

**N&P Hartlepool Materials Recycling Facility Ltd.**

## **Fire Prevention Plan (FPP)**

**N&P Hartlepool MRF Ltd.  
Thomlinson Road  
Longhill Industrial Estate  
Hartlepool  
TS25 1NS**

**Environmental Permit Reference:  
EPR/GP3399LG**

**Revision: 2.1  
December 2024**

**Status: Final**

## 1. INTRODUCTION

### 1.1. Report Context

The operator N+P Hartlepool MRF Ltd. (previously owned by Niramax Group Ltd.) has prepared this Fire Prevention Plan (FPP) for Hartlepool Materials Recycling Facility (MRF) under the Environmental Permitting (England and Wales) Regulations 2016.

This report follows the Environment Agency (EA) guidance for FPPs<sup>1</sup> and details the required mitigation and management methods to prevent a fire of combustible materials stored on site.

The information contained within this FPP aim to meet the 3 main objectives of the EA FPP Guidance:

- Minimise the likelihood of a fire happening
- Aim for a fire to be extinguished within 4 hours, and;
- Minimise the spread of fire within the site and to neighbouring sites

Under current fire safety legislation<sup>2</sup>, a responsible person must carry out, or appoint a competent person to carry out, a suitable and sufficient fire risk assessment of the risks of fire to employees and others who may be affected by the site. A Fire Risk Assessment was prepared by The Elas Group in September 2022. The assessment details potential ignition sources, mitigation and management measures and is kept on site and is available for inspection at any time.

### 1.2. Programme of Improvements to Site

The Operator has taken a proactive approach to fire prevention and management at the Hartlepool site and have developed a programme of improvements to meet the 3 main objectives of the EA FPP Guidance. The previous operator of the site employed the services of an independent Fire Assessor to conduct a Fire Risk Assessment (FRA) in September 2022. The FRA recommended the operator undertake a periodic review of the Fire Prevention Plan to ensure the information remain relevant and any changes were incorporated.

This FPP is based on current operations on site. Scheduled improvements to the site are included within this FPP with a timescale for implementation.

### 1.3. Environmental Permit

The MRF is currently operated under an Environmental Permit (Ref: EPR/GP3399LG). For version numbers, please refer to the sites Electronic Document Management System (EDMS).

### 1.4. Site Location

The site is located at Longhill Industrial Estate, Thomlinson Road, Hartlepool, TS25 1NS. Longhill Industrial Estate is east of the centre of Hartlepool. The National Grid Reference for the site is NZ 51431 31037.

<sup>1</sup> Fire Prevention Plans, January 2021. <https://www.gov.uk/government/publications/fire-prevention-plans-environmental-permits/fire-prevention-plans-environmental-permits>

<sup>2</sup> The Regulatory Reform (Fire Safety) Order 2005.

Table 1-1 Surrounding Land Uses and Sensitive Receptors

Receptor	Distance from Site	Direction
<b>Residential</b>		
<b>Housing Estate (Harvester Close)</b>	<b>401 – 1000m</b>	<b>South East</b>
Housing Estate	420 – 1000m	West
Housing Estate	840 – 1000m	North
<b>Community Centres</b>		
Hartlepool Centre for Independent Living	880m	North
Bell Vue Community Centre	389m	West
Stranton Community Centre	820m	North West
Burbank Community Centre	880m	North
<b>Infrastructure</b>		
A689 Bell Vue Way Duel Carriageway	332m	West
Landfill	Borders site	East
Railway line	310m	East
<b>Environmental</b>		
Hartlepool Submerged Forest SSSI	491m	East
<b>Industrial</b>		
Wards Skip Hire Transfer Station	130m	West
Additional Transfer Station	180m	West
EMR Metals recycling	Borders site	West
Sims Metals recycling	185m	West
Trading Estate	180m	North West
Trading Estate	290m	North East
<b>Schools</b>		
Stranton Primary School	820m	North West
St Cuthberts Roman Catholic School	880m	West
St Aidens CofE Memorial Primary School	870m	West
Ward Jackson CofE Primary School	920m	North

The immediate surrounding land use within a 1km radius of the site is described in further detail below.

The surrounding area includes residential, commercial and industrial development. Some of the nearby industrial facilities operate in the same waste and recycling sector to N+P Hartlepool MRF.

### 1.5. Industrial & Commercial Premises

The MRF is located within the Longhill Industrial Estate and is adjacent to other industrial and commercial premises on the northern, southern and western boundaries. To the east is the restored landfill.

### 1.6. Areas of Open Land

A large area of open ground lies adjacent to the eastern and southern boundaries of the site.

### 1.7. Open Water and Marshes

The closest open water feature is approximately 900m to the east of the site, the North Sea.

### 1.8. Educational Premises

There are four schools within 1,000m of the site. These are to the North, North West and West of the site. Stanton Primary School (820m) is located to the North West. St Cuthberts Roman Catholic School (880m) to the West, St Aidens CofE Memorial Primary School (870m) also to the West and Ward Jackson CofE Primary School (920m) to the North.

### 1.9. Recreational Premises

A recreational space lies within 640m east of the site.

### 1.10. Major Roads and Transport Links

The A689 lies approximately 360m to the west of the site. The wider local road network is illustrated on Drawing ST16637-001.

The Hartlepool to Seaton Carew rail line lies approximately 300m to the east of the site.

### 1.11. Ecology

Searches on the Multi-Agency Geographic Information for the Countryside (MAGIC)<sup>3</sup> website confirm that the site does not encompass any statutory designated habitats or non-statutory land designations for ecological protection.

### 1.12. Receptors

Table 1-1 and Drawing ST16637-001 show the locations of receptors that are potentially sensitive and could reasonably be affected by the activities occurring on site.

### 1.13. Flood Zone

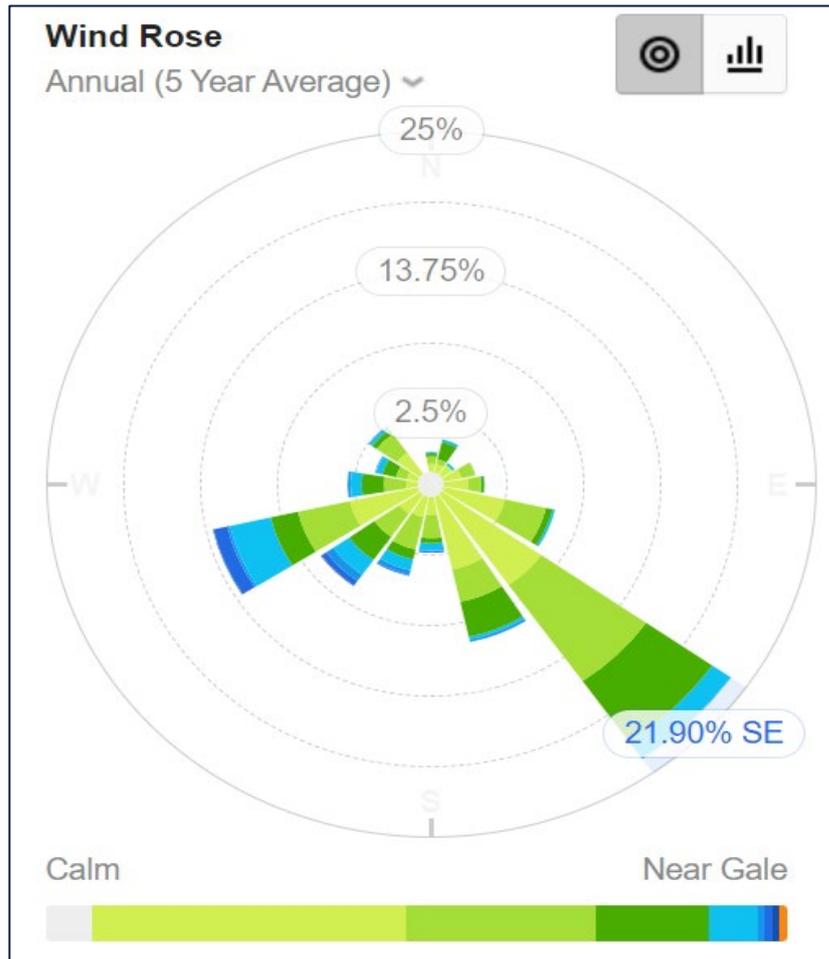
The EA flood zone database indicates that the site lies entirely within Flood Zone 1 (low risk) and therefore is considered an area of low probability with regards to flooding (land assessed as having a less than 1 in 1,000 annual probability of flooding (<0.1%)).

### 1.14. Windrose

A Windrose from Tees Valley Airport detailing a 5 year average providing the frequency of wind speed and direction is presented in Figure 1-1 below. The windrose shows that winds from the south-easterly quarter are more frequent with winds from the north and north-east occurring less often. Receptors highlighted in bold in Table 1-1 above are likely to be affected in the event of a fire as they are in the path of the prevailing wind from the south-east.

<sup>3</sup> Multi Agency Geographic Information for the Countryside Map (MAGIC) February 2018 <https://magic.defra.gov.uk/>

Figure 1-1 Tees Valley Airport Wind Rose<sup>4</sup>



### 1.15. Site Type

The site is currently permitted as a MRF which accepts up to 300,000 tonnes per annum of predominantly non-hazardous waste for treatment and/or storage prior to transfer off site. The site is permitted to physically sort or separate waste into different components including mechanical sorting, crushing, compacting, baling, shredding, and pelletising for onward recovery or disposal.

N&P are currently applying for a permit variation to allow the storage of SRF pellets and bales and the operation of a Hammer Mill and this FPP has been updated to reflect this.

The site layout, including waste storage locations have been identified on Drawing ST16637-003-V2.

<sup>4</sup> <https://wind.willyweather.co.uk/ne/durham/tees-valley-airport.html>

### 1.16. Waste Types

Table S2.2 of the Environmental Permit details the types of waste that be accepted on site which are defined as 'combustible materials' in the FPP Guidance.

The waste streams typically received on site are as follows:

- Baled SRF; and
- Pelletised SRF

The full list of wastes permitted for acceptance to the site are included within Schedule 2 of the Environmental Permit referenced in Section 1.3 of this FPP.

### 1.17. Site Access

The site is accessed via the A689 carriageway which is to the east of the site, this is linked directly to the Longhill Industrial Estate in which the MRF is based.

The closest Fire Station is Hartlepool Community Fire Station, Stockton St, Hartlepool to the north of the site. Using Google directions and mapping<sup>5</sup>, the drive time is approximately 3 minutes and it is approximately 0.8 miles between the site and the Fire Station.

The access road from the A689 is designed to accommodate large haulage vehicles. As such, the Fire Service will be able to reach the site easily.

The site is operational 24/7 and is therefore manned at all times. In the event of a fire, the Fire Service would be able to gain immediate access.

### 1.18. Environmental Management System (EMS)

The Operator has an extensive ISO 14001 certified Environmental Management System (EMS) that covers all aspects of the site operation. The EMS is managed through an online system comprising a number of separate documents that assist the site management team in operating the site in compliance with the Environmental Permit and other associated legislation.

Within the operation section of the EMS the Operations, Development and Management Plan (ODMP) is included, which provides the management framework for the permitted activities. Relevant sections from the ODMP are referenced throughout this FPP.

<sup>5</sup> Google Maps, Accessed in April 2024

## 2. FIRE PREVENTION MEASURES

### 2.1. Fire Detection and Alarm System

The site operates a primarily manual fire detection system.

In order to detect fire at the earliest stage during operational hours, staff undertake daily visual inspections of the waste stockpiles daily to look for signs of fire or signs that waste has the potential to catch fire. Staff are appropriately trained on fire detection and fire prevention and are required to adopt a proactive approach when it comes to detecting fires. This includes displaying vigilance at all times to waste piles and any potential outbreaks of fire. The site encourages proactivity when it comes to detecting fires, and do not limit their inspections exclusively to formal checks.

Additionally, the site is appropriately monitored and managed with detailed procedures in place to detect a fire in its early stages. Regular temperature monitoring and recording of the waste piles will be performed once daily by hand-held thermal imaging cameras. In the unlikely event that waste is recorded above 50°C, waste will be immediately cooled in situ by the onsite hoses, and then removed safely to the main quarantine area for cooling.

To cover hours outside of normal operations, the site is equipped with out of hours CCTV which covers the entire site and is monitored by security staff remotely. The site is manned 24 hours a day and any member of site staff or site security will raise the alarm as soon as they become aware of a fire, including contacting emergency services.

Smoke and heat detectors are installed in the site buildings. This detection system alerts the N+P Waste Management Team who can manually raise the alarm in the event of a fire. The smoke alarms are strategically located within the office building to alert employees in the event of a fire.

In the event of a fire being discovered, the site will be alerted by two-way radio and the site is immediately evacuated. Site operatives trained in the management of fire incidents will assess the cause of the alarm and implement the appropriate actions.

The above demonstrates that the site is appropriately monitored and managed with detailed procedures in place to detect a fire in its early stages.

### 2.2. Waste Acceptance and Rejection

The site follows strict waste acceptance and rejection procedures ensuring that non-conforming waste is not accepted on site. Section 6 of the ODMP, Waste Acceptance and Control System, details the full procedures.

### 2.3. Inspection and Amenity Monitoring

The site is continually manned and site operatives are always asked to remain vigilant and look out for signs of fire. Staff are trained in how to identify fires and fire hazards on site. Staff also receive training on the use and selection of fire extinguishers, site evacuation and shut down procedures, fire safety and all relevant emergency procedures.

All storage areas and piles will undergo a full 360° inspection to cover any blind spots and hard to observe locations where possible.

Should the temperature be recorded at 50°C or above, the Plant Manager will be immediately notified, and the waste will be dampened in situ using the onsite hoses or mobile cannon prior to removal to the quarantine area for cooling. Waste will be transported by use of mobile plant which is capable of transporting waste to the quarantine area without endangering personnel.

A handheld thermal imaging camera will be used to ensure the waste has cooled sufficiently before the waste is removed from the quarantine area.

A heat probe maybe used in conjunction with the handheld thermal imaging camera to monitor externally stored SRF bales during periods of hot or dry weather to ensure solar heating is not excessive to the point of causing a fire risk. SRF bales may be turned or covered during these adverse weather periods to prevent overheating. SRF is wrapped in black agri-wrap, a common HDPE material for this activity.

Furthermore, the entire site is under constant 24/7 CCTV surveillance which is monitored throughout the day.

The White Shed, Black Sand Shed and RDF Shed warehouses will be used to store pelletised SRF and will employ the above procedures alongside the existing thermal camera system. Thermal imaging checks will be recorded and stored on N+Ps Electronic Document Management System (EDMS).

The site undergoes regular cleaning in line with the Planned Preventative Maintenance (PPM) schedule using mobile plant and manual cleaning to prevent a build-up of debris and dust on site. The cleaning of all fixed plant is included within the PPM schedule. The cleaning of all mobile plant is undertaken regularly by the mobile plant operator. Servicing and maintenance of the mobile plant is undertaken by the Operations and Maintenance (O&M) contracts in place with the relevant suppliers or manufacturers.

Daily and weekly monitoring is recorded in line with the requirements of the Environmental Permit and detailed in the EMS.

## 2.4. Waste Storage and Quantities

Waste storage on site takes place on impermeable concrete surfacing as illustrated on Drawing STI6637-003-V2 within the following areas:

- The Black Sand Shed
- The RDF Shed
- The White Shed
- External Storage Bays

Each of the storage areas on site are discussed further below and should be read in conjunction with Drawing STI6637-003-V2.

### 2.4.1. The Black Sand Shed

The Black Sand Shed warehouse stores SRF pellets in preparation for processing via the hammer mill and post processing as pulverised alternative fuel (PAF). The storage layout can be seen in *Annex A – Site Plans*. Storage areas are monitored by thermal cameras and are visually monitored by Site Operatives who are appropriately trained in fire prevention. Waste storage requirements for the SRF pellets are shown in Table 2-1 below.

Table 2-1: Waste Types, Time & Storage Volume

Waste Type	Max Storage Time	Max Volume (m <sup>3</sup> )
SRF pellets	3 months	450m <sup>3</sup>
Pulverised alternative fuel (PAF)	2 months	450m <sup>3</sup>

### 2.4.2. The RDF Shed

The SRF pellets are stored within the RDF Shed located on the southern side of the White Shed in the north eastern corner of the site, as illustrated on Drawing STI6637-003-V2. The storage layout can be seen in *Annex A – Site Plans*. Storage areas are monitored by thermal cameras and are visually monitored by Site Operatives who are appropriately trained in fire prevention. Waste storage requirements for the SRF pellets are shown in Table 2-2 below.

Table 2-2: Waste Types, Time & Storage Volume

Waste Type	Max Storage Time	Max Volume (m <sup>3</sup> )
SRF Pellets	3 months	450m <sup>3</sup>

#### 2.4.3. The White Shed

Processed SRF pellets is stored in the White Shed located in the furthest north eastern corner of the site, as illustrated on Drawing ST16637-003-V2. The storage layout can be seen in *Annex A – Site Plans*. Storage areas are monitored by thermal cameras and are visually monitored by Site Operatives who are appropriately trained in fire prevention. The building sits on a concrete plinth and is constructed of a steel clad frame. Waste storage requirements for the White Shed are shown in Table 2-3 below.

Table 2-3: Waste Types, Time & Storage Volume

Waste Type	Max Storage Time	Max Volume (m <sup>3</sup> )
SRF Pellets	3 months	450m <sup>3</sup>

#### 2.4.4. External Storage Bays

In the exceptional circumstance that the Subcoal Productions TSP Ltd (EPR/SP3005PX) site at Teesside exceeds storage capacity, SRF bales will be transported to Hartlepool to be stored externally or under cover in the Recycling Shed in bays. External storage bays are located in the centre and northern portions of the site detailed in Drawing ST16637-003-V2. Storage requirements are shown in Table 2-4 below.

Table 2-4 External: Waste Types, Time & Storage Volume

Waste Type	Max Storage Time	Max Volume (m <sup>3</sup> )
SRF Bales	3 months	450m <sup>3</sup>

#### 2.4.5. Bale Storage

Baled materials are currently stored within the areas illustrated on Drawing ST16637-003-V2. Under normal operating conditions, bale storage time will not exceed 3 months.

N+P will ensure that the bales will be stored with the following fire prevention measures in place:

- Bale storage areas will be segregated by 80cm thick concrete Legioblock walls at a minimum of 4m in height – the fire resistance of these walls is outlined in Section 2.6;
- Bales will be stored a maximum of 1m below the height of the legioblock wall;
- Bales storage areas will maintain a separation distance of at least 6m from any building.

#### 2.4.6. Product Storage Scheduled Improvement

N+P have prepared and completed detailed proposals for the development of dedicated product storage areas. Details of the proposed design and construction of the product storage areas will be incorporated into future FPP plans and submitted to the Environment Agency. Product storage quantities will be confirmed when the proposed design and construction has been approved.

### 2.4.7. Non-Waste Materials

The site stores non-waste materials that are not covered by the FPP Guidance but are considered in this FPP due to the potential for them to cause or increase the impact of a fire on the site. The materials and their storage arrangements are shown in Table 2-5 below and illustrated on Drawing ST16637-003-V2.

Table 2-5 Non-Waste Materials: Storage Arrangements

Waste Type and Drawing ST16637-003-V2 Reference	Storage Location	Storage Arrangement
Gas Bottles, Propane, Oxygen & Argon)	Adjacent to Workshop Garage	Locked gas cylinder cage
Fuel (10,000 Litre Diesel)	Adjacent to Workshop Garage	Double skinned bunded storage tanks capable of containing at least 110% of the volume of the tank.
Oils	Adjacent to Workshop Garage	Double skinned bunded storage tanks capable of containing at least 110% of the volume of the tank.

## 2.5. Management of Hotspots

### 2.5.1. Stockpiles

As detailed in this FPP, suitably qualified site operatives carry out daily checks of the site to identify the risks and inspect the storage bays, stockpiles, and bale storage areas.

In order to reduce the likelihood of hotspot development within waste storage areas, stockpiles are sufficiently rotated, and waste storage time is minimised.

Under normal operating conditions, all pellets destined for the hammer mill will be processed within 7 days and exported off site for recovery.

Stockpiles are visually inspected throughout the day and the findings logged within the site diary at the start and end of each shift as a minimum.

To summarise, stockpiles are managed as follows to minimise self-combustion:

- Stockpile storage times are minimised;
- Risk factors (e.g. mixing of materials and heat generated during treatment) are reduced;
- Stockpile sizes are minimised;
- Loose waste is stockpiled under cover;
- Stored materials are rotated, on a first in and first out basis; and
- Hotspots are detected and controlled within stockpiles by;
  - Routinely monitoring stockpiles with the use of hand-held thermal imaging cameras;
  - Routinely turning stockpiles;
  - Dampening stockpiles, if required; and
  - Scheduled Improvements to Stockpile Hotspot Management

### 2.5.2. Bales

As indicated in Section 2.4.4, bale storage time is minimised where possible and limited to 3 months. Minimising storage times and completing regular checks ensures the potential for hotspots within the baled material remains low. Furthermore, the SRF bales are wrapped in agri-wrap, a common HDPE material for this activity.

### 2.5.3. Bay Wall Construction

Walls used for waste segregation on site are constructed from 80cm thick concrete Legioblocks. The fire resistance rating of the concrete wall has been estimated using the 'Standard Method for Determining Fire Resistance of Concrete and Masonry Construction Assemblies' (American Concrete Institute, ACI Standard 216.1- 97). Table 2.1 of the ACI Standard is reproduced (converted to SI units) as Table 2-6 below.

Table 2-6<sup>6</sup> Fire Resistance of Singular Layer Concrete Walls, Floors and Roofs

Concrete Aggregate Type	Minimum equivalent thickness for fire resistance rating (cm)				
	1-hour	1.5-hour	2-hour	3-hour	4-hour
Siliceous	8.9	10.9	12.7	15.7	17.8
Carbonate	8.1	10.2	11.7	14.5	16.8
Semi-lightweight	6.9	8.4	9.7	11.7	13.7
Lightweight	6.4	7.9	9.1	11.2	13.0

As shown above, a fire resistance rating of 4 hours is achieved by a concrete wall with a thickness of 13-17.8cm. The concrete Legioblocks used on site are 80cm thick, therefore providing a fire resistance rating of over 4 hours.

## 2.6. Plant and Equipment on Site

The following items of fixed and mobile plant are held on site:

### 2.6.1. Mobile Plant

- 5 x Counter Balance Forklift Trucks;
- 3 x Wheeled Loading Shovels;
- 2 x Telescopic Forklift Trucks;
- 4 x Material Handlers;
- 1 x Mobile Elevating Work Platform; and
- 1 x Gator Truck.

### 2.6.2. Fixed Plant

- Shredders
- Main Processing Shed
- Hammer Mill

The machinery is maintained in line with N+P's maintenance procedures. All plant and equipment receive annual Lifting Operations and Lifting Equipment Regulations (LOLER) and Provision and Use of Work Equipment Regulations (PUWER) inspections carried out by a 3rd Party contractor. Daily checks are carried out on all mobile plant and any findings are recorded and actioned accordingly. All mobile and fixed plant servicing and maintenance is carried out as per the manufacturer's instructions. Any defects that might harm the environment are entered into the incident management system.

Where possible all mobile plant are fitted with fire extinguishers.

Where possible all mobile plant will be parked outside of storage buildings, at least 6m away from any combustible waste.

<sup>6</sup> Table 2.1, page 4, Standard Method for Determining Fire Resistance of Concrete and Masonry Construction Assemblies, American Concrete Institute (converted from inches to cm).

Any mobile plant requiring maintenance is temporarily stored outside of the permit boundary beyond the workshops in the northwestern corner of the site. The storage area is located at over 6m from any combustible waste.

## 2.7. Firefighting Equipment

Firefighting equipment consists of but is not limited to:

- 1 x Fire Tenders;
- Fire Hoses; and
- Fire extinguishers (throughout).

The integrity of all firefighting equipment is checked periodically and recorded in the sites fire logbook. Plant and equipment are visually inspected prior to every use to ensure it is fit for purpose.

## 2.8. Training

Staff receive training on the use and selection of fire extinguishers, site evacuation, fire safety and all relevant emergency procedures.

All staff and contractors working on site are made aware of the contents of the FPP and the procedures that are in place in the event of a fire on site during their induction. The staff training is regularly refreshed particularly in the event of non-compliance.

Certain staff members on site are trained as Fire Marshals. There is always at least one Fire Marshal present on site.

The procedures for fires discovered on site are provided both on the N+P Hartlepool EDMS and on-site notice boards.

N+P Hartlepool MRF Ltd. conduct a review of the FPP once a year, or in the event of any significant changes to site operations, to ensure that the contents are still relevant and that all staff members' knowledge is current and up to date.

## 2.9. Security Measures

The site is enclosed by perimeter fencing and site entrance gates designed to prevent unauthorised access. The site is operational 24/7 with a significant amount of site operatives always present.

The gates, fencing and walls are inspected daily to identify any weaknesses or defects. Any defects identified are repaired with a temporary solution within 24 hours, with a permanent fix implemented within 7 days, unless a timescale is otherwise agreed with the EA.

Approximately 32x CCTV cameras are in operation around all areas of the site.

The site benefits from security lighting triggered during the hours of darkness. All doors to buildings and containers are locked when not in use.

## 2.10. Fire Sources & Prevention Measures

Table 2-6 below provides a summary of the potential causes of fire on site and associated preventative measures and is taken from the Fire Prevention Plan guidance.

Table 2-6 Fire Sources and Preventative Measures

Cause	Preventative Measure
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Arson and Vandalism	<p>The site has several security measures in place to limit the likelihood of arson or vandalism including:</p> <ul style="list-style-type: none"> <li>• Perimeter fencing with a gated entrance which is locked if appropriate;</li> <li>• CCTV cameras across the site;</li> <li>• Lockable doors on the skips and office/welfare facilities;</li> <li>• Security lighting;</li> <li>• Inspection and maintenance procedures;</li> <li>• Manned 24/7; and</li> <li>• A visitor sign in system.</li> </ul> <p>The site is enclosed on 3 sides, as illustrated on Drawing ST16637-001 by commercial and industrial premises. In the event of a breach of security at the site, the cause will be investigated, and appropriate mitigation measures implemented. This will be recorded on the sites Incident Management System. Records maintained will include inspections and maintenance of doors and locks, breaches of security, investigations and actions taken.</p>
Self-Combustion	<p>Effective stock management limits the likelihood of the self-combustion of materials stored on site. As such, the site has waste acceptance and stock management procedures which are upheld by all employees at the site, as detailed in Section 2.1. Only wastes included in the Environmental Permit are accepted at the site. Non-waste materials that pose a risk of self-combustion are stored as indicated in Table 2-4.</p>
Plant or equipment failure	<p>Plant and equipment are maintained in accordance with the manufacturer's recommendations. All new plant on site is fitted with telematics, which automatically highlights any faults, and local suppression as part of the minimum design specifications. Plant and equipment are operated in accordance with the manufacturer's instruction manuals. Instruction manuals for plant and equipment are held either on site or online if a hardcopy is not available from the manufacturer. No industrial heaters are utilised on site. Wall mounted convection heaters are provided in the office areas. There is no heating provided in the processing area. Induction training and refresher training is provided to staff in the safe operation of plant and equipment relevant to their role, in accordance with the EMS. Inspection of plant and equipment is undertaken daily to check for faults and ensure appropriate safeguards are in place. The procedure also covers general housekeeping and cleaning of plant and all equipment on site. Storage of mobile plant is detailed in Section 2.7 above. In the event of a failure or suspected fault with an item of plant or piece of equipment, the operator will ensure that the equipment is shut off in a safe manner and not used until the equipment can be repaired or replaced.</p>
Electrical faults (including damaged or exposed electrical cables)	<p>Regular safety checks and daily site inspections are recorded in the site diary. All building electricians are fully certified by a qualified electrician. Fixed Electrical Condition Monitoring and assessment is completed via 100% testing every 3 years. Annual PAT testing of any on site portable electrical appliances is carried out.</p>
Naked lights	<p>No naked lights are permitted on site.</p>
Discarded Smoking materials	<p>Designated smoking shelters are provided around the site. All shelters are located a minimum of 6m from any combustible waste. No smoking outside of the designated shelter is permitted on site.</p>
Hot works	<p>N+P operates a permit to work system which includes a 60-minute fire watch by a competent person at the end of the works. No hot works are undertaken by staff unless they are trained and competent and have the relevant permit to work understanding. Any works conducted outside of dedicated workshops takes place in a cleared area of the site at least 6m from any combustible wastes. A site operative performs a continuous fire watch during the hot work and for a minimum of 60 minutes after the work is completed.</p>
Hot Exhausts	<p>Vehicles are turned off when not in use. Consideration will be given to the high-risk time for hot exhausts (one hour after switching off when dust can settle on hot surfaces) and wherever possible vehicles are given time to cool down prior to site staff leaving site at the end of a shift. Visitor and staff parking are located to the eastern side of the site as illustrated on Drawing ST16637-003-V2.</p>
Open Burning	<p>Burning is not permitted on site. If any significant fires are observed on third party sites located near to Hartlepool MRF, N+P will report the incident to the Fire Service and Police authorities.</p>
Batteries	<p>Batteries are not permitted in the input materials. Unauthorised wastes are quarantined, and incompatible wastes are separated. Batteries used on site in power tools are regularly inspected for defects prior to use.</p>
Neighbouring sites	<p>The site is located within an area of mixed commercial and industrial properties and large areas of open ground. Employees always remain aware and report activities or behaviour which could represent a fire risk from neighbouring sites to the Plant Manager. The Plant Manager will then act as appropriate to address the risk.</p>
Incompatible wastes Including reactions	<p>All wastes arriving onsite are checked in accordance with the strict Waste Acceptance Procedure included within Section 2.2 to ensure no materials of unknown composition are</p>

<p>between incompatible materials)</p>	<p>accepted at the site. Spillages and leakages of fuels and oils are prevented through the application of measures detailed within the site Emergency Plans referenced within Section 5.2 of the ODMP. In the event, of a leak or spill of fuels or oils, the procedure within the Unit Emergency Plan is followed.</p>
<p>Hot loads deposited at site</p>	<p>No burning, reactive / reacting or visibly hot (producing steam or heat) loads are accepted on site. In accordance with the Waste Acceptance Procedure included within Section 2.2, each load is visually inspected at the site entrance to ensure compatibility with accompanying delivery notes, therefore minimising prohibited wastes and the acceptance of hot loads. Instructions are given to customers to ensure no hot loads are accepted on site. Should a hot load be deposited on site, it will immediately be removed to the dedicated quarantine area and removed from site the same day to a suitably licenced facility for disposal.</p>

### 3. FIRE MANAGEMENT

#### 3.1. Containing and Mitigating Fires

The buildings on site are constructed to the appropriate standards. Should fire compromise the stability or integrity, the buildings and site will be immediately evacuated.

##### 3.1.1. Manual Fire Suppression

Fire extinguishers on site include foam, water, carbon dioxide and powder extinguishers are provided in areas where there is a potential risk of fire. The fire extinguishers are inspected annually. The numbers of fire extinguishers are subject to change based on site activities.

##### 3.1.2. Site Plans

Up-to-date site plans are on display in the site office and detail;

- Site layout;
- Waste storage arrangements;
- Firefighting equipment locations (Pollution Control Equipment);
- Fire detection and suppression equipment; and
- Personal Protection Equipment (PPE).

In addition, all procedures relating to emergency procedures on site, including fires, are held within the site office and can be easily found and are readily available.

##### 3.1.3. Fire Drills on Site

A fire drill is carried out and documented on a 6-monthly basis.

This FPP is implemented across the site and all fire equipment is tested on a scheduled routine basis.

If any issues are found during these fire drills, the FPP will be updated or amended accordingly and site operatives will be re-trained.

Regular checks are made of all escape routes and equipment.

Fire boxes are located at the entrance gate containing site drainage information and isolation points. Emergency contact details and water connection points are detailed in the sites Fire Logbook.

##### 3.1.4. Emergency Contact Details

An emergency contact sheet is included in the Site Emergency Plan. In the event of a fire the following procedure will be followed:

- The Plant Manager (or Deputy) will locate the emergency contact list included within the Site Emergency Plan.
- In the event of a large fire, the relevant emergency services will be summoned first;
- The Plant Manager (or Deputy) will make contact with each of the local businesses included in the site emergency plans followed by the sewage service if appropriate to do so; and
- Finally, the EA incident hotline will be dialled once the situation is under control.

### 3.2. Site Procedures

#### 3.2.1. Small Fire

A small fire or area of smouldering waste will be dealt with as follows:

- A fire or area of smouldering waste will not be dealt with in-situ, mobile plant will be utilised to pull the affected waste portion into the open and away from any further waste that could become a light on contact; and
- Depending on the size / nature of the fire the waste pile will either be:
  - Extinguished immediately<sup>7</sup> utilising the fire extinguishers; or fire tenders.
  - Moved to the appropriate quarantine area and extinguished<sup>8</sup>.

Depending on the size, location and nature of the fire, the burning waste will be pulled into the flexible quarantine area following the procedures detailed in section 3.7.

Once a small fire is dealt with the remaining area will be visually inspected immediately by site operatives for any signs that a fire / smouldering waste remains. The same procedure, detailed in this section, will be implemented should this be the case. A small fire is defined within this fire prevention plan as a fire that is brought under control by the onsite team without the assistance of the fire service and this is expanded further within Section 3.6 of this FPP.

#### 3.2.2. Large Fire or Uncontainable Small Fire

The following procedure is in place on site that will be followed in the event of a small fire becoming uncontainable or in the event of a major fire onsite;

- The Plant Manager and Fire Service will be contacted immediately. The local sewerage service and EA will be notified at the first opportune moment.
- Following arrival of the Fire Service, all site staff will take instructions from the Fire Service which may include any of the following:
  - If possible, piles that are unburnt will be dampened down to prevent the fire from spreading further;
  - If possible, adjacent bays will be emptied into alternative bays/quarantine bay, to prevent spread;
  - The burning area will be isolated, attempts will be made to extinguish the fire utilising the onsite fire extinguishers if safe to do so; and
  - The site and buildings will be evacuated.

#### 3.2.3. Firewater Containment

The site has the benefit of impermeable surfacing throughout. A maintenance schedule for the inspection and repairs of the impermeable surface are detailed within the ODMP for Hartlepool MRF.

In the event of a fire, all surface water drainage systems would be isolated through use of a shut off gate valve to prevent water release to storm sewer.

The White shed, Black Sand shed and RDF shed will retain fire water within the footprint of the building by implementing a low wall on the sides of the buildings with a raised (100mm – 150mm) ramp on the door openings to prevent water escape. A fire wall sump at the end of the buildings will create a containment area where a sump and pump will be constructed to allow pumping of fire water to a bower couple extraction point whereby a road tanker will be used to remove fire water off site. See *Annex A – Site Plans* for storage layout.

<sup>7</sup> Should a single item of the waste stream be alight, and the fire is well contained, then the waste will be doused by use of extinguisher as it is pulled from the waste pile. The burned / fire-damaged portion is then removed to the quarantine area and the remaining waste returned to the pile.

<sup>8</sup> If the fire is not easily contained to a single item, then the obviously alight portion of the waste will be removed to the quarantine area.

If there is a fire within the external storage areas, all firewater would be contained onsite by a centralised collection point in the main yard which is lower than surrounding areas and thus able to act as a bowl effectively containing firewater.. With an impermeable site surface and the use of absorbents across the site entrance, at potential drainage points and around the fire area, firewater will be effectively contained on site. This has been demonstrated to work historically when there was a fire on site.

It must be noted that due to the control measures in place onsite to detect and suppress fires in their early stages, it is highly unlikely that the volumes of firewater will ever reach those calculated in accordance with the current FPP Guidance.

### 3.2.4. Sources of Water

Sources of water currently available onsite are:

Description	Volume	Location
Offsite Water Supply Hydrant	Unlimited. Flow Rate Hydrant 1: 540l Litres Per Minute	Located close to the east gate on Mainsforth Terrace (approximately within 10m from the east site entrance)
Offsite Water Supply Hydrant	Unlimited. Flow Rate Hydrant 2: 540l Litres Per Minute	Located outside the west gate on Thomlinson Road and Windermere Road Junction (approximately within 25m from the west site entrance)
Offsite Water Supply Hydrant	Unlimited. Flow Rate Hydrant 3: 540l Litres Per Minute	Located near on Windermere Road (Approximately 40m from the south western gate)
Onsite 3 x hose points	Unlimited (supplied by mains) Flow rate at each point 50 litres per minute	3 locations around site providing coverage of the yard areas

A fire tender with a capacity of 2,160 litres is also available on site which is subject to regular and routine servicing. The fire tender is parked at the western side of the site with direct access to the storage areas. Signage and floor markings are in place.

### 3.2.5. Fire Water

The largest waste pile on site is 450m<sup>3</sup>. Using the calculation within the guidance, this will require 540,000 litres a minute for a minimum of 3 hours for firefighting. Due to the rigorous monitoring regime at the site, a fire will be caught early by site staff, who will be able to fight a fire using the extinguishers, hoses and a site fire tender if it is safe to do so. These methods of fire suppression will prevent any fires from spreading, allowing for the fire to be fought effectively by the fire and rescue service. The fire brigade response times are short for this area as the Hartlepool Community Fire Station is only around 1.3 miles away, meaning that emergency services will be on site quickly.

Water supply calculation is demonstrated below.

Maximum Pile Size (m <sup>3</sup> )	Water supply rate required (L/min)	Overall water volume required over 3 hours (L)	Total water volume available onsite over 3 hours (L)
450	3000	540,000	320,760

Although based on the flow rates of the hydrants the total water volume available does not meet the requirements, the use of hydrants and onsite hoses provides an unlimited source of water for the site.

In addition, there are sufficient detection and prevention measures to catch a fire early and prevent fires from spreading:

- Each bay is fitted with fire retardant concrete legio block walls with a 1 meter freeboard to prevent burning waste spillover.
- Bays surrounding any burning waste will be emptied and redistributed to the quarantine zone for temporary storage.
- Fire detection measures outlined in section 2.1 will detect waste pile temperature increase before any possibility of fire arises.

The above measures will be employed site wide.

### 3.2.6. Fire Evacuation

The fire evacuation points are located at the main site entrance to Thomlinson Road and by the rear gate exiting to Mainsforth Terrace and are both clearly signposted.

Sites rules and procedures are reinforced via use of fire drills and planned response scenarios.

All personnel are to follow the instructions of the Fire Wardens and the Site Manager.

A list of trained Fire Wardens is maintained and displayed on the site, together with a list of on call staff to attend the site in the event of a fire outside of normal operation hours.

The Fire Evacuation Procedure is provided to staff, contractors and visitors which states:

- On discovery of a fire, immediately operate the fire alarm by pressing the nearest break glass call point and / or contact a responsible Manager/ Supervisor via a radio to ensure the alarm is raised;
- Fire Wardens and staff must only tackle to fire if they are trained to do so, the equipment is appropriate and if their safety or that of others is not compromised;
- Leave the building / work area by the nearest available exit / safe route and report directly to the assembly point located at the staff parking area;
- Leave quickly but in a calm, controlled and orderly manner. Do not detour to collect personal items;
- Do not re-enter the building / work area for any reason until authorisation has been given by the Site Manager / FRS; and
- The Site Manager will assess the situation and call the FRS required.

This document is reviewed and updated annually, or sooner if required. The document details all hazards and the control measures that are in place and / or required to prevent fires.

### 3.2.7. Management after a Fire Event

After a fire event, the following procedure will be implemented depending on the severity of the fire:

1. A small and containable fire that can be safely dealt with in-house using suitably trained staff and firefighting equipment located on site: The fire will be recorded in the site diary, including the causes of the fire and methods used to manage the fire. An assessment will be carried out to determine whether further mitigation measures could have prevented the fire. Any outcomes to be implemented onsite will be incorporated within this FPP and the site's EMS as required.

2. A larger fire that requires the presence of the Fire Service: If the site operatives have been told to evacuate or cease operations by the EA and/or Fire Service, the site will wait until told safe to re-enter site and resume operations. Any closure of the site will be followed by informing customers and the regulatory authorities. The fire will be recorded on the sites Incident Management System and will detail the causes of the fire and methods used to manage the fire. An assessment will be carried out to determine whether further mitigation measures could have prevented the fire. Any outcomes to be implemented onsite will be incorporated within this FPP and the site's EMS as required.

Should damage be sufficient to prevent the site from being able to store waste, the site will cease accepting waste and will divert to a suitably licensed facility. Such facilities will be subject to either a site audit or a desktop audit to ensure their suitability as a waste facility.

The Plant Manager will liaise with the EA to determine a plan-of-action to introduce normal operations at the site, and the timescales involved to achieve this.

### 3.2.8. Fire Damaged Waste

A visual assessment will be carried out by the Plant Manager to determine whether the waste can be treated on site. Wherever possible, unburnt wastes will be separated from fire damaged piles. If waste piles have become mixed, then it is likely that the waste will be removed from site to a suitably permitted facility.

The Plant Manager will determine what decontamination measures will be required to be carried out proportionately to the impact caused by the fire. The time taken to restore the site or affected part of the site to operational status will be determined by the nature and extent of the fire. If the affected area does not impact the rest of the site's operation, operations will re-start as and when appropriate.

After a significant incident, an assessment will be undertaken by a suitably qualified individual. Technically competent managers and/or engineers will assess the degree of damage caused by a fire and the residual risk from fire damaged waste, emissions or equipment. Burnt waste material will be kept on site for a short period of time if required for a subsequent internal investigation. Following this, the material will be transferred off site to a suitably licensed disposal facility.

### 3.2.9. Quarantine Area

The site benefits from both a dedicated and flexible quarantine areas that combined can hold half of the largest stockpile as required by EA guidance.

Bay 5 is the acting dedicated quarantine bay located in the centre of the site for easy access from all storage locations. This bay maintains a 6m separation distance from all other waste piles and can hold up to 990m<sup>3</sup>.

The flexible quarantine areas are marked zones outside of the storage warehouses, which will be used for the purposes of quick dowsing and to avoid excessive movement of smouldering loads. Although the flexible quarantine area may be subject to vehicular traffic during general operations, it will be cleared as necessary in the event of a fire. Having both dedicated and flexible quarantine areas provides N+P Hartlepool MRF with flexibility during a fire event.

In the event of non-compliant waste being identified within the waste load, the vehicle will be requested to remove the load off site immediately. If the vehicle has already unloaded the waste, it will be moved to the dedicated quarantine area and removed off site within 72 hours. In the event of a fire, the dedicated quarantine area will be cleared within 1 hour.

The locations of the dedicated and flexible quarantine areas are illustrated on Drawing ST16637-003-V2. N+P Hartlepool MRF will use the following areas as detailed in Table 3-1 below.

Table 3-1 Quarantine Area Dimensions

Quarantine Area	Primary Use	Length (m)	Width (m)	Height (m)	Volume (m <sup>3</sup> )
Dedicated	Temporary storage of burnt waste prior to removal offsite or temporary storage of non-compliant waste.	19.5	12.7	4	990
Flexible	Dousing of burning/smouldering waste and/or separation of unburnt waste.	Area: 313m <sup>2</sup>		4	626

With best endeavours, the burnt waste will be removed off site within 24 hours if safe to do so. The flexible quarantine areas benefit from a 6m separation distance from any combustible materials or buildings. N+P Hartlepool MRF maintain good housekeeping procedures and the site is kept clean at all times.

The placement of the dedicated and flexible quarantine areas is based on the following factors:

- The flexible quarantine area provides an open area of the site to allow for the prompt and direct removal of smouldering, burning or fire damaged wastes from the waste storage and to allow access by the Fire Service;
- Lessons learnt from fires on similar sites show that the Fire Service will pull burning waste out a short distance from an area and douse it – the flexible quarantine area allows the Fire Service to implement this firefighting technique easily on site;
- The dedicated quarantine areas provide N+P Hartlepool MRF with an area of the site that can store fire damaged waste during or after a fire event, so to provide enough space for the Fire Service and any further on-site assistance vehicles (tankers);
- Proximity to flammable liquids – the dedicated quarantine and flexible areas are situated at least 6m from any potentially flammable liquids on site such as diesel tanks; and
- Firewater containment – the flexible quarantine area is located in the north eastern area of the site therefore, due to the natural fall of the site, any firewater used in this area will pool within the fully bunded area in the south-eastern corner.

The Site Management will instruct all site operatives when and how the burnt/burning waste, or any hot loads delivered accidentally to site, will be moved to the appropriate quarantine area. The following procedure will be implemented on site:

- When it is safe to do so, the waste will be moved by on-site plant to one of the quarantine areas;
- The movement of the waste will always be overseen by the Plant Manager to minimise any spillages and ensure the area is not overfilled;
- To limit any spillages, plant will not be overfilled when moving the waste;
- The burning/smouldering waste will be doused in the flexible quarantine area using the relevant fire extinguisher, a fire hose supplied by the fire service connected to the water tank or water pumped from the fire engine;
- When the burning/smouldering waste has been fully extinguished it will be moved to the dedicated quarantine area awaiting removal from the site; and
- Burnt waste will be taken off site to a suitably licensed facility within 48 hours.

All site operatives will be trained to follow this FPP and all procedures listed in the above sections.

#### 4. CONCLUSION

This FPP is a 'working' document that is reviewed and updated annually or as required should any of the following occur:

- A fire on site;
- A change or review of legislation; or
- If the site is instructed to do so by the EA.

It is the responsibility of the Plant Manager (or nominated person) to maintain this FPP and to ensure it is adhered to in the event of a fire on site.

[END]