# Fire Prevention Plan

**Version 9.0**

## Clearwater D C 2001 Limited
## Units 1-4 Enterprise Park, Hunters Road, Corby, Northamptonshire, NN17 5JE

Prepared By:

WPS Compliance Consulting Ltd

WPS Compliance Consulting Ltd

Document Control

| Ver. | Prepared by | Date | Approval (Consultant; Client) | Sent to EA (Date) | Issued Date |
|---|---|---|---|---|---|
| 1.0 | George Bailey | 11.09.17 | Lara Ayris | NA | NA |
| 2.0 | George Bailey | 12.09.17 | Lara Ayris | NA | NA |
| 3.0 | George Bailey | 29.09.17 | Lara Ayris | NA | NA |
| 4.0 | George Bailey | 06.10.17 | Lara Ayris | 06.10.17 | 06.10.17 |
| 5.0 | Alan Chapman | 17.04.18 | Lara Ayris | | |
| 6.0 | Alan Chapman | 12.07.18 | Lara Ayris | | |
| 7.0 | Alan Chapman | 07.09.18 | Lara Ayris | | |
| 8.0 | Carol Chapman | 06.08.19 | Lara Ayris | | |
| 9.0 | Laura Perrin | 08.06.23 | Lara Ayris | July 2023 | |

TABLE OF CONTENTS

# 1. FIRE PREVENTION OBJECTIVES

The purpose of this Fire Prevention Plan is to put into practice on the site the measures set forth in the *Fire prevention plan: environmental permit* to meet the three objectives as determine by the guidance. Those objectives are:

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

Clearwater D C 2001 Limited is the holder of the Environmental Permit. The site is more commonly known as Clearwater Limited and will be addressed as such for the rest of the document.

The Fire Prevention Plan for Clearwater Limited has been developed to address the measure identified in the guidance.

The guidance for developing this document is taken from the following:

- Fire Prevention Plan[1]
- WASTE 28 Reducing Fire Risk at Waste Management Sites[2]
- Developing a management system
- Regulator Reform (Fire Safety) Order 2005
- Relevant regulatory guidance notes
- Relevant sector technical guidance notes
- Relevant horizontal guidance
- Relevant Statutory Legislation
- Site Working Plan

[1] *Fire prevention plan: environmental permit* (Version 3; Environment Agency, updated 9 November 2016)

[2] *WASTE 28 Reducing Fire Risk at Waste Management Sites* by the Waste Industry Safety and Health (WISH) Forum

## 2. DOES THE GUIDANCE APPLY?

Clearwater Limited recognises that as a waste management site that holds combustible material a Fire Prevention Plan is required. In addition, it is prudent to take a proactive stance with regards to Fire Prevention and adopt the relevant sections of the Fire Prevention Plan guidance into our operations.

## 3. DOES THE GUIDANCE NOT APPLY?

Not applicable for this site.

# 4. TYPES OF COMBUSTIBLE WASTE/MATERIALS

## 4.1 ACTIVATED CARBON

The primary purpose of the site is to receive, sort, segregate and bulk up spent activated carbon wastes for reprocessing and recovery at other facilities. The majority of waste stored on site is therefore activated carbon. The sources of this waste are very varied and this results in the need to use many different EWCs to describe similar wastes. A list of the EWCs required by the permit is listed in appendix 1.

## 4.2 FUELS

The site may have vehicle fuel on site stored in a fuel bowser. The fuel is required for refuelling vehicles, mobile plant and powered equipment. No other fuels will be stored on site. A Spill Kit will be available in close proximity to the bowser.

The fuel identified will be diesel liquid only.

## 4.3 PACKAGING

The site receives packaged waste and the management of the waste will liberate packaging materials during the process. These materials may include wood, plastics and textile materials.

# 5. USING THIS FIRE PREVENTION PLAN

## 5.1 MANAGEMENT SYSTEM

This fire prevention plan forms part of the site management system. Clearwater Limited maintains a management system that through the Fire Prevention Plan incorporates the procedures related to fire safety for the site. This document is developed to be a standalone document and will operate as such for both the regulator and the operator. In accordance with guidance set out in *Developing a management system*, the permitted activities are managed and operated in accordance with a written management system. The environmental permit provides for far more activities than those currently able to be undertaken on site. The written management system for the site has been reviewed as required by the *Developing a management system* guidance and reflects the current activities undertaken at the site. This Fire Prevention Plan reflects that review. Should any change to the current activities be considered, Clearwater Limited acknowledges that the written management system including the Fire Prevention Plan must be revised to reflect those additional activities.

## 5.2 FIRE PREVENTION PLAN LOCATION

This Fire Prevention Plan, a copy of Environmental Permit (EAWML 403466 & EPR/EB3206CQ/A001) the Environmental Risk Assessment (ERA), the EMS and the Fire Risk Assessment (FRA), are retained on site in the site office for easy access by site staff and any contractors working on site.

## 5.3 STAFF AND CONTRACTOR FIRE PREVENTION PLAN UNDERSTANDING

It is the role of the Technically Competent Management (TCM) at the site to implement and maintain the relevant established Policies and Procedures for the permitted activities including the site's Fire Prevention Plan. Site employees are trained on the Fire Prevention Plan, and undergo annual refresher training to ensure they possess the required level of understanding. Visitors (including contractors) to the site are inducted or controlled by site staff to ensure they meet the site requirements with regards to Site Fire Prevention Plan.

At a minimum, the training for the site staff and contractors ensures they know what to do:

- to prevent a fire from occurring
- during a fire if one breaks out

## 5.4 FIRE PREVENTION PLAN TRAINING EXERCISES

To ensure that the staff are familiar with the fire prevention plan training exercises are conducted. Due to the greatly reduced fire risk on the site the minimum required training exercises are to be held on a semi-annual basis. These may held be more often if the Technically Competent Manager determines there is a need to increase the frequency. These may be in the form of a table top exercise or scenario based practical exercises. At no time will any exercise be a no-notice exercise as this in not the purpose of fire response training in line with standards set out in the *Regulatory Reform Fire Safety Order 2005*.

# 6. FIRE PREVENTION PLAN CONTENTS

This Fire Prevention Plan sets out all the measures the site put in place to reduce the risk of a fire breaking out. To know what measures are required, Clearwater Limited identified those aspects of the sites activities that fit into any of the three sides of the fire triangle (Oxygen/Heat/Fuel). In Section 4 the combustible waste and combustible materials were identified (Fuel). In Section (6.1) the activities and their potential as sources of ignition are identified (Heat). Clearwater Limited acknowledges that all activities on this site are done so in contact with air (Oxygen).

## 6.1 ACTIVITIES AT YOUR SITE

The main activity of Clearwater Limited is the reprocessing of carbon based absorbent materials. The waste absorbents are accepted in bags, IBC's, powder tanker and other packaging. The Corby factory is predominantly a waste transfer facility where wastes are stored temporarily until the quantity of material is sufficient to justify onward bulk shipment to their main reprocessing plant for recovery. Decanting, bulking and washing may take place as treatment operations.

## 6.2 SITE PLANS AND MAPS

The following minimum requirements for site plans and maps in this fire prevention plan are as follows:

Site plan will include the following:

- layout of buildings
- any areas where hazardous materials are stored on site (location of gas cylinders, process areas, chemicals, piles of combustible wastes, oil and fuel tanks)
- main access routes for fire engines and any alternative access points around the site perimeter to assist fire fighting
- hydrants and water supplies
- areas of natural and unmade ground
- the location of fixed plant or where mobile plant is stored when not in use
- drainage runs, pollution control features such as drain closure valves and fire water containment systems
- storage areas with pile dimensions and fire walls (where applicable) - includes wastes stored in a building, bunker, or containers
- the quarantine area

The sensitive receptors map will show all sensitive receptors within a 1km radius of the site that could be affected by a fire. The following list are examples of sensitive receptors as detailed in the Fire Prevention Plan Guidance:

- schools
- hospitals
- nursing and care homes
- residential areas
- workplaces
- protected habitats
- watercourses
- groundwater
- boreholes
- wells and springs supplying water for human consumption
- roads
- railways

- bus stations
- pylons (on or immediately adjacent to the site only)
- utilities
- and airports

Both the Site Plan and the Map showing the sensitive Receptors must have a compass rose showing north and the prevailing wind direction.

## 6.3 SITE PLAN

The site drawings are located in Appendix 2.

## 7. SITE SETTING AND ENVIRONMENTAL SETTING

The Clearwater site is located on the Enterprise Industrial Park about 4km WNW of Corby town centre. The location is surrounded by other industrial units with no significant environmental receptors in the local vicinity. There are some local woodlands a few km to the west of site.

The complete site is hard surfaced and drains to a sealed drainage system / sewer, therefore there would be no water run-off to any surface water receptors.

The nearest residential properties are found around 600 to 700 metres to the south of the site outside the boundary of the industrial estate.

The river Nene is found just over 1km to the south west of the site.

### 7.1 PATHWAY ASSESSMENT AND KEY RECEPTORS

The site boundary is enclosed by chain-link or palisade fencing

The urban setting of the facility means that residential properties lie to the north, south, east, and west of the site within a 1 km radius. Also within 1 km are: as identified in Table 1.

Table 1. Sensitive Receptor List

| Location | Dist. (km) | Dir. from site | Location | Dist. (km) | Dir. from site |
|---|---|---|---|---|---|
| Surface Water | | | Schools | | |
| River Nene | 1.1 | SW | Weldon C of E school | 1.1 | SE |
| Location | Dist. (km) | Dir. from site | Location | Dist. (km) | Dir. from site |
| Transport | | | Medical | | |
| A6116 | 0.300 | East | TCM health Clinic | 2.5 | West |
| A43 | 0.900 | South | The Medical Centre | 3.5 | West |
| Location | Dist.(km) | Dir. from site | Location | Dist.(km) | Dir. from site |
| Nearest Housing | | | POI | | |
| Larratt Road | 0.65 | SSE | Rockingham Speedway | 1 | North |
| | | | Kirby Hall | 3 | NE |
| | | | Weldon Woodland Park | 1 | South |

The prevailing wind direction in the area is from the West.

In the event of a fire the materials involved may include carbon waste, oil waste, packaging (plastics, paper, card and wood), factory fixtures and fittings, plant and equipment.

The main substances that may be released in the event of a fire on site is smoke and airborne ash. There may be some chemicals such as Chlorine products from PVC products and NOx from paints, resins, and coatings on fixtures and fittings. Some minor quantities of unknown materials may be generated from contaminants in the waste materials and plant and electrical equipment that may be involved in the fire.

# 8. MANAGING COMMON CAUSES OF FIRE

Site Fire Prevention

Fire Prevention for Clearwater Limited incorporates the identification of sources of fuel (combustible waste), the sources of ignition, and the likelihood of the combustible waste being ignited by the sources of ignition. Additionally, through sound fire prevention engineering and involved management the amount of material that is involved in a fire is reduced as well as limiting the ability of the fire to spread.

The Fire prevention plan: environmental permit identifies possible ignition sources that may lead to fire. Sources of ignitionare kept at least 6 metres away from combustible and flammable waste These and others are discussed below:

## 8.1 ARSON

Arson and Vandalism

The site is surrounded by a chain-link and palisade security fence. 24 hour CCTV monitoring is in operation with cameras fitted at strategic locations.

A full daily perimeter check of the integrity of the fencing is made. All areas in which operations are undertaken during the hours of darkness are provided with adequate lighting. All lighting infrastructure is subject to regular maintenance checks and defects are repaired as soon as reasonably practicable. Dates of checks and repairs are recorded in the Daily Site Log. Any repairs completed are recorded in the Daily Site Log.

## 8.2 PLANT AND EQUIPMENT

Plant or Equipment Failure

The plant will comprise of filtration equipment, debagging equipment, fork lifts, vehicles and electrical equipment. Most of the equipment will be used inside the buildings although some processing will take place externally.

Fixed plant is inspected and maintained in accordance with the manufacturers advice and guidance. Records of Inspections and maintenance are recorded and held on site.

Mobile plant operates within the permitted area. Daily checks are undertaken on all mobile plant by the operator. Defects are recorded and measures are put in place to rectify defects depending on the critical nature of the defect. Any defect that puts persons or the environment at immediate risk will result in the mobile plant being placed out of use. Arrangements will be made for a qualified engineer or specialist contractor to attend and repair the defect. Any site mobile plant that is hired in as replacement is required to meet the relevant standards. Records of the daily check sheet are held on site.

Mobile plant is only operated by trained competent persons in accordance with Clearwater Limited procedures. Training records of all site operatives including mobile plant operatives are held on site.

Fire extinguishers are fitted inside the cabs of all mobile plant. Mobile Plant receives annual LOLER and PUWER inspections by a competent person. Regular scheduled maintenance is performed as part of the Planned Preventive Maintenance (PPM) program.

The mobile plant on site are fully subject to a maintenance and inspection programme. The procedure setting out the regular maintenance and inspection of mobile plant is in the written management system.

To reduce the risk of fire involving mobile plant and combustible waste the mobile plant is stored away from any combustible waste when not in use. This area is designated in the south east corner of the building, the furthest point from waste storage.

## 8.3 ELECTRICAL FAULTS INCLUDING DAMAGED OR EXPOSED ELECTRICAL CABLES

The electrics on site are fully certified by a qualified electrician. A procedure setting out the regular maintenance of the electrical system is in the written management system.

All portable electrical equipment on site is subject to PAT testing regime. In addition, fixed electrical testing at periodic frequencies is undertaken across the site. Details of electrical inspections and maintenance events are retained on site.

The Housekeeping and maintenance Plan can be found in the Site management Plan, section E (page 16) and section U (page 50).

## 8.4 DISCARDED SMOKING MATERIALS

The permitted area of the site is a NO SMOKING area. There will be a designated smoking area outside of the permitted area and located a minimum of 6 metres from any combustible waste to prevent accidental ignition. All staff/contractors/visitors are required to adhere to the smoking policy.

Smoking is strictly prohibited within buildings in accordance with the Health Act (England and Wales) 2006. This is written into Clearwater Limited Management System. The rules regarding smoking on site also forms part of all visitor and contractor inductions. Breach of these rules may result in removal from the facility.

## 8.5 HOT WORKS

No hot works take place on this site.

## 8.6 INDUSTRIAL HEATERS

The site does not use industrial heaters and has no current plans to use industrial heaters in the foreseeable future. As such, the site does not require written procedures setting out the use and regular maintenance of industrial heaters

## 8.7 HOT EXHAUST

It is possible although unlikely that friable or light combustible materials could come into contact with hot exhausts on vehicles and powered plant. In order to reduce the risk of fire by contact with hot exhausts plant operatives should inspect the plant and clear any friable or light combustible material from around exhausts at the end of each shift and when not in use, mobile plant is parked away from combustible materials.

The Site Manager will conduct a fire watch at regular intervals, at a maximum of 2 hourly intervals and at the end of the working day.

## 8.8 IGNITION SOURCES

Clearwater Limited will not be doing any Hot Works. The site does not use industrial Heaters or space heaters (Refer to Section 7.6. There are no forms of incineration on the site. Any other of uncontrolled sources of ignition are risk assessed and kept at least 6 meters away from any combustible or flammable waste.

## 8.9 BATTERIES

Batteries are not accepted as waste although some batteries will be included in plant and equipment such as fork trucks. An accidental short on vehicle batteries can produce significant heat generation and pose a potential fire risk. The risk from batteries in plant is minimised by regular inspection and maintenance procedures which includes inspection of electrical safety.

## 8.10 LEAKS AND SPILLAGES OF OILS AND FUELS

The site has procedure in the written Management system and EMS to identify any potential sources of leaks or spillages of oils or other fluids.

Site vehicles are inspected prior to each day's use to identify any potential sources of leaks or spillages of oils or other fluids. Any discrepancies are rectified prior to the vehicle being used on the site.

## 8.11 BUILD-UP OF LOOSE COMBUSTIBLE WASTE, DUST AND FLUFF

The daily site inspection will include assessment of any build-up of friable or light combustible materials. Corrective action will be initiated to clean or remove any build-up of materials by sweeping, collection and safe disposal. A Cleaning Schedule will be

maintained and available for inspection in the Site Office. The site activities are unlikely to generate significant quantities of friable or light combustible material although some packaging materials may provide a minor source and some of the waste carbon based powders may also contribute to the risks.

## 8.12 REACTIONS BETWEEN WASTE

There are no obvious sources of reactions between the wastes being received on site. However, as a 'belt and braces' measure a designated quarantine area has been established.

**There is no risk of a hot load being delivered to the site as the site does not receive hot waste.**

## 9. PREVENT SELF-COMBUSTION

No wastes that are known to be prone to self-combustion are intentionally accepted at the site. If problems are however identified with any wastes they will be quarantined and appropriate actions taken to manage any potential problems.

### 9.1 MANAGE STORAGE TIME

The main activities of the site are transfer in the form of sorting, segregation and bulking. Waste is bulked up on site until sufficient material is available to make up a bulk load for delivery to the reprocessing facility. The waste delivered to the site is documented and recorded on Waste Transfer Notes. The site will ensure that the stocks of stored wastes are rotated to ensure the minimum period of storage on site for any individual load. None of the waste will be stored on site for more than six months unless there are extenuating circumstances. If this happens details will be recorded in the written management system along with confirmation when the waste is removed.

A proven Computer system is implemented on site and currently used. Staff training is provided, together with refreshers as necessary. This is used to record and manage the storage of all waste on site, ensuring 'first in, first out' principles are followed.

### 9.2 MONITOR AND CONTROL TEMPERATURE

The need to monitor and control the temperature of waste is not anticipated for the waste streams, as it is highly unlikely that the wastes will generate heat during storage. The Waste storage area designated within the building is located at the northern end, thus the coolest.

In addition, all the waste is stored in the shade and under cover - there is no direct sunlight. Where there are sky lights, they are a corrugated Perspex like material that is not totally transparent. This material has been installed. Therefore, the waste is always shaded from direct sunlight. There are no windows in the area of the building where the waste is stored.

Ambient temperature is monitored at least three times per day Monday-Friday and twice per day Saturday-Sunday using a thermal imaging gun. This is recorded.

### 9.3 WASTE BALE STORAGE

There are no waste bales stored on site.

### 9.4 MANAGE WASTE PILES

No loose wastes will be stored on the site.

The waste will be contained in Fabric Intermediate Bulk Bags (FIBC) and they will be stacked no higher than the fire wall. Note: Carbon density is 0.5-0.6 t/m3.

### 9.5 MAXIMUM PILE SIZE

There are 5 waste storage areas within units 3 and 4. Three of the waste storage bays, each being 9m x 15m, are segregated with a A1 fire resistant material divider 3m high. In each bay there is room for 7 rows of FIBC, stacked no higher than the height of the fire wall with at least 3cm gap between rows (not allowing for settlement). Each bay can hold 240 FIBC bags and these will stacked in accordance with the storage and handling of waste procedures.

The two other waste storage areas within the building can store 100 bags in each bay. A fire wall is not required due to the separation distance between the other waste storage areas.

Units 1 and 2 stores new carbon product and will also be used to store spent carbon waste. The unit layout will match units 3 and 4 but will have one bay as the designated area for the storage of new carbon product.

Also on site is an external area used for storage of wet water based carbon waste, covered with a waterproof roof cover, stored within the foul sewer drainage system. The storage capacity for the external area is 100 FIBC. There are 2 storage containers used for quarantine, capable of storing a total of 40 FIBC.

## 10. WASTE STORED IN CONTAINERS

### 10.1 CARBON WASTES

Carbon based absorbent material wastes will predominantly be delivered to the site in bulk tankers which will be repacked into bulk bags. These containers from the bagging unit will be sorted, stacked and subsequently stored in designated areas in the main building.

- Free space exists between the rows of wastes (3cm), see 9.5 above.
- There will be approximately 0.5 meters of freeboard space above the wastes to the top of the walls.

### 10.2 OILY WASTES

There are no oily wastes anticipated other than a few oily rags from machine maintenance. These will be disposed of accordingly. Liquid oily wastes are stored in the designated liquid container(s) and confined within a designated bunded storage area within the compound outside the main building.

### 10.3 RESIDUAL WASTE

Residual wastes are sorted, segregated and subsequently stored in containers such as skips or wheelie bins and stored until they are required to be removed off site for management at another appropriately permitted facility.

# 11. PREVENTING FIRE FROM SPREADING

The primary practice on this site for the prevention of fire spread is separation distance (see 10.1).

## 11.1 SEPARATION DISTANCES

Units 1 and 2 are separated from Units 3 and 4 by a solid wall. Units 1 and 2 will store new carbon product as well as the used activated carbon. Three of the waste storage bays, each being 9m x 15m, will be segregated with a A1 fire resistant material divider 3m high, matching the layout with units 3 and 4. There will be a designated storage area for the new carbon product. The activated carbon is stored as per the storage and handling of waste procedures as stated in the Environmental Management System.

## 11.2 FIRE WALLS AND BAYS

The fire walls are 3 meters high, 600mm thick and extend a minimum of 10 meters. This fire wall is constructed of A1 fire resistant material.

## 12. QUARANTINE AREA

The quarantine area is identified on the Site Plan.

The quarantine area are 2 x sealed shipping containers size 2.4m x 2.4m x 6.05m with a total capacity of 69.7$m^3$ which is greater than the largest waste pile. These containers have their combustible materials removed (i.e. wooden floor) and replaced with non-combustibles such as concrete or metal.

A separation distance of at least 6 metres will be maintained.

## 13. DETECTING FIRES

A Digital Linear Heat Detection Cable (LHDC) with digital monitoring is installed in the carbon waste storage area. This will detect any rise in temperature which will call the General Manager and if there is no answer, the system will call the Site Manager. This is operational 24 hours per day, including out of hours. A permanent record of such events will also be recorded by the monitoring system. Should a rise in temperature be detected then the 'Procedure for the receipt of spent activated carbon that presents a risk of self- heating', Monitoring of Bags section, (see Appendix 4) will be implemented.

Out of hours monitoring is supported by the CCTV system, which means immediate inspection of the storage area can be carried out remotely and the necessary action instigated.

Units 1 and 2 will mirror the system set up in units 3 and 4 with the installation of a digital linear heat detection cable with digital monitoring which will call the General Manager in the first instance and then Site Manager if there is no answer.

## 14. SUPPRESSING FIRES

### 14.1 QUARANTINE

Any activated carbon that is considered possible to have been contaminated and therefore may self-combust will be stored in the quarantine containers until such risk is eliminated.

### 14.2 SUPPRESSION TECHNIQUES

As activated carbon does not flame and no combustible materials will be stored in the same areas as the product, fire risk is small.

If any bags are noted to be showing any signs of heating, then they will be moved away from the others and the temperature taken from several points and noted. This will be carried out at regular intervals.

If any bag becomes very hot or shows signs of 'steaming' then it will be transferred to the other quarantine area and the bag split open and the carbon spread thinly and allowed to cool. Care MUST BE TAKEN to ensure the spent carbon is NOT exposed to any water.

Once cooled, the spent carbon will then be placed into steel drums and the lids sealed to eliminate oxygen.

Due to the waste type NO WATER WILL BE USED within the waste storage areas.

# 15. FIREFIGHTING TECHNIQUES

Upon detection of a fire, the actions identified in the SEP will be followed. The minimum expected response is for the site to evacuate to the assembly point until the nature and the scope of the fire is known.

## 15.1 FIRE NOTIFICATIONS

Other than small fires that can be verified to be out, dead out as the result of first-aid firefighting, fires will be notified to the Fire Rescue Service. Other notifications including the Environment Agency will be made in accordance with the Site Emergency Plans. The Technically Competent Manager or nominated deputy will be notified in all cases.

## 15.2 ACTIVE FIREFIGHTING

First-aid firefighting will only be accomplished by trained individuals who will determine if it is safe to fight the fire, and they are comfortable to do so. Individual safety is paramount. Any firefighting technique other than first intervention firefighting will only be performed by staff on site if they are suitably trained and are supervised by the Fire Rescue Service. Priority number one is the protection of the health and safety of people on site.

As part of Active Firefighting it may be necessary in coordination with the Fire Rescue Service to remove vehicles, either burnt/burning or unburnt, to the quarantine area. Only qualified members of the site staff will operate the required equipment.

## 16. WATER SUPPLIES

**WATER WOULD NOT BE USED ON ANY ACTIVATED CARBON AS THIS DOES NOT FLAME AND ANY WATER WOULD JUST EVAPORATE DUE TO THE HIGH TEMPERATURE REQUIRED TO COMBUST THE CARBON.**

**WATER WOULD ONLY BE USED TO SUPPRESS A FIRE IN THE OFFICES.**

The nearest source of water for the site is the fire hydrant on the corner of the site.
The hydrant will deliver the minimum of 1200l/min (288,000 litres over 4 hours). Hydrant volume equates to 160 fire trucks.

## 17. MANAGING FIRE WATER

No water would be used in a fire unless there is a fire in the offices.

The complete site is hard surfaced and drains to a sealed drainage system / sewer, therefore there would be no water run-off to any surface water receptors.

## 18. DURING AND AFTER AN INCIDENT

The site will not receive any waste during an incident. Any waste in transit shall be returned to the waste producer or diverted to an alternative appropriately permitted facility for storage or processing as appropriate (e.g. Clearwater, Glasgow).

The Site Manager will delegate a member of staff to personally ensure nearby businesses are aware of the fire as soon as is practicably possible. There are NO nearby residents.

The Environment Agency will be notified of the incident and advised of any emergency response actions that have been taken.

Any unburnt material will be kept separate from the burnt material. The burnt material will be collected and removed to a suitably licensed disposal point. It will be carried by an appropriately licensed carrier.

Prior to returning the site to operation an appropriately qualified engineer will attend site to see what, if any damage to infrastructure there is and what remediation may be required.

Any remediation recommendations will be carried out prior to the site returning to operational status.

## 19. SUBMIT THE FIRE PREVENTION PLAN

This Fire prevention plan has been submitted as part of the requirement to attaining an Environmental Permit. Any changes to the sites operations that require a modification to the Permit will require a modified Fire Prevention Plan to be submitted for approval to the Environment Agency.

# Fire Prevention Plan (Version 1.0) for Environmental Permit: EAWML/403466

APPENDIX 1. EWC CODES

APPENDIX 2. SITE PLAN

APPENDIX 3. RECEPTOR PLAN

APPENDIX 4. PROCEDURE FOR RECEIPT OF CARBON WITH A RISK OF SELF-HEATING

## Appendix 1

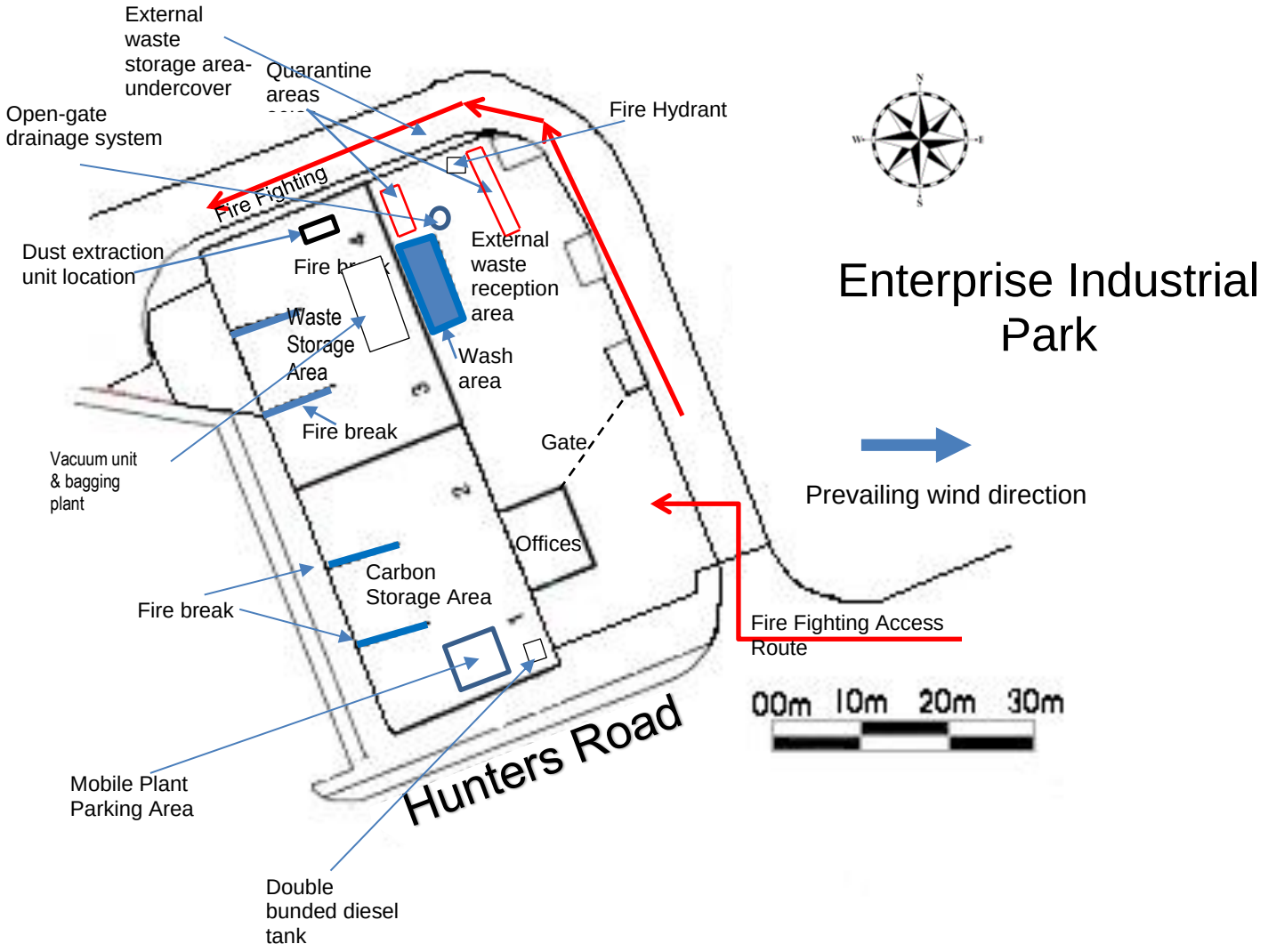
List of EWCs required by the permit

| • 06 | Wastes from inorganic chemical processes |
|---|---|
| 06 07 | wastes from the MFSU of halogens and halogen chemicalprocesses |
| 06 07 02* | activated carbon from chlorine production |
| 06 13 | wastes from inorganic chemical processes not otherwise specified |
| 06 13 02* | spent activated carbon (except 06 07 02) |
| 07 01 | wastes from the MFSU of basic organic chemicals |
| 07 01 10* | other filter cakes and spent absorbents |
| 07 04 | wastes from MFSU of organic plant protection products (except 0201 08 and 02 01 09), wood preserving agents (except 03 02) and other biocides |
| 07 04 10* | other filter cakes and spent absorbents |
| 07 07 | wastes from inorganic chemical processes not otherwise specified |
| 07 07 10* | Other filter cakes and spent absorbents |
| 10 01 | wastes from the MFSU of fine chemicals and chemical product nototherwise specified. |
| 10 01 18* | wastes from gas cleaning containing hazardous substances (spentactivated carbon only) |
| 10 01 19 | wastes from gas cleaning other than those mentioned in 10 01 05,10 01 07 and 10 01 18 (spent activated carbon only) |
| 15 02 | absorbents, filter materials, wiping cloths and protective clothing |
| 15 02 02* | absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated byhazardous substances (spent activated carbon only) |
| 15 02 03 | absorbents, filter materials, wiping cloths and protective clothingother than those mentioned in 15 02 02 (spent activated carbononly) |
| 19 01 | wastes from incineration or pyrolysis of waste |
| 19 01 10* | spent activated carbon from flue-gas treatment |
| 19 05 | Wastes from aerobic treatment of solid wastes |
| 19 05 99 | Spent carbon filtrate medium from industrial filters (Spent activatedcarbon) |
| 19 06 | Wastes from anaerobic treatment of solid wastes |
| 19 06 99 | Spent carbon filtrate from industrial filters (spent activated carbon) |
| 19 08 | Wastes from waste water treatment plants not otherwise specified |
| 19 08 99 | Spent carbon filtrate medium from industrial filters (spent activatedcarbon) |
| 19 09 | wastes from oil regeneration |
| 19 09 04 | spent activated carbon |
| 19 12 | Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified |

| | |
|---|---|
| 19 12 11* | Other wastes (including mixtures of materials) from mechanicaltreatment of waste containing hazardous substances |
| 19 13 | Wastes from soil and groundwater remediation |
| 19 13 05* | sludges from groundwater remediation containing hazardoussubstances |
| 19 13 06 | sludges from groundwater remediation other than those mentionedin 19 13 05 |

**Appendix 2 - Clearwater 2001 DC Ltd Site Plan 1 OF 2**

## Appendix 2 - Clearwater 2001 DC Ltd Site Plan 1 OF 2




Notes

**Fire equipment**

Fire breaks are built of class A1 fire resistant material in the waste storage areas, Units 1 &2 and 3&4. Each being 2m high and 600mm thick and between 10 and 20 metres long.

**Wash Area**

The external wash area is separately bunded and is used for rinsing used storage containers prior to reuse.

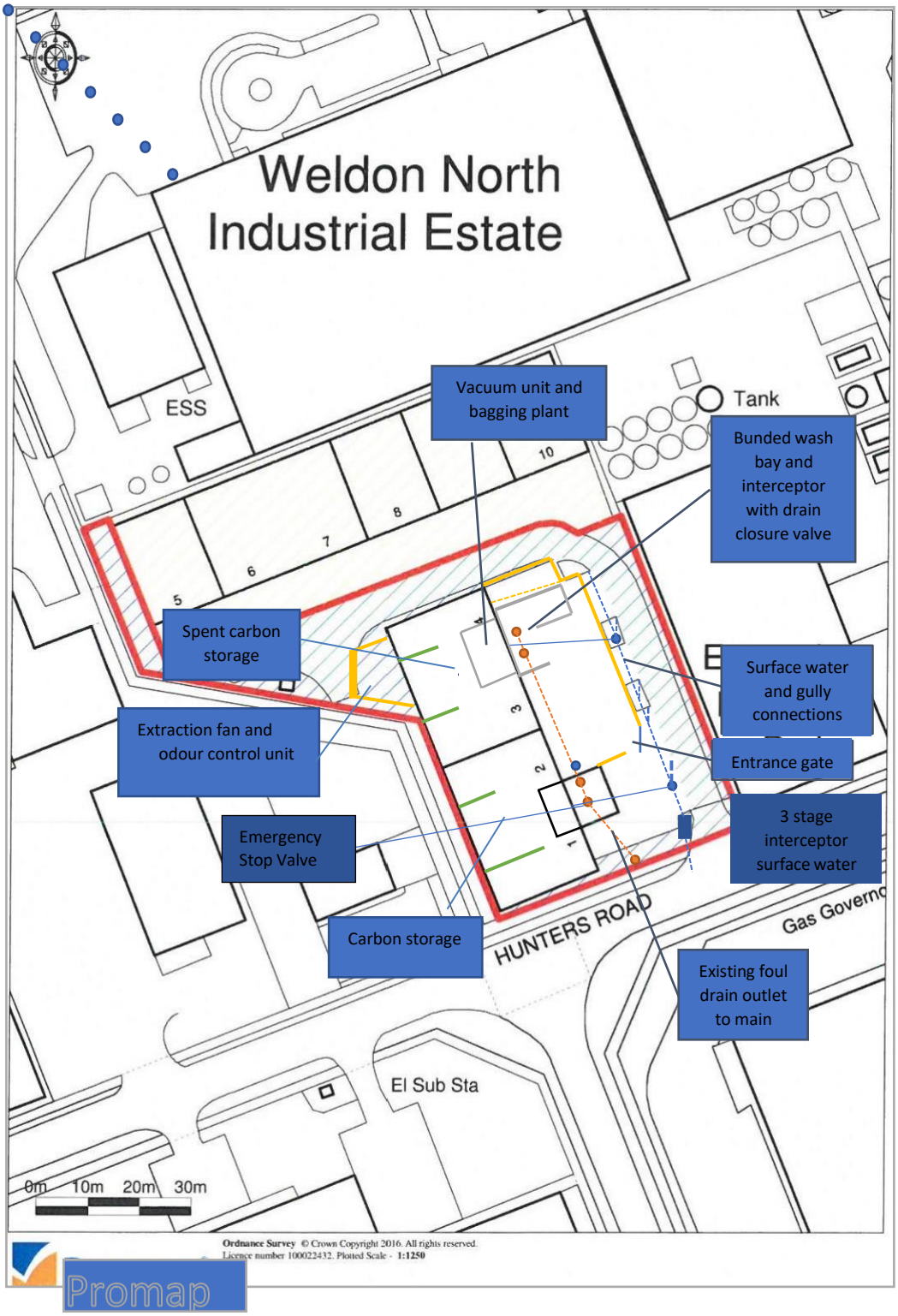
**Quarantine**

The quarantine area is a sealed shipping container located on the concrete outside the building.

**Security**

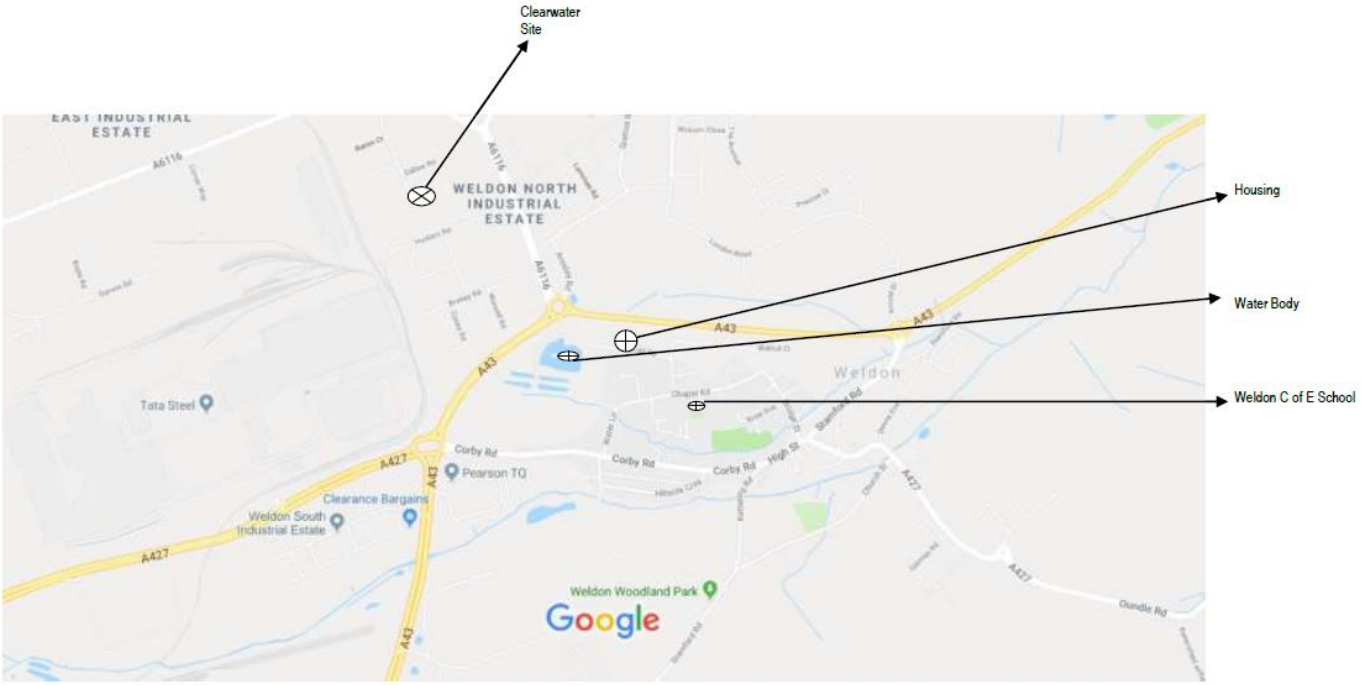
The site perimeter is surrounded by a palisade fence and security cameras are fitted in strategic locations

## Appendix 2 – Clearwater 2001 DC Ltd Site Plan 2 of 2 (Drainage)



## Appendix 3 Receptor Plan

Appendix 3 Receptor Plan



## Appendix 4

Procedure for the receipt of spent activated carbon thatpresents a risk of self-heating

Receipt of spent carbon

1. The carbon company will notify the Clearwater transfer station prior to the intakeof carbon that presents a risk of potential self-heating.
2. The waste transfer station will ensure that all relevant staff are fully aware of theforth coming delivery to ensure the correct procedure is followed.
3. Care MUST BE TAKEN to ensure the spent carbon is NOT exposed to any waterprior to unloading from transport or during internal movement of bags.

Placing of bags

1. If the spent carbon arrives in a tanker, the tanker will be offloaded into air tightbags and these bags will be immediately sealed.
2. If the spent carbon arrives in bags, then each bag will be inspected carefully toensure that is cold and properly sealed, with no evidence of water present.
3. The bagged spent carbon will be immediately placed under cover in thequarantine area (using mobile plant).
4. Bags to be kept apart (3cm minimum-not allowing for settlement) and not in contact with wooden pallets orany other combustible materials.
5. Bags are then to be checked for temperature, either with monitoring equipment orsimply by placing hands on all four sides of the bags.
6. If self-heating does occur, the waste transfer station will notify the carboncompany immediately.

Monitoring of bags

1. The bags will be checked regularly for any evidence of heating.
2. If any bags are noted to be showing any signs of heating, then they will be movedaway from the others and the temperature taken from several points and noted. This will be carried out at regular intervals.
3. If any bag becomes very hot or shows signs of ‘steaming’ then it will be transferred to the other quarantine area and the bag split open and the carbon

spread thinly and allowed to cool. Care MUST BE TAKEN to ensure the spentcarbon is NOT exposed to any water.

4. Once cooled, the spent carbon will then be placed into steel drums and the lidssealed to eliminate oxygen.
5. When the drums have been sealed and kept monitored for several days they canthen be emptied into new bulk bags and the bags sealed.
6. Further monitoring for several days to ensure there is no further self-heating priorto transport to final destination.

Transport to final destination

1. After monitoring with no further signs of self-heating the spent carbon can then betransported to the regeneration or incineration facility.
2. Care MUST BE TAKEN to ensure the spent carbon is NOT exposed to any waterprior to loading to transport or during transport operation.