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Cumbria Waste Recycling Ltd
Seal Sands HWTS Environmental Permit Application

Fire Prevention Plan

2025-12-17

UK0042157.9205 / Appendix 8

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Fire Prevention Plan

2025-12-17

Prepared for

Cumbria Waste Recycling Ltd

Seal Sands Hazardous Waste Transfer Station, Seal Sands Road, Seal Sands, Middlesborough, TS2 1UB

Submitted to

Environment Agency

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Revisions

Rev	Date	Details
01	2025-12-01	Draft for Review
02	2025-12-17	For Issue

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No table of contents entries found.

Executive summary

This Fire Prevention Plan has been prepared as part of the Environmental Permit Application for Seal Sands Hazardous Waste Transfer Station (HWTS). This forms part of the Environmental Management System (EMS) at the site to assist in the overall environmental performance of the site in minimising the likelihood of a fire happening. This plan takes into account Environment Agency guidance on Fire Prevention Plans for Environmental Permits.

This Fire Prevention Plan is part of the EMS and identifies potential hazards posed by the installation and the associated risks and defines measures to address fire risks at the site and actions taken in the event of a fire incident occurring at the site.

This document and its associated sections will only be disclosed to those of the recipient's employees and contractors who have a need to see it as part of their duties.

This is a controlled document. Once printed, it is considered uncontrolled and may not reflect the most current version. Please refer to the electronic version for the latest updates.

This Fire Prevention Plan is a live document and subject to continual improvements as a result of operational changes, fire incidents and near miss fire incidents at the site which could have resulted in a fire incident. As a minimum, this Fire Prevention Plan will be reviewed annually to confirm the fire prevention measures are still appropriate and relevant to the site activities and the wastes handled.

The date of the next review is **December 2026**.

1. Introduction

1.1 Context

This Fire Prevention Plan (FPP) has been prepared by WSP Ltd on behalf of the operator, Cumbria Waste Recycling Ltd (hereinafter 'CWR') in connection with the new bespoke environmental permit application for a Hazardous Waste Transfer Station (HWTS) in Seal Sands, Middlesborough. CWR offers commercial waste services across the North of England and Southern Scotland. CWR's services include collection and management of combustible wastes.

The new HWTS is located at the address given below and the area is highlighted in Figure 0-1 below.

Cumbria Waste Recycling Ltd

Seal Sands Hazardous Waste Transfer Station

Seal Sands Road

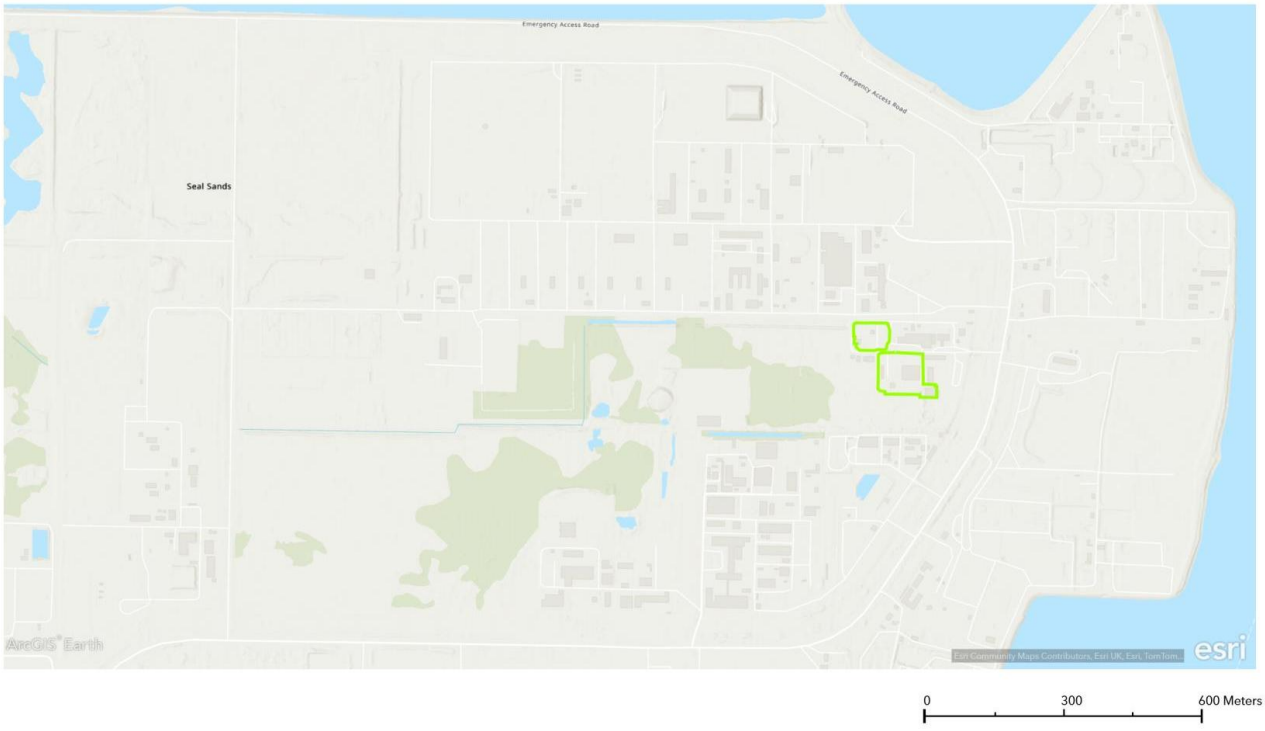
Seal Sands

Middlesborough

TS2 1UB

The national grid reference for the site is: NZ 53662 24741.

Figure 0-1 - Site Location



The HWTS will have the ability to accept containerised non-hazardous and hazardous waste in either liquid or solid form. The site will not normally accept loose waste or waste in bulk. The HWTS will manage hazardous and non-hazardous wastes from a variety of industrial and commercial process and similar wastes from municipal sources. Some wastes will be subject to waste treatment before being removed from the site.

This FPP has been produced in accordance with the latest available guidance[1] from the Environment Agency (EA).

Throughout this report, potential causes and impacts of a fire are identified, alongside descriptions of the measures that will be implemented at the facility, to prevent the occurrence of a fire. Further to this, the FPP also outlines the planned response that will take place in the event of a fire-related incident, explaining aspects such as how fire water could be contained.

This FPP is a working document, and it is the intention that it is to be used as a reference document for anyone whose work directly impacts the permitted activities, including operational staff, contractors and regulatory authorities.

This FPP has been designed to meet three objectives:

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

However, the highest priority is to minimise the likelihood of a fire event from happening to prevent environmental harm.

This document is also intended for the Fire and Rescue Service (FRS) in the event of fire.

[1] Fire prevention plans: environmental permits - GOV.UK

2. Responsibilities and Roles

2.1 Responsibilities

It is the responsibility of all staff and visitors to adhere to all site rules and work in a manner that contributes towards fire prevention.

THIS IS A NO SMOKING SITE AND SMOKING IS NOT PERMITTED (INCLUDING THE USE OF E-CIGARETTES AND VAPES) WITHIN THE BOUNDARY OF THE SITE. SMOKING IS ONLY PERMITTED AT THE DESIGNATED LOCATION OUTSIDE THE SITE BOUNDARY AS INDICATED DURING THE SITE INDUCTION.

2.2 Roles

The Transfer Station Manager for Seal Sands HTWS has overall responsibility for reviewing the processes on the site to minimise the likelihood of fire events and reduce the impact on the environment from any such fire incidents.

The Transfer Station Manager is responsible for implementing emergency procedures as the designated 'Incident Controller' in the event of an incident and co-ordinating the emergency response (with support from CWR resources and emergency services as required). In the event of the Transfer Station Manager not being onsite, the designated deputy will act as emergency co-ordinator and Incident Controller.

In an emergency, the Transfer Station Manager is responsible for assessing the scenario and determining what action should be taken, which may include evacuation of the HWTS and calling Cleveland Fire and Rescue Service and other emergency services.

The Supervisor Operator is responsible for supervision of other staff completing the day-to-day tasks of the Transfer Station and be aware of what activities are being undertaken.

All Site Staff operating at the site, under supervision from the Supervisor Operator, are responsible for adhering to CWR Working Instructions (WI) and working safely at all times. Records of training and competence are made on individual training records, which are stored electronically.

3. Types of Combustible Waste

The HWTS will manage hazardous and non-hazardous wastes from a variety of industrial and commercial process and similar wastes from municipal sources for storage and treatment on site.

All wastes will be suitably enclosed within waste containers and loose waste/waste in bulk is not acceptable at the HWTS and therefore the HWTS does not utilise waste piles.

The scope of this FPP excludes the following waste materials that may also be found at the HWTS:

- Combustible liquid wastes;
- Gas cylinders;
- Aerosols;
- Hazardous wastes excluding WEEE;
- Healthcare sharps waste.

3.1 Combustible Waste

Combustible waste that is to be accepted at the facility will include the following

- Paper or cardboard – including separately collected fractions and filter materials
- Plastics - including separately collected fractions
- Rags and textiles - including separately collected fractions and protective clothing
- Scrap metals contaminated/mixed with other wastes
- Plant material – including plant tissue waste and biodegradable waste
- WEEE – including waste electrical equipment, components and batteries
- Rubber – including end-of-life tyres
- Wood – including separately collected fractions and packaging

The HWTS will accept a very broad range of hazardous and non-hazardous wastes from a variety of industrial and commercial processes and similar wastes from municipal sources which may include mixed waste containing any of the combustible wastes listed above mixed with non-combustible waste. In this instance, the waste will be treated as combustible and this FPP will apply.

3.2 Persistent Organic Pollutants

As a HWTS, the types of waste to be accepted on site may contain persistent organic pollutants (POPs). According to EA guidance[1], POPs can be present in waste and can have significant effects on human health and the environment.

Waste containing, or suspected of containing, POPs will be segregated from other waste and stored separately. If there is a fire, the FRS will be notified of the presence of waste containing POPs on site. Any residue, which could include firefighting water, from a fire involving POPs waste will be segregated and treated following the POPs regulations 2019[2].

[2] The Persistent Organic Pollutants (Various Amendments) Regulations 2019

3.3 Other Combustible Materials

Other materials that are to be stored on site that are non-waste materials but are also combustible include the following materials.

Table 3-1 – Non-waste Combustible Materials

Material	Use	Storage arrangement
Diesel	Fuel for the fork-lift trucks	Self-bunded diesel tank on impermeable ground which is kerbed.
Maintenance oils (engine, hydraulic etc)	Vehicle maintenance	Small volumes in locked, bunded storage cabinet inside of a building.
Cleaning fluids	Site and office cleaning	Small volumes in locked, COSHH cabinet inside of a building.

4. Using the Fire Prevention Plan

4.1 FPP Use and Location

This FPP will form part of the management system that will be implemented at the Seal Sands HWTS, detailing fire prevention measures and procedures that are to be put in place on site.

This FPP is a working document, and it is the intention that it is to be used as a reference document for anyone whose work directly impacts the permitted activities, including operational staff, contractors and regulatory authorities. In the event of fire, the FRS are also intended users of this FPP.

A copy of the FPP will be available to all staff on the Site Noticeboard, in the Transfer Station Manager's Office, and on the CWR intranet. A copy of this FPP will be accessible from a box located at the site entrance, so that if the site is closed, the FPP still remains available.

Implementation and communication of this FPP is to be carried out by the Transfer Station Manager, with the support of other CWR staff. A nominated designated deputy will be appointed for the instances when the Transfer Station Manager is not on site.

Review of the FPP will be carried out at regular intervals (at least on an annual basis), by an appropriate person, to ensure suitability for the facility. A review will be undertaken following any of the events outlined below:

- Testing of the plan, to ensure it is sufficient and effective;
- After an incident or near miss;
- Change to legislation or formal guidance; and
- Prior to change in activity on site.

4.2 Testing the Plan and Staff Training

All site staff will be fire trained, trained in how to operate fire hoses and trained in how to use a fire extinguisher in order to utilise the correct emergency equipment for different types of fire. Fire drills will be key in preparation and training, with scenario fires being covered under drill conditions at least annually. Following a drill scenario, a review of actions will be undertaken to ensure compliance with the FPP.

Fire Marshal training will also be essential in ensuring that key personnel are supplied with sufficient guidance to carry out their duties effectively, in the event of a fire. The Supervisor Operator, who is responsible for supervision of other staff completing the day-to-day tasks of the Transfer Station will be the nominated Fire Marshal and named on the site information board located within the main Warehouse. In their absence, the Transfer Station Manager will be the Fire Manager.

Rehearsals in relation to the actioning of the FPP will include the local FRS and will be undertaken regularly, so as to ensure that they are aware of the site layout and that they are educated on the areas of the site that pose the greatest risk, particularly in the event of a fire.

5. Activities At The Site

5.1 Overview of Site Activities

A number of activities listed in Schedule 1 of the Environmental Permitting (England and Wales) Regulations 2016, as amended (EPR), plus Directly Associated Activities, will take place at the site, as detailed in Table 5-1.

Table 5-1 - Activities on Site

Activity No.	Schedule 1 Reference	Description of Activity	Annual or Daily Capacity	R & D codes
AR1	Section 5.6 A(1)(a) Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes pending disposal or recovery:	Temporary storage of packaged hazardous waste.	Hazardous waste transfer station activities with a maximum of 2,155 tonnes temporary storage at any time (equivalent to 2,155m^3 of storage volume). 1,965 tonnes of storage within waste containers and 190 m^3 of tank storage The maximum annual throughput of 105,000 tonnes. All wastes to be handled and stored on an impermeable surface.	R13 - Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where the waste is produced)
AR2	Section 5.3 Part A(1) a (ii) Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving physico-chemical treatment.	Treatment of hazardous waste	80 tonnes per day The maximum annual throughput of 15,000 tonnes. From receipt of waste on site to physical treatment by gravity settlement to	R3 – Recycling / reclamation of organic substances which are not used as solvents D9: Physico-chemical treatment resulting in final compounds or

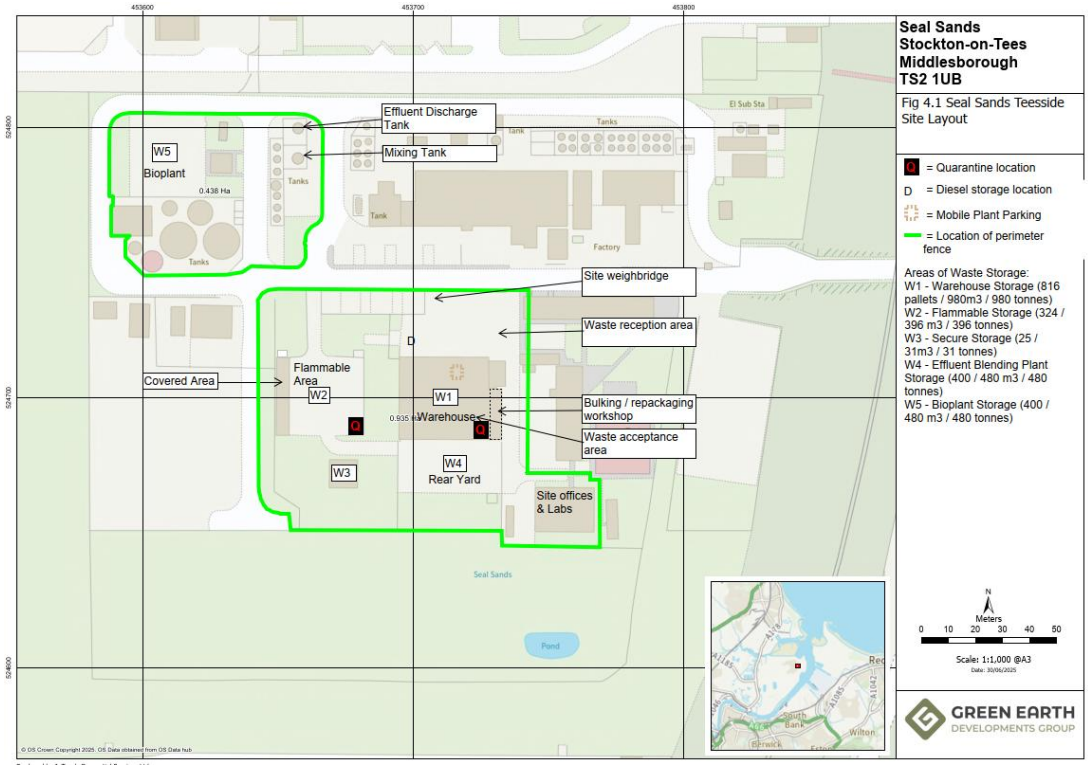
			storage of, oils and waste waters.	mixtures which are discarded by any of the operations numbered D1 to D12,
AR3	Section 5.3 Part A(1) a (iii) Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving blending or mixing prior to submission to any of the other activities listed in this Section or in Section 5.1;	Treatment of hazardous waste (for consignment to cemfuel manufacturer)	290 tonnes per day The maximum annual throughput of 50,000 tonnes. From receipt of liquid waste on site, followed by compatibility testing, mixing/blending with other suitable wastes and storage prior to transfer offsite to a suitable facility.	R3: Recycling / reclamation of organic substances which are not used as solvents R5 Recycling / reclamation of other inorganic compounds D13: Blending or mixing prior to submission to any of the operations numbered D1 to D12
AR4	Section 5.3 Part A(1) a (iii) Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving blending or mixing prior to submission to any of the other activities listed in this Section or in Section 5.1;	Treatment of hazardous waste (for transfer including physical bulking of liquid wastes only)	520 tonnes per day The maximum annual throughput of 90,000 tonnes. From receipt of liquid wastes on site, followed by compatibility testing, mixing/blending with other suitable wastes and storage prior to transfer offsite to a suitable facility.	D13: Blending or mixing prior to submission to any of the operations numbered D1 to D12 R3: Recycling / reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes) R4: Recycling /reclamation of metals and metal compounds R5: Recycling /reclamation of

				other inorganic materials
AR5	Section 5.3 Part A(1) a (iv) Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving repackaging prior to submission to any of the other activities listed in this Section or in Section 5.1;	Treatment of hazardous solid waste (repackaging loose and packaged hazardous waste)	520 tonnes per day The maximum annual throughput of 90,000 tonnes. From receipt of wastes on site, followed by compatibility testing and repackaging.	D14: Repackaging prior to submission to any of the operations numbered D1 to D13 R12: Exchange of wastes for submission to any of the operations numbered R1 to R11

5.2 Site Plan

A site layout plan for the Seal Sands HWTS is shown below outlined in Figure 5-1 showing the locations of the main buildings and structures and areas where waste materials are stored, including the location of where flammable waste is stored.

Figure 5-1 - Seal Sands HWTS Site Layout



Error! Reference source not found., below, shows the locations of emergency equipment including fire hydrants, fire extinguishers and spill kits. The plan also shows the emergency access routes for the emergency services who may need to access the site.

Figure 5-2 - Locations of Emergency Equipment and Emergency Access Routes

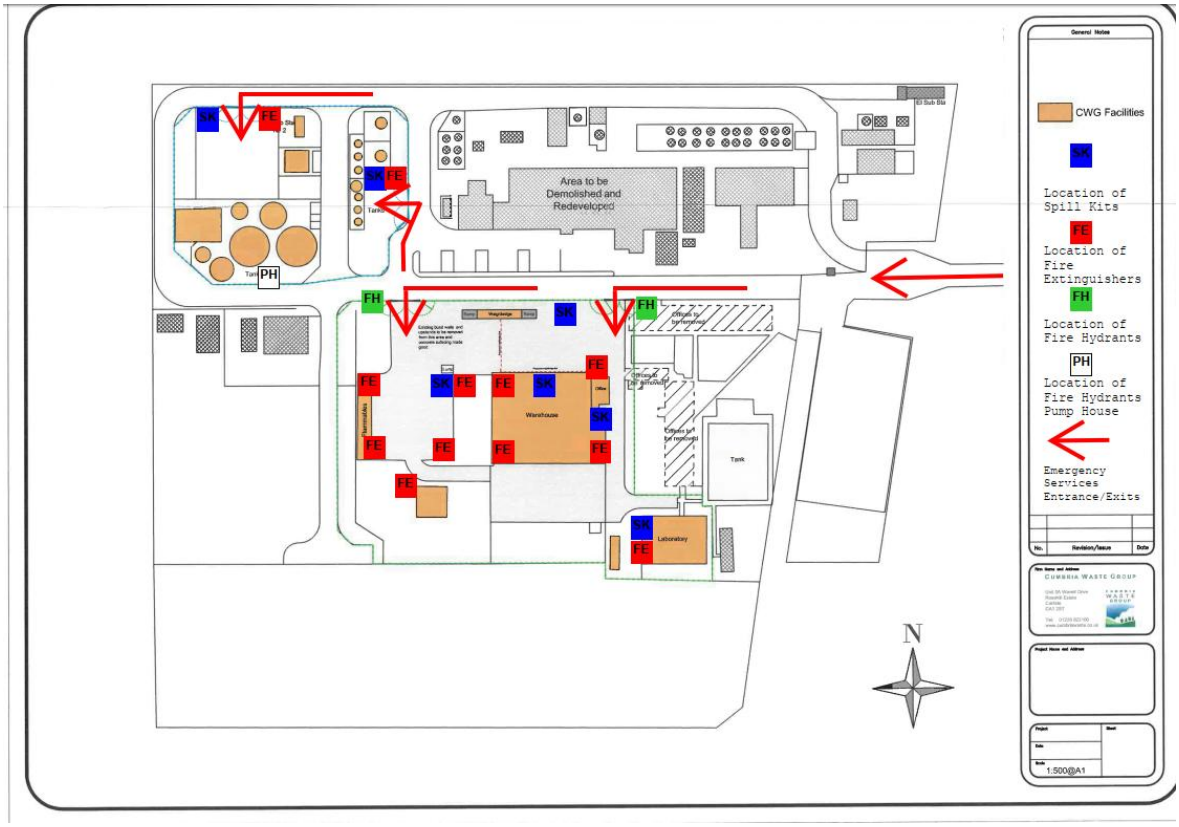


Figure 5-3, below, shows the storage locations for different waste types and different locations at Seal Sands HWTS which includes:

- 1 - Mixed waste storage within the main Warehouse (no flammable wastes) with a storage capacity of 816 pallet spaces (equivalent to 816 m^3).
- 2 – Flammable Area yard storage with a storage capacity of 108 pallet spaces (equivalent to 108 m^3) in covered storage and 216 pallet spaces (equivalent to 216 m^3) in uncovered storage.
- 3 – Secure Warehouse covered storage with a storage capacity of 25 pallet spaces (equivalent to 25 m^3).
- 4 – Rear storage yard with a storage capacity of 400 pallet spaces (equivalent to 400 m^3).
- 5 – Bottom yard with a storage capacity of 400 pallet spaces (equivalent to 400 m^3).

A copy of the drainage plan is included within Figure 5-4, showing the locations of drainage runs and bunded areas which from the sealed drainage system of the site.

Figure 5-3 – Waste Storage Volumes

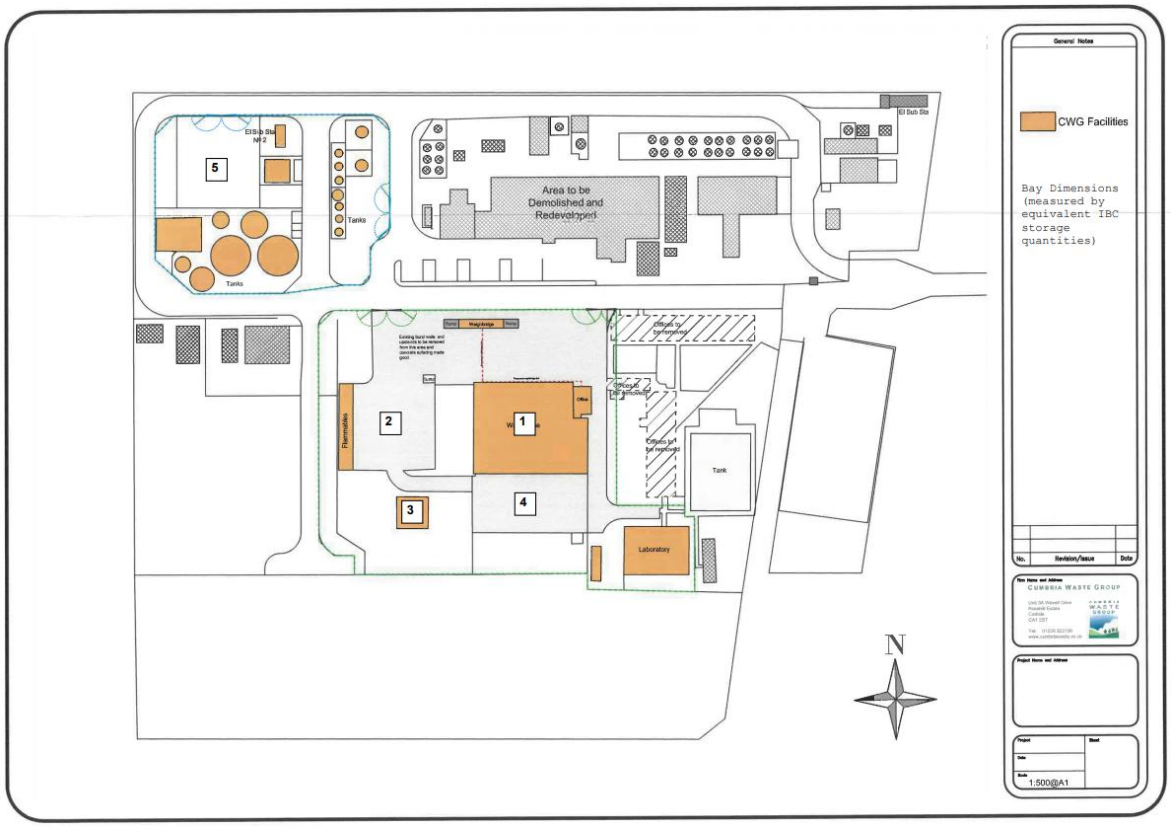
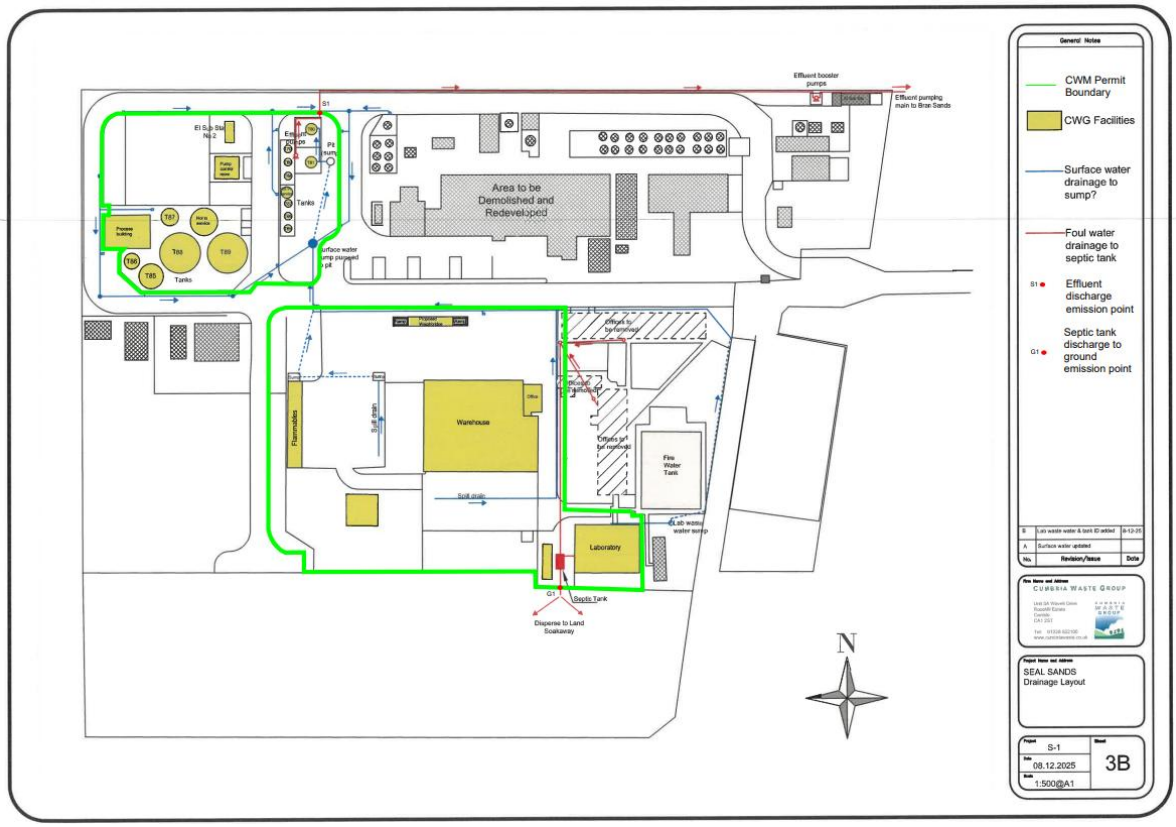


Figure 5-4 – Site Drainage Plan

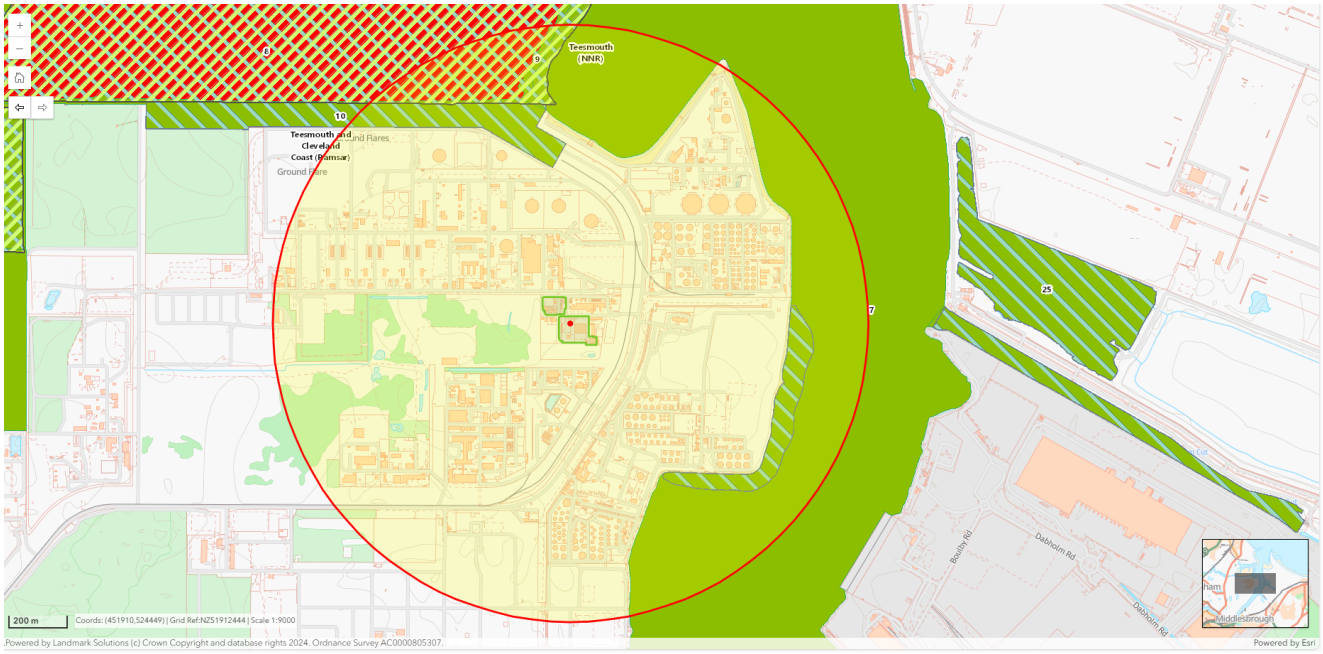


5.3 Plan of Sensitive Receptors Near the Site

The site is located within an industrial area at Seal Sands Industrial Estate. In regard to the surrounding area, there are no sensitive receptors within 1,000 metres of the site. The nearest residential receptors are approximately 3,800 metres to the southwest in the South Bank area of Middlesborough, on Middlesborough Road and 4,200 metres to the north in Seaton Carew in the form of houses on Vickers Lane and Avro Gardens.

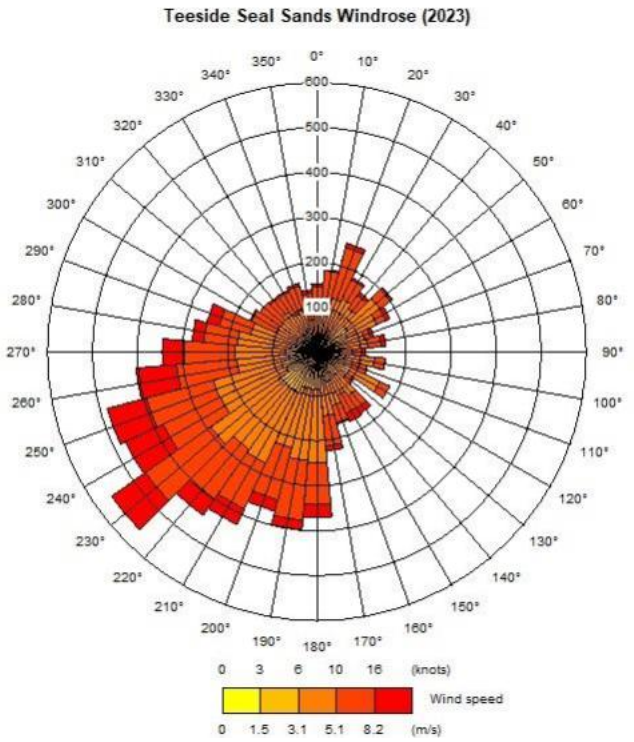
There are no Local Nature Reserves (LNR) or Ancient Woodland sites within a 2 km vicinity of the site and no Marine Conservation Zones (MCZs), Special Areas of Conservation (SACs) or Special Protection Areas (SPAs) within a 10 km vicinity of the site, however there is one Site of Specific Scientific Interest (SSSI) and one Ramsar site, Teesmouth and Cleveland Coast Ramsar and SSSI, as shown in Figure 5-5. There is also one National Nature Reserve (LNR), Teesmouth NNR and one Local Wildlife Site (LWS), Zinc Works Bird Field LWS within a 1 km vicinity of the site.

Figure 5-5 - Sensitive receptors sites within 1 km of the site



A representative wind rose for Seal Sands for 2023 is provided below in Figure 5-6 that is based on national weather prediction modelling. The data shows that the prevailing wind is normally from the south-westerly direction, and the wind speed is typically between 3.1 and 8.1 metres per second (6-16 knots). This indicates that emissions are likely to be dispersed to the north-east.

Figure 5-6 - Wind rose showing the average wind direction and strength at Seal Sands (2023)



6. Manage Common Causes of Fire

Outlined below in the following sections are the measures and actions that will be taken to manage the common cause of fire that are discussed in Section 7 of the EA guidance on FFP.

6.1 Arson

The sites perimeter is fully enclosed with security fencing and security lighting. Additionally, intruder alarms and CCTV cover the site and are monitored 24 hours a day, 7 days per week, this will ensure that unauthorised individuals attempting to access the site will be identified. The site is monitored out-of-hours by security patrols working within the wider industrial estate. Site staff perform regular site checks of the perimeter security fencing and the wider site conditions to identify any potential damage which may allow unauthorised access.

Access is via the perimeter entrance and visitors must report to the weighbridge, with the site being locked outside of the normal operating hours. Additionally, waste stored inside of buildings is securely locked with hazardous and dangerous waste being locked within dedicated storage areas within buildings.

6.2 Plant and Equipment

All mobile plant and equipment will be operated in accordance with manufacturers recommendations with any defective equipment undergoing repairs, which will be undertaken and logged by a relevant, competent person. Site equipment, machinery and vehicles will be subject to end of shift checks before operation and regular inspections to ensure that any defects are identified at the earliest opportunity. Checks will be recorded electronically. The failures of equipment will be monitored under the preventative maintenance programme to identify trends and to ensure failures are captured before they occur where possible.

Additionally plant/equipment will only be operated by CWR staff who are suitably trained in the use of on-site plant/equipment.

Mobile plant will be kept away from combustible waste when not in use and all vehicles will be fitted with fire extinguishers. Out of hours, mobile plant will be stored securely within the main Warehouse away from any flammable and combustible materials within a dedicated parking space.

6.3 Electrical Faults Including Damaged Or Exposed Electrical Cables

6.3.1 Electrics Certification

As part of the assembly of buildings on site qualified electricians will install the fixed wiring of the facility, with regular checks following in later years (as part of yearly and 5-yearly inspections), which will also be conducted by a fully qualified electrical engineer.

6.3.2 Electrical Equipment Maintenance Arrangements

CWR staff working at the site are responsible for completing daily checks at this site which incorporate control of electrics within each area of the site where they will be working.

CWR utilises an electronic audit and inspection system which includes scheduling of daily, weekly and monthly planned, preventative maintenance. This is undertaken by site staff and supported by external approved suppliers including appropriately qualified electrical engineers and electricians.

Regular checks of fixed wiring at the facility will be conducted by a fully qualified electrical engineer as part of yearly and 5 yearly inspections. Regular checks and monitoring will also be carried out by the onsite electrical engineer.

6.4 Discarded Smoking Materials

Smoking, including electronic cigarettes, is only permitted in a designated area outside of the site boundary and will be the only permitted area for smoking on the site, in line with fire and process precautions.

The area will be not in the vicinity of combustible waste. Good housekeeping will prevent the accumulation of combustible litter within the site.

6.5 Hot Works Safe Working Practices

'Hot Works' are not permitted at Seal Sands HWTS without the prior written authorisation from the Transfer Station Manager and upon completion of all relevant risk assessments and site inductions.

In the case that hot works are necessary, a full risk assessment in relation to the works will be undertaken, alongside obtaining the relevant permits to work that cover the use of equipment generating heat and flame within the specified area of work.

Permits to work will be authorised by Seal Sands HWTS Transfer Station Manager, or in their absence, the designated deputy.

All hot works will be undertaken away from combustible and flammable materials. As required waste materials will be moved away from the specified area of work and the area will be made free of loose combustible materials prior to hot works commencing. Portable fire extinguishers will be easily accessible if an incident where to occur. After completion, all hot works will be monitored (fire watch) while cooling and hot works certificates will be completed and subsequently closed once the work has been finished.

6.6 Industrial Heaters

No industrial heaters will be used on site.

6.7 Hot Exhausts and Engine Parts

Hot exhausts from vehicles and mobile plant across the site could potentially be a cause of fire. Vehicles will all be supplied with fire extinguishers to allow for quick response in the event of a fire.

CWR staff operating vehicles and mobile at the site are responsible for completing daily vehicle checks. Daily end of day inspections and regular maintenance will help prevent dust or litter from settling on hot exhausts, which could also pose the risk of fire. Staff are to be vigilant to the risk of hot exhausts causing fires.

When not in use mobile plant and vehicles will be parked away from combustible waste. Out of hours, mobile plant will be stored securely within the main Warehouse away from any flammable and combustible materials within a dedicated parking space. This will be at least 5 metres away from any waste, within the main Warehouse.

6.8 Ignition Sources

There will be no naked flames, space heaters, furnaces, incinerators or other sources of ignition within 6m of combustible and flammable waste.

6.9 Batteries

The HWTS will manage hazardous and non-hazardous wastes from a variety of industrial and commercial process and similar wastes from municipal sources for storage and treatment on site. Due to the nature of the waste to be accepted at the facility, batteries and accumulators will be found on site.

All waste arriving at the site will be separately contained within suitable waste packaging and subject to CWR's waste tracking system. All waste packages are uniquely numbered to identify the waste type and where it is located on site.

Lithium-ion batteries entering the site will be correctly sorted and identified, they will be marked as a fire hazard. Lithium-ion batteries will be stored separately in weather proof and closed containers which will be monitored to ensure temperature does not rise indicating potential self-combustion. Lithium-ion battery containers will be stored within the main Warehouse on an impermeable surface.

Storage of other batteries will be by type and waste classification. Other types of batteries will be placed into plastic storage containers within the main Warehouse on an impermeable surface. Lead acid batteries shall be stored upright in containers with an impermeable, acid-resistant base. Once sorted batteries of different chemistries shall be stored separately. All batteries will be packed in accordance with ADR regulation for transfer offsite.

Batteries in end-of-life vehicles (ELVs) will not form part of the waste types that will be accepted onto site.

6.10 Leaks and Spillages of Oils and Fuels

Any vehicles that are required to be on site overnight will be parked in a designated parking area away from all wastes. All vehicles and mobile plant will be serviced and maintained in accordance with manufacturer's recommendation, as to reduce the risk of fuel loss via leakages. Additionally, vehicles will be subject to end of day inspections. ELVs will not be received on site. Any waste oil that is collected on site from vehicle maintenance will be stored in a bunded container prior to removal from the site.

All liquid wastes and oils (including non-waste oils and fuels) will be bunded and their containers will form part of the inspection and maintenance regime.

In the event that a leak of spillage is to occur, spill response equipment will be deployed to mitigate any fire risks. See **Error! Reference source not found.** for locations of emergency equipment. The site has a spillage procedure as part of its management system – see WI054 'Dealing with Leaks and Spillages'.

Across the site appropriate spill kits are supplied which will undergo inspection to ensure that they are complete and provide sufficient spillage treatment measures. CWR staff undertake spill response training to ensure they can competently respond to any spillage event.

Different areas of the site are connected to different drainage systems which would prevent the spread of fire between areas in the event of a fire incident.

6.11 Build-Up Of Loose Combustible Waste, Dust And Fluff

The build-up of loose combustible materials will be monitored, and the site will undertake daily cleaning and housekeeping programmes to ensure there is no buildup of this material.

Only waste contained within suitable waste packaging that will prevent the build-up of loose combustible waste, dusty and fluff is accepted onto site. Additionally, waste will be stored in a secondary container or enclosed within a building and any loose wastes should not be released on site.

6.12 Reaction Between Wastes

All waste accepted onto site will be identified, labelled and contained in suitable packaging so it is not anticipated that there will be any issues or concerns in relation to incompatible materials and the potential reactions that may occur between them.

All waste accepted at the site is subject to pre-acceptance procedures prior to its arrival on site and subject to sampling and compatibility testing by trained and competent CWR chemists to prevent reactions between incompatible wastes. This information enables CWR to have a full understanding of the incoming waste, which will enable required action to be undertaken at the earliest opportunity. This includes making a decision whether to reject the load if it is unsuitable, or, accept the waste into the quarantine area.

Damaged or unlabelled containers which may present a higher risk of chemical reaction are unloaded from vehicles and placed immediately into the quarantine area of the site (closest to the weighbridge) and will be labelled as such, with incompatible waste segregated and placed in a separate bunded area.

Only wastes detailed within the environmental permit will be accepted on site, and as such, there are no concerns in relation to incompatibility and subsequent reactions.

6.13 Waste Acceptance and Deposited Hot Loads

Hot materials will not be accepted onto site.

In the instance that hot materials are identified during unloading processes, the material will be transferred to the designated quarantine area, where it will be allowed to cool, prior to being returned to storage or subject to the waste rejection procedure, as necessary.

Waste acceptance procedures will be implemented at the facility, which will enable data to be captured in relation to waste being accepted on-site. These procedures will involve ensuring that the anticipated waste matches the received load (based on pre-acceptance information) where the accompanying waste paperwork will be inspected. All waste accepted on site is subject to visual checks, sampling and testing (where visual checks are not sufficient). Due to the nature and variety of the wastes accepted at this facility, contaminants that could pose a fire risk are identified and staff are trained to ensure the waste is sufficiently identified and contained.

In the event of waste non-conformances and the rejection of wastes, quarantine areas are available on site for different types of waste. Quarantined waste is labelled, placed into a separate bunded area and will be removed from the site within five working days.

6.14 Hot and Dry Weather

Wastes are identified and stored subject to their hazardous waste classification and in accordance with segregation requirements within the most appropriate location of the site which may be inside of a building or in external, yard storage.

All wastes that pose a risk to self-combustion due to hot weather will only be accepted onto site with a pre-arranged booking where there is sufficient space to safely store the waste (normally inside of a building) and where there is a transfer plan in place for the waste to be removed from the site. This would be targeted at being within 48 hours and each acceptance of sensitive waste would be risk assessed on a case by case basis and approved by the Transfer Station Manager.

Waste that cannot be stored on site in the appropriately separated areas due to lack of storage capacity is not accepted. Waste storage time is minimised and will not be longer than 6 months, or the duration allowed by the Environmental Permit if longer than 6 months.

If extreme duration or intensity hot and dry weather is experienced, emergency procedures are in place for trained staff to carry out appropriate measures to reduce fire risk, such as ceasing acceptance of further combustible waste on site and monitoring the temperatures of waste containers that are stored in direct sunlight.

7. Prevent Self-Combustion

7.1 General Self-Combustion Measures

According to GOV.UK guidance[1], various materials are capable of self-combustion under specific conditions. Self-combustion occurs when a self-heating material produces heat more quickly than it can dissipate to the surroundings. This causes the temperature to rise until the auto-ignition point is reached, resulting in self-combustion. Management of self-combustion often requires consideration of storage times, pile volumes and height, and waste temperatures.

Vigilance is required by all CWR staff working at Seal Sands HWTS to have awareness of the waste types present on the site and awareness of which items could self-combust in the event of damage or overheating when exposed to direct sunlight or high ambient temperatures.

A process monitoring procedure will be introduced to avoid self-combustion of products – due to the nature of some of the waste being accepted on the site having a risk of self-combustion. High risk materials will be determined on site, which will include but is not limited to lithium-ion batteries. A system will be implemented that will incorporate temperature checks and regular monitoring by staff (as part of the daily site checks) which will enable for identification of any self-combustion events on site.

Smoke alarms will be placed across the site to provide a better chance of early detection of a fire.

Batteries are at a high risk of self-combustion and so the most appropriate storage method for batteries involves storage within appropriate containers that are waterproof, weather resistant and leak-proof. All batteries will be identified and stored in a designated battery storage container which is resistant to the chemicals contained in the waste batteries. This storage container will be subjected to manual temperature checks as part of the daily checks.

7.2 Manage Storage Times

Combustible wastes are not stored within waste piles at the HWTS and therefore the requirement to undertake temperature monitoring of combustible wastes is not required.

The HTWS uses a waste tracking system across the site, to ensure that the fate of all waste accepted at the facility is tracked and documented. An electronic system is used to track wastes and provides a site inventory. This system links all consignments from the initial enquiry, through pre-acceptance and acceptance stages. The system produces a full site inventory showing what waste is present on site and the subsequent transfer offsite.

Collection or removal of stored wastes and materials will be undertaken at frequent intervals so that storage requirements are adhered to.

Storage timeframes and storage methods are to be implemented in such ways as to prevent the fire risk and to keep combustible waste from presenting a fire risk as a result of extended storage times. All combustible waste will be stored for no longer than 6 months, or the storage duration specified within the Environmental Permit to reduce the likelihood and duration of a fire.

During normal operating at the site, waste is managed following ‘first in, first out’ principles to ensure no waste is stored on site for extended periods. Waste that cannot be stored on site in the appropriated separated areas due to lack of storage capacity is not accepted.

7.3 Monitor and Control Temperature

7.3.1 Monitoring temperature

Across the waste storage and treatment operations that will be conducted on site, temperature checks using hand held temperature sensors and visual checks of waste containers will be conducted to ensure that a safe operating temperature is maintained among the materials stored on site. Waste containers will be checked for visible signs that wastes are undergoing reactions that are causing the internal temperatures to increase such as:

- Physical changes to waste containers – bulging or deformation
- The presence of condensation within a container that is normally dry
- The escape of steam from inside a container that is normally dry
- Presence of unusual odour
- Audible sounds indicating pressure changes are taking place inside of the container

All staff that will be working at the facility will receive adequate training in relation to both safety on site and the general operations.

In the event of a member of staff discovering an incident during temperature monitoring, they will raise the alarm by verbal means and remove themselves from the area without attempting to cover the container where a reaction is occurring.

In the event that the smoke detection system is triggered, audible alarms will sound that alerts both the individuals working on the site and site management. FRS will be notified, and a controlled response will be coordinated.

The weighbridge will always be manned and there will always be a staff presence during operational hours.

If an elevated temperature is detected or if a waste container is showing signs of elevated temperature (e.g. swelling, producing smoke) the waste being held in that storage area will be moved to an appropriate external storage area to mitigate the elevated temperature.

7.3.2 Controlling temperature

Controlling temperature and preventing high temperatures becoming uncontrollable is to be embedded across manual monitoring systems across the site. For example, hot material is not accepted onto site – if hot material is discovered during unloading and waste acceptance, quarantine areas will be used whilst the material cools, before returning to storage, as necessary. For site maintenance, hot works are monitored during the cooling time, to ensure that temperatures are appropriately reduced and are controlled prior the works being completed and signed off.

There will be sufficient space around containers to ensure sufficient airflow and encourage cooling when temperatures are elevated.

7.3.3 Dealing with hot weather and heating from sunlight

All wastes that pose a risk to self-combustion due to hot weather will be stored out of direct sunlight and in an additional secondary container which will be enclosed. This will either be inside of a building, under cover or within a second enclosed waste container. Sensitive waste will additionally only be accepted if there is already a booking in place for it to be removed from the site, which would be targeted to be within 48 hours.

8. Managing Waste Piles

The site will not store waste loose in piles and therefore this section of the FPP is currently not applicable. Waste is stored inside of suitable containers within the areas of the site identified within Section 5.2.

In future if operations at the site change and storage of waste using storage piles commences, the FPP will need to be updated.

8.1 Storage Waste Materials In Their Largest Form

By storing waste in its largest form for as long as practically possible, the risk of self-combustion is reduced. The site does not accept loose wastes and the site will not be undertaking waste treatments that result in the size reduction of wastes at the current time. In future if operations at the site change and treatment of waste for size reduction (e.g. shredding of wastes), the FPP will be updated.

8.2 Maximum Pile Sizes

In accordance with the GOV.UK guidance[1] maximum pile sizes to not apply to waste which is stored in containers. No loose wastes are accepted at the site, and all wastes are stored within containers which can be moved easily therefore maximum pile size does not apply to this site.

9. Waste Storage in Containers

9.1 Types of Containers You Are Using

Waste accepted onto site will be contained within various sized waste bins and waste containers, including but not limited to:

- 4-wheeled bins,
- 2-wheeled bins,
- bulk tankers,
- intermediate bulk containers (IBCs),
- bottles,
- drums,
- jerry cans, and
- waste stacks.

All the waste containers used are portable using fork-lift trucks and manual handling techniques and can be stored internally or externally in a precise and dedicated location, including on warehouse type racking. This means that waste containers can be moved easily and quickly as required to gain access to consignments when the need arises to move them under normal working conditions or in the event of an emergency (e.g. fire incident).

Waste is stored inside of suitable containers within the internal and external areas of the site identified within Section 5.2. All waste is then segregated and stored appropriately to level of hazard attached to it and in accordance with Health and Safety Guidance Chemical Warehousing, The Storage of Packaged Dangerous Substances. Separation distances will be applied where appropriate, otherwise, wastes will be stored separately where it is not safe to store wastes within proximity of an incompatible substance.

Batteries of different chemistries will be stored separately due to the risk of self-combustion.

All flammable waste will be stored 6 m from any building, on concrete which is self-contained and bonded, which will help to prevent the spread of fire.

9.2 Accessibility of Containers

All areas and coverings that the containers will be placed in will be accessible from at least one side as well as each container being accessible from at least one side, allowing a fire to be extinguished if one should occur. Pedestrian access will be maintained to allow CWR staff to inspect stored wastes and carry out visual inspections.

If required, handling equipment on site will be able to be used to move the containers to reduce the spread of fire.

9.3 Moving Containers in a Fire

If required, as a result of a fire incident, it will be possible to move the storage containers using handling equipment on site in order to prevent the spread of fire or to move combustible materials away from a fire to a different area of the site.

The enclosed nature of the individual waste containers will also contain the waste and slow down a fire, preventing it from spreading.

10. Prevent Fire Spreading

There are two main ways of preventing fire spreading, separation distances and fire walls.

10.1 Separation Distances

Segregated wastes within suitable packaging shall be placed in the appropriate storage area not exceeding the maximum capacity stated in this plan and within the Environmental Permit.

Separation distances between different types of hazardous wastes and between waste containers will be utilised and the primary method used in the prevention of spread of fire, allowing active firefighting to be undertaken. The site will apply the general recommendations for the separation or segregation of different classes of dangerous substances from Chemical Warehousing, The Storage of Packaged Dangerous Substances (HSG71, The Health and Safety Executive, 2009). As required, wastes will be segregated from incompatible substance and not kept within the same building and will be separated by adequate space e.g. oxidising substances segregated from flammable liquids. Other waste packages will be kept apart using recommended separation distances for storage of different wastes within the same storage area, e.g. corrosive substances and toxic substances. Finally, some substances will be isolated within suitable secure chemical cabinets e.g. organic peroxides.

Flammable wastes will only be stored within the Flammable Area yard which is located within the central area of the site and at least 6 metres away from all other areas of the site that are used to store combustible wastes. The whole of the Flammable Area forms an engineered bund with two sumps that can be used to pump out waste waters generated here, comprising of impermeable concrete surfacing and kerbing.

Wastes of different types will be stored with a suitable separation distance between different types of hazardous wastes. A separation distance of at least 6 m will be applied between other waste containers, the site perimeter, any buildings or other combustible or flammable materials.

10.2 Fire Walls Construction Standards

There are no engineered fire walls in place on the site and separation distances will be the primary form of preventing fire spreading at the site.

11. Quarantine Areas

11.1 Quarantine Area Location and Size

The HWTS has two dedicated quarantine areas:

- Flammable waste can be quarantined within the Flammable Area yard in an area of space that is approx. 25 m^3 in size.
- Waste can be quarantined within the main Warehouse in an area of space that is approx. 36 m^3 in size.

Each of the quarantine areas is located on impermeable concrete with a sealed drainage system being used as the surface for the quarantine areas. Quarantine will allow waste to be stored safely and with a separation distance of 6 metres around the quarantined waste.

The site plan shows the two areas designated to be used as quarantine areas.

Due to the nature of the waste acceptance procedure that will be implemented at the facility, quarantine areas will be used to store damaged or unlabelled containers and non-conforming rejected waste. This will be stored in the quarantine area located inside of the main Warehouse near to the weighbridge. The second quarantine area will be kept clear at all times to be used in the event of fire.

11.2 How to Use the Quarantine Area in Case of Fire

One quarantine area will be kept free at all times and will be solely used for storage during an incident (fire). During an incident forklift trucks (or equivalent mobile plant types), will be accessible to assist in the removal of material from an affected area to the quarantine area, when necessary.

Furthermore, to protect the surrounding environment, drainage across the site, including the quarantine areas, will be diverted and can be collected in a storage tank. This prevents potentially contaminated fire water from causing pollution to the external environment.

11.3 Procedure to Remove Material Stored Temporarily in Case of Fire

Quarantine areas will be used during a fire-related incident where necessary. Written procedures will be in place regarding the appropriate use of quarantine areas and how these should be cleared, when required.

12. Detecting Fires

Detecting fires in their early stages is key in reducing impacts. Detection measures are outlined in this section.

12.1 Detection System in Use

At the Seal Sands facility, a fire alarm system is installed. The fire alarm systems are in place at the site covering all areas of the site, both Warehouses, site lab and offices and includes emergency fire alarm call points.

Once triggered, the system will automatically sound the alarm across the site and will be able to highlight, on the alarm panel, the area of activation. Weekly tests of the alarm system will be carried out and documented. CCTV is also in place across the site which can be used for early detection of fire. Additionally roaming security patrols are carried out on site.

Additionally, there are smoke alarms located within the main Warehouse that will be programmed to detected smoke and automatically raise an audible alarm to staff working at the site. Call points, located on each fire door, will also be able to be used to trigger the alarm

In the event of the fire alarm sounding, site evacuation procedures will be triggered, with protocols to ensure that all on site are accounted for. The Transfer Station Manger will assess the emergency and determine if a full or partial evacuation is necessary. In the event of a full evacuation, site staff and visitors will proceed to the designated muster point and a roll call will be taken to account for all personnel.

This fire detection system will be designed, installed and maintained by an accredited, third-party company.

13. Supressing Fires

Where waste will be stored or handled within a building, a suitable number of fire extinguishers will be provided, that are suitable for the waste materials being stored and handled and proportionate the nature of the materials handled in that area. These will include a combination of:

- Water,
- Foam,
- CO_2,
- Lithium battery fire blankets,
- Dry Powder, and
- Wet Chemical.

13.1 Fire Extinguishers

Across the site there will be numerous fire extinguishers points in accessible locations, for an immediate firefighting response. Regular, weekly check of all fire extinguishers will be undertaken and logged, to check they remain accessible, undamaged and fully charged (check of pressure gauge).

Fire extinguishers are subject to annual professional servicing by a qualified third-party contractor and, additionally, depending on the type, extended servicing every five to ten years. Fire extinguishers are tagged with colour coded tabs so that site staff can quickly see if the equipment has been correctly serviced and not tampered with.

As part of the emergency response, the site will carry out a minimum of twice yearly emergency drills and site staff will receive fire extinguisher training to confirm they are competent to tackle a fire incident. If staff are unable to tackle the fire safely or if the fire is large, consisting of flammable storage containers, staff will safely withdraw and await Fire and Rescue attendance.

Mobile plant will also be fitted with fire extinguishers that can be automatically or manual used in the event of a fire being detected on the mobile plant.

14. Firefighting Techniques

14.1 Active firefighting

The site will be designed and equipped to allow for active firefighting, enabling a fire to be extinguished within 4 hours, by ensuring that the most suitable resources for tackling fire are always available.

The following resources will be available on site to allow active firefighting:

- Plant to remove and relocate waste containers;
- Suitably trained staff; and
- Available water supply.

Fire extinguishers are to be positioned across the site in various locations, to provide an initial firefighting response in the event that a small fire is discovered, regular checks of all fire extinguishers will be undertaken and logged.

Once the fire has been extinguished, burnt materials will be removed from the scene of the fire, for storage within the quarantine areas inside of suitable waste containers. A dynamic risk assessment approach will be taken, in order to formulate the best response to a fire and the best location for burned and un-burnt materials. Such waste will be stored in these areas pending removal off site by Cumbria Waste to another facility or by third-party waste carriers to a suitable off-site facility.

All staff working at the HWTS will be trained with regards to how to respond in the event of a fire. All staff working at the HWTS will undertake fire extinguisher training and transfer site induction as part of their overall work induction. Nominated staff will also undertake company Fire Marshal training in order to perform a Fire Marshal role in the event of a fire incident. The name of the nominated Fire Marshal will be displayed on the information board located in the main Warehouse.

If required, the FRS will be contacted as soon as practically possible by the Transfer Station Manager in their role as Incident Controller.

There will be access to mains water supply on site for FRS-use. Due to other fire prevention provisions that will be implemented on site, including the site layout and storage arrangements allowing for fire breaks, it is anticipated that, in event of a fire, sufficient water supply will only be required for the volume of material stored in one dedicated storage area.

Contact details for personnel that should be communicated with during the event of an emergency are to be clearly displayed on site. It is also key that access to the site is provided in the event of a fire.

The firefighting procedure detailed in section ‘during and after an incident’ must be adhered to if a fire should occur on site.

15. Water Supplies

In order to give the FRS the best opportunity to extinguish a fire, an immediately available water supply will be essential.

15.1 Available Water Supply

According to GOV.UK guidance, if possible, immediately available water supplies should be located within 100 m of the site access. There are two active fire hydrants on site which are fed by mains water which can be used by the FRS.

The site is not the source of waste piles of loose wastes as all wastes will be contained inside of suitable waste containers. The requirement to provide suitable volumes of water to tackle the largest waste pile at the site is not applicable.

16. Managing Fire Water

Run-off from fire water will be contained on site to prevent harm to sensitive receptors and pollution of the environment.

16.1 Containing the Run-Off From Fire Water

The site has a sealed drainage system that is fully contained and directs surface water run off that is potentially polluted into a central surface water sump. There are no direct discharges from the site other than an emission to sewer that is manually controlled by the site staff.

Anti-spillage equipment will be readily available across the site including drain covers that can be utilised in the event of an emergency incident. Such measures will be essential in blocking drains and preventing the escape of fire fighting water from site and will be readily available at all times.

In addition to this, spill kits will be made easily accessible at key locations at the facility, which will be regularly inspected to ensure that they are sufficiently stocked.

Larger amounts of fire-fighting water will be contained by the drainage system; there is only one discharge from the site (to sewer) and this will be shut off to prevent releases. Additionally, the site includes suitable secondary containment infrastructure for larger spillages or fire-fighting water which consist of a large impermeable area with kerbing where the water can gather. This can be directed to drainage and be held in storage tanks.

If there is a risk that maximum water levels that can be held on site are to be exceeded, the water will be removed from the site by tanker vehicles for treatment at offsite facilities.

The site is not located within a Source Protection Zone (SPZ).

The nearest surface water features are small surface water ponds located approximately 30 m to the south and 175 m to the west of the site. The nearest main river is the River Tees which is located approximately 0.525 km to the north east of the permit boundary.

17. During and After an Incident

17.1 Dealing With Issues During a Fire

A fire is unlikely to occur, however, if this should happen, then any outbreak of fire will be regarded as an emergency and immediate action will be taken to extinguish the fire.

Only those personnel with training in the use of fire extinguishers should attempt to fight a fire, and only if this can be carried out without any risks to themselves and others. The Transfer Station Management should assess the emergency and determine if the incident can be brought under control without risk to employees, which controls and precautions are necessary, and at which point tackling the incident should be abandoned and a full evacuation implemented. Alongside this, if it is reasonable and safe to do so, on site machinery will be used to move relevant waste containers to areas away from the location of the incident and to remove vehicles from the facility to a safe alternative location. However, if it is not possible to do so, due to the location of the incident, site staff should await a fire risk assessment from the Fire and Rescue Service.

As required, the Transfer Station Manager will also initiate a partial or full evacuation of the Transfer Station and instruct personnel to gather at the appropriate muster point, which is normally the main site car park. If this location is not safe due to the emergency conditions or prevailing wind, staff will be moved to a safer location further up the site access road.

During the incident, all waste acceptance is suspended and access to the site for all vehicles prohibited whilst the incident is resolved.

At the earliest convenience, the EA will be informed and a visual check of the surrounding environment is to be undertaken to assess for any pollution arising from firewater. Details of communication requirements can be found within the site Accident Management Plan (section 1.4).

17.2 Notifying Residents and Businesses

In the event of a fire incident, the Transfer Station Manager should notify a Company Director and/or the Environment Manager. Communications will be made by senior management, following FRS advice, to surrounding neighbours, relating to the incident.

17.3 Clearing and Decontamination After a Fire

Once a fire has been extinguished, burnt materials will need to be removed from the scene and stored within designated area on site (quarantine areas) prior to their removal from the site. Burnt and potentially contaminated wastes will be removed for disposal or removed by a third party, when safe to do so.

Firewater will be stored on site as appropriate, or removed from the site for treatment at an offsite location by an appointed external waste company.

Decontamination measures will be implemented in line with company procedures so that potentially polluting residue are not able to cause pollution.

All solid or liquid wastes removed from the site will be tested and reviewed against WM3. This will ensure waste is moved to an appropriate treatment/disposal facility and transferred under the correct waste transfer note or hazardous waste consignment note to comply with duty of care requirements.

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