

EASTERN TRANSFER STATION, FIRE PREVENTION PLAN

20027-RPS-XX-XX-RP-Z-0006-PDF

JER8369
EASTERN TRANSFER
STATION,
FIRE PREVENTION PLAN
2
1
04 May 2022

Quality Management

Version	Revision	Authored by	Reviewed by	Approved by	Date
1	0	Frances Bodman	Jennifer Stringer	n/a	12 May 2021
1	1	Lauren Hall-Walsh	Jennifer Stringer	Jennifer Stringer	7 December 2021
2	1	Lauren Hall-Walsh	Alasdair Phipps	Jennifer Stringer	4 May 2022

Approval for issue

Jennifer Stringer

Technical Director

4 May 2022

File Name

20027-RPS-XX-XX-RP-Z-0006-PDF

The report has been prepared for the exclusive use and benefit of our client and solely for the purpose for which it is provided. Unless otherwise agreed in writing by RPS Group Plc, any of its subsidiaries, or a related entity (collectively 'RPS') no part of this report should be reproduced, distributed or communicated to any third party. RPS does not accept any liability if this report is used for an alternative purpose from which it is intended, nor to any third party in respect of this report. The report does not account for any changes relating to the subject matter of the report, or any legislative or regulatory changes that have occurred since the report was produced and that may affect the report.

The report has been prepared using the information provided to RPS by its client, or others on behalf of its client. To the fullest extent permitted by law, RPS shall not be liable for any loss or damage suffered by the client arising from fraud, misrepresentation, withholding of information material relevant to the report or required by RPS, or other default relating to such information, whether on the client's part or that of the other information sources, unless such fraud, misrepresentation, withholding or such other default is evident to RPS without further enquiry. It is expressly stated that no independent verification of any documents or information supplied by the client or others on behalf of the client has been made. The report shall be used for general information only.

Prepared by:

RPS

Lauren Hall-Walsh

Senior Environmental Consultant

260 Park Avenue
Almondsbury
Bristol
BS32 4SY

T +44 1454 853 000

E lauren.hall-walsh@rpsgroup.com

Prepared for:

Hertfordshire County Council

Contents

1	INTRODUCTION	1
1.2	Site Details	1
2	USING THIS FIRE PREVENTION PLAN	2
2.1	Location of FPP	2
2.2	Who This Plan is For	2
2.3	Testing the plan and staff training	2
3	TYPES OF COMBUSTIBLE MATERIALS	3
3.1	Combustible Waste	3
3.2	Other Combustible Materials	5
4	FIRE PREVENTION PLAN CONTENTS	6
4.1	Activities at the Site	6
4.2	Site Plan	6
4.3	Plan of Sensitive Receptors near the Site	6
5	MANAGE COMMON CAUSES OF FIRE	7
5.1	Arson	7
5.2	Plant and Equipment	7
5.3	Electrical Faults Including Damaged or Exposed Electrical Cables	7
	Electrics Certification	7
	Electrical Equipment Maintenance Arrangements	7
5.4	Discarded Smoking Materials	7
5.5	Hot Works	7
5.6	Industrial Heaters	7
5.7	Hot Exhausts	7
5.8	Ignition Sources	8
5.9	Batteries	8
5.10	Leaks and Spillages	8
5.11	Build-up of Loose Combustible Waste, Dust and Fluff	8
5.12	Reactions Between Wastes	8
5.13	Waste Acceptance and Deposited Hot Loads	8
5.14	Hot and Dry Weather	8
6	PREVENT SELF-COMBUSTION	9
6.1	General Self-Combustion Measures	9
6.2	Manage Storage Time	9
	Method Used to Record and Manage the Storage of All Waste on Site	9
	Stock rotation policy	9
6.3	Monitor and Control Temperature	9
	Reduce the exposed metal content and proportion of 'fines'	9
	Monitoring temperature	9
	Controlling temperature	9
7	MANAGEMENT OF WASTES	10
7.1	Managing Waste Piles	10
	Maximum pile sizes for the waste on your site	10
	Storing combustible waste materials in their largest form	11
7.2	Where Maximum Pile Sizes do not Apply	11
	Combustible Waste Stored in Containers	11
8	PREVENT FIRE SPREADING	12
8.1	Separation distances	12
8.2	Fire walls construction standards	12

8.3	Storing waste in bays	12
9	QUARANTINE AREA	13
9.1	Quarantine area location and size	13
9.2	How to use the quarantine area if there is a fire	13
9.3	Procedure to remove material stored temporarily if there is a fire	13
10	DETECTING FIRES	14
10.1	Detection systems in use	14
10.2	Certification for the systems	14
11	SUPPRESSING FIRES	15
11.1	Suppression systems in use	15
11.2	Certification for the systems	15
12	FIREFIGHTING TECHNIQUES	16
12.1	Active firefighting	16
13	WATER SUPPLIES	17
13.1	Available water supply	17
13.2	Show the calculation for your required water supply	17
14	MANAGING FIRE WATER	18
14.1	Containing the run-off from fire water	18
15	DURING AND AFTER AN INCIDENT	19
15.1	Dealing with issues during a fire	19
15.2	Notifying residents and businesses	19
15.3	Clearing and decontamination after a fire	19
15.4	Making the site operational after a fire	19
16	MONITORING, REVIEW, REPORTING AND RECORD KEEPING	20
16.1	Monitoring	20
16.2	Review, Reporting and Record Keeping	20

Tables

Table 3-1: European Waste Catalogue Codes accepted at the ETS	3
Table 3-2 Other combustible and/or flammable materials	5
Table 7-2 Types of containers	11
Table 13-1 Water Supply Calculation	17

Drawings

Site Location Plan
 Site Layout Plan
 Site Drainage Plan
 Sensitive Surrounding Land Uses
 Fire Safety Plan
 Fire Safety – Waste Transfer Building
 Fire Safety – Additional Building

Appendices

Appendix A Emergency Contacts

1 INTRODUCTION

- 1.1.1 This fire prevention plan (FPP) has been produced to support the application for an environmental permit at Eastern Transfer Station (ETS), Westmill Road, Ware, Hertfordshire, SG12 0EL. In drafting this document, consideration has been given to the applicable requirements set out within the Environment Agency Guidance on fire prevention¹ and the Environment Agency FPP template².
- 1.1.2 The ETS will process up to 140,000 tonnes of waste per annum with a maximum storage capacity at any one time of 100,000 tonnes.
- 1.1.3 The facility will be used to bulk waste, segregated into different waste types, from the Waste Collection Authorities (WCA) and Recycling Centres (RC).
- 1.1.4 The ETS will be capable of bulking a variety of waste types including:
- Residual waste
 - Clinical waste
 - Organic waste (including Green waste and Food waste)
 - Recyclable waste

The objective of this document is to set out the current measures that are planned to minimise the risk of a fire starting and to ensure that should a fire occur appropriate measures are in place so that it is identified and managed effectively.

1.2 Site Details

Operator Name: Hertfordshire County Council

Site Name: Eastern Transfer Station

Site Address: Westmill Road, Ware, Hertfordshire, SG12 0EL

- 1.2.1 The ETS site (the Site) is located on a former quarry and landfill site approximately 1.9 km north west of Ware, Hertfordshire. The national grid reference is 534182E, 215988N. The Site is located approximately 3.8 km north east of Hertford and approximately 12.1 km south east of Stevenage.

¹ Environment Agency, Fire prevention plans: environmental permits, updated 11 January 2021. Available online: <https://www.gov.uk/government/publications/fire-prevention-plans-environmental-permits/fire-prevention-plans-environmental-permits>

² Environment Agency, Template for fire prevention plan: environmental permits, updated 11 January 2021. Available online: <https://www.gov.uk/government/publications/fire-prevention-plans-environmental-permits>

2 USING THIS FIRE PREVENTION PLAN

2.1 Location of FPP

- 2.1.1 The current FPP will be stored as a hard copy in the site office and a digital copy will be kept on the Hertfordshire County Council (HCC) S Drive.
- 2.1.2 A copy of the FPP will also be sent to the local Fire and Rescue Service (FRS) office and the FPP will be kept within the site EMS.

2.2 Who This Plan is For

- 2.2.1 This plan should be made available to and read by the following people:
- Site staff;
 - Contractors working on site; and
 - Local fire officers.

2.3 Testing the plan and staff training

- 2.3.1 Staff inductions will include awareness of the FPP, where it's located and when to use it. Monthly toolbox talks will include a refresher regarding the FPP content and details of any updates to it. A fire drill is conducted at the site every 6 months.
- 2.3.2 The site has designated fire marshals, who undergo fire marshal training as agreed with the local FRS.

3 TYPES OF COMBUSTIBLE MATERIALS

3.1 Combustible Waste

3.1.1 The main focus of this FPP is the principal combustible material stored at the facility, which are the wastes, consisting of:

- Residual waste
- Clinical waste
- Organic waste (including Green waste and Food waste)
- Recyclable waste

3.1.2 **Error! Reference source not found.** ~~Table 3-4~~ provides a list of the European Waste Catalogue (EWC) codes accepted at the site and their descriptions. Only wastes listed in this table are accepted at the site and no more than 140,000 tonnes per annum (tpa) will be accepted.

Table 3-1: European Waste Catalogue Codes accepted at the ETS

Waste Code	Description
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
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 01 17	ferrous metal
16 01 18	non-ferrous metal
16 01 19	plastic
16 01 20	glass
16 05	Gases in pressure containers and discarded chemicals
16 05 05	gases in pressure containers other than those mentioned in 16 05 04
16 06	Batteries and accumulators
16 06 01*	lead batteries
16 06 02*	Ni-Cd batteries
16 06 03*	mercury-containing batteries
16 06 04	alkaline batteries (except 16 06 03)
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

Waste Code	Description
17 02 02	glass
17 02 03	plastic
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 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 08	Gypsum-based construction material
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01
18	Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care)
18 01	Wastes from natal care, diagnosis, treatment or prevention of disease in humans
18 01 01	sharps (except 18 01 03)
18 01 03*	wastes whose collection and disposal is subject to special requirements in order to prevent infection
18 01 04	wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example dressings, plaster casts, linen, disposable clothing, diapers)
18 01 06*	chemicals consisting of or containing hazardous substances
18 01 07	chemicals other than those mentioned in 18 01 06
18 01 08*	cytotoxic and cytostatic medicines
18 01 09	medicines other than those mentioned in 18 01 08
18 01 10	amalgam waste from dental care
18 02	Wastes from research, diagnosis, treatment or prevention of disease involving animals
18 02 01	sharps (except 18 02 02)
18 02 02*	wastes whose collection and disposal is subject to special requirements in order to prevent infection
18 02 03	wastes whose collection and disposal is not subject to special requirements in order to prevent infection
18 02 05*	chemicals consisting of or containing hazardous substances
18 02 06	chemicals other than those mentioned in 18 02 05
18 02 07*	cytotoxic and cytostatic medicines
18 02 08	medicines other than those mentioned in 18 02 07
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 27*	paint, inks, adhesives and resins containing hazardous substances
20 01 28	paint, inks, adhesives and resins other than those mentioned in 20 01 27
20 01 33*	batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries
20 01 34	batteries and accumulators other than those mentioned in 20 01 33
20 01 35*	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components

Waste Code	Description
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 37*	wood containing hazardous substances
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 40	metals
20 02	Garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 02 02	soil and stones
20 02 03	other non-biodegradable wastes
20 03	Other municipal wastes
20 03 01	mixed municipal waste
20 03 07	bulky waste

3.1.3 See Section 7 for further detail regarding management of the waste.

3.2 Other Combustible Materials

3.2.1 [Table 3-2](#) provides details of the other combustible (non-waste) materials stored on site and provides an indication of the total amounts and form of material stored, as well as the maximum storage time and the method for management.

Table 3-2 Other combustible and/or flammable materials

Combustible material	Description	How the material is stored	Volume stored on site (L)
Diesel	Fuel for onsite plant and vehicles	Self bunded storage tank	50,000
Engine Oil	For onsite plant and vehicles	Metal Drum	205
Hydraulic Fluid Oil	For onsite plant and vehicles	Metal Drum	205
Ultra Diesel Engine Oil VDS-3	For onsite plant and vehicles	Plastic Container	20
JCB Engine Oil	For onsite plant and vehicles	Plastic Container	25

4 FIRE PREVENTION PLAN CONTENTS

4.1 Activities at the Site

4.1.1 The permitted activities to be carried out on the site are as follows:

- Receipt and storage of non-hazardous and hazardous waste;
- Physical treatment of waste (i.e. shredding);
- Storage of recyclable and residual wastes;
- Storage of raw materials (fuel oil, maintenance oils and greases).

4.2 Site Plan

4.2.1 A site plan, including the location of the quarantine area and emergency access route, is provided in the Fire Safety Plan. A plan showing the site drainage system is provided in the Drainage Plan.

4.3 Plan of Sensitive Receptors near the Site

4.3.1 The sensitive receptors within 1 km of the site are shown in the Sensitive Receptor Plan.

5 MANAGE COMMON CAUSES OF FIRE

5.1 Arson

- 5.1.1 The site is secured to protect the public and minimise the likelihood of unauthorised access. Access to the site is limited to specified entry points as shown in [0Drawing-5](#). A security fence of around 2 – 3 m will be constructed around the site boundary and intruder alarms and CCTV cameras are in place around the site.
- 5.1.2 In the event of a vandal or arsonist accessing the site despite security arrangements on site, sensitive areas within the site are those locations where combustible materials are stored and therefore would comprise the fuel storage areas and waste tipping hall.

5.2 Plant and Equipment

- 5.2.1 As the site is primarily intended for the temporary storage of waste pending onwards transfer there is limited use of plant and equipment.
- 5.2.2 A shredder will be utilised to shred bulky waste on site, such as furniture and mattresses. The shredding will be undertaken within the Waste Transfer Station (WTS) building.

5.3 Electrical Faults Including Damaged or Exposed Electrical Cables

Electrics Certification

- 5.3.1 At the time of submitting this FPP, construction of the site is still taking place and there are no electrics installed at the site to be certified. However, once the electrics have been installed, they will be fully certified by a qualified electrician.

Electrical Equipment Maintenance Arrangements

- 5.3.2 All electrical equipment will undergo a 5-year installation test and annual PAT testing by a qualified electrician.

5.4 Discarded Smoking Materials

- 5.4.1 There is a designated smoking area to the south of site office. This is located more than 6 m away from combustible wastes. Smoking is not permitted in any other area of the site.

5.5 Hot Works

- 5.5.1 Hot works are only carried out on an adhoc basis should maintenance or repair works require this. Any hot works to be undertaken on site will be controlled by Hot Works Permits.

5.6 Industrial Heaters

- 5.6.1 This is not applicable as there is no use of industrial heaters on site.

5.7 Hot Exhausts

- 5.7.1 When not in use, the mobile plant and other onsite vehicles are parked away from the waste storage. All staff are trained to check for signs of hot exhausts and build-up of dust, this is undertaken daily. There is a final check of the mobile plant and other vehicle exhausts prior to closing the site each day / at the end of each shift (if 24 hours). Build-up of dust is prevented as set out in [5.115-40](#). The

separation distance of at least 6 m between the stored wastes and any hot exhausts or engine parts minimises the chances of a fire occurring.

5.8 Ignition Sources

5.8.1 This is not applicable as there are no ignition sources (e.g. naked flames, space heaters, furnaces or incinerators) on site. Hot works, exhausts and engine parts are discussed in 5.2, 5.5 and 5.7 above.

5.9 Batteries

5.9.1 The operator does not intend to accept any batteries but when these are discovered on site, they will be stored within the quarantine area in a sealed container in accordance with the Site Operating Techniques document.

5.10 Leaks and Spillages

5.10.1 All oils and fuels kept on site are stored in bunded containers. Site vehicles are checked regularly for signs of leaks. Site staff are trained in transfer and handling procedures and will oversee any filling of containers or site plant/vehicles.

5.10.2 Spill kits are located in the site office. Regular vehicle checks are carried out by hauliers and staff are trained in the spillage procedure within the management system. In line with the daily check of hot exhausts, the mobile plant and onsite vehicles are checked for signs of fuel leakage prior to closing the site each day.

5.11 Build-up of Loose Combustible Waste, Dust and Fluff

5.11.1 In order to prevent the build-up of loose combustible waste, dust and fluff at the site, regular sweeping is carried out by site staff.

5.12 Reactions Between Wastes

5.12.1 It is anticipated that there are no incompatible materials stored together on site. Waste types are segregated at the site so avoid contact with materials they could react with. The waste acceptance and management procedures for the site ensure that no incompatible materials are stored where they could react with one another.

5.13 Waste Acceptance and Deposited Hot Loads

5.13.1 A quarantine area is located as shown on the Site Layout Plan. In the event that a hot load is identified when it is brought into site, it will be kept away from vulnerable areas such as waste storage areas and will be deposited in the quarantine area, which is located at least 6 m from the site perimeter, any buildings and other combustible/ flammable materials.

5.14 Hot and Dry Weather

5.14.1 The waste storage is located within a building; either the WTS building or the additional building, which will protect the waste materials from heating due to higher temperatures or sunlight.

5.14.2 Waste materials that are key priorities during hot weather (i.e., residual waste and green waste) are already collected frequently as the bays fill up quickly. In addition, if staff identify a temperature risk, they will call for a collection as soon as possible or take measures to cool the waste down.

6 PREVENT SELF-COMBUSTION

6.1 General Self-Combustion Measures

- 6.1.1 Combustible waste materials may be at risk of self-combustion if stored for more than 3 months, however all waste types will be stored at the ETS for a maximum of seven working days.

6.2 Manage Storage Time

Method Used to Record and Manage the Storage of All Waste on Site

- 6.2.1 The main combustible materials stored on site are the wastes. Site waste acceptance procedures are in place, separate to this FPP, as part of the site management procedures.
- 6.2.2 Storage time for wastes is recorded via weighbridge records.
- 6.2.3 Records and/or waste transfer notes (WTNs) for all wastes entering the site and for all wastes/containers leaving site for recovery or disposal elsewhere will be kept at the site office.

Stock rotation policy

- 6.2.4 Wastes will not be stored at the ETS for more than 7 working days, minimising the risk of self-combustion.

6.3 Monitor and Control Temperature

Reduce the exposed metal content and proportion of 'fines'

- 6.3.1 The proportion of 'fines' is expected to be low as minimal processing of waste will take place at the site. Wastes consisting solely or mainly of dusts, powders or loose fibres are not accepted at the site.

Monitoring temperature

- 6.3.2 Monitoring of temperature is not undertaken but heat detection cameras will be installed above the waste piles. Waste will not be stored within bays for more than 7 working days which significantly reduces the risk of self-combustion. In addition, no treatment activities with the potential to generate heat are carried out on site.

Controlling temperature

- 6.3.3 Temperature is controlled by reducing the exposed metal content as set out in [Error! Reference source not found.6-3-4](#), maintaining relatively short storage times as detailed in 6.2 and screening higher risk materials from sunlight.

7 MANAGEMENT OF WASTES

7.1 Managing Waste Piles

Maximum pile sizes for the waste on your site

7.1.1 The maximum storage capacity of the bays within the WTS building are detailed in the site plan drawing; two have 750 m³ capacity and four have 450 m³ capacity. The maximum storage height will be 4 m and the maximum length will be 20 m.

Table 7-1 Maximum pile sizes

Waste stream	Location (must match site plan)	How it is stored	Max length (m)	Max width (m)	Max height (m)	Max volume (m ³)
End of life tyres	Within WTS building	Loose in bay	20	20		450
Wood	Within WTS building or additional building	Loose in bay	20	20	4	750
Wood containing hazardous substances	Within quarantine area only (for removal from site as soon as possible)	Loose	20	20	4	100
Biodegradable garden waste	Within WTS building	Loose in bay	20	20	4	750
Plastics	Within waste transfer station building or additional building	Loose in bay	20	20	4	750
Paper and cardboard including packaging	Within WTS building or additional building	Loose in bay	20	20	4	750
Textiles including clothes and textile packaging	Within WTS building or additional building	Loose in bay	20	20	4	750
Metals including mixed metals and metal packaging	Within WTS building or additional building	Loose in bay	20	20	4	750
Discarded electronic equipment	Within WTS building or additional building	Loose in bay	20	20	4	450

Storing combustible waste materials in their largest form

- 7.1.2 Only minimal amounts of shredding will take place on the site. Procedures will be put in place to ensure that shredding occurs a minimal amount of time prior to the waste's removal from site and that there is no extended storage of shredded waste.

7.2 Where Maximum Pile Sizes do not Apply

Combustible Waste Stored in Containers

Types of containers you are using

- 7.2.1 **Table 7-2** provides details of the main combustible materials stored in containers on site and provides an indication of the total amounts stored and how they are stored.

Table 7-2 Types of containers

Combustible and/or flammable waste	Typical quantity received annually (tonnes)	Type of container(s)	Dimensions of container(s)	Volume of container (m ³ , unless specified otherwise)
Clinical waste	800	Sealed wheely bin	1.3 m x 1.26 m x 0.765 m	0.77
Batteries	<1	Weatherproof pallets	0.58 m x 0.74 m x 1.070 m	0.24

Accessibility of containers

- 7.2.2 The enclosed containers can be opened up for easier access to a fire inside. All staff are trained in how to do this and any necessary tools (e.g. keys) are kept in the site office. Therefore, each container is accessible to site staff or the FRS so any fire inside can be put out.

Moving containers in a fire

- 7.2.3 In the event of a fire, roll on/roll off vehicles will be deployed to move the containers as soon as is reasonably practicable to prevent the fire spreading. Non-burning containers will be moved to the quarantine area, which is shown on the Site Layout Plan, to create a break to prevent the spread of fire. The vehicles will be stored at least 15 m from the fire.

8 PREVENT FIRE SPREADING

8.1 Separation distances

8.1.1 The spread of a fire will be prevented by using the correct separation distances, as follows:

- There is a separation distance of at least 6 m between stored waste and the site perimeter, other waste piles, any buildings, or other combustible or flammable materials;
- Hot loads will be moved to the quarantine area, which is located more than 6 m from any of the above. Vehicles will be stored more than 15 m from a fire.

8.2 Fire walls construction standards

8.2.1 The separating walls between waste piles will be a minimum of 5 m high to provide a 1 m freeboard above the maximum storage height of 4m. These walls will be constructed in reinforced concrete and will achieve a minimum fire resistance period of 120 minutes.

8.3 Storing waste in bays

8.3.1 Under normal operation, waste storage times are relatively short as the materials are sorted, processed (if required) and transferred to be sent off site. There will be a first in first out policy, where waste is deposited at a certain end of the bays and removed in the same order it was deposited. This will be monitored through a log of wastes received and where they were deposited.

8.3.2 The following measures are incorporated into the waste bay management to minimise the spread of fire.

- The specification and construction of the walls of the bays offer a thermal barrier with joints that are adequately sealed with fire-resistant material.
- Any ignition sources will be kept at least 6 m from the bays to avoid igniting the wastes.
- Hot loads will not be deposited into the bays.
- Waste will not be stored for a prolonged period at the ETS, no waste will be stored for more than seven working days and the operator will make arrangements to transfer the waste off site to an appropriately permitted facility. This is compliant with the maximum 6-months storage period specified in Environment Agency's 'Fire Prevention Plans' guidance. If necessary, any incoming waste will be diverted to an alternative appropriately permitted facility.

9 QUARANTINE AREA

9.1 Quarantine area location and size

- 9.1.1 The quarantine area is large enough to both:
- Hold at least 50% of the volume of the largest pile on the site;
 - Have a separation distance of at least 6 m around the quarantined waste.
- 9.1.2 The quarantine area is located to the south east of the site and is indicated on the Site Layout plan.
- 9.1.3 The quarantine area will be able to hold 375 m³ of waste (50% of the largest pile of waste which will be 750 m³).

9.2 How to use the quarantine area if there is a fire

- 9.2.1 A quarantine area for the purpose of this FPP is somewhere where burning wastes can be placed to extinguish them. The quarantine area must be within the boundary of the site for which a permit is held.
- 9.2.2 In the event of a fire, vehicles will be deployed to move the waste as soon as is reasonably practicable (within 1 hour of a fire starting) to prevent the fire spreading. The vehicles will be stored at least 15 m from the fire. The burning waste/ hot load will be moved to the quarantine area, which has a separation distance around it of at least 6 m.

9.3 Procedure to remove material stored temporarily if there is a fire

- 9.3.1 The quarantine area will be used to temporarily store any unacceptable waste prior to removal from site. Unacceptable waste is defined as not compliant with the EWC codes stated in the Environmental Permit - including hot loads. For unacceptable waste identified inside the bays, the waste will be back-loaded from the bays into the quarantine area, for examination and/or removal from the site to a licensed disposal facility.
- 9.3.2 Any unacceptable waste stored within the quarantine area will be removed as soon as possible and not more than within 1 hour of a fire starting.
- 9.3.3 Appropriate suppression measures (e.g. hose reel or water cannon) will be located in the quarantine area, so fires within waste stored in the quarantine area will be extinguished prior to the waste being transferred off-site.

10 DETECTING FIRES

10.1 Detection systems in use

- 10.1.1 As part of the daily inspections, staff check for any evidence of fire and fire risks on the site. The CCTV will also be monitored in the control room, to identify any signs of a fire. To ensure that the system is working HCC will check the CCTV on a weekly basis and flag any faults with the CCTV contractor.
- 10.1.2 Fire detection within the WTS building and additional building will include the following.
- Aspirating smoke detection. This system will be interfaced with the fire suppression system
 - Heat detection cameras above the waste piles
- 10.1.3 The fire alarms will include the provision of manual call points at the final exits from the building.

10.2 Certification for the systems

- 10.2.1 The fire detection and alarm system will be subject to design development by a specialist to address the risk presented and the environmental conditions within the WTS building and additional building. The fire alarms system will be designed to meet BS5839-1:2017³ and will be covered by UKAS accreditation.

³ BS 5839-1:2017 Fire Detection and Fire Alarm systems for building – code of practice for design, installation, commissioning and maintenance of systems in non-domestic premises.

11 SUPPRESSING FIRES

11.1 Suppression systems in use

11.1.1 The WTS building and additional building will be provided with fire suppression as follows:

- At roof level using a standard sprinkler installation
- A deluge system located over the waste areas

11.1.2 The deluge system will comprise a dry pipe system that will be interfaced to activate on a signal from the aspirating smoke detection system. Based on a double knock arrangement the deluge system heads will open and deliver water to the source of the fire. The deluge system will also be provided with controls to facilitate manual activation of the system.

11.1.3 To support the fire strategy (life safety) for the building, the provision of the following will be included as part of the proposed design of the fire suppression systems:

- Quick response sprinkler heads
- A dedicated water supply, i.e., the system should have at least one superior single water supply
- The sprinkler installation at roof level should be of the wet pipe type
- During servicing/maintenance of the installation alarm valves, the fire suppression system should be fully operational in all aspects
- The provision of at least two independent pumps

11.2 Certification for the systems

11.2.1 The proposed systems will be designed and installed in accordance with BS EN 12845:205+A1:2019⁴ and will be covered by UKAS accreditation.

⁴ BS EN 12845:205+A1:2019 Fixed firefighting systems. Automatic sprinkler systems. Design, installation and maintenance

12 FIREFIGHTING TECHNIQUES

12.1 Active firefighting

- 12.1.1 The site has been designed to allow for active firefighting. This will help allow a fire to be extinguished within 4 hours.
- 12.1.2 Active firefighting means having the resources available at all times to fight a fire - including in the event of a fire. The resources available at the site include:
- Staff trained in fire procedures (see 2.3);
 - Available water supply (see section 13);
 - Finances.
- 12.1.3 The firefighting techniques to be used at the site to extinguish a fire include:
- Applying water to cool unburned material and other hazards;
 - Quenching burning material with fire extinguishers or hoses.
- 12.1.4 There is one hydrant on the site for use by the FRS. There are localised fire extinguishers in the main office building.
- 12.1.5 In the event that tyres, WEEE or chemicals were on fire, these would not be transferred to the quarantine area, but would be banded off and dealt with where they are.
- 12.1.6 Staff are suitably trained in the use of firefighting equipment and will be supervised by the FRS in the event of a fire. During a major fire, the FRS will lead and be supported by site staff. The Ware Fire Station (manned by volunteers) is located just 1.4 miles from the site so the FRS can attend a fire event very quickly. Hertford Fire Station is also located less than 4 miles from the site and is manned by full time staff.

13 WATER SUPPLIES

13.1 Available water supply

- 13.1.1 A new fire main providing a minimum flow of 35 l/s will be provided to the site, this will come from an extension to the RC hydrant main.
- 13.1.2 The hydrant main will also serve the sprinkler water storage tanks.
- 13.1.3 The fire hydrant is located in the south east of the site, to the east of the additional building, as shown on the Fire Safety Plan.

13.2 Show the calculation for your required water supply

Table 13-1 Water Supply Calculation

Maximum container 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
A m ³	A m ³ x 6.67 = B litres/min	B x 180 = C litres	n/a – water is available from the mains water supply at up to 35 l/s

14 MANAGING FIRE WATER

14.1 Containing the run-off from fire water

- 14.1.1 The WTS building will be provided with a fire fighting / sprinkler suppression system, which will require a volume of up to 900 m³ of fire fighting water together with a currently estimated 500 m³ of water for the sprinkler system, therefore a total of 1,400 m³ of water will require to be stored on site. In the event of a fire this water will potentially be discharged as uncontrolled contaminated fire water runoff, which will require to be contained within the site boundary to prevent a pollution incident.
- 14.1.2 Containment will be achieved using a dedicated sump pump and storage tanks with capacity of over 1,400 m³ connected to the internal wastewater collector drains within the WTS building. Provision will follow the guidance of CIRIA document Containment systems for the prevention of pollution (C736F).
- 14.1.3 Details of site drainage are provided in the drainage plan.

15 DURING AND AFTER AN INCIDENT

15.1 Dealing with issues during a fire

- 15.1.1 In the event of a fire, the Site Manager will assess whether the site can remain open. If the site is closed, site users will be directed to alternative facilities nearby until the site is re-opened.
- 15.1.2 The primary access to the site is via the main access road with entrance gate. [ODrawing-5](#) identifies the vehicle access route for external fire services that can be used in the event of a fire.
- 15.1.3 A list of emergency contacts is provided in Appendix A.

15.2 Notifying residents and businesses

- 15.2.1 There are minimal direct receptors within the vicinity of the site who may be affected by a fire. The closest residential receptor is 170 m from the site and the closest business is the adjacent Ware RC.
- 15.2.2 The Site Manager will notify nearby businesses and residents of a major fire via the following routes:
- Press release
 - Website updates
 - Face-to-face communication (where possible)
 - Social media updates.
- 15.2.3 The criteria for a major fire would be agreed with the FRS.

15.3 Clearing and decontamination after a fire

- 15.3.1 Following a fire, the facility will be cleaned and decontaminated, with any contaminated fire water removed by a suitably qualified specialist contractor to a suitably licensed facility. Once the drainage system has been confirmed clear of contaminated fire water, the penstock valves will be re-opened. If applicable, containers will be returned to their original storage location and any fire-damaged equipment will be removed or replaced. The quarantine area will be cleared of all containers and/or waste. Any affected waste will be removed off site for treatment or disposal by a third party.

15.4 Making the site operational after a fire

- 15.4.1 After a fire, the following steps must be taken before the site can become operational again:
- Site has been cleaned and decontaminated;
 - In the case of a pollution event, the Environment Agency (EA) has been notified;
 - All waste storage areas/containers and access areas are clear;
 - Containers/wastes have been returned to their original storage location and any fire-damaged equipment has been removed/replaced;
 - The quarantine area is cleared;
 - The FPP has been reviewed and updated to incorporate any lessons learned;
 - The Site Manager has agreed with the FRS that the site can operate again.
- 15.4.2 A full review of the FPP will be carried out in conjunction with the FRS to ensure any lessons learned are carried forward.

16 MONITORING, REVIEW, REPORTING AND RECORD KEEPING

16.1 Monitoring

- 16.1.1 Staff working within the waste storage area are required to be vigilant of any sign of self-combustion or hot loads.
- 16.1.2 The site undertakes periodic fire drills, at least every 6 months. These drills may be co-ordinated with the local FRS team and are used to test fire response procedures. An important part of any such test is to identify if fire procedures are effective and whether there are any improvements which could be put in place. Should improvements be identified, a programme of action with defined responsibilities and timescales will be set. Fire drills will include as a minimum:
- what staff need to do to prevent a fire occurring;
 - what to do during a fire if one breaks out; and
 - checks to ensure that the requirements of this FPP are followed (note this may not check every aspect of the FPP each time, but each drill will seek to test a number of aspects with a view to testing key requirements over time).
- 16.1.3 Routines are established for regular checks on all firefighting equipment to ensure they remain available and in good working order should a fire incident occur.
- 16.1.4 The senior manager at the time will act as incident controller with supervision from the local FRS. The incident controller is responsible for ensuring that the FPP guidance is followed during an incident.

16.2 Review, Reporting and Record Keeping

- 16.2.1 As part of the site management systems this FPP is incorporated within the audit programme. The frequency of audits is set within the site audit programme. A record of any audit is made and stored. Should non-conformances be identified these are handled in accordance with the site non-conformance procedure which includes appropriate follow-up and a record of the outcome alongside any improvements identified. Where improvements are identified a programme of action with defined responsibilities and timescale are set.
- 16.2.2 The FPP will be reviewed regularly as part of the EMS review cycle and any updates will be communicated to the relevant people. Reviews will be at least every 4 years or more frequently following any of the following events:
- there is a reason to suspect it no longer meets the objectives of the guidance;
 - there is a fire at the site;
 - there is a near miss of a fire;
 - the activities at the site are changed; and/or
 - the environment you are operating in changes, for example, a school or nearby residential development is built nearby.
- 16.2.3 Periodically or following a significant incident or change a full review of the FPP will also be undertaken in conjunction with the local FRS to ensure any lessons learned are incorporated and communicated to the relevant people and the FPP will be updated to incorporate any recommendations made.
- 16.2.4 Reporting requirements are defined within incident reporting procedures. These requirements incorporate reporting requirements to the EA (as specified within the permit), to the HSE and other interested parties.

16.2.5 The management systems include procedures for record keeping. Any record generated in relation to this plan is held in accordance with this procedure.

Drawings

Site Location Plan

Site Layout Plan

Site Drainage Plan

Sensitive Surrounding Land Uses

Fire Safety Plan

Fire Safety – Waste Transfer Building

Fire Safety – Additional Building

Appendices

Appendix A

Emergency Contacts

Emergency Contacts

Contact	Address	Contact Details
Local Police (Hertfordshire Constabulary)	Hertford Police Station, Hale Road, Hertford, SG13 8ED	Emergency – 999 or 112 Non-emergency – 101
Local Fire Service (Hertfordshire Fire and Rescue Service)	Ware Fire Station, 21 Baldock Street, Ware, SG12 9DH	Emergency – 999 Non-emergency – 01920 343600
Local Hospital with A&E (New QEII Hospital)	New QEII Hospital, Howlands, Welwyn Garden City, AL7 4HQ	Emergency – 999 Non-emergency – 01438 314333
Local EA Office (Welwyn Garden City)	Alchemy, Bessemer Road, Welwyn Garden City, Hertfordshire, AL7 1HE	03708 506 506
Operational Contact		To be confirmed