

Fire Prevention Plan



Northern Refine Ltd

Unit 11 Victoria Road, Adwick Le Street, Doncaster, DN6 7AZ

August 2022

Ref: NR.PT.FPP.2208

AC Environmental Consulting Ltd

Environment House,

Werrington Road,

Stoke-on-Trent

ST2 9AF

Reference & Revision	Issue	Prepared	Approved
NR.PT.FPP.2208	1	LS	DA

CONTENTS

1.	Intro	oduction	4
2.	Amo	unt and Type of Waste Received	4
3. N	/lateri	al Storage Quantities	5
4. N	/lateri	al Storage Duration	6
5. C	Combu	stible Storage Dimensions (Maximum)	6
6. C	ontro	Is and Sources of Ignition	7
7. V	Vaste	Acceptance	9
8. C) Quarar	ntine Area	. 10
9. F	ire Pr	evention and Detection Measures	. 11
9	.2	Fire Alarm	. 12
9	.3	Fire Watch	. 13
9	.4	Inspections and Monitoring	. 14
9	.5	Site Design	. 14
9	.6	Drainage	. 15
9	.7	Incoming Waste	. 15
9	.8	Security	. 15
9	.9	Housekeeping	. 16
9	.10	Storage of Flammable Materials	. 16
9	.11	Fire Exercises	. 17
9	.12	Plant and Vehicles	. 17
9	.13	Plant & Vehicle Maintenance	. 17
9	.14	Training	. 18
9	.15	Electrical Safety	. 18
10.	Incide	ent Management	. 18
11.	Fire S	uppression	. 19
1	1.1	AFFF Foam Fire Extinguisher	. 19
1	1.2	Automatic Fire Suppression	. 20
1	1.3	Automatic Dry Powder System	. 20
1	1.4	Alternative Measures	. 21
12.	South	Yorkshire Fire & Rescue Service	. 21
13.	Wate	r Supply	.21
14.	Fire V	Vater Containment	. 22
15.	Sensi	ive Receptors	. 23
16.	Produ	icts of Combustion	. 23
1	6.1	Smoke / Plume Dispersion	.23

16.2	Storage and Disposal of Residues	24
16.3	Staff Training & Awareness	24
17. Fire P	Procedure	25
Appendix		27
	c 2 – Drawing Ref: 220622NR101	
Appendix	3 − Sensitive Receptors Drawing	29
Appendix	र 4 – Site Location Plan	30
Appendix	c 5 – Fire Watch Form	31
Appendix	c 6 – Fire Watch Procedure	32
Appendix	⟨ 7 – Site Inspections Procedure	34
Appendix	k 8 – Fire Procedure	36
Appendix	(9 – Hot Works	38
Appendix	(10 – Hydrosnake Specifications	39

1. INTRODUCTION

- 1.1 This Fire Prevention Plan has been formulated to satisfy the conditional requirements for Northern Refine Ltd and reflects the guidance detailed within the Environment Agency document Fire Prevention Plans: Environmental Permits (published 29th July 2016).
- 1.2 Northern Refine Ltd is seeking to obtain a bespoke environmental permit to operate a Catalytic Converter (CAT) centre at Unit 11 Victoria Road, Adwick Le Street, Doncaster, DN6 7AZ. The permitted area will be a small-scale operation situated within an industrial unit that will store and treat CATs.
- 1.3 A maximum of 500 tonnes of CATs will be accepted per annum, and it is expected that 1-2 tonnes per day will be accepted on average. The site will handle both hazardous and non-hazardous waste. The non-hazardous waste consists of the steel matrix CATs, and de-canned and cleaned steel shells. The site will accept approximately 200 tonnes of non-hazardous waste per annum and 300 tonnes of hazardous waste per annum.
- 1.4 The site's operating hours will be as follows:

Monday - Friday: 07.00 - 18.00

Saturday: 07.00 - 14.00

Sundays and Bank Holidays: Closed

2. AMOUNT AND TYPE OF WASTE RECEIVED

Material Type	Form	Amount (Daily)		
CATs	Loose	Average: 1 – 2 tonnes		

- 2.1 In accordance with the company's Environmental Management system, the company shall only accept waste materials in accordance with the waste types permitted in the Bespoke Environmental Permit.
- 2.2 The permitted area comprises of a small unit building which will house all site operations. There is one roller shutter doors on the northern boundary which will remain closed at all times deemed appropriate. The unit consists of an office portacabin, quarantine area, mobile plant storage area, process plant area, a battery box for the secure storage of cleaned CAT shells, and storage for

bagged CAT products on the northern boundary. The process plant area consists of a shear and hopper for the processing of ceramic CATs. The site has an existing concrete surface.

3. MATERIAL STORAGE QUANTITIES

- 3.1 CATs will be brought on to site mainly by Northern Refine's own vehicles and occasionally through third party contractor vehicles, and will be delivered directly to the roller shutter door for immediate visual inspection and sortation. CATs will be sorted between those with a steel matrix and those with a ceramic internal matrix.
- 3.2 Steel CATs will be bagged and stored pending dispatch to a suitable recycler. Ceramic CATs will be transferred to the process area where they will be 'de-canned' using a shear. The internal matrix will then be placed into a hopper and milled to produce powder which will be stored in sealed bags. The powder is then dispatched to a refinery where the precious metals in the CAT are recovered. These materials are defined as product and not waste once processed.
- 3.3 Cleaned CAT shells free of RCF will be stored within the Cemo 610L or similarly approved battery disposal box in the south eastern corner of the site.
- 3.4 Materials stored in a single area will be stored in clearly separated stockpiles of a maximum size as shown below. The stockpile numbers below are in accordance with the Fire Prevention Plan Ref: 220622NR101 provided in Appendix 2.
- 3.5 Due to the nature of the waste stream accepted onsite, none of the stockpiles are considered to be flammable. CATs are clean dry metallic wastes, and when CATs are in operation, they can reach a temperature of 600°C, and so are designed not to be readily flammable. However, for the purpose of the bespoke permit application, the potential combustibility of the waste has been considered.

Stockpile	Material	Form	Location	Maximum Amount
Number	Type/Stockpiles			in each area (m³)
		Cemo 610L or		
1	CAT shells	similar battery	Building	1
		disposal box		
2	Bagged Product	Sealed bags	Building	2
3	Bagged Product	Sealed bags	Racking	7.5
4	Bagged Product	Sealed bags	Racking	7.5
				Total = 17

3.6 Due to the nature of operations, the only wastes stored on site are CATs. The site will consist of suitable and segregated storage areas for waste and product from the sorting and processing operations. Each stockpile will be accessible from more than one side at all times to allow for ease of extinguishing in the event of a fire.

4. MATERIAL STORAGE DURATION

- 4.1 A maximum of 1-2 tonnes of CATs will be accepted per day, and it is anticipated that the site will accept a maximum of 500 tonnes per annum.
- 4.2 CATs will be delivered directly to the roller shutter door for immediate visual inspection and sortation. CATs will be sorted between those with a steel and those with a ceramic internal matrix.
- 4.3 Steel CATs will be bagged and stored pending dispatch to a suitable recycler. Ceramic CATs will be transferred to the process area where they will be 'de-canned' using a shear. The internal matric will then be placed into a hopper and milled to produce powder which will be stored in sealed bags. The powder is then dispatched to a refinery where the precious metals in the CAT are recovered.
- 4.4 The site will handle both hazardous and non-hazardous waste. The non-hazardous waste consists of the steel matrix CATs, and de-canned and cleaned steel shells. The hazardous materials on site are classed as high risk material and therefore will be removed from site within 7 days. The non-hazardous material will be retained on site for a maximum of 30 days.

Material Risk Rating	Timescale
Low Risk Material (steel matrix CATs, and de-	Material will be retained for 30 days
canned and cleaned steel shells)	
Higher risk material (ceramic matrix CATs)	Material will be retained for 7 days.

5. COMBUSTIBLE STORAGE DIMENSIONS (MAXIMUM)

- Due to the nature of the waste stream accepted onsite, none of the stockpiles are considered to be flammable. CATs are clean dry metallic wastes, and when CATs are in operation, they can reach a temperature of 600°C, and so are designed not to be readily flammable. However, for the purpose of the bespoke permit application, the potential combustibility of the waste has been considered.
- 5.2 The table below details the maximum stockpile size for each category of waste. The stockpile sizes below remain strictly consistent with the stockpile sizes shown on the Fire Prevention Plan Drawing Ref: 220622NR101.

Material	Length	Width (Metres)	Height (Metres)	Maximum Waste	
	(Metres)			Volume (m³)	
Stockpile 1: CAT					
shells (Cemo 610L or	1	1	1	1	
similar battery	1	1	1	1	
disposal box)					
Stockpile 2: Bagged	2	1	1	2	
product	۷	_	_	2	
Stockpile 3: Bagged	3	2.5	1	7.5	
product on racking	3	2.5	_	7.5	
Stockpile 4: Bagged	3	2.5	1	7.5	
product on racking	3	2.3	1	7.5	

- 5.3 Stock rotation is extremely unlikely to be an issue due to the small volume of waste retained on site and the quick turnover. Due to the materials on site only being in small stockpiles, the operator will have a quick turnover of 7 days.
- 5.4 **FIFO** Due to the nature of waste on site and the storage of the waste, FIFO is automatically achieved due to the waste being stored in a Cemo 610L or similar battery disposal box and product being stored in sealed bags. The waste will be removed as containers and the product will be removed as bags, and will therefore be entirely removed from site. Site management will undertake daily inspections of each stockpile to ensure they are being removed from site as such.
- 5.5 Stockpile levels will be recorded by the COTC holder weekly. The records will be reviewed by site management and action will be taken in the event where stockpiles are not being reduced as planned. This could involve investing in new equipment, hiring new staff, further staff training or changes in the site's current procedures.
- 5.6 All hazardous materials are stored on site for no longer than 7 days.

6. CONTROLS AND SOURCES OF IGNITION

- 6.1 A Fire Risk Assessment is carried out annually at site and this identifies potential sources of ignition. As well as the normal sources that every site may have, the site has others that must be controlled. The potential sources of ignition identified are:
- 6.2 **Naked flames:** There are no naked flames on site.

- 6.3 **Hot Work:** The site operated a variety of Health and Safety systems and part of this is a Permit to Work system.
- 6.3.1 No hot work is required as part of normal site operations. Any hot work which may be required e.g. any work which may give risk to sparks, e.g. drilling, grinding, cutting of metal or stone/concrete, or electrical work will be subject to the Permit to Work system.
- 6.3.2 Each job under this system is risk assessed prior to work commencing and suitable measures taken to prevent ignition of waste and to deal with any nascent fire promptly before a fire can take hold. This work will be carried out more than 6m away from any combustible waste.
- 6.3.3 Precautions taken include:
 - Cleaning the area of combustible materials prior to work commencing.
 - Have suitable fire extinguishers places close to the area of work.
 - Maintaining a careful watch throughout the work.
 - Inspecting the work are after work has finished and for an hour after.
 - A Permit to Work (PTW) system to help manage the risk.
- 6.4 **Smoking:** The site operates a no smoking policy in all areas of this site. Management brings the rules on smoking to the attention of all workers and visitors to the site and enforce them.
 - No smoking is allowed on site.
- 6.5 **Electrical installations:** should be sufficient capacity for the intended use and designed, installed, inspected and maintained by a qualified and registered electrician.
 - A maintenance programme is in place to inspect and service equipment in accordance with manufactures recommendations.
 - An annual inspection of site electrics is undertaken by a qualified and registered electrician. If
 a fault occurs, it will be repaired within 48 hours.
 - Attention shall be made to accumulations of dusts/fluff near sources of ignition such as build up on or around electrical equipment, panels etc.
- 6.6 **Bonfires:** Under no circumstances shall an open fire be allowed on site.
- 6.7 **Arson:** Measures are in place to prevent unauthorised site access.
 - Site security is robust with 3 CCTV cameras and intruder sensor. An automatic fire extinguisher
 system that will be designed, installed, and maintained by a UKAS accredited installer. Further
 information on the site's security system can be found in Section 10.8. The site is also entirely

indoors within an industrial unit, within an industrial estate. The unit's roller shutter doors will be patrolled and locked at the end of each day.

- 6.8 **Accumulation of materials:** Whilst not strictly a source of ignition, build-up of dusts, fluff and litter can provide ideal material for a fire to start.
 - Managed cleaning is in place to ensure that dusts/fluff/litter is not allowed to build up.
 - The site shall be inspected daily by the site manager who holds a COTC. Any accumulations of
 dust, debris, fluff etc., shall be brought to the attention of the site management. Any
 accumulations shall be recorded on the site inspection sheet and cleaned immediately.
 - Attention shall be particularly made to accumulations near sources of ignition such as dust/fluff build up on or around electrical equipment, panels etc.
- 6.9 **Self-combustion:** In certain circumstances, certain waste materials can have the ability to generate heat through biodegradation or oxidation, to a point where self-combustion occurs. Due to the nature of waste accepted on site and the storage procedures in place, this is very unlikely to occur.
- 6.10 **Hot exhausts:** The risk from hot exhausts is extremely low as there is only one consistent form of plant operating on site (forklift truck) and will operate at a 6m distance from flammable stockpiles. The forklift truck is stored in the designated plant storage area when not in use and out of hours. A fire watch is carried out to ensure that fires caused by dusts settling on exposed exhausts and engine parts is detected at the earliest opportunity. Specifically, the fire watch at the start and end of the day shall incorporate an inspection of exhausts and a further fire watch shall take place during the midday break.
- 6.11 **Industrial heaters:** No industrial heaters, incinerators or braziers will be used on site.
- 6.12 **Batteries:** There are no batteries accepted or stored on site.
- 6.13 **Incompatible Waste:** As the site is a low level CAT centre, the issue of incompatible and unstable wastes, whilst possible, is very unlikely to arise. However, the site operates a waste acceptance procedure which aims to deal with this, and which is described below.

7. WASTE ACCEPTANCE

- 7.1 The site has procedures designed to ensure that wastes received at site do not present a risk of fire. Checks to ensure the suitability of wastes accepted begin on receipt.
- 7.2 Wastes are collected by site staff, not delivered to site by others. Loads are inspected by site staff at the point of collection prior to being accepted. Wastes are also supervised to that any issues

which were hidden and not identified prior to receipt can be seen. The aim of this is to ensure that problematic load is not accepted.

- 7.3 The site only accepts waste in the form of CATs, so the potential for fire arising from mixtures of wastes or incompatible wastes is very limited. However, it is also recognised that some loads may contain other wastes and although these are likely to be in very small quantities, it is theoretically possible that a residual risk from incompatible waste remains. If such a load is identified at collection it shall be rejected and site management advised.
- 7.4 During the inspection immediately upon receipt, checks shall be made for hot spots or hot loads. This will be both visual and using a handheld IR thermometer.
- 7.5 Following such an inspection, it is extremely unlikely that incompatible waste will be let onto the site. However, if such an issue is identified at site, the load shall be transferred to the external area within the permitted boundary and site management alerted. Action taken may be to segregate and removed the problematic waste to a secure area or to sort the load, removing acceptable waste to recycling and to invite suitably qualified contractors to collect the problematic waste.

8. QUARANTINE AREA

- 8.1 The site has a quarantine area located along the western boundary of the unit building. Due to the very small scale and nature of the site and the amount of waste stored on site, the site presents restrictions that do not allow for there to be a 6m buffer area surrounding the quarantine area.
- 8.2 Due to the nature of the waste stream accepted onsite, none of the stockpiles are considered to be flammable. CATs are clean dry metallic wastes, and when CATs are in operation, they can reach a temperature of 600°C, and so are designed not to be readily flammable. However, for the purpose of the bespoke permit application, the potential combustibility of the waste has been considered.
- 8.3 The location of the quarantine area allows for ease of access from the roller shutter door and from the remaining areas of the site when moving stockpiles and for quick access by the fire service.
- 8.4 Despite potential storage capacity of the quarantine area, it is intended that waste fires will be tackled in-situ (with use of fire extinguishers and the automatic fire suppression system) rather than moving potentially burning waste into other areas of the site. In this instance the site area would be available for use by the Fire and Rescue Service to park fire tenders and allow them to tackle the fire effectively. The quarantine area will then be used to move some of the non-burning wastes from the affected stockpile to reduce the potential scale of the fire.

8.5 Given that it is intended for waste to be best tackled in-situ rather than using the quarantine area to tackle the fire, the use of the quarantine area to tackle the fire, the use of the quarantine area for storing stock away from a fire is deemed acceptable.

9. FIRE PREVENTION AND DETECTION MEASURES

- 9.1 Due to the nature of the waste stream accepted onsite, none of the stockpiles are considered to be flammable. CATs are clean dry metallic wastes, and when CATs are in operation, they can reach a temperature of 600°C, and so are designed not to be readily flammable. However, for the purpose of the bespoke permit application, the potential combustibility of the waste has been considered. Several measures are taken to prevent fire, these include:
 - Fire risk assessment in place.
 - Fire exit and fire safety warning signs displayed.
 - Fire awareness raised as part of employee induction training.
 - Automatic fire extinguishers and AFFF fire extinguishers are distributed throughout the unit building for strategic tackling of fire in the various stockpiles.
 - Daily check to ensure correct operation of fire-fighting equipment by employees.
 - Material inspection procedure.
 - Dedicated hot work procedure.
 - No naked flames on site and other sources of ignition, as stated in Section 6.
 - No space heaters, burners, furnaces etc will be used on site.
 - Contractor control programme which includes a site induction.
 - The entire site is a non-smoking area.
 - The only form of plant on site is a Forklift Truck which will be stored in the assigned plant storage area in the eastern area of the site when not in use and out of hours.
 - Any spillages shall be dealt with in accordance with procedures and staff are trained in the use
 of the spill kit which is stored in the site office.
 - The sealed Cemo 610L or similar approved battery box will be used to prevent any fuels and combustible liquids leaking or trailing from CATs.
 - Ensuring all electrical equipment is routinely tested and certified by a qualified electrician.
 - Maintain site security such as a security system consisting of CCTV cameras with an intruder
 alarm sensor that is monitored during operational hours. The system is designed, installed,
 and maintained by a UKAS accredited installer. Alerts will be made by site management that
 are monitoring the CCTV through a mobile app. Out of hours, site management will be alerted

- by text if the security system is triggered by an intrusion. The site is contained within an industrial unit building with roller shutter doors which will be patrolled and locked by site management at the end of each day.
- If there is a fire out of hours, there will be a fire alarm that is operational 24 hours a day will be triggered and alert site staff immediately via text message. Further information on the fire alarm is given in Section 9.2 below.
- If there is an intrusion out of hours, the burglar alarm system that has been installed and maintained by a UKAS accredited installer alerts staff by text.
- There will be 3 automatic fire extinguishers installed throughout the building. The automatic fire extinguishers cover all the flammable stockpiles in the covered area and are operational 24/7. The extinguishers will be automatically triggered in the event of a fire.
- Hydrosnake would be deployed across the site entrance and the roller shutter doors of the buildings to contain fire water.
- Inspecting every stockpile on a regular basis which involves taking the temperature to ensure the waste has no chance of ignition from the heat.
- Ensuring all plant equipment is kept in good condition and undergoes routine maintenance.
- The site shall be inspected daily by the site manager who is a COTC holder. Any accumulations of dust, debris, fluff etc., shall be brought to the attention of site management. Any accumulations shall be recorded on the site inspection sheet and cleaned immediately. Attention shall be made to accumulations near sources of ignition such as dust/fluff build up on or around electrical equipment, panels etc.
- Ensuring that spill kits are used to clear up any spillages on site immediately. Spill kits will be
 kept in the depollution area which is the first covered area. All site operatives will be trained
 in the deployment of spill kits. However, the site management will be responsible for ensuring
 that they have been deployed appropriately.

9.2 Fire Alarm

- 9.2.1 The fire alarm system has been installed and maintained by a UKAS accredited installer to BS-5839-1. The site consists of a CCTV/intruder alarm system that operates 24 hours a day and will alert site staff via text both during operational hours and out of hours if a fire is detected; this is also UKAS accredited.
- 9.2.2 In addition there are several CCTV cameras that are UKAS accredited that are fitted on site which are monitored during operational hours through a mobile application. Out of hours, site management are alerted by text if the system is triggered by an intrusion.

9.2.3 Out of hours, once alerted by text through the alarm system, site management will immediately contact the FRS to inform them that there is a fire before they travel to the site themselves.

9.3 Fire Watch

- 9.3.1 Throughout the day the site management will conduct dynamic fire inspections on an ongoing basis. These involve a visual inspection of waste stockpiles and exhausts.
- 9.3.2 At the end of each working day a documented Fire Watch will be undertaken in accordance with the Fire Watch Procedure and the Fire Watch Form (Appendix 5 and 6). This shall include thermal monitoring stockpiles and equipment. The nominated member of staff shall inspect the site using a hand-held IR non-contact thermometer / infra-red thermal imaging device.
- 9.3.3 The device shall be used to "scan" over a stockpile to seek for "hotspots" on the surface of the stockpile. Hotspots are considered to be any area significantly higher in temperature than neighbouring areas and any area over 50°C. Temperatures will be recorded on the fire watch form. Records shall be kept in the site office.
- 9.3.4 If any "hotspots" are identified, then measures described in the Fire Watch Procedure shall be undertaken to manage the stockpile.
- 9.3.5 After any hot work is carried out, an operative will keep the area under observation for an hour to ensure that a fire does not occur.
- 9.3.6 At management meetings, recorded temperatures will be reviewed, and any concerns identified will be addressed at this point. The changes could involve changes in the procedures, resetting trigger temperatures, purchasing of new equipment or re-training staff as deemed necessary.
- 9.3.7 Temperatures of up to 50°C could be expected in wastes stored outside which are exposed to the sun. It is crucial to note that all stockpiles, excluding wheels, radiators, engines and depolluted ELVs, are stored in a covered area so are not exposed to direct sunlight. Temperatures higher than this may indicate another source of heating such as a hidden fire. Where monitoring shows temperatures above this level a fire watch shall be set up and temperatures monitored at 30-minute intervals until such time as temperatures fall below this trigger level in accordance with the Hit / Fire Watch Procedure.
- 9.3.8 If temperatures increase, or show no signs of decreasing, then action should be taken to reduce the temperature in accordance with Section 9.4 'Inspections & Monitoring' below.

9.4 Inspections and Monitoring

- 9.4.1 In addition to the Hot / Fire Watch, dynamic inspections will be carried out by the site staff throughout the working day with further daily inspections carried out by the site manager who is a COTC holder to ensure that stockpile sizes and rotation remain within the limits.
- 9.4.2 These inspections will all involve perimeter and security inspections, together with a review of Fire Watch records and temperature monitoring.
- 9.4.3 To avoid hot weather heating wastes, temperatures and stockpiles will be monitored by site management. This will involve checking surface temperatures of all wastes. A fire watch will be undertaken every day to ensure that the ELVs on site do not exceed the guidance temperatures. It is crucial to note that all waste will be stored within the unit building and will not be exposed to the sun, therefore no solar heating can occur and therefore there is almost no risk of fire from this source. The final procedure used to prevent hot weather heating would be to douse the waste with cold water.

9.5 Site Design

- 9.5.1 The site layout is designed to ensure freedom of movement. The site is fully concreted with an impermeable concrete surface and is contained within an industrial unit building which is part of a larger industrial estate.
- 9.5.2 Access for the Fire and Rescue Service will be gained from the roller shutter doors on the on the northern side of the unit building.
- 9.5.3 The unit consists of an office portacabin, quarantine area, mobile plant storage area, process plant area, a battery box for the secure storage of cleaned CAT shells free of RCF, and storage for bagged CAT products on the northern boundary. The process plant area consists of a shear and hopper for the processing of ceramic CATs.
- 9.5.4 CATs will be brought on to site mainly by Northern Refine's own vehicles and occasionally through third party contractor vehicles, and will be delivered directly to the roller shutter door for immediate visual inspection and sortation. CATs will be sorted between those with a steel and those with a ceramic internal matrix.
- 9.5.5 Steel CATs will be bagged and stored pending dispatch to a suitable recycler. Ceramic CATs will be transferred to the process area where they will be 'de-canned' using a shear. The internal matric will then be placed into a hopper and milled to produce powder which will be stored in sealed bags. The powder is then dispatched to a refinery where the precious metals in the CAT are recovered. These materials are defined as product and not waste once processed.

- 9.5.6 Clean CAT shells will be stored within the Cemo 610L or similarly approved battery disposal box in the south eastern corner of the site.
- 9.5.7 There are 3 UKAS accredited CCTV cameras installed within the unit building. The unit will also be equipped with an automatic fire extinguisher system and AFFF fire extinguishers will be distributed throughout the building to work alongside the Fire and Rescue Service when extinguishing a fire.

9.6 Drainage

- 9.6.1 The permitted area is entirely indoors and therefore there is no concern regarding run-off from rainfall and therefore no site drainage is necessary. Any potential spillages will be dealt with appropriately within the permitted area using the spill kit that is provided on site.
- 9.6.2 The site is entirely surfaced with an impermeable concrete surface.
- 9.6.3 Contaminated flood and fire water will be contained by deploying the hydrosnake barriers which will prevent water from draining off site into the main sewer.

9.7 Incoming Waste

- 9.7.1 Incoming waste is down entirely to purchasing and collection by site management. As such, the input of wastes are entirely within the control of site management and can be stopped at any time.
- 9.7.2 Loads enroute during the event of a fire will be diverted to other suitably permitted sites around the country; the location of which will be up to and determined by site management, depending on the location of the collection point.

9.8 Security

- 9.8.1 The site has not experienced any trespass or vandalism in the last few years. The security system consists of 3 CCTV cameras and intruder sensors that are designed, installed, and maintained by a UKAS accredited installer. The system is monitored during operational hours via a mobile phone application which sends alerts to site management by text. If there is an intrusion out of hours, the burglar alarm system and CCTV camera alerts staff by text. The locations of the CCTV cameras are shown on Drawing Ref: 220622NR101.
- 9.8.2 A fire alarm (system category L3) has been installed by UKAS accredited installer to BS 5839-1:2002 on site. The system sensors alert staff during the day and at night and alert site management via text message.

9.8.3 The detection/security systems used are proportionate to the nature and scale of the waste management activities carried out on site. The design, installation and maintenance of all automated systems are covered by an appropriate UKAS-accredited third-party certification scheme. The detection and security system installed on site will effectively contact site management by text in the event of a fire or intrusion.

9.9 Housekeeping

- 9.9.1 The site shall be inspected weekly by the COTC holder. Any accumulations of dust, debris, fluff etc, shall be brought to the attention of site management. Any accumulations shall be recorded on the site inspection sheet and cleaned immediately.
- 9.9.2 Attention shall be made to accumulations near sources of ignition such as dust/fluff build up on or around electrical equipment, panels etc.
- 9.9.3 The risk of fire is managed by very careful attention to housekeeping, keeping areas clean, free from litter and detritus, especially electrical infrastructure, through inspections and monitoring, including temperature monitoring throughout the day and in particular as part of the end of day fire watch.
- 9.9.4 The self-ignition point of wastes is actually very high; plastics typically self-ignite above 260°C, petrol 247°C and diesel 210°C. By ensuring that there are no sources of ignition and no elevated temperatures at the end of a day, management is essentially ensuring that ignition overnight cannot occur.

9.10 Storage of Flammable Materials

- 9.10.1 The only flammable materials held on site are:
 - CAT shells (small stockpile in the battery disposal box).
 - Steel matrix CATs (product in sealed bags).
 - Ceramic matrix powder (product in sealed bags).

The unit building is equipped roof mounted fire extinguishers that will cover the flammable stockpiles in each area.

- 9.10.2 No gas cylinders are stored on site. CAT shells will be stored within a Cemo 610L or similar approved battery disposal box to the southeast of the site.
- 9.10.3 All storage areas are easily accessible from at least two sides to ensure that if a fire occurs inside of them, it can be put out.

9.10.4 There are no other flammable materials held on site other than those stated above.

9.11 Fire Exercises

9.11.1 Routine fire exercises will take place every year. This will take the form of a practice run through of the procedures to be following on discovering a fire, from raising the alarm to notifying the authorities to evacuating the site and notifying residents.

9.11.2 A fire procedure has been produced and forms part of the site's management plan. Each exercise shall be recorded and any deficiencies in the exercise shall be noted, reviewed by site management and any appropriate corrective action taken. Corrective action may include re-training of staff, amendments to procedures, or purchase of alternative equipment as deemed necessary.

9.12 Plant and Vehicles

9.12.1 The only form of plant frequently used on site is a Forklift Truck which is stored on site in the plant storage area shown on Drawing Ref: 220622NR101. The forklift truck is stored in the designated plant storage area out of hours and when not in use. The site also uses a transit van, however this is not stored on site out of hours. This reduces the risk of fire by keeping hot exhausts away from any waste when the site is unmanned. In addition, any act of vandalism is much less likely to result in a waste fire. The forklift truck is fitted with a fire extinguisher.

9.12.2 There is no fuel stored on site. Spill kits are retained on site to deal with any spillage which may occur. These are located within the depollution area which is the covered area to the eastern perimeter of the site.

9.13 Plant & Vehicle Maintenance

- 9.13.1 Maintenance is required on all site transport vehicles; this includes a mix of daily checks by site staff and routine planned maintenance by specialist sub-contractors. Specialist sub-contractors also carry out maintenance on the vehicle ramps. A service schedule is maintained to ensure all servicing and statutory testing is undertaken at the specified intervals.
- 9.13.2 If a defect is discovered during the routine daily inspection, this shall be rectified as soon as possible. Generally, this will mean within 48 hours. If the defect is on a part which could give rise to a source of ignition or on a fire suppression system, the equipment will be immediately taken out of service until a repair can be affected.
- 9.13.3 Part of daily maintenance is also a detailed clean to prevent the build-up of dusts, waste etc. in parts that may not be readily visible. Attention shall be paid to the engine bay and exhaust systems. This is subject to a Site Working Procedure.

- 9.13.4 Any equipment showing evidence of a leak, either through damage or expansion of fuel within the tank, will be removed from the permitted area and repairs effected immediately. Any spillages will be cleared using Spill-Dri or similar and the residues disposed of to a suitably authorised facility.
- 9.13.5 All maintenance will be carried out by certified contractors.

9.14 Training

9.14.1 The requirements of the FPP and the Site Management Plan shall be communicated to all staff and copies made available on site in site welfare facilities. Staff shall be trained by use of induction training and toolbox talks, reinforced annually or when the FPP is amended. Refresher training will be carried out to ensure that all site staff are up to date on how to tackle the occurrence of fires.

9.15 Electrical Safety

- 9.15.1 The site has a current electrical test certificate and electrical infrastructure is included in the service schedule to ensure that this is maintained. All plug-in equipment is tested annually, and electrical infrastructure is tested every 3 years.
- 9.15.2 All testing and maintenance of electrical equipment and infrastructure is carried out by a suitably qualified and accredited electrician.

10. INCIDENT MANAGEMENT

- 10.1 In the event of a fire being reported by a person, site management will immediately investigate. Once a fire is confirmed, several actions will take place (concurrently not sequentially).
 - Site staff will attempt to extinguish the fire using the AFFF fire extinguishers in the early stages of a fire if is it considered safe to do so.
 - If a fire cannot immediately be extinguished, site management will immediately notify the Fire and Rescue Service (FRS).
 - A member of staff will be detailed to guide the FRS on arrival and to provide the senior officer with a copy of the up to date Fire Prevention Plan.
 - The automatic dry powder fire extinguishers would be triggered immediately by the fire and activate over the flammable waste stockpiles in the covered areas.
 - Site management will then direct staff to deploy the hydrosnake barriers.
 - Site management will order the evacuation of the site in accordance with the fire drill for all events of fire and will assist in the safe evacuation of all staff, contractors, and visitors.
 - A fire however small will be considered an emergency. In addition to this. The site manager
 will immediately suspend all inputs to the site and all vehicles present on site at the time will

be sent off site as a precaution until management are assured that the fire is out, and risk of ignition has passed.

- Site management will inform the Environment Agency of the incident.
- The site would cease all operations instantly and would direct all its efforts into fighting the fire using the AFFF fire extinguishers alongside the automatic dry powder extinguishers. The roller shutter door would remain open and would be manned to allow for the FRS. No other parties other than the FRS and Environment Agency would be allowed access. Throughout the duration of the fire and the cleaning process afterwards, no wastes will be accepted on site.
- 10.2 Wastes are only brought on to site when needed and are only brought on to site by site management who have purchased the waste. Therefore, during and after an incident, the site will not be expecting any further deliveries of waste if it has not been purchased. In the unlikely event that a purchased waste is already in transit to the site, the driver will be contacted immediately to inform them to not deliver the waste to site and to return it to the original destination where it will be collected once the site has been recovered to suitable and operational conditions.
- 10.3 Following a fire, once the Fire and Rescue Service deem the site to be safe, an inspection of the site shall be made, and a decontamination plan produced.
- 10.4 Residual waste will be sent for recycling at a suitably permitted facility or disposal to landfill as appropriate. Once the site is cleared of the products of combustion, an inspection of the site infrastructure shall take place to determine the extent of damage to site surfacing etc.
- A plan of action shall then be created to repair or replace any elements of site infrastructure damage by fire and such remedial works as are required shall be carried out before the site is reopened and any wastes are accepted (see Section 18 for the detailed fire procedure).

11. FIRE SUPPRESSION

The site handles catalytic converters (CATs) for treatment and storage. The two keys forms of fire suppression used on site are AFFF fire extinguishers and a roof mounted automatic dry powder fire extinguisher system.

11.1 AFFF Foam Fire Extinguisher

11.1.1 There will be two AFFF foam fire extinguishers on site that will be used in the early stages of a fire by staff that are trained in the use of fire extinguishers. The locations of the fire extinguishers are shown on Drawing Ref: 220622NR101. The storage areas ensure ease of access in the early stages

of a fire and the extinguishers will be used alongside the automatic fire extinguishers to extinguish a fire on stockpiles.

11.1.2 The fire extinguishers on site are at a size of 6 litre 10kg and are maintained in accordance with the manufacturer's recommendations. Further information on the AFFF foam fire extinguishers can be found in Section 15.

11.2 Automatic Fire Suppression

- 11.2.1 The site benefits from an automated fire suppression system that is detailed below in section 11.3 and has a low level of risk regarding a fire occurring due to the scale and nature of operations. The largest flammable stockpile on site is the combined stockpiles of bagged products at a volume of 17m³. These stockpiles have been combined for the purpose of this Fire Prevention Plan due to the lack of a 6m separation distance. The automatic fire suppression system is designed, installed, and maintained by a UKAS accredited installer and is maintained in accordance with the manufacturers recommendations.
- 11.2.2 Each stockpile can be easily accessed from more than one side to be extinguished in the event of a fire.
- 11.2.3 The automatic dry powder system will be triggered by the increase in temperature and will deploy over the flammable stockpiles, therefore taking immediate action in the event of a fire.
- 11.2.4 All waste and products will be subject to temperature monitoring (Hot / Fire Watch) prior to closing each night.

11.3 Automatic Dry Powder System

- 11.3.1 There will be three automatic dry powder extinguishers that are roof mounted above each of the flammable stockpiles as shown on Drawing Ref: 220622NR101.
- 11.3.2 The CE approved 10kg FireChief automatic dry powder fire extinguisher system can deploy over a maximum area of 18m² and this involves 20 seconds of discharge. The extinguisher will be fitted with a 68°C red bulb sprinkler head. The temperature range is from -20°C to 60°C. The extinguisher system placements will cover the whole permitted area flammable stockpiles as the effective range of the extinguisher will cover the inside of the building that contain flammable waste.
- 11.3.3 The automatic fire suppression system will be designed, installed, and maintained by a UKAS accredited installer and will be maintained in accordance with the manufacturers recommendations.

11.4 Alternative Measures

11.4.1 The site complies with all aspects of the published Fire Prevention Guidance, and therefore alternative measures are not required. The site will meet the three main aims of the guidance by implementing the site layout, detection measures, fire suppression system, and housekeeping procedures in place at all times as detailed throughout this document.

12. SOUTH YORKSHIRE FIRE & RESCUE SERVICE

- The nearest fire station is Adwick Le Street Fire Station located at 10 Quarry Lane, Woodlands, Doncaster, DN6 7RT. This station is approximately 1.9k to the southwest of the site, implying a travel time of 6 minutes. However, this is expected to be considerably lower for the Emergency Services.
- A second fire station is Askern Fire Station located at 1 Lignum Terrace, Askern, Doncaster, DN6 0LD, which is located approximately 5km to the northeast of the site, implying a travel time of 8 minutes. However, this is expected to be considerably less for the emergency services.
- 12.3 A third station, Doncaster Fire Station, is located on Leicester Avenue, Doncaster DN2 6DR. This station is approximately 7.4km to the southeast of the site, implying a travel time of 16 minutes. However, this is expected to be considerably lower for the Emergency Services.
- A fire hydrant lies some 40m to the north of the site entrance on Victoria Road. An enquiry has been sent to the South Yorkshire Fire & Rescue Service to find out if the FRS maintain the fire hydrant and if they undertake pressure tests. This document will be updated once a response has been received.

13. WATER SUPPLY

- 13.1 A fire hydrant lies some 40m to the north of the site entrance on Victoria Road.
- The largest flammable stockpile on site is the bagged product stockpiles combined which is equivalent to $17m^3$. Therefore, a flow rate of 113.3l/m ($2000l/m / 300m^3 \times 17m^3$) and a total supply of 27,192l ($113.3l/m \times 4$ hours) would be required to extinguish a fire.
- 13.3 The site's fire suppression system does not depend on water, using the automatic dry powder fire extinguishers and the AFFF fire extinguishers instead and so no water tanks are provided for firefighting. The close proximity of the three local fire stations and the fire hydrant also renders the need for onsite tanks of water for firefighting superfluous.

14. FIRE WATER CONTAINMENT

- 14.1 The site has been built on a sealed impermeable concrete surface. We have therefore assessed the potential effect of firewater on:
 - The local groundwater and surface water bodies.
 - Any well, spring or borehole within 50 metres used for the supply of water for human consumption, including private water supplies.
- 14.2 Fire water will be contained by concrete surfacing throughout the whole site together with the hydrosnake barriers that will be deployed by assigned site staff. If there is an incident out of hours, site management are alerted through the fire alarm/security system by text and will promptly arrive at the site to deploy the hydrosnake barriers.
- 14.3 The maximum volume of water required to extinguish a fire in the largest stockpile (17m³) in the permitted area is calculated to be 27,192l (113.3l/m x 4 hours). This equates to 27.2m³ of water.

14.4 <u>Fire Water Containment Calculations</u>

Permitted Area

Volume of firewater 27.2m³

 $Area = 207.9m^2$

Height of containment required = $0.13 \text{m} (27.2 \text{m}^3 / 207.9 \text{m}^2)$

- 14.5 Based on the worse- case scenario (e.g. 5:1 water to foam solution ratio), 22.7l/m (113.3l / 5) of water is all that is required to extinguish a fire in the largest flammable stockpile.
- 14.6 Using AFFF greatly reduces the runoff and potential for pollution which is also a concern for the Fire Service.
- 14.7 In a worst-case scenario, a fire in all stockpiles, the use of foam would mean that the volume of foam to be retained on site would be $22.7l/m / 5 = 4.5m^3$. Over an area of $207.9m^2$ this equates to a foam depth of $0.02m (4.5m^3 / 207.9m^2)$, easily retained by the hydrosnake barrier system. However, whilst it is likely that the FRS will use AFFF as best practice when tackling a fire, the site has been designed assuming that only water is used to extinguish fires and the site is capable of retaining 0.13m of firewater using the hydrosnake barrier system.

14.8 <u>Hydrosnake Barrier</u>

14.8.1 A barrier of up to 0.13m high, as calculated in Section 15.4, is needed to contain water at the roller shutter door which measures 3.5m in width. A single hydrosnake is 145cm long and 25cm in width. Therefore, a barrier of 3 hydrosnakes in length would be enough to contain the firewater flooding produced (0.13m) when tackling the largest stockpile on site with the strongest water flow. A total of 3 hydrosnakes would be needed to cover the roller shutter entrance. A hydrosnake barrier can therefore be used for the containment of flood water.

14.8.2 The hydrosnake barriers weigh less than 0.5kg prior to contact with water and can be easily stored in bulk for 5+ years before they are needed. The barrier is capable of absorbing and locking up to 20 litres of water, which equates to a weight of 20kg. The hydrosnake storage is shown on Drawing Ref: 220622NR101. Further details on the specifications for the Hydrosnake barriers are provided within Appendix ???.

14.8.3 A risk assessment has been conducted and the procedures are a reasonable request of all the staff in the event of a fire.

15. SENSITIVE RECEPTORS

- 15.1 Current guidance from the Environment Agency on Fire Prevention Plans, states that schools, nursing homes, residential area, workplaces etc are all sensitive receptors. In a fire event, sensitive receptors will be contacted by either knocking on doors or by a phone call. They will be advised to close all doors and windows until the fire has been extinguished. This will be achieved by site management calling where possible and by staff being deployed to knock on doors of neighbouring properties.
- 15.2 A plan of sensitive receptors has been produced and can be seen in Appendix 3.

16. PRODUCTS OF COMBUSTION

16.1 Smoke / Plume Dispersion

A wind rose for Doncaster has been obtained.



- 16.1.1 In the case of this site, it has a flat concrete surface and is entirely enclosed within the industrial unit building. This would therefore affect the wind force and direction.
- 16.1.2 The prevailing north westerly winds mean that smoke will move towards the additional industrial and commercial businesses and the Old Ea Beck beyond.

16.2 Storage and Disposal of Residues

16.2.1 Following any fire, an assessment of the products requiring disposal shall be made by site management and a plan produced for the most appropriate means of disposal. Following approval by the fire services, Environment Agency and site manager, the residues from the fire will be disposed of accordingly at a suitably permitted facility.

16.3 Staff Training & Awareness

- 16.3.1 The key to any plan is to ensure that all staff are aware of their duties and act accordingly. This plan and the duties required of staff in accordance with related procedures is communicated to staff through induction training and toolbox talks.
- 16.3.2 The Fire Prevention Plan is distributed freely, in full, to all staff. All copies of the FPP, both individual staff members' copies and the Master Copy are kept in the site office portacabin. Staff are trained in the requirements of the FPP at induction and at annual toolbox talks. Quarterly exercises

are held to test the response to an incidence of fire. All such exercises shall be recorded in the site diary.

17. FIRE PROCEDURE

- 17.1 In the event of a fire the following procedures are:
 - Site management will immediately be informed, and all operations will cease. All expected vehicles will be notified and unable to enter the site.
 - Site staff will be trained in the use of fire extinguishers. They will attempt to tackle minor fires
 in the early stages to extinguish or prevent a fire from spreading. The FRS and emergency
 services will be contacted by site management during this time if the site cannot be dealt with
 using onsite resources.
 - If the fire becomes uncontrollable for site staff, the site shall be completely evacuated until the emergency services arrive.
 - Neighbours and other receptors within a 1km range will be notified of the site.
 - Once fires have been tackled the site will inform the Environment Agency of the fire and make amendments and actions to prevent this from happening again in the future.
- 17.2 After fires have been extinguished, procedures are taken to decontaminate and get the site to an operational use again. Procedures taken are dependent on the severity of the fire. These may include:
 - Informing the Environment Agency of the incident and review of the site management and fire prevention plans.
 - Analyse the retained fire water to see if this is contaminated. Once analysed and deemed to
 be acceptable it will be pumped out and released into the sewer. If the water is contaminated,
 then it may be removed from site by a tanker and disposed of to a suitable permitted facility.
 - PPE will also be removed and disposed of at a suitably permitted facility.
 - Certain wastes may need to be disposed of as they may no longer be allowed to be treated and recycled.
 - If the fire is severe and large, then the concrete may become damaged. In this event the site
 may need to be resurfaced prior to re-opening. Any other repairs to removals that are
 required e.g. buildings will be carried out to manufacturers recommendations.

Once the contaminated water has been removed, the concrete has been deemed acceptable, other repairs have been made and the quarantines and contaminated waste have been removed, the site

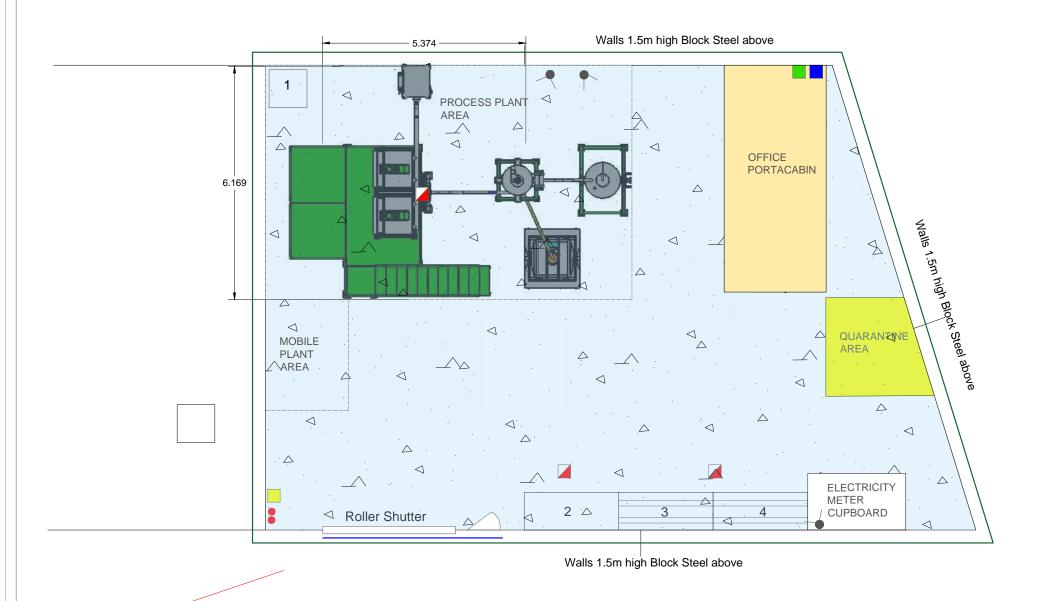
will be inspected by the COTC holder. If after the inspection the site is of an acceptable nature, then it can reopen and continue with its usual operations.

APPENDIX 1 – SENSITIVE RECEPTORS

Sensitive Receptor	Contact Number	
n/a	n/a	

APPENDIX 2 - DRAWING REF: 220622NR101

- 1. Battery Box Shells = $1m^3$
- 2. Bagged Products = $2.5 \times 1 \times 1 = 2 \text{m}^3$
- 3. Bagged Products on 3 stage racking = $3 \times 2.5 \times 1 \times 1 = 7.5 \text{m}^3$
- 4. Bagged Products on 3 stage racking = $3 \times 2.5 \times 1 \times 1 = 7.5 \text{m}^3$

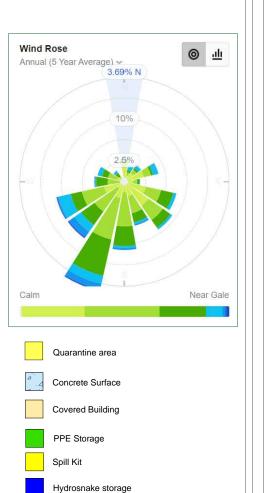


Fire Hydrant approx 40m (see drawing 220622NR102)



Environment House
Werrington Road
Stoke-on-Trent
ST2 9AF





Northern Refine

Hydrosnake deployment

Automatic Fire Extinguisher

Unit 28 Victoria Road, Adwick Le Street Doncaster DN6 7AZ

Fire Extinguisher

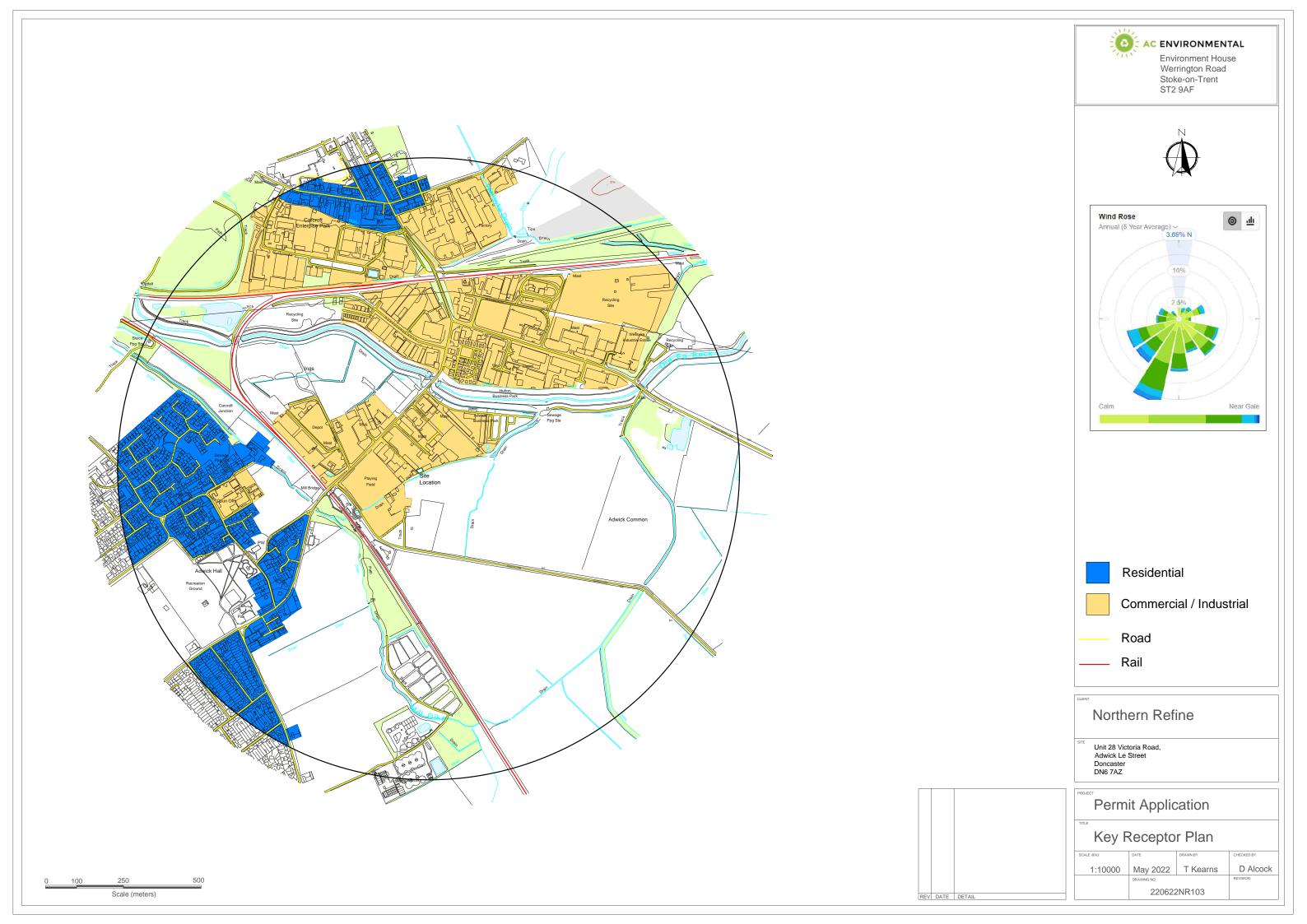


Г	Permit Application	
	1 omit / tpphoation	

Fire Prevention Plan

0 1 2.5 5

APPENDIX 3 - SENSITIVE RECEPTORS DRAWING



APPENDIX 4 - SITE LOCATION PLAN



APPENDIX 5 – FIRE WATCH FORM

Fire Watch Form								
To be completed every day by the Operations Manager or nominated person. Keep completed								
forms in file in Site Office. This is in a	ddition to t	he Dail	y Diary	7				
Fire Watch Inspection Checked Time State condition & action								
_	by		taken					
	(initial)							
Mobile and fixed plant and equipmen	t - Hot exha	usts ar	ıd engii	ies				
Check for signs of fire, smoke, l	neat, and dus	st settlin	ng on ho	ot exhausts	& eng	gines.		
Ensure parked in correct overnig	ght area at le	ast 6m	from wa	iste or other	com	bustible materials		
Check for leaking fuels and oils	from fixed a	and mo	bile plai	nt and vehic	les			
Check all waste at least 6m fron	n processing	machii	nery					
Forklift Truck								
All waste stockpiles and containers of	waste							
Check for signs of fire, smoke, l	and due	t sattlir	ag on ni	les / contair	org.			
 Check for signs of fire, smoke, I Check all containers are accessi 				ies / coman	ieis			
			II times					
Check all stockpiles are accessit	ole on one si	de						
Wastes								
CATs								
External containers								
N/A								

APPENDIX 6 – FIRE WATCH PROCEDURE

Site Working Procedure - Fire Watch Procedure SWP021							
Issue:	Issue: 1 Date: 08/08/2022						
Written/Revised By:	Lauren Stanger	Approved By:					

1. Purpose

1.1 To identify situations that may lead to fire and to discover fire early to minimise the impact of any fire and to ensure that the safety of site staff, visitors and neighbours and to ensure that actions comply with the Fire Prevention Plan, Environmental Permit and the planning permission.

2. Responsibility

- 2.1 It is the responsibility of all site staff to follow this procedure and the site manager to ensure this procedure is implemented & followed.
- 2.2 Failure to follow this procedure will be considered a disciplinary matter and may lead to dismissal.

3. Fire Watch

- 3.1 A fire watch is a formal inspection of all stockpiled of waste held on site.
- 3.2 The fire watch shall be carried out by the nominated person, usually the Site Manager or supervisor.
- 3.3 The fire watch shall take place at the start and end of each day with one further inspection in the middle of the operating day.
- 3.4 The fire watch shall be a visual inspection of all stockpiles to identify steam, vapours, smoke of charring, the precursors of a fire. In addition to the visual inspection, temperature monitoring shall be undertaken to identify heating within stockpiles.

4. Actions in the event of discovering an issue

- 4.1 If a fire is discovered, the Fire Procedure (SWP020) shall be implemented immediately.
- 4.2 If one of the precursors to fire (smoke, charring etc) is discovered, site management shall immediately investigate further. Investigations shall include excavation of suspicious materials to identify the extent of the issue discovered. If localised heating of materials is discovered, then this can be dealt with by smothering with inert waste or turning to allow cooling in the air.
- 4.3 Any stockpile which has been identified as having the potential to ignite due to evidence of smoke charring etc., once the immediate issue has been dealt with, shall be prioritised for removal from site for disposal at the earliest opportunity.

5. Actions to be taken

- 5.1 The site gates shall be closed to prevent unauthorised access by shall be manned to allow access for emergency services.
- 5.2 Site staff trained in the use of extinguishers and firefighting shall tackle the fire to attempt to extinguish it or to prevent the fire spreading. The fire may be fought with extinguishers, pumped water from the fire hydrant. The Leader Stop fire blanket may also be used to put out any fires. Site management shall direct efforts to fight the fire until the emergency services arrive.
- 5.3 At all times full consideration shall be given to staff safety and if there is any doubt as to the ability of site staff to extinguish the fire, the site shall be fully evacuated until the emergency services arrive.
- If the fire is large enough to warrant attendance of the emergency services, then neighbours shall be visited by site staff and advised to close windows and doors until such time as the Fire Service declare the fire is over and there are no lingering effects from smoke.

6. Reporting

- 6.1 The immediate actions of staff shall be to ensure the safety of staff and visitors. The secondary actions shall be to minimise the effect of the fire by attempting to extinguish or cover the fire with a Leader Stop blanket to prevent it from spreading.
- 6.2 When it is safe to do so, site management shall next notify the Environment Agency of the fire, providing details of the incident and the actions being undertaken.

APPENDIX 7 – SITE INSPECTIONS PROCEDURE

Site Working Procedure – Site Inspections SWP016								
Issue:	Issue: 1 Date: 08/08/2022							
Written/Revised By:	Lauren Stanger	Approved By:						

1. Purpose

1.1 To ensure the efficient operation of the site, mitigation of risk and to fulfil the requirements of the environment permitting regulations.

2. Responsibility

- 2.1 It is the responsibility of site manager to ensure this procedure is implemented & followed.
- 2.2 It is the responsibility of the site manager or duty COTC holder to carry out supporting inspections and monitor the operation of the site.

3. Daily and Weekly Inspections

- 3.1 The site manager will undertake a daily inspection of the site and record their findings in the Site Diary.
- 3.2 The COTC holder shall carry out regular visual checks of the site and to check for procedural integrity.
- 3.3 Either the Site Manager of the COTC holder shall undertake a formal weekly inspection and record findings on the Site Inspection Sheet.
- 3.4 In the event that the Site Manager conducts the Inspection, the COTC holder shall review this and countersign the Site Inspection Sheet as evidence of such review being carried out.
- 3.5 All issues to be reported to the site manager, who will allocate responsibilities to action any remedies that can be completed.
- 3.6 Complaints or reports of problems from neighbours or visitors shall be investigated in accordance with the Complaints Procedure.

4. Reporting & Records

- 4.1 Any problems to be noted in the site diary and incident logbook.
- 4.2 Any incident or breach of this procedure must be reported immediately to the site manager.
- 4.3 Records must be kept for 3 years.

APPENDIX 8 – FIRE PROCEDURE

Site Working Procedure - Fire Procedure SWP020				
Issue:	1	Date:	08/08/2022	
Written/Revised By:	Lauren Stanger	Approved By:		

1. Purpose

1.1 To minimise the impact of any fire and to ensure that the safety of site staff, visitors and neighbours and to ensure that actions comply with the Fire Prevention Plan, Environmental Permit and planning permission.

2. Responsibility

- 2.1 It is the responsibility of all staff to follow this procedure and the site manager to ensure this procedure is implemented and followed.
- 2.2 Failure to follow this procedure will be considered a disciplinary matter and may lead to dismissal.

3. Discovering a Fire

- 3.1 A fire may begin in any stockpile of flammable waste or may be brought into site in a load of waste.
- 3.2 Fires may also be discovered through the routine daily fire watch, temperature monitoring, seeing smoke, charring or flame in flammable waste stockpiles.
- 3.3 Any sign of fire, however small, such as smoke or charring shall be treated as if it is a fire until proven otherwise.

4. Discovering a Fire

- 4.1 The person discovering the fire shall raise the alarm on site by shouting "FIRE" and shall then immediately notify site management in the site office.
- 4.2 Site management shall then assess the fire and if any doubt as to the ability of site staff and resources to effectively extinguish the fire immediately, shall call the Fire Service on 999.

5. Actions to be taken

- 5.1 The site gates shall be closed to prevent unauthorised access but shall be manned to allow access for emergency services.
- 5.2 Site staff trained in the use of extinguishers and firefighting shall tackle the fire to attempt to extinguish it or prevent the fire spreading. The fire may be fought with extinguishers and pumped water from the fire hydrant. The Leader Stop blanket may also be used to cover waste and put out fires. Site management shall direct efforts to fight the fire until the emergency services arrive.
- 5.3 At all times full considerations shall be given to staff safety and if there is any doubt as to the ability of site staff to extinguish the fire, the site shall be fully evacuated until the emergency services arrive.
- 5.4 Due to the small scale of the site, the quarantine area is in a suitable location to move burning objects into to be extinguished.
- 5.5 If the fire is large enough to warrant attendance of the emergency services, then neighbours shall be visited by site staff and advised to close windows and doors until such time as the Fire Service declare the fire is over and there are no lingering effects from smoke.
- 5.6 All actions will be taken in accordance with the approved Fire Prevention Plan.

6. Reporting

- 6.1 The immediate actions of staff shall be to ensure the safety of staff and visitors. The secondary actions shall be to minimise the effect of the site by attempting to extinguish or cover the fire with a Leader Stop blanket to prevent it from spreading.
- 6.2 When it is safe to do so, site management shall next notify the Environment Agency of the fire, providing details of the incident and the actions being undertaken.

APPENDIX 9 – HOT WORKS

Hot '	Work Perm	it-to-Work				
Department or Project:		Permit Number:				
Contractor / Person/s involved:						
Location:						
Description of Work:		Equipment:				
Date of Permit (Supervisor in	Day and Date:		Time:			
charge of work to sign permit on			Between			
day specified for single shifts)			And			
Precautions to be taken:			<u> </u>			
Hot works must cease one ho	our before the end of	shift				
Hot works must be carried out more than 6m way from any flammable/combustible materials or liquids.						
All gas cylinders must be transported and kept upright						
		-	st be fitted with back arresters			
 Valves and hoses must be in good condition and all gas cylinders must be fitted with back arresters When not in use, gas cylinders must be shut off 						
Gas cylinders must not be left		ernight without form	alapproval			
Minimum radius of hot work						
necessary)						
Work areas to be kept tidy an	d free from combus	tible materials				
Services affected must be iso						
A suitable fire extinguisher sl						
_		l protective equipme	ent is provided and worn, andthat			
there is a good working platfo						
Isolate smoke detectors in the vicinity of hot works						
Spent welding rods must be i	-					
Employees Must:						
Understand the fire and safety precautions and be in possession of a permit						
Stop work if required to do so by an authorised person						
Report immediately any hazard likely to affect the fire and safety precautions						
Remain in the area for 15 minutes following completion of work to check that no fire starts						
Confirmation by Contractor or Supe						
I can confirm that the precautions specified above will be maintained and I will ensure that the persons carrying out						
the work will comply with these precautions.						
Signed:	Print Name:		Date:			
Authorisation by Manager						
I certify that the above work can commence with the precautions listed above.						
Signed:	Print Name:		Date:			
Cancellation by Contractor or Super	vicor					
I can confirm that the work has been co		nd I have checked th	e area which is safe.			
Signed:	Print Name:		Date:			
Consollation by Managar						
Cancellation by Manager I confirm that the work has been compl	eted / stopped, and t	hat I have checked t	he area which is safe.			
Signed:	Print Name:		Date:			

APPENDIX 10 - HYDROSNAKE SPECIFICATIONS



Creates a highly effective barrier to the threat of floodwater and is the ultimate replacement for the sandbag







Manufacturers dedicated to creating environmentally beneficial products

HYDROSNAKE

The HydroSnake® is the solution to the inefficiencies of the traditional sandbag that have frustrated users for generations.

What is wrong with sandbags?



Besides their inherent poor performance as a floodwater barrier, sandbags are difficult to store, taking up substantial storage space for unknown period of time in anticipation of an emergency. Hessian or jute sandbags will normally rot in

storage and woven poly-based bags will degrade after a short time in sunlight. They are excessively heavy and difficult to carry to site, each weighing between 15-20kg.

Sandbags are not easily disposed of and serious additional costs are incurred by transporting them away for safe disposal. They are not eco friendly as they cannot be emptied into the earth once the floods have subsided.

Sandbags not only leak and filter water through them, but once in contact with flood- water, they pose a biohazard risk as they will absorb the any sewage and contaminants within.



What are the advantages of the HydroSnake®?



The HydroSnake® is the new modern method to create a highly effective barrier to the threat of floodwater in domestic & commercial properties.

The HydroSnake® weighs less than 0.5kg before contact with water, and can easily be stored in bulk for 5+ years before they are

needed. It will absorb and lock in up to 20 litres of water, weighing approximately 20kg, and will retain this weight for up to 6 months in situ.

The HydroSnake®'s absorbent core contains a stablised mixture of FSC wood pulp and super absorbent polymer (SAP), both of which



are degradable after 6 months. After use, the outer sack can be slit and the contents can be emptied into the earth without any harmful effects.

The HydroSnake® is designed in bright red for optimum visibility, and is easy to move once activated, reducing the risk of injury. The unique 3-section structure allows for a controlled spread of weight, which prevents the contents from moving side to side.

Gravitas International Ltd

HydroSnake® is manufactured exclusively in the UK by:

Gravitas (International) Limited 219 Ashley Road, Hale, Altrincham, Cheshire, WA15 9SZ UK +44(0)161 980 1016 info@gravitasint.com

www.gravitasint.com

HydroSnake® Technical Details:

Length: 145cm Internal Pads: 9/Snake

Width: 25cm

Absorption: 15-20 litres Non-toxic, EcoFriendly

Inflation Time: 2-3 mins

Weight before: 0.5kg Floodwater Depth: 5cm

Weight after: 15-20kg

Handles: 2 Floodwater length: 140cm

Outer Fabric: Nwvn polyprop,

hydrophilic