmer Date: 29-11-2020

Appendix F– Contact Details

Babdown Airfield, Beverston, Tetbury, Gloucestershire, GL8 8YL	
Site Phone Number	01666 505800
Emergency Services	999
Police HQ Incident Room	101
Local Police	Tel: 101
Doctor	Phoenix Tetbury, 41-43 Long Street, Tetbury, Gloucestershire, GL8 8AA Tel: 01666 502303
A&E	Tetbury Hospital, Malmesbury Road, Tetbury, GL8 8XB Tel 01666 502336
NHS Direct	0845 4647
Environment Agency	24hour hot line – 0800 807060 Local Office –
Gas Emergency	0800 111 999
Electricity Emergency	N/A on generator
Water Services & Emergencies	Bristol Water 0345 702 3797
Local Authority	Cotswold District Council 01513 432942 Gloucestershire County Council 01452 614194
Maintenance Contractor	N/A do own Maintenance

Company Contacts Out of Hours		
Operator	Michael Kent	07887726300

Babdown Airfield: Neighbour Contacts

Simply Bar Stools	0117 330 2277
Woodland Lodge Products	01666 501000
DF Sales	0117 330 6926
Cotswold Steel Stockholders	01666 504889
Cotswold Collection	01666 503555
Uniwire	01666 333900
Nesley Farm	01666 880318

**Drawing No 23503-1000-01 Fire Prevention Plan Layout
Under separate cover**

