

Fire Prevention Plan

Wroot Road Composting Facility

Wroot Road

Finningley

South Yorkshire

DN9 3DU

**Permit no.:** WMP EPR/EB3208HK

**Doc Ref:** Fire Prevention Plan

**Date:** 17/01/2020

This Fire Prevention Plan has been written using latest guidance available at the time of writing.

# Contents

|  |  |
| --- | --- |
| Contents | ii |
| Site Information and Key Contacts List | iii |
| 1. Introduction | 1 |
| 1. Potential Fire Hazards on Site | 3 |
| 1. Monitoring | 5 |
| 1. Mitigation | 7 |
| 1. Fire Containment Measures | 10 |
| 1. Fire Detection and Handling Procedures | 12 |
| 1. Post-Fire Site Recovery | 15 |
| **Appendices:**   1. Site Plans 2. Fire Risk Assessment 3. Emergency Procedure 4. Fire Drill 5. Fire Marshal Training 6. Temperature Monitoring Sheet 7. TCM Certification |  |

# Site Information and Key Contacts List

**Site Address:** Wroot Road Composting Facility, Wroot Road, Finningley, South Yorkshire. DN9 3DU

**Site Grid Reference:** SE 69001 00473

**Site Operator:** Freeland Horticulture Ltd.

|  |  |  |  |
| --- | --- | --- | --- |
| Contact | Description | Office hours | Out of hours |
| Steve Holding | Site General Manager | 07901 005498 |  |
| Joe Ross | Site Supervisor | 07824 534700 | 07824 534700 |
| Freeland Horticulture | Site Operator / Site Office | 01302 770500  07783 045934 | 07783 045934 |
| Head Office | 01322 619161 |  |
| Rossington Fire Station  Doncaster Fire Station | Fire and Rescue Service | 999 (emergency)  0114 253 2512 (Rossington)  0114 253 2506 (Doncaster) | 999 (emergency)  0114 253 2512 (Rossington)  0114 253 2506 (Doncaster) |
| Rossington Police Station | Local Police Station | 999 (emergency)  101 (non-emergency) | 999 (emergency) |
| Doncaster Royal Infirmary | Local NHS Hospital | 999 (emergency)  111 (non-emergency)  01302 366 666 | 999 (emergency)  01302 366 666 |
| Environment Agency | Environmental Regulator | 0800 80 70 60 | 0800 80 70 60 |
| Doncaster Metropolitan Borough Council | Local Authority  General Enquiries | 01302 736000 | 01302 341628 |

**Emergency Pack:** The Emergency Pack will contain copies of this Fire Prevention and Response Plan, Fire Emergency Site Plan, COSHH/MSDS for the chemicals on site together with a notepad and pens.

**Emergency Pack Location:** There will be 2 Emergency Packs located as follows;

1. Main Entrance
2. Office Copy for Staff Training and Reference

# Introduction

## General

### This Fire Prevention Plan (FPP) considers the risks associated with fire on site at Wroot Road Composting Facility, Wroot Road, Finningley, DN9 3DU. The site has been operated by Freeland Horticulture Ltd. as an Open Windrow Composting facility since November 2011.

### The facility treats and stores compost derived from green waste, before the end product is marketed and removed for both internal and external use. Waste inputs are mainly from Local Authority kerbside collections and Civic Amenity waste disposal sites in the surrounding areas and may be augmented by green waste delivered direct to site from other waste companies and local landscapers.

### The site is operated by Freeland in accordance with an Environmental Management System (EMS) and Environmental Permit (Ref No. WMP EPR/EB3208HK), regulated by the Environment Agency (EA). The composting process operates to CQP/PAS100 Accreditation standard which is audited on an annual basis on all process procedures.

### All site staff will be provided with a copy of this Fire Prevention Plan and are aware of where it is located on site.

### The registered office address and contact details for Freeland:

|  |  |  |
| --- | --- | --- |
|  | Freeland Horticulture Limited  Rosedale Nursery  College Road  Hextable  Kent  BR8 7LT | Phone: 01322 619161  Email: [philippa@freelandhorticulture.co.uk](mailto:philippa@freelandhorticulture.co.uk) |

## Reason for implementation

### This FPP has been produced to accompany an environmental management system (EMS) as part of an environmental permit.

### In accordance with the EA’s latest guidance document, “Fire Prevention Plans: Environmental Permits”, issued 04/05/2018, this document will outline fire hazards on site and a number of accompanying measures which will be implemented to ensure every action is taken to prevent fire, contain fire on site if it does occur, and ensure quick suppression and detection.

## Staffing and management

### Table 1 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 and, therefore, shows the minimum number of staff available to tackle a fire on site during operational hours. Only the site supervisor, machine/plant operators and general operatives will be permitted to tackle fires on-site.

**Table 1: Staff Structure**

|  |  |  |
| --- | --- | --- |
| Position | Employees | Responsibilities |
| Site Manager (TCM) | 1 | Overseeing all activities which take place at the site |
| Site Supervisor (TCM) | 1 | Overseeing all activities which take place at the site / First point of contact / Out of hours emergency contact |
| Admin/ Office Staff | 2 | Office manager  Weighbridge clerk |
| Plant Operators/ General Operatives | 7 | Waste handling/processing, reception and plant operation, maintenance and tidying |
| Temporary/ Agency Labour |  | Additional operatives as and when required |

### The Technically Competent Manager is responsible for the general management of the site.

### The TCM will have the required qualifications and training to meet permit conditions. A copy of relevant certification is included in **appendix vii: TCM Certification**.

## Plant and equipment

### There is currently no fixed plant in the permitted areas.

### Mobile Plant on site will consist of wheeled Loading Shovels, Shredders, Diesel Generator, Tractors, and Water Bowsers, screens, and an air separation machine used to clean any remaining physical contamination from compost oversize.

### Industrial Heaters will not be used on site.

### Table 2 below shows the plant on site which is available to assist with the construction of fire breaks. Only trained operators will be permitted to drive/operate the plant listed below and construct fire breaks. Construction of fire breaks will only be under instruction from the Chief Fire Officer. Any changes to the list will be notified to the Environment Agency prior to implementation. The minimum requirements when the site is operational are shown in bold italic print.

### **Table 2: Firefighting Resources**

|  |  |  |
| --- | --- | --- |
| Item | Number | Function |
| *Loading shovel* | *4* | Movement of material for fire breaks |
| *Site Staff* | *9* | 1 TCM, 1 site supervisor, 7 general operatives/ plant operators |
| *Diesel generator* | *1* | Power pumps to move water |
| *Water available to main composting pad* | *127,900m3* | Water available from quarry reservoir 1 = 71,800m3  Water available from quarry reservoir 2 = 55,200m3 |
| *Water available to oversize pad* | *72,464m3* | Water available from quarry reservoir 1 = 71,800m3  Water available from clean water tank = 164m3 |
| *Main composting pad drainage containment* | *3,100m3* | Leachate lagoon 1 = 900m3  Bunded area = 2,200m3 |
| *Oversize pad drainage containment* | *1,100m3* | Leachate lagoon 2 = 500m3  Bunded area = 600m3 |

## Visitors and Contractors

### All visitors and contractors to site will be required to visit the site office to sign the site register. They will then be given a Site Induction and a copy of the Site Rules which they will sign to confirm their understanding. The Site Induction will ensure that visitors and contractors know what they must do to prevent a fire occurring and what to do during a fire if one breaks out. The locations of the Emergency Pack will also be confirmed.

## Scope of document

### This FPP details the measures which will be put in place with regards to site design, infrastructure, and management, to ensure the waste operations will be carried out with paramount consideration to the risk of fire. All necessary prevention measures and procedures will be strictly implemented and followed through essential training and inspection regimes as detailed in this document and in the site’s EMS.

## Emergency Drills

### Fire and Emergency Drills will take place on a 6-monthly basis. Drills will be unplanned so that reactions of staff and any visitors to site are accurate to an ‘actual event’. Response times and any learning outcomes will be recorded on the appended record sheet. Please see **appendix iv: Fire Drill**

# Potential Fire Hazards on Site

## Potentially combustible materials

### Compost that is being actively managed is not considered to be a combustible material in accordance with EA FPP guidelines. However, it is considered potentially combustible once it has been through the composting process, though at this point the compost is considered a product having been processed and audited to the PAS100 standard. Once the compost reaches this standard it is moved from the permitted area. Therefore, any combustible materials on site are limited to potential contaminants in the green waste when it is delivered.

### Potential contaminants – Each waste load delivered is inspected to determine its content and compliance against the waste description and its general condition. Anything identified within a load as potentially combustible is isolated and quarantined if it cannot be removed from site immediately. Which areas are used for this may vary as operating conditions dictate (i.e. to allow the loading of rejected wastes but clear labelling and management control will ensure its use as specified). Further assessment is then made on the quarantined load to determine whether it is treated or rejected from site.

### Oversize material is moved to the oversize pad and managed through further processing.

### Lightweight and potentially combustible contaminants extracted by the wind sifter are deposited in litter pens. This material will be monitored as described in section 3.

## Potential burn times of material

### The Waste Industry Safety and Health Forum (WISH) prepared the ‘Reducing Fire Risk at Waste Management Sites’ document. As well as general guidance on managing fire risk, this guidance contains information about burn times for different wastes. To calculate the burn time of wastes, the ‘mass rate of burning’ is needed but WISH document outlines the lack of data to help calculate this value. WISH conducted their own trials on different wastes in 2015 and 2016 with varying degrees of success.

## Common causes of fire

### The following list outlines common causes of fire and potential ignition sources with examples for the material on site.

1. Naked flame/discarded smoking materials, e.g. cigarette ends
2. Burning of waste on site
3. The overheating of material from being too close to heat sources such as hot engines, naked flames, etc.
4. Vandalism and arson
5. Electrical faults, generally in processing equipment
6. Leakage from fuel and oil tanks, e.g. diesel from mobile plant or processing equipment and then exposure to an ignition source
7. Overheating of motors in plant machinery such as loading shovels
8. Hot works, e.g. welding or cutting
9. Hot exhausts, i.e. dusts falling on hot exhausts and engine parts of plant machinery
10. Build-up of loose combustible wastes, dust and fluff and then exposure to an ignition source
11. Reactions between wastes
12. Lightning strike

## Overhead lines

### There are no overhead power lines traversing the permitted site, which, if ignited, would worsen the effects.

## Sensitive receptors

### Sensitive receptors are identified on the appended plans. Should fire occur, the fire service and the EA will be contacted as a matter of urgency.

### There are 2 neighbouring businesses within Wroot Road Quarry (Aggs R Us and CEMEX). In the case of a fire these businesses will be notified immediately in order to take protective measures if needed.

### There are no major residential areas within 1 km of the site but there are 7 isolated residences/farms within 1km. The closest of these farms is Finningley Grange Farm >200m northwest of the nearest point of the site. Due to prevailing winds, the most likely human receptors to be impacted by smoke or debris from a fire are residents or workers at this farm. The distances to other residential receptors from the site mean that any impact from a fire is unlikely to be felt by any local population.

### There are no environmentally designated sites and sensitive areas within 2.5km of the site, therefore any impact from fire at Wroot Road Quarry is highly unlikely.

### Section 4 highlights mitigation measures which will decrease the likelihood of a fire occurring on site and limit the size and duration if it does occur. These measures will ensure the potential impact on any of the receptors outlined above is minimal.

# Monitoring

## Site inspection programme

### Regular fire inspections of all site areas will be undertaken in accordance with the site’s EMS.

### When the site shuts down at the end of each working day, inspections will be conducted on all machinery and all material in the operating area. Inspections will look for any build up of dust, debris, litter etc and for any signs of smouldering and/or smoke.

### Inspections will also take place on plant and machinery when shut down, after any hot works such as welding or other repairs take place, and any other maintenance work on the site.

### These inspections will be conducted by a person who is familiar with the requirements of the management system and of this document. The inspections will identify any small smouldering areas before fire occurs, as well as keeping the levels of dust, fibre, litter and other loose combustible materials on surfaces to a minimum.

### The results of site inspections will be recorded and referenced in the site diary and made available to the EA and local authority upon request.

## Preventative maintenance

### All items of plant and vehicles are subject to preventative maintenance checks and a regular cleaning regime to ensure their safe operation and to prevent any potential situations which may give rise to adverse impacts on the environment. Maintenance will include the blow down of all engine bays, compartments, ledges etc. with the site air compressor.

### Much of the plant and equipment on site are subject to periodic manufacturer maintenance to ensure proper working order in the form of service contracts.

### Site management will undertake or delegate additional preventative maintenance checks on a more frequent basis to ensure, where possible, the machinery is mechanically sound. These checks will be carried out using a preventative maintenance checklist and referenced in the site diary and actioned immediately and, in any event, prior to operational use.

## Storage times

### Unprocessed waste is collected in the reception area before entering the composting process. All daily accepted loads are treated and processed within 72 hours by shredding and blending and are then batched into the compost windrow system.

### Once the waste enters the windrow system it is in a managed and controlled environment for 8 weeks.

### The compost at the end of this process is screened and graded into 3 sizes; 0-10mm product, 0-40mm product, and >40mm waste rejects (oversize).

### 0-10mm product is moved out of the permitted area before being exported from site into the market place daily.

### Some 40mm product is stored on the main composting pad when awaiting export. The rest of the 40mm product is moved out of the permitted area and stored elsewhere for further screening. Storage for this material is no longer than 12 months before further processing.

### Oversize compost is moved to the oversize pad in the permitted area before being further processed through a cleaning and separation plant and disposed of from site. Storage for this material is no longer than 12 months while waiting for further processing and disposal.

### No more than 25,000t (compost and combustible materials combined) will be stored on site at any one time.

### Permitted input capacity to site is 100,000t per annum.

### The site normally operates with inputs between 50,000 – 75,000t per annum.

**Table 3: Storage times and quantities on site**

|  |  |  |
| --- | --- | --- |
| Waste Type | Max Duration of Storage | Storage Areas and Quantity |
| Accepted waste | 1 day | Various daily quantities to the reception area of main pad. Stockpiles no more than 450m3 |
| Waste in windrow system | 8 weeks | Multiple ~2,000t windrows on main composting pad |
| 10mm product | Exported daily | 300t in storage bay off permitted area |
| 40mm product | 12 months | Multiple stockpiles in designated areas on main composting pad no more than 450m3 each |
| Multiple ~2,000t windrows in storage area away from permitted area |
| 40mm oversize | 12 months | Multiple windrows on oversize pad continually managed before further processing |

## Monitoring Procedure

### A requirement exists to ensure that temperatures of compost stockpiles, both processed and unprocessed, are monitored and recorded. Decomposition of materials can generate sufficient heat that the material may spontaneously combust. Product temperatures of self-heating materials are monitored.

### The compost and oversize material being processed, quarantined loads, and 40mm product are to be monitored for temperature.

### Potentially combustible material will be monitored periodically. Techniques include visual and odour monitoring to identify signs such as heat, smouldering, or smoke, and using a temperature probe to identify high temperatures and hotspots. Visual checks are performed by Freeland staff during work hours and by security staff outside of working hours when requested.

### Temperatures are measured by probe and recorded on a designated temperature monitoring sheet (**appendix vi: Temperature Monitoring Sheet**). This is referenced in the site diary. The following information should be recorded:

1. Date
2. Stockpile type/ grade
3. Temperature (°C) from 3 separate sample points
4. Any relevant comments regarding the waste type (e.g. physical condition, steam etc)

### Windrows in the main composting process will also be monitored for moisture content and number of turns in accordance with the CQP/PAS00 Accreditation system, and recorded in PAS100 monitoring sheets.

### The completed temperature monitoring form should be returned to the site office for filing. Files must be retained for a minimum of 3 years.

## Record keeping

### The following forms will be completed for each delivery where waste is accepted at the site and will be used to detail how long waste has been on site. This will ensure significant residence times of wastes are avoided:

1. The date and time of delivery.
2. The name and address of the waste producer.
3. The detailed and accurate description of the waste including type and quantity (in tonnes and/or cubic metres).
4. The carrier's name and address.
5. Driver’s name, signature and vehicle registration No.
6. Signature or initials of person(s) producing/ accepting/ inspecting/ carrying the waste.
7. Additional handling details/notes made by the driver after inspection of the load.
8. SIC code of the premises which produced the waste (where relevant).
9. Waste hierarchy declaration.
10. Information on previous treatment of the waste e.g. manual or mechanical.

### As with point 3.4.5, the moisture content and number of turns will be monitored and recorded in accordance with CQP/PAS00 protocols.

# Mitigation

## Fire Prevention

### The following prevention measures will be implemented on site to reduce the likelihood of fires. The measures required will be discussed in relation to their associated ignition sources as discussed in section 2.3.

## Naked flames/smoking materials

### No naked flames or substantial heat sources are to be near potentially combustible materials.

### Smoking is prohibited on site.

## Burning of waste on site

### No waste will be burnt on site

### Training will be provided to all site staff and contractors.

### Employment contracts recognise the severity of any instances of unauthorised burning of waste and would lead to immediate dismissal and threat of prosecution through civil/criminal courts depending on the circumstances.

### Firefighting equipment will be kept close to the areas of waste storage and all vehicles will be fitted with fire extinguishers

## Overheating of stored waste

### EA guidance limits piles of wastes to 4m in height and 20m in width/length (excluding during the active composting process). This EA guidance will be followed where applicable for delivered loads prior to treatment and quarantined loads.

### Prior to processing all waste material will be kept in its largest form, to reduce susceptibility to combustion. Furthermore, stockpiles of the waste will be preferentially worked on a first in first out basis. Stored wastes will be periodically agitated to prevent the occurrence of “hot spots”.

### A clear recording method will be in place to document how long material has been on site.

### Wastes on site will be monitored and if signs of self-heating are identified then further measures will be deployed to ensure they do not overheat on site. A trigger point of 75°C will be set, if during monitoring temperatures at the trigger point are detected then they will be classed as ‘overheating’.

### These materials will be subject to more frequent monitoring and in the event of overheating the stockpile will be reduced in size until stable after being moved to a quarantined area.

### In the event of a stockpile overheating, the material will be watered to cool down for 2-3 days whilst continuously monitored. Once the temperature is low enough (<55°C), it can be turned to release heat.

### If a hot spot is identified in stored or imported waste, the hot spot will be dug out of the stockpile and deposited in a designated emergency quarantine area. The same procedure as above for overheating compost would be followed (watering, turning, etc.). As it would be high risk, this area would have increased separation distances and be closely monitored until the risk of combustion had ceased.

### Due to there being only one waste type on site, reactions between stockpiles are highly unlikely.

### Any waste identified during the incoming waste inspections which are likely to be either particularly combustible or reactive will be removed and quarantined immediately to await safe removal from site and the EA contacted (where necessary) if the non-conforming waste discovered is likely to lead to a breach of permit conditions.

## Arson or vandalism

### The site will always be manned during working hours with various operatives on site.

### Site security is provided on a shared basis with the neighbouring businesses within Wroot Road Quarry. Security officers are present on site covering all evenings and weekends outside of normal working hours.

### Further security is provided by surveillance camera systems covering all key areas on site. These cameras are monitored by Freeland during opening hours and by site security when closed.

### The site is closed to public access unless by prior arrangement via main gates and secondary gates to the permitted areas. These measures will prevent access to the site by unauthorised visitors.

## Electrical faults or damaged/exposed electrical cables

### There are no fixed wiring and no portable appliances in the permitted area requiring PAT testing.

### All mobile electrical cables on site will be installed by a certified electrical engineer and electrical installation certificates issued.

### Testing of cables to machine plant will be undertaken as defined by regulations. They will be inspected and periodically maintained by qualified personnel to ensure they are not damaged or exposed.

## Leakage/spillage of oils/fuels

### Any fuel tanks on site will be stored away from the permitted area.

### An Ad Blue tank is kept on the pad in a container area. This area will be kerbed to create secondary containment.

### Any spillages of fuel from vehicles or machinery will be cleared immediately by depositing sand or absorbents on the affected area.

## Overheating from plant machinery

### Plant and equipment will be subjected to separate manufacturer-specific and operator-specific preventative maintenance programmes which include regular inspections by the Technically Competent Manager or suitably qualified person(s).

### Machinery used for long continuous periods will be given sufficient ‘cool-down’ time if signs of overheating are visible.

### All machinery will be fitted with fire extinguishers and firefighting equipment will be available in the main site building.

### Machinery will be stored away from any waste and/or combustible materials when not in use.

### Machinery will be subject to regular cleaning regimes to minimise build-up of combustible materials.

## Hot works

### Any maintenance requiring ‘hot works’ (i.e. welding or cutting) will take place off-site by a suitably qualified external contractor.

### No ‘hot works’ will occur within the permitted area.

## Hot exhausts

### Refer to section 4.8 regarding maintenance and storage of machinery.

### A fire watch will take place frequently during the working day to detect signs of a fire caused by dust settling on hot exhausts and engine parts.

### Fire watches will also take place at the end of the day whilst operatives undertake their shut down of machinery. The shut down involves the cleaning of machines, maintenance checks and parking up.

## Build-up of loose combustible wastes, dust and fluff

### The site will be inspected and subject to a cleaning schedule to prevent build-up of loose wastes, dusts and fluff.

### Machinery will be subject to regular cleaning regimes to minimise build-up of combustible materials.

## Reactions between wastes

### Highly unlikely due to only one waste type being stored on site and the strict waste acceptance and verification procedures.

### There will be a quarantine area for hot loads or particularly combustible wastes.

# Fire Containment Measures

In the unlikely event that a fire was to break out on site, the site has several measures in place, in addition to several existing characteristics of the site, which would limit the size, duration and impact of a fire on site. These are listed below:

## Fire Breaks

### A separation distance of 6m will be enforced within the permitted area for stockpiles of combustible material to create significant distance between combustible materials and limit the spread of fire.

### Waste will be monitored as described in section 3 and rotated with a first in first out policy.

### In addition, site operatives will be trained to create fire breaks on site upon the discovery of a fire, under the guidance of the emergency services.

## Controlled burn

### In the event of a significant fire on site, it may be beneficial to initiate a controlled burn to mitigate against potential impacts of fire spreading.

### It must be stressed that this is not the safest method of tackling fire, as this technique has inherent risk associated with it and, if not conducted properly, could actually accelerate a fire on site.

### If it is deemed absolutely necessary that a controlled fire is initiated on site, it will be conducted under the control and direction of the fire and rescue service (FRS), who have significantly more training with regard to fire management and equipment available to them than site operatives.

### In most situations, separation distances will provide sufficient isolation of a fire prior to the FRS arriving and assessing the situation. If it is deemed that further isolation is required, operatives will be instructed to move flammable materials away from the fire and instructed to place inflammable material in the path of the fire, to impede the spread of fire across the site.

## Storage on flat ground

### The land to which the site relates is flat, therefore reducing the risk of falling materials accelerating the spread of fire.

## Quarantine areas

### 2 areas on the main composting pad (refer to **appendix i: Site Plans**) and the entire oversize pad are designated as quarantine areas. Space will always be clear in these areas to isolate and quarantine waste.

### In the event of a fire, if safe to do so, burning wastes will be placed in a quarantine area to be tackled and extinguished.

### However, it may be more practical to move nearby unburnt wastes to this area to be isolated and prevent them catching fire.

### Quarantine areas will be flexible for operational reasons. Enough space to hold a minimum of 50% of the volume of the largest waste pile will always be kept available.

## Fire suppression system

### In line with EA guidance, there is no requirement for a fire suppression system as all the waste activities in the permitted area take place outdoors.

## Adequate supply of water

### EA guidance requires a minimum 2000 litres per minute for a minimum of 3 hours for a 300m3 stockpile of combustible material. This equates to a total of 1200 litres per m3 of material. The largest stockpile of waste on site will be 450m3, therefore required water supply is 540,000l (540m3).

### There is no running water on site. Therefore, the clean water supply for firefighting purposes will be extracted from the quarry reservoirs or clean water tank. Refer to **appendix i: Site Plans** for locations.

### Quarry reservoir 1 can serve the main composting pad and the oversize pad. It has an approximate surface area of 17,950m2 and an average depth of 4m, giving a total volume of ~71,800m3.

### Quarry reservoir 2 serves the main composting pad, has an approximate surface area of 13,800m2, average depth of 4m, giving a total volume of ~55,200m3.

### The oversize compost pad has a sealed clean water tank at the eastern end near leachate lagoon 2. This tank is cylindrical in shape, with a radius of 5m, giving a surface area of 79m2. The tank is 2m deep, making the total capacity 158m3.

### Given that the reservoirs only receive clean water and the clean water tank is sealed, it is considered that brash and other objects within the water bodies should be minimal. There are 4 permanent access points to the reservoirs, 3 for reservoir 1 and 1 for reservoir 2. Pumps and pipes are stored permanently on site for use in case of an emergency.

### The largest stockpile will require 540m3 of water for firefighting purposes, therefore the combined available capacity of 127,158m3 is deemed to provide more than enough water for the FRS if they must tackle any fire.

### Due to the vast volume of clean water available from 2 possible locations, no dirty water will be required.

## Containment of firewater

### The site is surfaced with impermeable concrete with 250mm kerbs bordering the composting pads, with the pads angled towards the leachate lagoons. The kerbing on each pad captures all leachate and run off providing 2,200m3 of containment on the main composting pad and 600m3 on the oversize pad.

### The main composting pad is drained into a 30x12x2.5m dirty water lagoon providing a further 450m3 of storage. The oversize compost pad is drained into a 20x10x2.5m dirty water lagoon, providing 250m3 of storage. This is based on the dirty water lagoons having 50% capacity available at all times for fire water containment.

### A further contingency would be the use of tankers to collect and dispose for off-site disposal.

### These measures will ensure that there is more than sufficient storage on site for any contaminated water and under no circumstances will firewater be released into surrounding waterways, non-designated drains or any other system which might lead to contamination of water or land.

# Fire Detection and Handling Procedures

## Staff training

### All staff will be trained in the use of this Fire Prevention and Response Plan as part of their Induction Process.

### All staff will receive ‘fire marshal’ training to ensure they know what they must do to prevent a fire occurring and what they must do if a fire breaks out. Refer to **appendix v: Fire Marshal Training**.

### Staff will be suitably trained in how to raise the alarm, including supervisory contacts and guidance on how to use the extinguishing equipment should the fire be small enough to tackle.

### A full understanding of the site’s procedures outlined in this FPRP document and appendices will be required to be demonstrated as part of the site induction for all new staff.

### Ongoing training will also be provided to ensure site staff are informed of any changes to any of the site management documentation subject to regular review.

## Infrastructure

### Measures in place to ensure that fires are detected and tackled quickly on site are detailed in **appendix iii: Emergency Procedure**. Fire emergency prevention and infrastructure includes:

1. Manual fire alarm systems – will be activated on discovery of a fire.
2. Regular manual checks – the site operator will perform visual checks for fire or situations likely to increase the risk of fire.
3. Fire Extinguishers – firefighting equipment will be provided on site and appropriate and regular training will be given for their use in tackling small fires. All vehicles on site used for the processing and moving of material will be fitted with fire extinguishers.
4. Visible worded signs – will be placed strategically around the site, giving full and clear instructions for fire alarm and means of escape (registration point, 999 instructions).
5. Water supply – the reservoirs and clean water tank provide a constant water supply for the site in the unlikely event that a fire was to occur, and that fire was extinguishable using water. If a fire does occur, and the site operatives are unsure of the nature of the fire, guidance will be taken from the local fire service.
6. Dirty water lagoons – on site leachate lagoons from which water can be extracted and which have sufficient capacity to hold any resulting fire water.
7. An emergency pack containing the FPP, Fire Emergency Site Plan, notepad, pens, and COSHH/MSDS for the chemicals on site will be kept at each entrance to the site ready for the emergency services when they arrive.

## Access for emergency services

### The site has one main entrance. The main site entrance is adequate for large lorries and is therefore adequate and quick access for the emergency services.

### The site is in a sparsely populated area, so it is unlikely that any traffic will be present, but the operator will ensure the road up to the site is kept clear for emergency vehicles.

## Contingency Plan

### In the event of a site shutdown due to a major fire, the acceptance of any further wastes will be suspended.

## Fire detection procedure

### If a fire is detected or suspected, it must be immediately reported to the site supervisor or Technically Competent Manager. The site supervisor will then conduct the procedure in **appendix iii: Emergency Procedure**. Steps include:

### Raising the alarm (if not already done by another staff member), initiate evacuation of staff and visitors on site to a fire assembly point and instruct delegated person(s) to conduct a roll-call to ensure all site users are accounted for.

### 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.

### If viable and safe, instruct necessary site staff to commence extinguishment. If successfully extinguished, follow procedure in Section 7.

### If not viable or safe, call the Fire Response Service (FRS) immediately using 999.

### Prior to the FRS arriving, inform all neighbouring premises likely to be affected.

### Ensure access routes are clear.

### 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.

### The site supervisor/TCM will identify themselves to the fire service as soon as they arrive on site and will provide them with a copy of this document and update them with relevant information that will assist them in dealing with a fire more effectively.

### Implement pollution control measures only when safe to do so.

## Staff/visitor procedure

### The following actions will be undertaken by site operatives when a fire is detected or suspected on site:

1. Do not panic.
2. Inform the site supervisor/TCM immediately.
3. Raise the alarm (if not done so already).
4. Do not try to tackle the fire yourself unless you are trained in doing so and you are sure of the nature of the fire.
5. Leave the site using the nearest exit as quickly and as orderly as possible.
6. Assemble at the specified fire assembly point.
7. The site supervisor or delegated operative will be responsible for calling the emergency services on ‘999’.
8. Ensure that all persons who were working on site or visiting the sites are assembled safely.
9. Do not return to site until you have been given the ‘all clear’ by the emergency services and/or the site supervisor.

# Post-Fire Site Recovery

## General recovery procedure

### When the fire has been successfully dealt with the following actions will take place:

### Any fires will be reported to the Environment Agency on the working day that they occur and will be confirmed in writing by fax, letter, or email within 3 working days, including all steps taken by site staff, management and/or emergency services to deal with the fire.

### Removal of burnt material using appropriate and lawful disposal.

### Root Cause Analysis into the cause of the fire, to ensure it does not re-occur.

### A review of the accident plan, FPRP and EMS, associated amendments will be implemented.

### Review of any training requirements for site personnel.

### All fire extinguishers used to tackle the fire will be serviced and/or replaced after use.

### In addition to the above-mentioned procedures, the section below outlines specific procedures following a fire.

## Fire debris

### Fire debris should continue to be turned using the onsite plant and dowsed as necessary. Debris should be turned and dowsed until site management confirm that the embers are cooled and there is no chance of a flare up.

### Fire water will be disposed of to a foul sewer or taken for specialised treatment.

### Debris can then be cleared and isolated to a series of storage piles for onward temperature monitoring until they have cooled to an acceptable level for landfill disposal (<40°C). Once cooled to an acceptable temperature, as described above, bulk haulage should be arranged for the removal of the ash from the site.