



Fire Prevention Plan

Plan version: 2
Date of plan: 5th November 2020

Site details:

Site name: Alperton Lane Waste Transfer Station
Site address: The Yard, Alperton Lane, Wembley, London HA0 1DX
Operator name: O'Donovan (Waste Disposal) Ltd

Who this plan is for:

O'Donovan Management Team
All permanent and temporary staff at the Alperton Lane site
Contractors working on site
Emergency Services

Table of Contents

1.Types of combustible materials.....	1
2.Using this fire prevention plan	2
3.Fire prevention plan contents	3
4.Manage common causes of fire	4
5.Ignition sources	6
6.Prevent self-combustion.....	8
7.Manage waste piles	9
8.Where maximum pile sizes do not apply	12
9.Prevent fire spreading.....	13
10.Quarantine area.....	14
11.Detecting fires	15
12.Suppressing fires.....	15
13.Firefighting techniques	16
14.Managing fire water.....	17
15.During and after an incident.....	17

1. Types of combustible materials

Combustible waste

- paper or cardboard
- plastics
- rags and textiles
- absorbents, cloths, wipes, filter materials, protective clothing
- scrap metals contaminated or mixed with other waste such as oils or plastics
- refuse derived fuel (RDF)
- plant material
- mixed waste containing any combustible wastes
- wood
- shredded/screened waste
- WEEE/batteries
- Paints, inks and solvents
- Waste oils

Other combustible materials

- Diesel fuel
- Gas oil
- Gas bottles

2. Using this fire prevention plan

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

This fire prevention plan is part of the operator's management systems. It is held electronically and hard copies are kept onsite in the weighbridge office and off-site at the operators main administrative offices. All staff receive training, as do contractors and visitors to the Site, for whom an induction is given. The training for permanent staff includes the EMS, of which this Fire Prevention Plan is part. Information is provided to visitors and contractors and the evacuation procedure communicated to them.

Testing the plan and staff training

All permanent and temporary staff receive training in the Fire Prevention Plan and associated emergency procedures through the induction process.

The plan is reviewed annually by the management team and fire drills carried out periodically and recorded.

3. Fire Prevention Plan Contents

Activities at the site

The following activities take place on site:

1. Placement and storage of waste in a dedicated area, bay or container for bulking up pending transfer off-site. This is in external bays and storage containers and a storage building for smaller volume wastes such as oily rags or items of WEEE. Waste will arrive and will be checked in line with site waste acceptance procedures prior to being allocated an area to be unloaded or tipped.
2. Initial manual picking to remove large recyclable items, takes place in picking bays inside the building;
3. Processing in a shredder to break materials down to improve segregation, takes place inside the building. Materials loaded into the feeder mechanically using wheeled loading shovel;
4. Processing in a trommel which screens out certain items on the basis of their size, takes place inside the building. Materials loaded into the feeder mechanically using wheeled loading shovel;
5. Processing in a fines density separator takes place inside the building, fed from the trommel;
6. Manual segregation on a picking line take place inside the building;
7. Baling of RDF, cardboard and plastics. Material loaded into baler feeder inside the building and passes through to external baling/wrapping area;
8. Welding takes place in a dedicated welders shed, separate from the main building; gases stored in an external cage;
9. Refuelling of equipment, vehicles and machinery from bulk diesel and gas oil tanks.

Site plan

Site Layout Plan can be seen at Appendix A, Drawing 2.

Plan of sensitive receptors near the site

Plan showing identified sensitive receptors can be seen at Appendix A, Drawing 4.

4. Manage common causes of fire

Arson

Security/staff are on Site at all times (24 hours per day) and CCTV is in operation at all times covering all parts of the site. Security staff are on site from 5pm until 6.30 a.m. and must check in at tag points around the site every hour. The Senior Management Team have access to CCTV footage on their personal devices so are able to check in at any time. There is no intruder alarm since 24 hour security cover is in place. The site is bounded by steel palisade fencing, and secure lockable gates.

Plant and equipment

Mobile plant, that could present an ignition source, is regularly maintained and inspected in accordance with manufacturer's/supplier's guidelines.

Vehicles are fitted with fire extinguishers. Mobile plant which is not in use is stored away from flammable materials, either in clear areas of the building or in the open yard. Daily start up checks are carried out on vehicles, and the jetwash area is available for vehicle cleaning as required.

Static plant including trommel, shredder, fines segregation and conveyors are also regularly maintained in accordance with manufacturer's/supplier's recommendations. Daily start up checks are carried out as required by the site's health and safety procedures. There is a daily clean down of all static equipment. Repair and maintenance contracts are in place with equipment providers where appropriate.

Electrical faults including damaged or exposed electrical cables

Electrics certification

The electrics were inspected and fully certified by a qualified electrician in November 2020. An inspection certificate can be provided upon request.

Electrical equipment maintenance arrangements

Electrical equipment is regularly inspected and maintained in accordance with Health and Safety requirements. This includes PAT testing for office equipment and handheld tools, and periodic fixed wiring inspections.

Discarded smoking materials

Smoking on site policies

There is a no smoking policy in all operational areas of the site. Smoking is allowed by the fire assembly point at the front of the site only.

Hot works safe working practices

Hot works are only allowed on site in the specified welding shed. Welding only takes place in a designated area (marked on site plan) away from waste processing activities.

Industrial heaters**Use of industrial heaters**

There is no heating in the waste processing building.

Hot exhausts and engine parts**Fire watch procedures**

Daily clean down procedures are in place to ensure all equipment is clean and clear of build up prior to the end of the shift. All equipment is switched off prior to the end of the shift to allow time for cleaning and cooling down.

5. Ignition sources

Ignition Source	Preventative Measures
Spontaneous combustion	Stock rotation and maximum holding times (see below)
Sparks from loading buckets	
Arson within buildings and surrounding grounds	CCTV, 24-hour security (see above).
Electrical installations and Equipment	Planned preventative maintenance and 5 yearly safety inspection (see above)
Static electricity	
Combustible materials coming into contact with hot components, plant and equipment (engines etc)	Separation distances enforced between waste piles and equipment
Hot Works – welding/cutting operations, maintenance/repairs etc.	Hot work only in dedicated welding area
Heaters	N/A, no heaters
Discarded smoking materials	No smoking policy in place in operational areas.
Naked flames	None allowed on site.
Leaks and Spills of oils and Fuels	Diesel and gas oil tanks self-bunded tank with procedures in place for deliveries, vehicle fuelling and spill clean-up.
Build up of Loose, Combustible waste	Daily cleaning routines in for static equipment in tipping building include clearing of any loose debris.
Reactions between wastes	Not anticipated that incompatible wastes will be accepted onto site. Hazardous wastes received are segregated and stored in separate containers.
Deposited hot loads	Follow emergency response procedure – quarantine load and call emergency services.

Leaks and spillages of oils and fuels

Diesel fuel and gas oil are stored on site in integrally banded tanks and subjected to regular inspection and maintenance. Delivery and refuelling procedures are in place to ensure good management of these activities.

The Site is of impermeable hardstanding with appropriate drainage in place, including an oil/water separator interceptor, which should ensure any minor oil leaks/trails from vehicles or equipment are captured.

Any oily wastes accepted will be in low volume and stored in sealed containers in the dedicated storage building for these waste types, or self-bunded metal containers.

Spill kits are in place around the site. Operational staff are trained in the use of spill kits and they are checked as part of regular site inspections. A spillage procedure is in place and trained out as part of the site EMS.

Build-up of loose combustible waste, dust and fluff

Daily cleaning routines in for static equipment in tipping building include clearing of any loose debris.

Reactions between wastes

It is not anticipated that incompatible wastes will be accepted onto site. Hazardous wastes received are segregated. All wastes are accepted on to site in accordance with written pre-acceptance and waste acceptance procedures to ensure they are directed to the correct storage point.

Deposited hot loads

The quarantine area is shown on the site plan. Procedures around the use of the quarantine area are set out in the relevant section below.

6. Prevent self-combustion

General self-combustion measures

Waste stored in piles is mainly non-combustible waste, consisting of soil and stones and construction/demolition waste. RDF waste can be stored in a pile. Self-combustion of waste is prevented by managing storage time, pile size and monitoring temperatures.

Manage storage time

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

Stock levels are managed to prevent piles being left for long periods. The majority of waste moves through the site within 24 hours, up to a typical maximum of 72 hours for construction and demolition wastes to account for weekends and Bank Holidays. Lower volume wastes will be stored until storage capacity is reached, but not longer than 3 months. All stock is recorded and managed electronically on the weighbridge system.

Older materials are processed first (rotation techniques employed – first in first out system). Waste being bulked up pending transfer for recovery or disposal elsewhere will not be held on site for longer than 3 months. The operations and viability of the business relies on material going out, it does not benefit the operator in any way to hold or store material on site any longer than necessary.

Stock rotation policy

Older materials are processed first (rotation techniques employed – first in first out system).

Monitor and control temperature

Combustible wastes are not stored for longer than 3 months and self-combustion is not considered a significant risk.

Reduce the exposed metal content and proportion of 'fines'

This section is not applicable – metal is picked out of waste loads using magnets prior to passing through the shredder or trommel.

Monitoring temperature

An infra-red heat sensor camera is in place, focussed on the waste pile, which highlights higher temperatures in the pile. A heat gun is also employed to check pile temperatures. If temperatures are discovered above 30°C site operatives will start turning and spreading the waste.

Controlling temperature

Combustible wastes are not stored for longer than 3 months and self-combustion is not considered a significant risk. If temperatures are discovered above 30°C site operatives will start turning and spreading the waste.

Dealing with hot weather and heating from sunlight

As above - an infra-red heat sensor camera is in place, focussed on the waste pile, which highlights higher temperatures in the pile. A heat gun is also employed to check pile temperatures. If temperatures are discovered above 30°C site operatives will start turning and spreading the waste.

Waste bale storage

Up to 80 bales are stored on site at any one time, stacked 4 high. Bale storage location is shown on the site layout plan. Bales are not stored on site for longer than 3 months. Inspection of the condition of bales is part of the weekly facility audit.

7. Manage waste piles

Maximum pile sizes for the waste

Waste stored in piles is mainly non-combustible waste, consisting of soil and stones and construction/demolition waste. Once tipped, large recyclable items such as metal, cardboard, bricks, wood, plastic are picked out of the waste when it is tipped prior to loading into the trommel or shredder. The waste is picked again after passing through the shredder and/or trommel removing combustible fractions such as plastic, cardboard, wood, metals and textiles.

These segregated waste streams are then stored in metal containers in the yard. Green waste is also stored in a metal container in the yard.

WEEE is stored in the dedicated storage building for this type of waste.

The only combustible waste type stored in a pile is RDF (see table below for maximum pile size).

Waste stream	Location (must match site plan)	How it is stored For example this may include piles, bays, containers, skips, racks, bales	Max. length / m	Max. width / m	Max. height / m	Volume / m³	Max. time it will be stored
Soil and stones	Tipping building; Bays in yard	Pile within building prior to processing; Bays in yard	6.3	5.95	4	150	72 hours
Mixed demolition waste	Tipping Building	Pile within building prior to processing	6.3	5.95	4	150	72 hours
Corex	Yard	Metal Container	N/A	N/A	N/A	Vary from 15m ³ to 41 m ³	3 months
Cardboard	Yard	Metal Container	N/A	N/A	N/A		3 months
Sacks	Yard	Metal Container	N/A	N/A	N/A		3 months
Plasterboard	Yard	Metal Container	N/A	N/A	N/A		3 months
Heavy Metals	Yard	Metal Container	N/A	N/A	N/A		3 months
PVC window frames	Yard	Metal Container	N/A	N/A	N/A		3 months
Cable	Yard	Metal Container	N/A	N/A	N/A		3 months
Aluminium	Yard	Metal Container	N/A	N/A	N/A		3 months
Stainless Steel	Yard	Metal Container	N/A	N/A	N/A		3 months
Wood	Yard	Metal Container	N/A	N/A	N/A		3 months
Tarmac	Yard	Metal Container	N/A	N/A	N/A		3 months

Fire prevention plan

Waste stream	Location (must match site plan)	How it is stored For example this may include piles, bays, containers, skips, racks, bales	Max. length / m	Max. width / m	Max. height / m	Volume / m³	Max. time it will be stored
Green Waste	Yard	Metal Container	N/A	N/A	N/A	Vary from 15m ³ to 41 m ³	3 months
Construction Film	Yard	Metal Container	N/A	N/A	N/A		3 months
Oily Wastes	Storage Building	Metal 205l drums	N/A	N/A	N/A	Total capacity 50m ³	3 months
WEEE	Storage Building	Bunded containers	N/A	N/A	N/A		3 months
Paint/solvents	Storage Building	Bunded containers	N/A	N/A	N/A		3 months
Asbestos	Storage Box in Yard	Storage Box	N/A	N/A	N/A		3 months
Plastics	Yard	Bales				Up to 80 bales (inc. plastics, cardboard and RDF) stacked 4 high	3 months
RDF	Pile within tipping building; bales in yard	Pile and bales	5	5	4	100	3 months

Storing waste materials in their largest form

Materials are kept in their largest form prior to processing for the end market.

8. Where maximum pile sizes do not apply

Waste stored in containers

Types of containers you are using

15 x roll on roll off metal containers, varying in size from 15m³ to 41m³.

Asbestos storage box or container, between 7.5m³ and 15m³.

Within the storage building oily wastes, WEEE and paints/solvents will be stored in bunded 205 litre metal drums or other bunded metal containers.

Accessibility of containers

The roll on roll off containers are accessible from one end from within the yard.

Moving containers in a fire

In the event of a fire in any of the containers, on site excavators are able to move the affected container to the quarantine area immediately.

9. Prevent fire spreading

Separation distances

The only combustible waste stored in piles is RDF. Any RDF stored within the building will be kept a minimum 6 metres from any other combustible or flammable materials.

Fire walls construction standards

Concrete perimeter walls are in place on three sides of the tipping building in a u-shape around the feeder, trommel and fines density separator. Concrete is classified as non-combustible. Steel frame elements of the building have fire-resistant coating to prolong fire resistance time.

Storing waste in bays

Waste store in bays is hardcore, soil and stones and is not combustible waste. Bay walls are constructed of concrete.

10. Quarantine area

Quarantine area location and size

The quarantine area is marked on the site plan, 6 metres from the site perimeter, and is approximately 25m² (accommodating a pile of 100m³ up to 4m high). This is of adequate size to separate the largest container on site, and to hold at least 50% of the largest combustible waste pile size (RDF).

How to use the quarantine area if there is a fire

If a fire is discovered in a waste pile or container, the waste or container will be moved to the quarantine area using excavators if possible and safe to do so, within 1 hour of the fire starting. For operational reasons the operator will keep the location of the quarantine area flexible. This means it could be in any area of the yard which allows the required separation distance to be maintained. At least one specified quarantine area will be kept clear at all times – unless it's being used in the event of a fire.

Procedure to remove material stored temporarily if there is a fire

If the quarantine area is used to store material temporarily (for example, non-permitted wastes) these wastes will be removed as soon as is practicable. In the event of a fire, any such waste will be removed immediately if the area is required for quarantine, for example by removal to another part of the site or preferably off-site.

11. Detecting fires

Detection systems in use

An infra-red heat sensor camera is in place, focussed on the waste pile, which highlights higher temperatures in the pile. A heat gun is also employed to check pile temperatures. 24 CCTV operates across the site.

Manual call points with audible fire alarms are fitted across the site.

Certification for the systems

None identified.

12. Suppressing fires

Suppression systems in use

Water cannons and a water sprinkler system are installed at the site (the latter primarily for dust suppression but provides fire protection too). Fire hoses and extinguishers are in place around the building. The majority of waste inside the building is not combustible.

Certification for the systems

None identified.

13. Firefighting techniques

Active firefighting

Firefighting equipment is installed on Site, including extinguishers and fire hoses and water cannons. Staff are trained only to tackle a fire if safe to do so; advice is to raise the alarm immediately, call emergency services and evacuate.

Equipment including loaders and excavators are available on site to move waste around to prevent fire spreading. The Site is staffed 24/7.

Firefighting water is available from the two rainwater harvesting tanks on site.

Water supplies

Available water supply

There are two 30,000 litre rainwater harvesting tanks on site.

London Fire Brigade information states that in London, you are never more than 90 metres from a fire hydrant. The nearest fire hydrant point to the site will be confirmed with the fire service.

Show the calculation for your required water supply

A worst-case scenario would be the largest waste pile catching fire. This could be the RDF waste pile, or the row of containers in the yard which store a variety of wastes, some of which are combustible.

Based on a required water supply of at least 2,000 litres per minute for a minimum of 3 hours for a 300 cubic metre pile of combustible material, the following water supplies would be required:

Maximum pile volume in cubic metres	Water supply needed in litres per minute	Overall water supply needed over 3 hours in litres	Total water available on site in litres
RDF pile size - 100	667	120,060	60,000 with additional water available from street fire hydrants (min 20 l/s tbc with fire service)
Total volume of row of 11 largest containers - 450	3000	540,000	

14. Managing fire water

Containing the run-off from fire water

Isolation of the drainage system controls firewater runoff from the Site in the event of a fire. The site interceptor can be shut off to prevent release to foul sewer. There is no release to surface water from the site.

Contact would be made with Thames Water to arrange for disposal via sewer if possible. If this is not possible clear up will be arranged through a local contractor.

15. During and after an incident

Dealing with issues during a fire

During a fire, incoming waste will be diverted from the site and communication co-ordinated with neighbouring properties and regulators. In the event of being unable to receive waste the operator will divert loads to other sites where possible as part of business continuity planning.

Notifying residents and businesses

Neighbouring properties and identified sensitive receptors will be notified in the event of a fire impacting their premises.

Clearing, decontamination and making the site operational after a fire

Any incident at the site, including a fire, would be subject to an incident investigation as part of the sites EMS procedures. This would involve determining the cause of the incident; identifying any other similar risk situations; identifying and allocating actions required to mitigate impacts and prevent a recurrence; updating relevant procedures or parts of the EMS as required; and identifying measures required to bring the site back in to full service. The level of clean up and or repairs required will be entirely dependent on the type and scale of fire that has occurred and would be determined by the management team on a case by case basis.