#### FIRE PREVENTION PLAN

Recycling Lives Services Workington, Isabella Road, Workington, Cumbria, CA14 2JS

## **Recycling Lives Compliance Services Limited**

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THIS DOCUMENT IS DUE FOR REVIEW IN <u>JUNE 2027</u> OR AS A RESULT OF ANY INCIDENTS WHICH MAY LEAD TO THE REQUIREMENT FOR IMMEDIATE REVIEW, WHICHEVER IS THE SOONER.

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## **Site Information & Key Contacts List**

Site Address:	Recycling Lives Services Workington, Isabella Road, Workington, Cumbria, CA14 2JS		
Site Operator:	Recycling Lives Compliance Services Limited	National Grid Ref:	NX 98756 29204

Contact	Description	Office Hours	Out of Hours
Nicholas Gittings Directors Adrian Murphy		0330 175 1111	
Damien Snape	Environmental Compliance Manager	0330 175 1111	07790 582496
Lynda Smith	TCM	01723870467	01723870467
Workington	Local NHS Hospital (Main)	01900 705000	999
Community Hospital Park Lane, Workington, CA14 2RW	Accident & Emergency (A&E)	111	999
Ann Burrow Thomas Health Centre S William Street, Workington, CA14 2ED	Local Doctor Surgery (GP)	01900 603985	999 or 111
<b>Cumbria Constabulary</b>	Local Police Non-Emergency	101	999
Workington Police Station, West Area Headquarters, Hall Brow, Workington, CA14 4AP	Police Emergency	999	999
Cumbria Fire and	Fire and Rescue Service	101 or 01900	999
Rescue Service Workington Fire Station, Moorclose Road, Workington, CA14 5BF	(in Emergency Dial 999)	706100	
Environment Agency	Environmental Regulator	03708 506 506	0800 80 70 60
Cumberland Council Allerdale House, Workington, CA14 3YJ	General Enquiries	0300 373 3730	0300 373 3730
United Utilities	Local Water Supplier / Sewerage Provider	0345 672 2888	0345 672 3723
Oaktree Environmental Ltd Lime House, 2 Road Two, Winsford, Cheshire, CW7 3QZ	Specialist Advisor (Waste and Planning Issues)	01606 558833	N/A – call EA out of hours

#### **KEY RECEPTOR CONTACT INFORMATION**

CONTACT	DESCRIPTION	CONTACT NUMBER
GP Shipping – Workington – Prince of Wales Dock,	Dock	01900 605081
Workington, CA14 2JH		
Rural Payments Agency – Curwen Road, Workington,	Commercial (financial	0300 020 0301
CA14 2DD	advisor)	
BCMS – Curwen Road, Workington, CA14 2DD	Government Office	0345 050 1234
NNL – Havelock Road, Workington, CA14 3YQ	Laboratory	019467 62690
RNLI Workington Lifeboat Station – Port of Workington,	Lifeboat service (non-	01900 604124
Workington, CA14 2JH	profit organisation)	

## 1 Introduction

#### 1.1 General

- 1.1.1 Oaktree Environmental Ltd have been instructed by Recycling Lives Compliance Services
  Limited (the operator) to prepare this Fire Prevention Plan (FPP).
- 1.1.2 The FPP assesses the fire risk associated with the storage and treatment of combustible waste at Recycling Lives Services Workington, Isabella Road, Workington, Cumbria, CA14 2JS. The site is operated in accordance with Environmental Permit Ref. EPR/FB3807SX (EP). The EP authorises the acceptance and recycling of hazardous and non-hazardous metal waste (comprising of batteries) and WEEE.
- 1.1.3 The permit boundary is illustrated in green on Drawing No. WORK/3421/02 Permit Boundary Plan. All references to 'the site' in this FPP refer to the associated operations, infrastructure, plant, and equipment within this boundary.
- 1.1.4 All site staff and contractors must be aware and understand the contents of this FPP and what they must do during a fire. A copy of this FPP will be kept on site at all times and be made available to all members of staff.
- 1.1.5 In the event of a fire, the Fire & Rescue Service (FRS) and EA would be able to view this FPP to ensure the actions set out are implemented to meet the objectives shown in Section 1.2.2.
- 1.1.6 Contact details for neighbouring business and receptors within the immediate vicinity of the site are kept on site. In the event of a fire these receptors would be contacted to alert them of the fire.
- 1.1.7 In addition to this FPP the site is managed and operated in accordance with a fully comprehensive Environmental Management System (EMS).

## 1.2 Fire Prevention Plan Objectives

- 1.2.1 This FPP has been prepared in accordance with the Environment Agency guidance on Fire Prevention Plans: Environmental Permits (updated 11<sup>th</sup> January 2021). The FPP guidance requires that the FPP accounts for the fire risk from potentially combustible waste types stored on site.
- 1.2.2 This FPP has been designed to meet the following objectives:
  - a) To minimise the likelihood of a fire happening.
  - b) To aim for a fire to be extinguished within 4 hours.
  - c) To minimise the spread of a fire within the site and to surrounding neighbouring sites; and,
  - d) To minimise impact of fire on people, environment, and businesses.
- 1.2.3 All staff working on site must understand the content of this FPP to know what to do:
  - a) To prevent a fire occurring.
  - b) During a fire if one breaks out.

#### 1.3 Correspondence with Fire and Rescue Service

- 1.3.1 The operator will seek a two-yearly response from the EA and FRS (or sooner should a fire incident occur) with regards to their FPP and associated operations on site. This regular correspondence will ensure all measures to prevent, mitigate and contain fires on site are up to date and deemed sufficient by the FRS.
- 1.3.2 The FRS were contacted during the preparation to obtain information relating to the nearest fire hydrants to the site, see Drawing No. WORK/3421/03 and Section 10.3 for further information.

## 1.4 Reviewing and Monitoring this FPP

- 1.4.1 This FPP is considered a 'live' document which will be reviewed on a biannual basis (once every two years), if there are changes to FPP guidance and or if any of the following occur:
  - a) A fire incident.
  - b) Additional combustible waste types are accepted on to site.
  - c) An increase in the annual throughput of combustible waste accepted.
  - d) An increase in the amount of combustible waste stored.
  - e) The construction of new infrastructure e.g. buildings.
  - f) The installation of new plant / equipment.
- 1.4.2 Reference should be made to Sections 5.2 and 5.3 which details procedures for staff training in the event of any changes in relations to the FPP.
- 1.4.3 Reference should be made to Table 1.1 overleaf which details the methods and procedures to maintain compliance with the FPP guidance.

Table 1.1 - Staff Training

STAFF TRAINING			
Item	Method		
Ensure your FPP is available and that all staff know where it is kept.	The FPP will be kept within the off-site main office		
Ensure staff receive training to enable them to competently carry out the procedures and measures contained within your FPP	Staff will be suitably trained in how to raise a fire alarm and how to use the monitoring and extinguishing equipment.     Managers will also ensure formal fire extinguisher training has been provided for anyone specifically designated to use such equipment.		
	<ul> <li>A full understanding the procedures outlined in this FPP document will be required to be demonstrated as part of the site induction for all new staff and any existing staff that are not familiar with the documents. In particular all staff will be trained to ensure that they know what to do in the event of a fire and more importantly how to undertake their work in a way that minimises the risk of a fire occurring.</li> </ul>		
	A full test (drill) of the procedures in this document will be carried out every 6 months. The first test will take place within one month of the agreement of this document with the EA. The outcome and any follow up training for staff will be documented in the site diary and relevant forms in the EMS. The Site Inspection Form in Appendix II will also be used during the drill.		
	All operational staff will receive fire awareness and firefighting procedures training / toolbox talks by trained site management prior to working at the site. This will enable the operational staff to detect early signs of fire and to minimise the chance of a fire breaking. Refresher testing will be mandatory every 6 months or sooner if site operations change which could lead to a greater fire risk.		

## 1.5 Site Operations

- 1.5.1 The operator is an Approved Battery Treatment Operator (ABTO) and Approved Battery Exporter (ABE). Operations at the site predominantly comprise of the acceptance, storage and treatment of mixed batteries. Mixed loads of batteries are accepted from Household Waste Recycling Centres (HWRCs), approved authorised treatment facilities (AATFs) and other waste recyclers and retailers.
- 1.5.2 Mixed items of WEEE waste, including vapes, are accepted, batteries are manually removed from these items for processing with the remaining WEEE being removed from site for further recycling elsewhere.
- 1.5.3 Reference should be made to the Environmental Management System for specific details regarding the acceptance, storage and removal of waste, in summary the main operations which take place at the site are as follows:
  - a) Manual sorting and separation.
  - b) Screening (using appropriate screening plant and vibrating conveyors).
  - c) Shredding (of batteries by chemistry).
  - d) Mechanical separation (via overband magnets and x-ray sorting).
  - e) Thermal processing (drying of shredded waste).
  - f) Storage (prior to removal).
- 1.5.4 The locations of the above activities are clearly shown on the Site Layout & Fire Plan which is referenced as Drawing No. WORK/3421/03 and shown in Appendix I of this FPP.

## 1.6 Hours of Operation

- 1.6.1 The site will be operated 24 hours a day 7 days a week.
- During times where the site is closed or not in operation, the site will be locked and secured to prevent unauthorised vehicular or pedestrian access. There is an overnight security guard / watchman who will be present on site between 17:00 07:00 Monday Friday and 24 hours over the weekend.

## 1.7 **Staffing and Management**

- 1.7.1 Table 1.2 below details the minimum staff structure required when the site is open for the reception and processing of waste and, therefore, shows the minimum number of staff available to tackle a fire on site during operational hours.
- 1.7.2 Site management will train operational staff in the contents of the FPP to ensure they can be considered suitable to assist in tackling a fire at the site ensuring the objective in Section 1.2.2 are met.

Table 1.2 - Staffing numbers and responsibilities

Position	Employees	Responsibilities
Site manager	1	Overall management of the site, ensuring the site is being operated in accordance with the EP and in-line with attendant regulations, including administration.
TCM	1	As above.
Site operatives	25	Waste handling / processing and plant operation.
Office / administrative staff	3	Office / administrative duties

## 1.8 Plant and Equipment

1.8.1 Table 1.3 below details the plant / equipment available on site. Only trained operators will be permitted to drive / operate the plant / equipment listed below.

Table 1.3 – Plant & Equipment

Item	Number	Function	
Forklift	4	Manoeuvring of waste batteries around the site	
Pallet truck	4	Manoeuvring of waste batteries around the site	
Screener (size grading system)	2	Sorts batteries based on physical dimension (size)	
X-Ray screen	1	Separate batteries by chemistry	
Shredder	1	Shredding of batteries to reduce material by size and further separate materials	
Dryer	1	Removal of residual electrolytes and moisture after mechanical shredding	
Air separator	1	Separate lighter fractions i.e. plastic, paper etc from the shredded material	
Eddy current separator (ECS)	1	Magnetic separation of non-ferrous metal from non- metallic materials	
Ultra-sonic sieve	1	Used to finely separate black mass from coarser materials	

- 1.8.2 In the event of a fire, forklifts and pallet trucks will be utilised to aid in fire suppression by moving containers to create accesses/gaps between storage.
- 1.8.3 Out of hours storage areas for the above items of plant are shown on Drawing No. WORK/3421/03 and will be 6m from any combustible or flammable waste when the site is closed.

#### 1.9 **Sensitive receptors**

- 1.9.1 It is considered that fire presents three main hazards to nearby sensitive receptors:
  - a) Heat from the fire itself.
  - b) Air pollution (predominantly from smoke emissions).
  - c) Pollution to groundwater / surface water features.
- 1.9.2 Heat energy from a fire will reach sensitive receptors via direct fire spreading or by the deposit of burning embers. Heat energy is largely dependent upon the location and intensity of the fire.
- 1.9.3 Smoke produced from fires can contain harmful gases that are produced from the combustion process. The distance smoke will travel is dependent on wind speed at the time of the fire, however it is considered unlikely that smoke from the burning waste stored on site will significantly affect sensitive receptors outside of a 1km radius.
- 1.9.4 Significant amounts of water and / or other chemicals may be used when controlling a fire. Firewater produced from tackling a fire has the potential to contain contaminants from the chemicals used, burned materials and other pollutants present on the site. The release of firewater from the site because of a fire has the potential to cause pollution to groundwater / nearby surface water features.
- 1.9.5 Sensitive receptors within 1km of the site are listed in Table 1.4. Sensitive receptors are also illustrated on Drawing No. WORK/3421/04 Receptor Plan, see Appendix I.
- 1.9.6 The primary sensitive receptor for any fire event would be the site itself and any site users

**Table 1.4 - Sensitive Receptors** 

Receptor	Direction from Site	Approx distance from the site boundary to the receptor boundary (m)		
Commercial / Industrial				
GP Shipping - Workington	Northeast	230		
Rural Payments Agency	South	350		
BCMS	South	400		
NNL (laboratory)	Southeast	435		
Clay Flatts Industrial Estate	Southeast	900		
Residential Dwellings				
Sea View (residential dwellings)	Southeast	155		
Care homes (residential)				
n/a	n/a	n/a		
Schools				
St Michaels Nursery & Infant School	East	930		
Watercourses / Surface Wat	er Features			
River Derwent	North / East	165		
Irish Sea	West	335		
Infrastructure (major roads	and transport links)			
Northern railway line	East	700		
Workington Train station	East	710		
Ecological Sites				
Special Protection Area (Marine)	West	335		
Recreational / Tourist Attractions				
Vanguard Sailing Club	Northeast	100		
Workington Beach	West	250		
Slag bank	Southwest	450		
Workington Town RLFC	East	800		

## 2 Managing Common Causes of Fire

## 2.1 <u>Details</u>

2.1.1 The following table outlines common causes of fire and outlines specific examples of these sources, the associated risks and any mitigation measures necessary to manage them:

Table 2.1 - Common fire sources and mitigation

Source	Risk	Magnitude of Risk / Likelihood	Brief outline of Mitigation (refer to Section 4 for storage/monitoring procedures)	Magnitude of risk / likelihood following mitigation
Arson or vandalism	Deliberate ignition of wastes by intruder(s) and/or vandalism of site infrastructure, plant and/or machinery which may give rise to malfunction or compromise the integrity of waste storage/containment measures	Medium	<ul> <li>Suitable site security infrastructure, see section 2.5 Site Security.</li> <li>Plant &amp; equipment daily checks before start of operations and 1 hour before site closure.</li> <li>Preventative maintenance of plant / equipment in accordance with manufacturer recommendations.</li> <li>Vehicle checks on arrival to the site.</li> <li>Staff training / toolbox talks.</li> </ul>	Low
Plant or equipment	Spillages of fuel, sparks from machinery or malfunction caused by ineffective maintenance	Medium	<ul> <li>Plant &amp; equipment daily checks before start of operations and 1 hour before site closure.</li> <li>Preventative maintenance of plant / equipment in accordance with manufacturer recommendations.</li> <li>Daily checks of site surfacing and spill kits.</li> <li>Staff training / toolbox talks.</li> </ul>	Near zero
Electrical appliances and cabling	Faulty appliances or damaged / exposed electrical cables may spark as a result of a power surge	Medium	<ul> <li>Fixed wiring testing is carried out 5 years and portable appliances are PAT tested 24 months in accordance with Legislation.</li> <li>Daily checks for dust and fluff on wiring / electrical appliances.</li> </ul>	Low
Discarded smoking materials	Risk of ignition of stored wastes from smoking materials which have not been fully extinguished	Low	<ul> <li>No smoking on site. Any persons wanting to smoke will have to do so off site and 6m from the site boundary / combustible waste.</li> </ul>	Near-zero
Sparks from loading buckets/shovels	Scraping of loading buckets/shovels causing sparks which may ignite stored wastes	Low	No loading buckets or shovels are used on site.	Near-zero
Hot works	e.g. welding, soldering, cutting, etc. which involve the use of high temperature equipment which may be a source of both primary and residual heat to stored wastes	Medium	Hot works are undertaken in accordance with a hot works procedure / permit which is included in Appendix III of this FPP.	Low
Industrial heating	Industrial heaters and/or pipework used to heat internal and external areas on site which may, in turn, supply heat to stored wastes increasing the risk of combustion	Low	There are no industrial heaters (or associated pipework) used to heat areas of the site.	Near-zero
Hot exhausts	Potential source of both primary and residual heat to stored wastes	High	<ul> <li>Fire extinguishers are fitted in the cab of mobile plant.</li> <li>Staff training / toolbox talks for continuous monitoring throughout the day to detect signs of a fire caused by dust settling on hot exhausts and engine parts.</li> <li>Out-of-hours plant &amp; equipment storage area away from combustible or flammable wastes.</li> <li>Daily checks for dust and fluff on plant / equipment before and after use.</li> </ul>	Low

Source	Risk	Magnitude of Risk / Likelihood	Brief outline of Mitigation (refer to Section 4 for storage/monitoring procedures)	Magnitude of risk / likelihood following mitigation
Build-up of loose combustible waste, dust and fluff	Light waste and ambient particulates with high combustibility settling and building up in key areas in and around plant/machinery	High	<ul> <li>Fire extinguishers are fitted in the cab of forklifts trucks.</li> <li>Plant &amp; equipment daily checks before start of operations and 1 hour before site closure.</li> <li>Preventative maintenance of plant / equipment in accordance with manufacturer recommendations.</li> <li>Minimum daily checks for dust and fluff on plant/equipment before and use of equipment at the start/end of each working day.</li> </ul>	Low
Hot loads	Imported wastes which may contain materials which are above ambient temperature	High	<ul> <li>All loads are inspected in accordance with strict waste acceptance procedures to identify any non-confirming waste prior to the storage of the waste</li> <li>Quarantine container on site for quick isolation of load.</li> </ul>	Low
Overhead power lines	Any overhead power lines on or around the site may ignite in the event of a fire and worsen the effects	Medium	There are no overhead power lines which traverse the site.	Near-zero
Ignition sources	Activities or appliances which use a source of both primary and residual heat to treat waste or manufacturer material or plant/equipment	Medium	<ul> <li>Hot works will take place 6m from combustible waste where possible.</li> <li>There are no space heaters, furnaces, incinerators and other sources of ignition on site.</li> </ul>	Low
Batteries within waste deposits	Ignition of stored wastes via batteries within imported wastes	High	<ul> <li>All loads are inspected in accordance with strict waste acceptance procedures.</li> <li>All waste prior to storage is checked in the unloading and inspection area with non-conforming waste loaded back onto the delivery vehicle and not accepted. If non-conforming waste is discovered on site, there is a quarantine container to temporarily store this material.</li> <li>All batteries on site are stored in dedicated containers in suitable areas.</li> </ul>	Low
Other combustible non-waste materials on or near the site not mentioned above i.e. gas cylinders / LPG tanks	Any combustible non-waste materials on or near the site may ignite in the event of a fire and worsen the effects	High	<ul> <li>All loads are inspected in accordance with strict waste acceptance procedures to identify any non-confirming waste prior to the storage of the waste.</li> <li>There is a quarantine container to temporarily store non-conforming material if discovered.</li> <li>The operator does not store gas, aerosols, cylinders, LPG or other types of tanks/canisters on site.</li> </ul>	Low
Reaction between wastes	Combustible waste piles may ignite in the event of a fire and worsen the effects if wastes react	High	<ul> <li>Batteries are stored in containers, there will be no mixing of wastes or battery types.</li> <li>The operator will not mix and hazardous waste with other types of hazardous waste or non-hazardous waste.</li> </ul>	Low
Leaks and spillages of oils and fuels	Fuels and combustible liquids leaking or trailing from site vehicles can combust or cause accidents leading to combustion	High	<ul> <li>Spill kits available throughout the site.</li> <li>Minimum daily checks for spillages around the site.</li> <li>Staff training / toolbox talks.</li> <li>Lithium batteries are stored in sealed barrels with vermiculite.</li> </ul>	Low

#### 2.2 Fuel, Oil & Hazardous Material Storage

- 2.2.1 No gas cylinders or aerosols will be stored on site, nor will there be chemicals present on site.
- 2.2.2 Fuel is stored on site, all refuelling of plant and equipment will take place using a drip tray to capture any fuel, the location of fuel storage is shown on Drawing No. WORK/3421/03.
- 2.2.3 The procedures for fuel and hazardous fluid storage on site are as follows:
  - a) Tanks are surrounded by a bund capable of containing a minimum of 110% of the volume of fuel stored in the tank.
  - b) All pipework and associated infrastructure will be enclosed within the bund.
  - c) A lock will be fitted to the tank valve to prevent unauthorised operation.
  - d) Any storage of oil will comply with the Control of Pollution (Oil Storage) (England) Regulations 2001 SI No.2954 or any subsequent legislation.
  - e) All valves and gauges on the bund will be constructed to prevent damage caused by frost.
  - f) No combustible waste will be stored within 6 metres of any fuel/fluid's storage without a fire wall in place.
  - g) All tanks storing fuel, oil or hazardous material are clearly marked showing the product within and their capacity.

#### 2.3 Hot Works Procedure

2.3.1 Hot works and repairs will mainly take place as and when needed but will always be 6m away from any combustible or flammable material. A site manager will watch over the area during the procedure and monitor the area for a minimum of one hour after the hot works have taken place. Further details with regards to the operator's hot works procedure and permit to work is shown in Appendix III.

## 2.4 Smoking policy (including E-cigarettes)

2.4.1 Smoking (including e-cigarettes) is prohibited on site. Any persons wanting to smoke will have to do off site or 6m from combustible waste storage areas.

#### 2.5 Plant and Equipment Maintenance

- 2.5.1 Plant and equipment including the operators own fleet of vehicles will be maintained and serviced in line with manufacturer's recommendations. All plant and equipment will be subject to preventative maintenance checks by site operatives to ensure safe operation and prevent situations which may give rise to faults or malfunction, see Appendix II Preventative Maintenance Checklist.
- 2.5.2 Site management will undertake or delegate additional preventative maintenance checks on a more frequent basis i.e. daily, before, during and 1 hour at the end of each working day using a checklist similar to that in Appendix II to ensure the following:
  - a) Machinery is mechanically sound for use and no presence of black fumes or trailing liquids visible prior to use or following shutoff of plant/equipment.
  - b) Mobile plant is stored in the out-of-hours plant storage area as shown on Drawing No WORK/3421/03 following cessation of activities and external separation distances of 6m are observed between plant and any combustible or flammable material.
  - c) No plant will be stored in the buildings out-of-hours.
  - d) Plant which is not in use for any extended period is stored at least 6 metres from combustible waste in the dedicated area on site.
  - e) All plant and equipment vehicles are fitted with fire extinguishers in the cab. Rubber strips are not considered appropriate as they are usually removed via uneven and bumpy ground.
  - f) Dust from processing/treatment operations on site can settle throughout the working day onto processing plant, plant exhausts and engine parts so a fire-watch will be implemented after cessation of works and equipment powered down for 1 hour each day to remove any dust/fluff using brushes, hoses etc... Any build of dust/fluff will be

removed from the equipment and deposited into a container to await removal from site and site management informed.

#### 2.6 Site security

- 2.6.1 Site security is important to reduce the likelihood of unauthorised access to the site. The site is situated within a largely remote area, land use within closest proximity to the site comprises of a wider industrial estate. The only ingress / egress to the site is via Isabella Road.
- 2.6.2 Surrounding the external yard is predominantly 2 3m high palisade fencing and a mixture of concrete panel walls / bays. The entrance to the site is secured with lockable palisade gates which will remain locked whenever the site is to be unmanned / out-of-hours.
- 2.6.3 The operator employs an overnight security guard / watchman who will be on site between the hours of 17:00 07:00 Monday Friday and 24 hours over the weekend who will prevent unauthorised access from potential trespassers.
- 2.6.4 In addition to the above, the site has 24-hour CCTV footage available covering all internal and external operational and waste storage areas. Any unusual or suspicious activity picked up which is not in line with site specific procedures will mean a call to the emergency services which would present the risk of arson.
- 2.6.5 Security measures are clearly shown on Drawing No. WORK/3421/03 and considered suitable to prevent unauthorised access into the site.
- 2.6.6 The site security will be inspected on a weekly basis and any defects which impair the effectiveness of the security will be repaired to the same or better standard within a suitable timescale. All repairs will be noted in the site diary within 24 hours of the event.
- 2.6.7 If unauthorised access becomes apparent as a problem at the site, the security measures will be reviewed, and improvements implemented.

## 2.7 <u>Electrical Faults or Damaged/Exposed Electrical Cables</u>

- 2.7.1 All fixed wiring electrical cabling is serviced in accordance with legislation (every 3/5 years) by fully qualified and certified electrical contractors to undertaken both Planned Preventative Maintenance and Reactive Maintenance (under contract) of the following:
  - a) Fire detection & alarm system;
  - b) Emergency lighting;
  - c) Machinery checks / services (as per manufacturers' instructions).
- 2.7.2 In terms of portable appliance testing (PAT), this will be serviced every two years by qualified and certified electrical contractors.
- 2.7.3 Weekly inspections of cabling, etc. will be undertaken and the daily Fire Checklist can be used as a reference. Any potential ignition sources from suspected electrical faults will be isolated and the appointed electrical contractors will be contacted immediately to rectify the situation. Where possible, staff will immediately remove any stored wastes from the vicinity of the fault area or cable traverse if safe to do so.
- 2.7.4 All electrical points will be turned off at least 10 minutes before the site closes (other than those used for CCTV) to ensure the risk of short circuiting is minimised.

## **3** Waste acceptance procedures

#### 3.1 **General**

- 3.1.1 Strict waste acceptance procedures are in place at the site as detailed below.
- 3.1.2 The following details will be recorded for every load deposited at the site:
  - a) The date and time of delivery.
  - b) The name and address of the waste producer.
  - c) The detailed and accurate description of the waste including type, quantity (in tonnes and/or cubic metres) and EWC codes.
  - d) How the waste is contained e.g. loose, container type.
  - e) The carrier's name and address.
  - f) Driver's name, signature and vehicle registration No.
  - g) Signature or initials of person(s) producing/accepting/inspecting/carrying the waste.
  - h) Additional handling details/notes made by the driver after inspection of the load.
  - i) SIC code of the premises which produced the waste (where relevant).
  - j) Waste hierarchy declaration.
  - k) Information on previous treatment of the waste e.g. manual or mechanical.
- 3.1.3 All incoming vehicles are required to report to the onsite weighbridge where loads can be visually inspected and drivers credentials checked. The details of the load will be recorded, and the duty of care note/company documentation will be further checked by the operator to ensure that the load is acceptable at the site.
- 3.1.4 Following the above waste will undergo an initial inspection, any loads which are heavily contaminated with non-conforming waste will be rejected from the site. any wastes identified during these inspections which do not conform to site acceptance criteria will not be accepted and will be quarantined immediately to await safe removal from site. The EA will be contacted (where necessary) if the non-conforming waste discovered is likely to lead to a breach of permit conditions or a potential risk of combustion.

3.1.5 Loads deemed acceptable will be either taken to the temporary waste storage area at the start of the processing line or stored in the appropriate area in the external yard to await processing.

## 3.2 Non-conforming Waste

3.2.1 All waste prior to being accepted at the site is checked in the acceptance and inspection area as shown on Drawing No. WORK/3421/03 to ensure it is suitable, any non-conforming waste loaded back onto the delivery vehicle and not accepted. If non-conforming waste is discovered on site, there is a quarantine container to temporarily store contravening items prior to removal.

# 4 Managing waste storage to prevent self-combustion and the fire spreading

#### 4.1 **General**

- 4.1.1 All waste stored on site will comply with Section 9.1 of the EA's FPP guidance and reference should be made to Drawing No. WORK/3421/03 for details of all waste piles stored at the site.
- 4.1.2 The operator will minimise pile sizes and store waste materials in their largest form for as long as practicably possible as shown below. It is important to note these are the maximum storage times (accounting for potential delays in removal i.e. transport issues) and waste will typically be removed sooner than the maximum times stated.

#### 4.2 Waste storage

- 4.2.1 Table 4.1 overleaf details the maximum pile sizes and duration for all wastes stored on site.

  The maximum quantity of hazardous waste to be stored on site at any one time is 5,000 tonnes.
- 4.2.2 In accordance with the FPP guidance section 10.2 waste stored in containers the maximum pile sizes do not apply. Containers can be accessed from at least one side and moved via forklift.
- 4.2.3 The operator manages the site in accordance with a first in first out principal ensuring batteries are not stored for longer than the maximum storage durations provided in Table 4.1 below. This is implemented by maintaining clear labelling, systematic storage arrangements and accurate inventory tracking.

Table 4.1 – Waste Storage Area Details

Storage Ar	ea Details											
Plan Ref	Description	Storage type / Containment	Max Width (m)	Max Length (m)	Max storage height (m)	Approx. Area (m2)	Conversion factor used	Approx. volume (m3)	Approx no. of pallets / containers	Approx. tonnage	Max storage time	Comments
AREA A	Battery checking and inspection area prior to sorting and treatment	Sealed acid- resistant containers (dolav pallet boxes)	1 (per container)	1.2 (per container)	1.7 (0.85m per container)	1.2 (per container)	1	1 per container	Maximum 48 containers	38.5 tonnes (800kg per container)	<12 hours	Containers are initially inspected here to check for any non-conforming items prior to storage in the yard before processing. Battery boxes will not be stacked.  No waste is stored here outside of operational hours
AREA 2	Unprocessed mixed batteries	Sealed acid- resistant containers (dolav pallet boxes) with weatherproof covering	1 (per container)	1.2 (per container)	1.7 (0.85m per container)	1.2 (per container)	1	1 per container	48 containers per bay	38.5 tonnes (800kg per container)	<12 months	Containers are stored within bays stacked two containers high. All containers will be stored so they are accessible from at least one side.
AREA 3	Unprocessed mixed batteries from AATF'S	As above	1 (per container)	1.2 (per container)	1.7 (0.85m per container)	1.2 (per container)	1	1 per container	48 containers per bay	38.5 tonnes (800kg per container)	<12 months	As above
AREA 4	Unprocessed mixed batteries from HWRCs	As above	1 (per container)	1.2 (per container)	1.7 (0.85m per container)	1.2 (per container)	1	1 per container	224 containers	179 tonnes (800kg per container)	<12 months	As above
AREA 5	Overflow storage area for sorted batteries (by chemistry)	Recycled batteries stored in tonne bags on pallets with tarpaulin placed over each pallet	1 (per pallet)	1.2 (per pallet)	1	1.2 (per pallet)	1	1 per pallet	84 pallets (84 bags)	84 tonnes (1 tonne per bag)	<12 months	Batteries stored will have been sorted by chemistry and stored in tonne bags on pallets ready for despatch. Sorted batteries stored in the yard will have tarpaulin placed over them
AREA 6	Overflow storage area for sorted batteries (by chemistry)	Recycled batteries stored in tonne bags on pallets with tarpaulin placed over each pallet	1 (per pallet)	1.2 (per pallet)	1	1.2 (per pallet)	1	1 per pallet	84 pallets (84 bags)	84 tonnes (1 tonne per bag)	<12 months	As above
AREA 7	Overflow storage batteries - see AREAS 1 - 6 (storage type may vary)	As above	1 (per container)	1.2 (per container)	1.7 (0.85m per container)	1.2 (per container)	1	1 per container	150 containers	100 - 120 tonnes 800kg per container)	<12 months	As above

AREA 8	Battery storage (storage type may vary)	Depending on the battery type unprocessed batteries will be stored in either dolay boxes, barrels or tonne bags.	1 (per container)	1.2 (per container)	1.7 (0.85m per container)	1.2 (per container)	1	1 per container	72 pallets (648 barrels or 72 containers)	24.6 – 72 tonnes (342kg per pallet of barrels or 800kg per container)	<12 months	Batteries will either have been sorted by chemistry or unsorted and awaiting processing.
AREA 9	Battery storage (storage type may vary)	As above	1 (per container)	1.2 (per container)	1.7 (0.85m per container)	1.2 (per container)	1	1 per container	48 pallets per row (432 barrels or 48 containers)	16.4 – 48 tonnes per row (342kg per pallet of barrels or 800kg per container)	<12 months	As above
AREA 10	Processed / sorted batteries for shredding (sorted by chemistry)	Sorted batteries stored in pallet boxes awaiting shredding	1 (per container)	1.2 (per container)	1.7 (0.85m per container)	1.2 (per container)	1	1 per container	170 containers	136 tonnes (800kg per container)	<12 months	Batteries will have been sorted by chemistry and are awaiting further processing via shredding
AREA 11	Electrolyte & volatiles	Sealed IBC bulk containers	1 (per container)	1.2 (per container)	1	1.2 (per container)	1	1.2 (per container)	2 containers	1 tonne per container	<12 months	Container moved to AREA 14 when at capacity and replenished with empty container
AREA 12	Paper & plastic	Sealed IBC bulk containers	1 (per container)	1.2 (per container)	1	1.2 (per container)	1	1.2 (per container)	2 containers	1 tonne per container	<12 months	As above
AREA 13	Ferrous metal, aluminium, copper	Sealed IBC bulk containers	1 (per container)	1.2 (per container)	1	1.2 (per container)	1	1.2 (per container)	3 containers	1 tonne per container	<12 months	As above
AREA 14	Zinc / Manganese powder (black mass)	Sealed IBC bulk containers	1 (per container)	1.2 (per container)	1	1.2 (per container)	1	1.2 (per container)	1 container	1 tonne per container	<12 months	As above
AREA 15	Dismantled WEEE	Sealed IBC bulk containers	1 (per container)	1.2 (per container)	1	1.2 (per container)	1	1.2 (per container)	5 containers	1 tonne per container	<12 months	Containers replenished with empty ones when full / removed
AREA 16	Overflow storage from shredding line (contents may vary)	Sealed IBC bulk containers	1 (per container)	1.2 (per container)	1	1.2 (per container)	1	1.2 (per container)	5 - 10 containers	1 tonne per container	<12 months	Containers replenished with empty ones when full / removed

## 4.3 <u>Storage/monitoring procedures (free-standing piles)</u>

4.3.1 No waste is stored in a free-standing pile.

## 4.4 Storage/monitoring procedures (containers)

4.4.1 Table 4.2 below details the waste types which are stored in containers at the site.

Table 4.2 - Waste storage/monitoring table (containers)

Storage Ref.	Storage/monitoring procedures to reduce the risk of fire
AREAS 2 - 4  Unprocessed mixed batteries from AATFs and HWRCs	<ul> <li>Mixed batteries are stored in dolav pallet boxes with weatherproof covering, with each box weighing approximately 800kg.</li> <li>All waste is inspected upon arrival to ensure the loads are suitable for storage. During these inspections, site operatives will detect any hot loads or incompatible waste types which could lead to a spark or overheating causing a fire. If any of these waste types are discovered, they will be quarantined and removed from site.</li> <li>During the initial waste inspection, a handheld thermography (infrared) camera will be utilised to identify any abnormal heat signatures or developing hotspots in the loads. If any hotspots are discovered those batteries are removed and isolated / quarantined.</li> <li>Storage will take place away from direct sources of heat i.e. hot exhausts etc.</li> <li>Containers are stored within the confines of concrete bays in the external yard, the concrete bay walls will act as a firewall to reduce the risk of a fire spreading if in the unlikely event a fire were to occur.</li> <li>Containers are accessible from at least one side for firefighting purposes and allow for quick movement of containers.</li> <li>Containers are sealed in appropriate weatherproof dolav boxes and are checked daily for their integrity. Any damaged containers will be prioritised for processing and replaced with suitable ones.</li> <li>Storage containers have acid-resistant bases and can withstand conditions up to 60°c.</li> <li>Boxes are stored on an impermeable pad with sealed drainage system. Due to the secure storage in weatherproof containers no rainwater will come into contact with the waste.</li> <li>Boxes will be stacked to a maximum height of 2 containers to avoid compaction or instability.</li> <li>The maximum duration of waste stored in these areas will not exceed 12 months. A first in first out principal is implemented to ensure waste is not stored for longer than 12 months.</li> <li>In the event of a fire breaking out in one of these areas, the containers can be dra</li></ul>
	no further monitoring is required.

Storage Ref.	Storage/monitoring procedures to reduce the risk of fire
AREAS 5 – 6  Overflow storage area for sorted batteries (by chemistry)	<ul> <li>These areas are used as overflow storage for processed batteries that have been separated by chemistry.</li> <li>Batteries are stored in tonne bulk bags on pallets, each pallet has a tarpaulin placed over the top to act as a barrier and protect the batteries from direct sunlight and other weather conditions.</li> <li>Storing bags on pallets provides a raised platform to improve air circulation and prevent contact with ground moisture.</li> <li>Processed batteries are stored by chemistry type with only one chemistry type per bag e.g. NiCd, NiMh, alkaline-derived outputs. This also applies for pallets only one chemistry type will be stored per pallet (where possible). This will prevent chemical incompatibility or cross-contamination.</li> <li>As the batteries have been processed the potential for them to contain incompatible waste types that increase the risk of combustion is negligible as these would have been removed during the initial inspection / processing.</li> <li>Each bag / storage area will be labelled with its contents / material type.</li> <li>No stacking of waste will be undertaken in these storage areas.</li> <li>Waste is stored adjacent to concrete panel walls which will act as a fire break in the event of combustion.</li> <li>The maximum duration of waste stored in these areas will not exceed 12 months.</li> <li>The operator will maintain records of bag fill dates, material type, and dispatch logs to ensure traceability and waste does not exceed the storage duration.</li> <li>In the event of a fire breaking out in one of these areas, waste can be dragged into the quarantine area (either the combusted bags or adjacent pallets to prevent the fire spreading).</li> <li>Continuous monitoring by operational staff and appropriate CCTV in place out-of-hours, including the overnight security guard to monitor for any signs of a fire.</li> <li>Due to the volume and timescale for the waste storage, it is considered that no further monitoring is required.</li> </ul>
AREA 7  Overflow storage area - see AREAS 1  - 6 (storage type may vary)	<ul> <li>AREA 7 comprises of concrete bays for storage of processed / unprocessed batteries.</li> <li>As the contents of this area may vary all of the storage and monitoring procedures outlined above are applicable.</li> </ul>

Storage Ref.	Storage/monitoring procedures to reduce the risk of fire
AREA 8 Unsorted lithium batteries	<ul> <li>AREA 8 comprises of concrete bays used for the temporary storage of unsorted lithium batteries.</li> <li>Lithium batteries are stored in sealed barrels filled with vermiculite, a fire-resistant and non-conductive absorbent material designed to isolate and stabilise the batteries.</li> <li>Vermiculite acts as a thermal insulator, preventing heat transfer to surrounding materials, slowing the propagation of fire and thermal runaway.</li> <li>All waste is inspected upon arrival to ensure the loads are suitable for storage. During these inspections, site operatives will detect any hot loads or incompatible waste types which could lead to a spark or overheating causing a fire. If any of these waste types are discovered, they will be quarantined and removed from site.</li> <li>During the initial waste inspection, a handheld thermography (infrared) camera will be utilised to identify any abnormal heat signatures or developing hotspots in the loads. If any hotspots are discovered those batteries are removed and isolated / quarantined.</li> <li>Storage will take place away from direct sources of heat i.e. hot exhausts etc.</li> <li>Each barrel will remain closed and sealed with a secure airtight lid unless being processed.</li> <li>Daily visual inspections will be undertaken by site operatives to check for signs of drum swelling or bulging (indicating pressure build up) heat distortion, leakage, dislodged lids / compromised sealed or early signs of a fire i.e. smoke.</li> <li>A first in first out principal is implemented to ensure waste is not stored for longer than 12 months.</li> <li>In the event of a fire breaking out in one of these areas, the containers can be dragged into the quarantine area (either the combusted containers or adjacent containers to prevent the fire spreading).</li> <li>Continuous monitoring by operational staff and appropriate CCTV in place out-of-hours, including the overnight security guard to monitor for any signs of a fire.</li> <li>Due</li></ul>
AREA 9  Processed / sorted lithium batteries	<ul> <li>AREA 9 comprises of rows of processed / sorted lithium batteries stored in barrels with vermiculite as above.</li> <li>As the batteries in AREA 9 have been processed the potential for them to contain incompatible waste types that increase the risk of combustion is negligible as these would have been removed during the initial inspection / processing.</li> <li>Therefore, the same procedures as outlined above will apply.</li> <li>Waste is stored in AREA 9 for &lt;12 months.</li> </ul>

Storage Ref.	Storage/monitoring procedures to reduce the risk of fire
AREA 10  Processed / sorted batteries awaiting shredding  AREA 11  Electrolyte & Volatiles  AREA 12  Paper and plastic  AREA 13  Ferrous metal, aluminium, copper  AREA 14  Zinc / Manganese Powder (black	<ul> <li>AREA 10 will be used to store batteries that have been partially processed and separated by chemistry and are awaiting shredding. Batteries will have been sorted and the risk of containers containing contravening waste is negligible.</li> <li>AREAS 11 – 13 will be used to store separated fractions of waste that have been produced as a result of shredding batteries.</li> <li>All these fractions of waste will be stored in sealed IBC bulk containers beneath the processing plant.</li> <li>When full containers will be moved to AREA 16 and replenished with empty ones.</li> <li>IBC containers will be clearly labelled with its contents including any appropriate hazardous symbols i.e. flammable corrosive etc.</li> <li>Containers will be kept within Warehouse 2 undercover and well-ventilated to reduce the potential for combustion from direct sunlight.</li> <li>All IBC's storing flammable material will be suitably grounded to prevent static electricity build up and discharge.</li> <li>Daily visual inspections will be undertaken by site operatives.</li> <li>Waste is stored in these areas for &lt;12 months</li> <li>In the event of a fire breaking out in one of these areas, the containers can be dragged into the quarantine area (either the combusted containers or adjacent containers to prevent the fire spreading).</li> <li>Continuous monitoring by operational staff and appropriate CCTV in place out-of-hours, including the overnight security guard to monitor for any signs of a fire.</li> <li>Due to the volume and timescale for the waste storage, it is considered that</li> </ul>
mass)  AREA 16  Overflow storage	no further monitoring is required.
area for the bulking / storage of any of the wastes in AREA 11 – 13	
AREA 15  Dismantled WEEE	<ul> <li>AREA 15 will be used to store dismantled WEEE in sealed IBC bulk containers.</li> <li>Batteries will have been removed from items of WEEE reducing the risk of self-combustion.</li> <li>AREA 15 is situated within Warehouse 2 undercover providing shelter from direct sunlight.</li> <li>Daily visual inspections will be undertaken by site operatives.</li> <li>Waste is stored in AREA 15 for &lt;12 months.</li> <li>In the event of a fire breaking out in one of these areas, the containers can be dragged into the quarantine area (either the combusted containers or adjacent containers to prevent the fire spreading).</li> <li>Continuous monitoring by operational staff and appropriate CCTV in place out-of-hours, including the overnight security guard to monitor for any signs of a fire.</li> <li>Due to the volume and timescale for the waste storage, it is considered that</li> </ul>

## 4.5 Additional Monitoring Procedures

4.5.1 Wastes that are stored for >6 months will have a full inspection undertaken on the wastes, including the use of a handheld thermal gun for temperatto check for early signs of combustion.

#### 4.6 **Storage Identification**

- 4.6.1 To support effective site management and waste identification, ensuring traceability of battery waste, the operator implement a visual colour-coded cable tie system to clearly and consistently identify the status of battery waste stored on site. This allows the operator to:
  - a) Have a quick identification of risk level.
  - b) Segregation of unsorted or unverified waste.
  - c) Prioritisation of material for further processing, movement or compliance checks.
- 4.6.2 The cable tie colours, and their meanings are as follows:
  - Green batteries have been quality checked and are ready for loading or removal from site.
  - Blue sorted batteries with compliance evidence issued.
  - Yellow sorted batteries that have passed quality checks, pending documentation / compliance evidence.
  - Red unsorted mixed batteries, requiring processing.

4.6.3 An example of the cable tie identification system is illustrated in Figure 4.1 below.

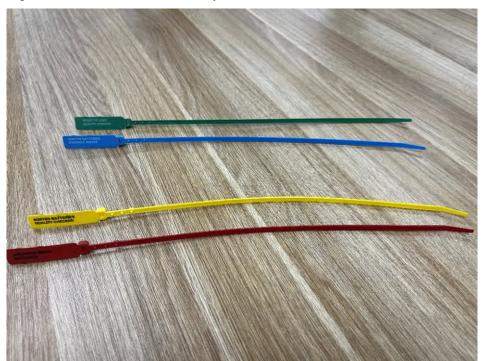


Figure 4.1 - Cable Tie Identification System

- 4.6.4 The cable tie system contributes directly to fire risk reduction by:
  - a) **Preventing the accidental co-storage** of unsorted (higher risk) batteries with checked or processed materials.
  - b) **Supporting faster emergency response** by clearly identifying containers that may present unknown or elevated risks (red ties).
  - c) **Ensuring sorted and quality assured waste** is prioritised for removal within designated storage times, reducing prolonged accumulation of combustible material.
  - d) **Minimising handling errors** by operational staff and external contractors, reducing the likelihood of combustion / ignition through mishandling.
- 4.6.5 All staff are provided with training on the cable tie coding scheme as part of their site induction and refresher training / toolbox talks.

## 4.7 **External Heating**

- 4.7.1 It is considered that waste stored externally will not be at risk from over-heating as batteries will be stored in secure weatherproof containers that can withstand temperatures of up to  $60^{\circ}$ c. Some external storage (AREAS 3 4) are provided with a degree of shelter from the trees / shrubbery adjacent to the permit boundary and storage bays.
- 4.7.2 Waste is subject to continuous monitoring and all waste storage areas are covered by CCTV.

  Waste storage areas are monitored overnight by a dedicated fire watch security guard meaning early signs of a fire will be identified almost immediately.
- 4.7.3 The site is operated 24 hours a day 7 days a week so there is always members of staff on site monitoring waste storage and processing areas.
- 4.7.4 Although a maximum storage duration of 12 months has been provided, waste is typically processed much sooner than this and the 12-month time frame accounts for a worst-case scenario i.e. plant breakdown or staff absence that could delay processing timeframes.

## 5 <u>Site inspection programme</u>

#### 5.1 **Daily checks**

- 5.1.1 Site management are responsible for staff and contractors carrying out fire watches including daily site walks for checking drainage systems, security measures, out-of-hours plant (hot exhausts) and waste storage areas. Site management can reference the Inspection Checklists shown in Appendix II but may use internal check sheets.
- 5.1.2 The fire watches/site inspections will take place regularly throughout the day when plant is idle but recorded at least once at the end of the working day before the site closes to ensure the risk of a potential fire has been reduced.
- 5.1.3 Carrying out the above checks daily will keep the levels of dust, fibre, paper and other loose combustible materials, which could aid in the acceleration of a fire, on site surfaces to a minimum and ensure all containment of wastes on site are functioning effectively in accordance with the storage limitations provided in the table on Drawing No. WORK/3421/03.
- 5.1.4 Weekly inspections of firefighting equipment also take place to ensure they are fit for purpose and there are sufficient quantities available on site.

#### 5.2 Staff training

- 5.2.1 Operational staff will be subject to site inductions which includes basic fire emergency procedures provided by site management or the Technically Competent Manager. If necessary, a third-party fire consultant will be contacted to carry out additional training.
- 5.2.2 A full test (drill) of the procedures in this document will be carried out every 12 months to test that the plan works. The first test will take place within one month of the agreement of this document with the EA. The outcome and any follow up training for staff will be documented in the site diary and relevant forms in the EMS. The Inspection Checklists may also be used during the drill.

## 5.3 **Toolbox talks**

5.3.1 All operational staff on site have received fire awareness training / toolbox talks off trained staff i.e. the operations, site or technically competence manager on their staff induction to detect early signs of fire and to minimise the chance of a fire breaking out in order to meet the three objectives outlined in section 1.2.2.

## 6 Quarantine area

#### 6.1 **General**

- In accordance with the EA's FPP guidance an area of the site has been designated as the quarantine area. The location of the quarantine area is shown on Drawing No. WORK/3421/03, which is accessible at all times. The quarantine area is situated in a central area of the external yard and has a 6m buffer from all waste storage and operational areas (including the permit boundary).
- 6.1.2 It is considered the largest combustible waste pile is **AREA 4** comprising of unprocessed mixed batteries. If this area was full, the maximum volume of waste would equate to approximately 224m³, meaning the quarantine on site would need to hold 112m³ of waste material (50% of the area).
- 6.1.3 Waste would be moved to the quarantine area using mobile plant available at the site i.e. forklifts. The out-of-hours storage locations for mobile plant is shown on Drawing No. WORK/3421/03.
- 6.1.4 In the event of a fire, the quarantine area will be used to either isolate wastes which are smouldering to allow safe dissipation of heat without placing other areas on site at risk of ignition; or, to remove any wastes stored in containers near any material affected by a fire to prevent fire spreading to adjacent containers.
- 6.1.5 Waste will only be moved to the quarantine area if safe to do so following judgement by site management co-ordinating the fire response procedure or the FRS.

## 7 <u>Detecting fires & response procedures</u>

### 7.1 Fire detection procedure (manual)

- 7.1.1 If a fire is detected or suspected by a member of staff during operational hours, the relevant person will conduct the following procedure report to site management:
  - a) Raise the fire alarm (if not already done by another staff member) or sound fire alarms/communicate via radio or shout. There are over nine fire alarm call points on site which can be activated. **Timescale for this will be upon detection i.e. seconds.**
  - b) Assess the intensity and scale of the fire and make a judgment as to whether the fire can be managed without the requirement for assistance from the emergency services i.e. using the hose or fire extinguishers. This process should take less than 60 seconds. If fire requires further assistance, a call will be logged to the FRS and the EA then the procedures in 8.1 followed.
  - c) Initiate evacuation of staff and visitors on site to the meeting point and instruct delegated person(s) to conduct a roll-call to ensure all site users are accounted for.

    Timescale variable depending on staff on site estimated within 5 minutes.
  - d) If viable and safe, instruct necessary site staff to commence extinguishment. **Timescale** variable depending on size of fire, suppression can be within minutes if safe to do so.

#### 7.2 Out of hours fire detection

- 7.2.1 It is considered an out-of-hours fire detection system is not required to rely on an automated system due to the presence of effective alternative measures. The operation of the site 24 hours a day 7 days a week, meaning, there are members of staff and dedicated security / fire watch team on site at any time.
- 7.2.2 The security officer / site operatives will conduct regular patrols specifically to monitor for fire risks and abnormal conditions associated with the storage and processed of waste.
- 7.2.3 In addition to the above all internal and external areas of the site benefit from 24-hour CCTV.

  CCTV has motion sensors that detect any sudden movement i.e. a piece of waste falling,

intruders or trespassers, if any of the above is detected it will result in a call to the emergency services (police or FRS) and senior management.

- 7.2.4 The above response measures enable timely identification and escalation of any fire-related incidents. Given these active monitoring controls, the need for automated detection has been assessed as not essential at this time.
- 7.2.5 The design, installation and maintenance of all automated detection systems are covered by Vipond Fire Protection Ltd who are an appropriate UKAS-accredited third-party certification scheme.

## **Fire response procedures**

#### 8.1 Response procedures

- 8.1.1 Further to the above measures, the following procedure would apply if a larger fire is detected:
  - a) Call the Fire Response Service (FRS) immediately using 999.
  - b) Call the EA's Emergency Contact Number.
  - c) Prior to the FRS arriving, inform all neighbouring premises likely to be affected as a result of the fire in terms of potential road closures, smoke inhalation and action to be taken i.e. **stay indoors** (see Section 8.5).
  - d) If not previously informed, senior management of the company will be informed at this point of the details, nature and extent of the fire and whether assistance from staff from other depots is required.
  - e) Ensure access routes are clear (see Section 8.2).
  - f) If safe to do so, site management will inspect the location of the fire, to identify immediate risks to surrounding premises and the FRS.
  - g) Ensure operators of appropriate machinery are standing by in a safe location to help create fire breaks, under the direction of the FRS when they arrive.
  - h) Ensure relevant site staff are standing by in a safe location to deploy additional surface water protection equipment where required under the direction of the FRS when they arrive (booms, etc.).
  - i) Site management will identify themselves to the FRS as soon as they arrive on site and will provide them with a copy of this document and update them with relevant information in terms of fire location, possible reason, waste on fire and projected impact which will assist them in dealing with a fire more effectively.
  - j) Implement pollution control measures) if safe to do so.
- 8.1.2 In the event of the site manager or TCM being absent from the site, the operator will ensure a suitable person is employed and familiar with the site to take control of an incident should one occur.

#### 8.2 Access for emergency services.

- 8.2.1 There is a clear access point for the emergency services on site as shown on Drawing No. WORK/3421/03. The nearest fire station is Workington Fire Station situated approximately 2.6 miles away on Moor Close Road with the anticipated response time for the FRS to arrive on site to be <10 minutes.
- 8.2.2 The width of the surrounding roads and gateway exceeds the minimum required by the FRS which is 3.7m. Site management will also ensure the 3.7m access routes are maintained throughout the working day and before cessation of works during site inspections.

## 8.3 <u>Staff/Visitor Response Procedure</u>

- 8.3.1 The following quick actions will be undertaken by site operatives where a fire is detected or suspected on site:
  - a) Don't panic
  - b) Inform the site manager or technically competent manager immediately
  - c) Raise the alarm (if not done so already)
  - d) Do not try to tackle the fire yourself unless you are trained in doing so and you are sure of the nature of the fire
  - e) Leave the site using the nearest exit as quickly and as orderly as possible
  - f) Assemble at the specified fire assembly point
  - g) The site manager or delegated operative will be in charge of calling the emergency services on "999" and ensuring that all persons who were working in the building are assembled safely
  - h) Do not return to the site until you have been given the 'all clear' by the emergency services and/or site management / responsible person.

## 8.4 <u>Evacuation of Staff (and Drill Procedure)</u>

- 8.4.1 An evacuation plan will be formulated for the site and all operational staff will be made aware of the actions through site inductions, refresher training, toolbox talks etc. The fast and effective evacuation of staff to the fire assembly point will increase safety on site and limit the impact of a fire on any persons on site.
- 8.4.2 Fire drills will take place every 6 months and 1 month after site operations commence to ensure evacuation times are acceptable and that site staff remain informed of evacuation procedures.
- 8.4.3 The drill will be a simulation of an emergency with the location of a mock fire notified to staff in order to test the response speed in deploying pollution control equipment i.e. including drain mats/plugs and ensure all firefighting equipment is sound. The fire check form may also be completed and a detailed report of the outcome of the exercise will be prepared to assist with staff training.

#### 8.5 Notifying nearby properties

- 8.5.1 The contact numbers of key sensitive receptors identified within 1km of the site who could be directly affected in the event of a fire along with the Receptor Plan will be stored within the site office. The numbers/contacts are also shown in the pre-pages of this FPP. Other numbers may be added to this list or existing numbers changed throughout the lifetime of this FPP.
- 8.5.2 As it isn't feasible for a contact number to be provided for every individual residential receptor and individual business within 1km, the most sensitive receptors and closest business receptors have only been included.

## 9 **Suppressing fires & firefighting techniques**

#### 9.1 <u>Site-wide suppression</u>

- 9.1.1 The following on site suppression measures are available on site which are indicatively shown on Drawing No. WORK/3421/03:
  - i) Hose reels strategically placed providing coverage to areas storing combustible and flammable materials.
  - ii) There are a minimum of 2 no. 30,000 litre water harvesting / storage tanks available on site.
  - iii) Mixture of water, foam, powder and CO<sub>2</sub> fire extinguishers located in close proximity to waste piles.
  - iv) Availability of sand / vermiculite that can be deposited onto small fires or batteries at risk of overheating this method is intended for small scale incidents to prevent fires spreading.
  - v) DIN specification fire blankets.
- 9.1.2 It is considered the best and main form of suppression for batteries would be dry powder extinguishers. Applying other types of suppression i.e. water, foam or CO<sub>2</sub> could increase the integrity of the fire. It is considered the use of other suppression such as water would only be used if the fire managed spread to other areas on site. Given the procedures and measures shown in this FPP, this is considered unlikely.
- 9.1.3 During normal operational hours there are numerous members of staff associated with permitted operations who will be fully trained in using mobile plant to assist with firefighting which would include suppression using the above and isolating waste at risk of combusting using mobile plant as shown below.
- 9.1.4 Keyholders and other out-of-hours staff are trained to use the mobile plant listed in section 1.8 i.e. forklifts which will be used to move unburned material to the quarantine area and away from waste that is on fire to prevent it from spreading and all forms of fire suppression i.e. extinguishers. Any burning waste will be kept in situ until extinguished unless told

otherwise by the FRS. Access routes into and out of buildings including out-of-hours plant storage is clearly shown on Drawing No. WORK/3421/03. All forklifts have enclosed cabs to ensure staff can carry out the operation safely.

9.1.5 Whilst the above sections may not fully extinguish a fire, they will provide a suitable interim period of suppression and prevention of a large-scale fire until the arrival of the emergency services. The roller shutters into the building are electric but in the event of a power failure, can be manually lifted using chains or mobile plant.

## 9.2 <u>Out-of-hours suppression</u>

- 9.2.1 Once alerted to a fire the following procedure will be conducted:
  - a) Irrespective of whether a company presence is required at the site by the FRS, the out of hours appointed contact (or delegated responsible person) will attend the site to assist in any way possible if safe to do so, under the instruction of the FRS.
  - b) The site appointed out of hours contact will subsequently contact as many additional members of staff as required.

### 9.3 <u>Automated suppression</u>

9.3.1 There is no automated suppression system for waste stored within the building due to the presence of comprehensive and effective fire prevention and response measures already in place. As stated in Section 7.2, the site is continuously monitored outside of operational hours by a trained overnight security guard / Firewatch who performs regular patrols focused on early detection of fire risks. This is further supported by a third-party security company providing 24/7 remote CCTV surveillance, ensuring any incidents can be identified early and responded to before escalating into a larger scale fire. Additionally, fire extinguishers suitable for battery-related fires are strategically located across the site, enabling quick, targeted intervention without the complications that can arise from automated systems – particularly where water suppression may be unsuitable for battery fires. Given the existing human monitoring, rapid response capability, and appropriate

extinguishing methods, the risk has been assessed as being effectively managed without the need for automated suppression.

## 10 Water supplies

#### 10.1 General

- 10.1.1 Section 16 of the EA's FPP guidance mentions the site should have enough water available for firefighting to take place and to manage a worst-case scenario. It must be noted that water should not be used on batteries as water has the potential to increase the integrity of a fire, therefore, this should not be subject to this FPP. However, the water supply calculations from the FPP guidance have been referenced as a guide. It is considered dry powder from extinguishers and firefighting appliances would be suitable.
- 10.1.2 Section 10.2 of the FPP guidance mentions "if you store waste in containers that can be moved then maximum pile sizes do not apply. Each container must be accessible from at least one side so a fire can be extinguished. Examples of these types of containers include skips, roll-on roll-off skips, or shipping containers".

### 10.2 Water supply requirement for largest waste pile

10.2.1 It must be noted there are no free-standing piles of waste, and all waste stored on site is in containers which have a maximum capacity of 1m³ requiring 1,200.6 litres of water/dry powder per container. The largest combustible waste storage area on site equates to approximately 224 containers of mixed batteries or 224m³ and to extinguish within 3 hours it would require approximately 268,934 litres (268.9m³) of water / powder requiring a flow rate of approximately 1,494 litres per minute based on the calculation provided in Table 10.1 below.

Table 10.1 – Water/powder supply calculations for largest waste pile

Maximum pile volume in m <sup>3</sup>	Water supply needed in litres per minute	Overall water supply needed over 3 hours in litres	Total water / powder required to extinguish fire
224 containers	1 container x 6.67 = 6.67 litres per minute	6.67 x 180	1,200.6 x 224 = 268,934 litres (268.9m <sup>3</sup> )
	224 containers x 6.67 = 1,494 litres per minute		

#### 10.3 On site suppression

10.3.1 If a fire broke out, there are multiple fire extinguishers on site in close proximity to each storage area which could be used to quickly begin suppression, each extinguisher will have approximately 6-8 litres of powder which can be discharged at a rate of 16.5 seconds. Although the extinguishers would not put out a full container of batteries, they will provide sufficient suppression to prevent the fire spreading whilst awaiting on the emergency services and to allow adjacent containers to be safely moved to prevent the fire spreading.

## 10.4 External suppression – (FRS/hydrants)

- 10.4.1 In consultation with the FRS, the hydrant within closest proximity to the site is situated approximately 20m from the site access, the location of which is illustrated on Drawing No. WORK/3421/03. It is considered hydrants would only be utilised in the event of a large-scale incident i.e. if the fire spreads significantly.
- 10.4.2 The FRS and water company and both are unable to provide a flow rate for the hydrant on and off-site therefore the following guidance extracted from The Local Government Association (LGA) / Water UK National Guidance Document details the following flow rates which should be considered for this site:

#### **Industry**

- 10.4.3 In order that an adequate supply of water is available for use by the Fire and Rescue Authority in case of fire it is recommended that the water supply infrastructure to any industrial estate is as follows with the mains network on site being normally at least 150 mm nominal diameter -
  - Up to one hectare 20 litres per second.
  - One to two hectares 35 litres per second.
  - Two to three hectares 50 litres per second.
  - Over three hectares 75 litres per second.

10.4.4 In accordance with the industry information provided on the pre-pages of this document, the site is considered to be situated in an area industry and Industrial Estate measures over three hectares the flow rate of the hydrant should be approximately 4,500 l/m which easily exceeds the required amount of water (1,494 l/m) and suitable for extinguishing the fire within 3 hours.

## 11 Managing Fire Water

#### 11.1 Drainage

- 11.1.1 The drainage arrangements for the site are clearly shown on Drawing No. WORK/3421/03. The site comprises of an impermeable yard with sealed drainage system. Surface water from the operational area of the yard is collected via a series of manholes or an underground surface water sump. This sump acts as a primary collection point, allowing for the temporary storage and settlement of solids. From the sump, water is conveyed through underground pipework to a full retention single stage interceptor tank, which is designed to remove oils, sediments and other potential contaminants commonly associated with external yard areas and vehicle movements. Following treatment in the interceptor, water is captured and retained within a sealed underground storage tank prior to removal from site to a suitably permitted facility. Therefore, there will be no surface water discharged from site.
- 11.1.2 There will be no surface water associated with waste storage and treatment operations undertaken within the warehouses, roller shutter access points can be entirely sealed to prevent any water ingress, or any potential water contaminates and spillages escaping.

## 11.2 Containment of fire water

- 11.2.1 As mentioned in section 9.1.2, dry powder extinguishers will be the main suppression used for a fire on site. Batteries are stored in secure containers, therefore in the event of a fire residue from the extinguishers will predominantly be held within the container. If water is required to be used to assist in extinguishing the fire, the roller shutter doors would be closed to seal the building and prevent any firewater from escaping into the environment.
- 11.2.2 The largest area of waste storage and area at highest risk of combustion (unprocessed mixed loads) is AREA 4 in the yard. To effectively manage and contain firewater runoff in the event of a fire, the operator implements a comprehensive firewater containment strategy using firewater booms and a penstock valve. Firewater booms are strategically positioned along the site perimeter where the boundary is not fully sealed, these act as a physical barrier to contain any water used in firefighting activities.

- 11.2.3 As no surface water is released from site firewater will back up and flood the site creating a lagoon effect. This water will be tankered away by a suitably licenced contractor for treatment / disposal off site.
- 11.2.4 If a fire were to occur within the warehouses the roller shutter access doors would be closed to fully seal the building and contain firewater within the building.
- 11.2.5 As detailed in Section 10.2.1, the largest pile on site would require containment for 268.9m<sup>3</sup> of water / powder in accordance with the FPP guidance. Based on the calculation provided in Table 11.1 there is sufficient containment capacity available on site.

**Table 11.1 - Firewater Containment Calculation** 

Volume of Water (m³)	Containment Area (m²)	Containment Required	Total Containment On Site
268.9m <sup>3</sup>	10,540 (external yard)	268.9 / 10,540 = 0.025	0.16m firewater containment booms around perimeter meaning additional 0.135 capacity is available

### 11.3 Removal of Fire Water / powder

11.3.1 Upon successfully extinguishing a fire all standing fire water would be pumped using a hiredin vacuum tanker or suitable waste collection company and deposited to a suitably permitted site for treatment.

#### 11.4 Fire Water Boom Deployment Procedure

- 11.4.1 The site will have access to several fire water booms which will be located as shown on Drawing No. WORK/3421/03 and would be deployed in the event of a fire and positioned as per the plan to contain any fire water runoff and prevent firewater from penetrating the hardstanding area of the site. The booms have a 160mm diameter tube each side and using a standard water main i.e. the hose from the site could be filled and provide containment in <5 minutes based on the length of the boom, the volume required and the 15 l/m from the standard hose.
- 11.4.2 A key member of senior staff will be responsible for arranging the deployment of the fire water boom will be trained in this procedure.

- 11.4.3 Upon confirmation that a significant volume of water is likely to be required for extinguishing a fire on site, the following deployment procedure for the fire water booms will be observed:
  - a) Take the boom roll from the site office.
  - b) Emplace the boom as shown on Drawing No. WORK/3421/03 by rolling the necessary length; they will be cut to size prior to being used as part of the fire drill procedure.
  - c) Use supplied cable ties to seal the front end of the boom.
  - d) Using a sharp knife, cut the laid-out section from the remaining roll.
  - e) Using the Hose Reel, begin filling the first of the two chambers of the boom being sure to elevate the 'fill' end to prevent the water leaving the tube.
  - f) Once the first chamber is filled, repeat in second chamber ensuring the 'fill' end is kept elevated to prevent escape of water.
  - g) When both chambers are full the 'fill' end should be sealed using a cable tie thus completing deployment.
  - h) Typically, one side of the roll would be filled which has a 160mm diameter.
- 11.4.4 The above process should be completed as above for all lengths of boom shown on Drawing No. WORK/3421/03.
- 11.4.5 Once deployed, all booms should be regularly checked during a fire event to ensure that they are providing effective containment and that there are no breaches. Secondary/additional lengths of boom can be deployed in addition to the compulsory locations using the same procedure (as above) if deemed necessary.
- 11.4.6 **Fire water boom specification** The boom is the same as those issued by the Agency to the FRS in their 'Grab Packs'. In the grab pack information, it states "The boom is resistant to most chemicals but may be adversely affected by very aggressive solvents such as acetone". The site will not accept any waste material containing acetone or any other solvents.
- 11.4.7 If there is any deviation from the above drainage arrangement, an amended FPP will be submitted for approval by the EA and FRS.

## 12 After an Incident

## 12.1 <u>Contingency Planning</u>

- 12.1.1 In the event of a fire the operator will cease accepting waste at the site. All customers who wish to deliver wastes during a fire will be notified by site admin staff and any who arrive without prior notification will be turned away. If urgent, deliveries will be directed to an alternative waste facility in the borough; details of which can be found on the EA's public register.
- 12.1.2 No waste will be accepted on site until the post-fire site recovery procedures outlined in the section below have been fully implemented and the site is authorised to re-open for trade and waste acceptance.

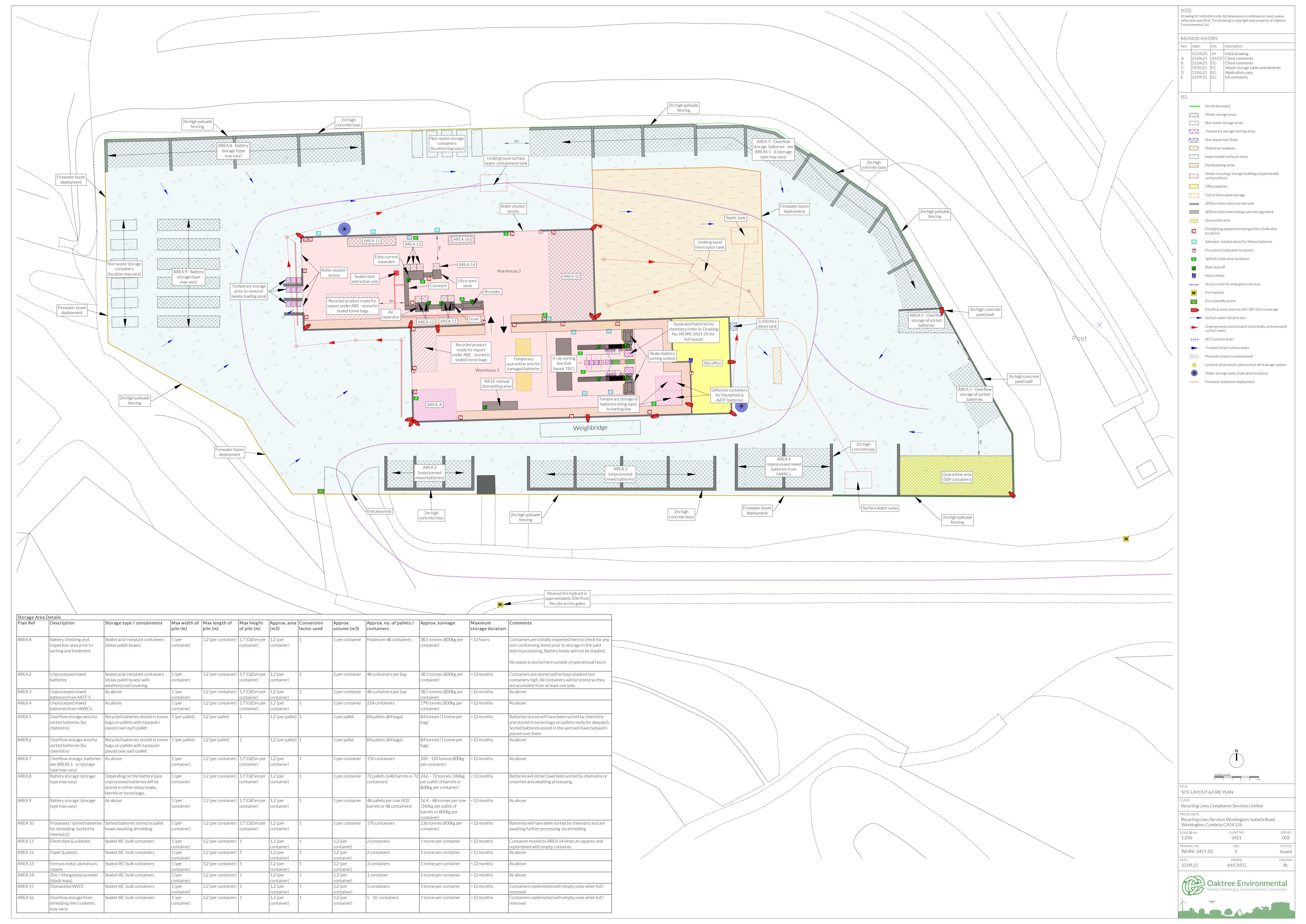
#### 12.2 **General recovery procedure**

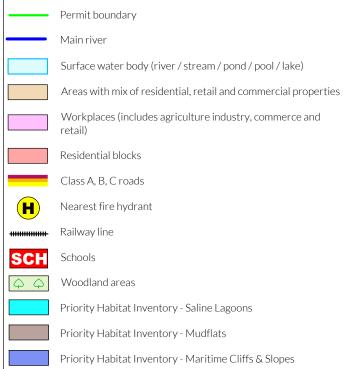
- 12.2.1 When the fire has been successfully dealt with the following actions will take place:
  - a) All fires will be reported to the EA on the working day that they occur including all steps taken by site staff, management and/or emergency services to deal with the fire.
  - b) Removal of burnt material to a suitably permitted site.
  - c) Investigation into the cause of the fire, to ensure it does not reoccur.
  - d) A review of the FPP and EMS, associated amendments will be implemented.
  - e) Review of any additional training requirements for site personnel as a result of the incident.
  - f) All fire extinguishers used to tackle the fire will be serviced and replaced after use.
- 12.2.2 In addition to the above-mentioned procedures, the sections below outline specific procedures following a fire.

#### 12.3 <u>Site decontamination</u>

- 12.3.1 Surface water or powder on site will be cleared using the following method:
  - a) Using a bowser, fire water will be sucked up and taken off site or stored in a tank/bowser prior to removal off site. Powder would be swept up and disposed of by a suitably permitted waste management site.
  - b) Using a road sweeper or brushes, sweep the building until all ash and clinker has been removed.
  - c) All debris has now been isolated and all contaminated holding areas have been cleaned and emptied.
  - d) Wash the building down in entirety using clean water.
  - e) It is at this stage that site management should decide whether it is appropriate to repeat areas of the clean-up before opening the site up.
  - f) Contact the EA to make a site inspection.
- 12.3.2 If the clean-up operation has been deemed complete and the site is deemed suitable for accepting waste, the site will ensure the following:
  - a) Account for all consumables that have been used in the fire and re-order / replace immediately.
  - b) Restack, and re-locate all items used for the surface water protection during the fire to their storage locations ready for future deployment.
  - c) Check monthly that items are still present and correct and still serviceable for use in an emergency.
- 12.3.3 The operator will liaise with the EA throughout the event ensuring they are satisfied with the clean-up programme and notify the operator when they can begin accepting waste again onto site.

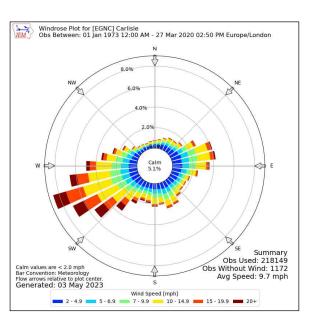
# Appendix I Drawings



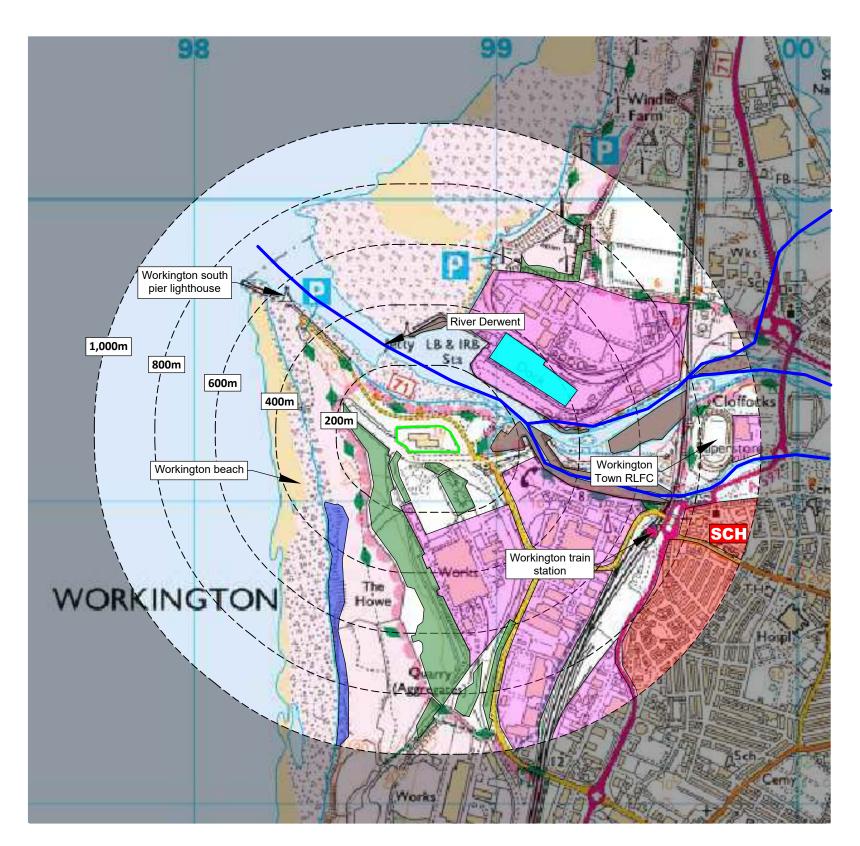


Priority Habitat Inventory - Deciduous Woodland

KEY:



Compass Wind Rose for (EGNC) Carlisle Period 1973-2020 - source: Iowa State University



#### NOTES

- 1. Boundaries are shown indicatively.
- 2. Wind rose data shows the prevailing wind direction to be Southerly.

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#### REVISION HISTORY

Rev:	Date:	Init:	Description:
-	22.01.25	JH	Initial drawing



Scale Bar (1:12,500)
0 100 200 300 400 500i

TITLE:

RECEPTOR PLAN

CLIENT:

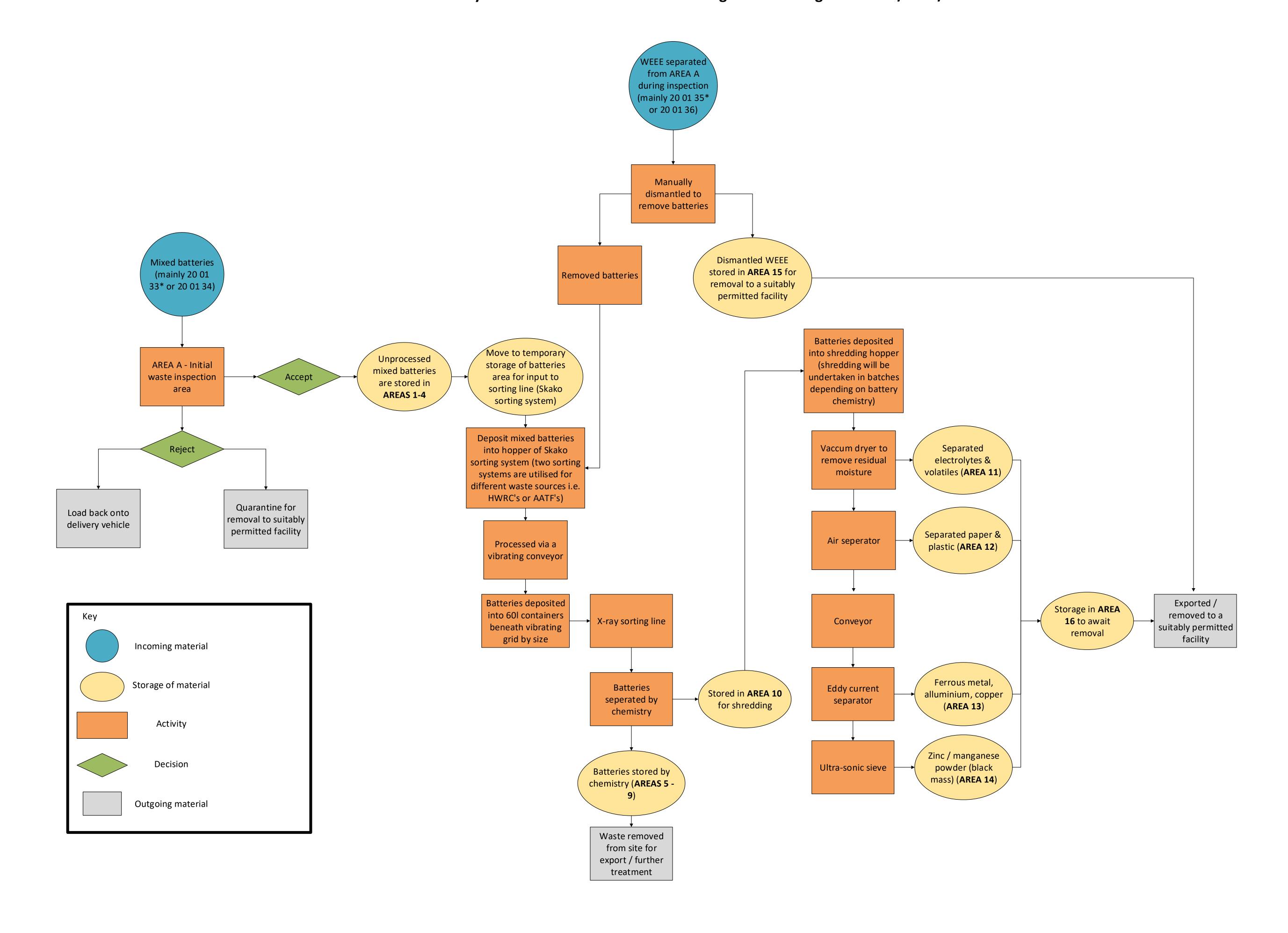
Recycling Lives Compliance Services Limited

ROJECT/SITE

Recycling Lives Services Workington, Isabella Road, Workington, Cumbria CA14 2JS

SCALE @ A3:	CLIENT NO:	JOB NO:
1:12,500	3421	002
DRAWING NO:	REV:	STATUS:
WORK-3421-04	-	Issued
DATE:	DRAWN:	CHECKED:
22.01.25	JH	CP





# Appendix II Record Keeping Forms

DAILY INSPECTION CHECKLIST - WORK/RF/2							
DATE							
ITEM FOR VISUAL INSPECTION ↓	TIME OF INSPECTION (START)  TIME OF INSPECTION (FINISH)	CHECKED Y/N	REMEDIAL ACTION REQUIRED				
EMERGENCY ACCES	S (FREE FROM BLOCKAGES)						
COMBUSTIBLE WAS POTENTIAL IGNITION	TE STORAGE (AWAY FROM N SOURCES)						
TO INSPECT FOR SIG	E END OF THE WORKING DAY GNS OF SELF-HEATING, SMOKE RE EXHUASTS ON PLANT ARE						
DUST/FLUFF AROUN	ID UNIT CHECK						
LITTER (I.E. LOOSE C MATERIALS)	OMBUSTIBLE WASTE						
PLANT/EQUIPMENT (BEFORE AND AFTER	MAINTENANCE CHECKS R USE)						
FIRE QUARANTINE A	AREA IS CLEAR OF WASTE						
OTHER (SEE NOTES	S BELOW)						
INSPECTION CARRIE	D OUT BY						
NOTES/ACTION (C	CONTINUE ON A SEPARATE SE	HEET IF NECESS	ARY):				
CHECKED BY		SIGNATURE	:				
POSITION		DATE					
Sheet		of					

RECYCLING LIVES COMPLIANCE SERVICES LIMITED  WEEKLY INSPECTION CHECKLIST - WORK/RF/3							
WEEK COMMEN		<u> </u>					
ITEM FOR VISUAL	TIME OF INSPECTION (START)	CHECKED Y/N	REMEDIAL ACTION REQUIRED				
INSPECTION	TIME OF INSPECTION (FINISH)						
FENCING AROUN	CTV SYSTEM IS WORKING, ID SITE PERIMETER IS IN N, LOCK ON GATED DRKING)						
	AREA (NOT EXCEEDING THE CLUDED IN THE FIRE						
	CAST (CHECK FOR UPCOMING MINE IF WASTE OPERATIONS IMPACTED)						
	QUIPMENT AND SPILL KITS UISHERS ARE IN PLACE AND						
INTEGRITY OF CO CRACKS ETC)	ONCRETE WALLS / BAYS (NO						
INTEGRITY OF IM ETC)	PERMEABLE PAD (NO CRACKS						
INTEGRITY OF WA	ATER STORAGE TANKS (NO S ETC)						
INTEGRITY OF DR (FUNCTIONING C							
OTHER (SEE NOT	ES BELOW)						
INSPECTION CAR	RIED OUT BY						
NOTES/ACTION (	CONTINUE ON A SEPARATE SH	EET IF NECESSAF	RY):				
CHECKED BY		SIGNATURE					
POSITION		DATE					
SHEET		OF					

RECYCLING LIVES COMPLIANCE SERVICES LIMITED						
MONTHLY INSPI	ECTION CHECKLIST - WOF	RK/RF/4				
WEEK COMMENCI	NG					
ITEM FOR VISUAL	TIME OF INSPECTION (START)	CHECKED Y/N	REMEDIAL ACTION REQUIRED			
INSPECTION ↓	TIME OF INSPECTION (FINISH)					
	ON SITE AND FREE FROM VORKING CONDIITON)					
	ER TANKS (FREE FROM CTIONS AND SECURE)					
1	ES SHOULD NOT BE FRAYED OCKETS NOT OVERLOADED)					
FIREWATER BOOM	S AVAILABLE					
CAPACITY OF INTER	RCEPTOR TANKS					
OTHER (SEE NOTES	BELOW)					
INSPECTION CARRI	IED OUT BY					
NOTES/ACTION (CO	ONTINUE ON A SEPARATE SH	EET IF NECESS	ARY):			
CHECKED BY		SIGNATURE	:			
POSITION		DATE				
SHEET		OF				

## RECYCLING LIVES COMPLIANCE SERVICES LIMITED PREVENTATIVE MAINTENANCE CHECKLIST

CHECKED BY	POSITION
DATE	DATE OF LAST CHECKLIST

	EQUIPMENT ITEM					
OFFICIAL MAINTENANCE CHECK REQUIRED (Y/N)						
IF NO, DATE OF LAST CHECK						
IF YES, DATE OF NEXT CHECK						
IS ITEM IN CORRECT WORKING ORDER						
LEAKAGES OF OIL/DIESEL ON MOBILE PLANT / VEHICLES						
IF NO, WHAT REPAIRS ARE REQUIRED (USE SEPARATE SHEET IF REQUIRED)						
WERE REPAIRS DETAILED ON THE LAST CHECKLIST						
IF YES, HAVE THEY BEEN CARRIED OUT						
ADDITIONAL REPAIRS OR ACTIONS REQUIRED						

## RECYCLING LIVES COMPLIANCE SERVICES LIMITED EMPLOYEE TRAINING NEEDS ASSESSMENT

EMPLOYEE NAME			DATE COMPLETED							
POSITION			REVIEW DUE							
TRAINER					ОИТСОМЕ	PA	PASSED			
POSITION						FU	RTHER TE	RAINING REQUIRED		
CARRIED OUT /SIGN OFF >	Y/N	SIGNED BY EMPLOYEE	SIGNED BY TRAINER				Y/N	SIGNED BY EMPLOYEE	SIGNED	
ENVIRONMENTAL PERMIT				FIRE	PREVENTION PLAN					
MANAGEMENT SYSTEM				FIRE	SAFETY					
SITE RULES				EME	RGENCY PROCEDURE	S				
RECORD KEEPING / TRANSFER NOTES				STORAGE /PILE SIZE LIMITS						
RECOGNITION OF WASTE TYPES				STORAGE DURATION						
SECURITY				FIRE DETECTION						
VEHICLE CHECKS				FIRE ALARMS						
PLANT OPERATION				FIRE	FIGHTING EQUIPMEN	VT				
PLANT CHECKS					WATER CONTAINME SURES	NT				
AMENITY - LITTER, ODOUR, PESTS etc.				SPIL	L CLEARANCE					
NOTES AND ACTION	IS:									

# Appendix III Hot Works (Permit to Work)



Document Title	Hot Works and Hot Works Permit						
Document Type	Procedure						
Document Reference	HS-041a Issue Number 2.0 Publication Date 19/12/202						

#### 1. Purpose

- 1.1. This document intends to provide standard instruction on how Recycling Lives Services and its subsidiaries manage hot works on its premises.
- 1.2. The document outlines the legal and insurance requirements, as well as general good practice relating to hot works.
- 1.3. This document has been prepared in compliance with the Fire Protection Association document RC9 "Risk Control Recommendations fort hot work". This is a condition of Recycling Lives Services' insurance cover.

#### 2. Scope

- 2.1. This document applies to all areas under the management of Recycling Lives Services Ltd and its subsidiary businesses.
- 2.2. The requirements of this document applies to all employees as well as contractors who undertake any hot works on Recycling Lives Services operated sites.
- 2.3. The requirements of this document are relevant to any operation, structure, building or area where hot works take place.
- 2.4. Where there are exemptions to the issuing of a Hot Work Permit, this is outlined in this document.
- 2.5. This document must be used in conjunction with requirements of the Regulatory Reform (Fire Safety) Order 2015 and equivalent legislation in Scotland, each site's Fire Prevention Plan (where applicable), Fire Risk Assessments, and all other relevant policies and procedures outlined by Recycling Lives services.
- 2.6. For the purpose of this document "hot work" is defined as any work involving:
  - 2.6.1. gas welding or cutting equipment
  - 2.6.2. electric/ MIG welding equipment
  - 2.6.3. angle grinders
  - 2.6.4. grinding wheels/ cut off saws (such as Stihl Saws)
  - 2.6.5. blow lamps or blow torches
  - 2.6.6. brazing and soldering
  - 2.6.7. bitumen or tar boilers.

#### 3. Introduction and Reasoning

- 3.1. Fires are considered a significant risk in the scrap sector, and Recycling Lives Services is committed to reduce the risk of fire wherever possible.
- 3.2. Serious fires can occur as a consequence of items on Recycling Lives Services sites (batteries and gas cylinders) and the business has a wide range of measures in place to manage and reduce the risks of such fires.
- 3.3. Fires can also occur during maintenance work on plant and equipment, during construction or demolition operations, or during routine cutting of metal (e.g. using an abrasive wheel) during various stages of operations.
- 3.4. Most fires that start during the above activity are commonly the result of carelessness and ineffective supervision during operations requiring the use of open flames or the local application of heat.
- 3.5. Hot work activities may ignite adjacent or unseen material, heat may be conducted away from the working area by metal components and sparks, or hot metal may travel a long distance while retaining the potential to ignite combustible materials.

Not controlled when printed Page 1 of 6



Document Title	Hot Works and Hot Works Permit						
Document Type	Procedure						
Document Reference	HS-041a Issue Number 2.0 Publication Date 19/12/20						

#### 4. Requirement to Issue a Hot Work Permit

- 4.1. A satisfactory standard of care and supervision for hot works is far more likely to be achieved where a formalised written permit to work system is in force, under a competent supervisor with the authority to ensure compliance with the procedures.
- 4.2. Hot Work constitutes a specific set of hazards and risks and therefore a separate and additional permit to the Permit to Work (as issued under the requirements of HS-041 Permit to Work) must be issued. This additional permit will be referred to as "Hot Work Permit".

#### 5. Issuing a Hot Work Permit

- 5.1. Any hot work which takes place in an area outside of a demarcated safe area for hot works (such as a fabrication workshop or specific operational areas such as catalytic converter removal area) must be subjected to:
  - 5.1.1. a formal Permit to Work (as required under the requirement of HS-041 "Permit to Work" document,
  - 5.1.2. a formal Hot Work Permit (as required under this document).
- 5.2. The Permit to Work must be issued before the Hot Work Permit is issued. A Hot Work Permit must not be issued without a Permit to Work. This is to ensure that all appropriate personnel (managers, supervisors etc.) are aware of the planned work and can make arrangements for making the work areas safe. Refer to HS-041 "Permit to Work" document for guidance on how a Permit to Work is issued.
- 5.3. The person nominated to authorise hot work (normally the site manager) must have experience or training in the problems associated with hot work and be of suitable status to ensure compliance with the procedures.
- 5.4. A separate permit should be used on every occasion where hot works is required.
- 5.5. The Hot Work Permit should be issued for a specific task that is to be undertaken in a clearly identified area. Generic and blanket Hot Works Permits must not be issued.
- 5.6. Hot work permits should not be issued for protracted periods as there is a danger that staff may not always be present, or the fire watch requirements may not be met. For example, separate hot work permits should normally be issued for work which extends across two shifts
- 5.7. Consideration must be given by the authorising person of the appropriate period of fire watch that can be observed with respect to each permit that is issued e.g. a check should be made that the no hot work will begin or needs to continue within a period of 60 minutes before the end of the working day (as fire checks are mandatory up to 60 minutes after the end of hot working).
- 5.8. A Hot Work Permit comprises of TWO sections:
  - 5.8.1. the Hot Work Permit
  - 5.8.2. a Hot Work Checklist
- 5.9. Before completing the first part of the Hot Work Permit, the person responsible for issuing the permit for the work should complete the checklist on the reverse side of the form, in conjunction with the person responsible for carrying out the work, to indicate that fire protection measures are adequate, suitable precautions have been taken and the equipment to be used is safe.
- 5.10. A Hot Work Permit will not be valid unless the accompanying checklist has been completed.
- 5.11. If the person authorised to issue the hot work permit is not satisfied with the arrangements, then further measures may be requested, and any additional conditions should be entered in the space provided on the Permit document.

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- 5.12. The earliest time at which a final fire-check should be made will also be specified. This will normally be at least one hour after the expiry of the hot work permit, when work mustbe complete.
- 5.13. If trained personnel will not be available to make this check (for example in the case of a permit being issued late in the day) then hot work **must not be commenced**.
- 5.14. Two copies of the completed Hot Works Permit, and checklist must be retained (i.e. the original can be photocopied). The issuer and the person undertaking the hot work must have each kept a copy of the permit.
- 5.15. The person undertaking the hot work must have a copy of the permit to hand at all times when hot works is undertaken. Where hot work is undertaken but a copy of the permit is not available at the work location, then the activity will be stopped until a copy of the Hot Works Permit is available at the location of work.

#### 6. Extending or cancelling a Hot Work Permit

6.1. There may be times when a Hot Work Permit will require extension due to unforeseen reasons. In these instances, the measures outlined in section 6 (permit extension) or section8 (cancellation of permit) of document HS-041 "Permit to Work" must be followed.

#### 7. Risk Assessment

- 7.1. A formal risk assessment should always be carried out whenever any hot work is contemplated. It is the responsibility of the area manager to ensure that this risk assessment has been undertaken. These requirements applies to contractors conducting hot works on any Recycling Lives controlled location.
- 7.2. Where routine hot works are undertaken as part of an operational process (e.g. catalytic converter removal, export operations) then a generic risk assessment may be undertaken provided the following conditions can be met:
  - 7.2.1. The work is undertaken under a generic risk assessment that is up to date andreflects the work being undertaken.
  - 7.2.2. There is an SWP in place for the operation.
  - 7.2.3. The tools and equipment used are part of the company approved SWP and are in good state of repair and have been subject to regular inspection or testing (where applicable):
  - 7.2.4. The work is undertaken in a designated area, covered by the risk assessment and SWP and is kept in a clean and safe condition with flammable materials removed or protected.
  - 7.2.5. The people undertaking the work are trained and competent in the task beingundertaken, and.
  - 7.2.6. The operation is adequately supervised by a competent person.
- 7.3. **NOTE:** Due to the dangers associated with carrying out welding and other hot work processes on tanks or vessels which have contained flammable or other hazardous materials, hot works must NOT be undertaken on those items unless the safety precautions detailed in HSE publication CS15: Cleaning and gas freeing of tanks containing flammable residues (ref. 6) have been rigorously observed.
- 7.4. The risk assessment should consider the following:
  - 7.4.1. Is it necessary for hot work to be conducted at all?

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- 7.4.2. Would it be feasible to transfer the workpiece to a safer area (such as a workshop), or perhaps employ an alternative solution (the use of bolts or compression joints, for example) rather than the use of hot work?
- 7.4.3. If the hot work were to run out of control and fire should result:
- 7.4.4. Who or what is at risk within the room?
- 7.4.5. Could fire spread out of the room?
- 7.4.6. If the fire were to spread further, what other occupancies could be involved?
- 7.4.7. Is there any incompatible process in progress in the relevant area (such as the use of flammable solvents to lay flooring)?
- 7.4.8. Is there a back-up for any mechanical or electrical equipment, computer systems and data which could be damaged by fire?
- 7.4.9. Are there any personnel who need to use the area at the same time as the hot work is being done? Can alternative arrangements be made?
- 7.4.10. Could the work lead to the company's security being compromised?
- 7.5. Hot works must not be commenced if the risk of fire, explosion, injury or damage cannot appropriately be controlled under risk assessment.

#### 8. Clearance and protection of work area

- 8.1. Before work commences, an area within 10m of the hot work process should be cleared of combustible materials and flammable liquids. The distance may need to be more than 10m in some circumstances, especially where the hot works take place at heights.
- 8.2. Where combustible materials within 10m cannot be removed, they should be completely protected with flame retardant material. Flammable liquids should always be removed from the area.
- 8.3. Protection for combustible materials, except where mentioned otherwise, should be by the use of non-combustible or purpose-made blankets, drapes or screens. The most commonly available blankets or drapes are those incorporating woven glass fibres.
- 8.4. Combustible floors in the work area should be covered with overlapping sheets of non-combustible material or wetted and liberally covered with sand. Care should be taken to ensure that any gaps in the flooring are adequately covered.
- 8.5. Floors should be swept clean.
- 8.6. Good ventilation should be provided in all areas where hot work is to be carried out, as hot works may produce copious volumes of smoke and fumes.
- 8.7. Hot work should never be carried out in an area identified as a hazardous zone under DSEAR (Dangerous Substances and Explosive Atmospheres Regulations). This includes within all depollution facilities, within 10m of any depollution rig, or within 10m of any storage tank of petrol or other flammable liquid or gases. Where hot works are required to be undertaken within these areas then a separate and specific review, assessment of risk, and special precautions will need to be detailed and planned.
- 8.8. Flammable solvents must not be used to clean surfaces immediately before work commences.

#### 9. Requirements

9.1. A Hot Work Permit must only be issued where the following requirements and precautions can be met:

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- 9.1.1. A safer method of work is not available. For example, pipe jointing may be possible without soldered fittings and hot work avoided when external surfaces are being prepared for painting.
- 9.1.2. Hot work should only be carried out by trained personnel
- 9.1.3. Wherever possible, items to be the subject of hot work should be removed to a safearea designated for that purpose (i.e. the items should be moved to the fabrication workshop or another separate safe area away from the workplace).
- 9.1.4. where hot works take place in premises with sprinklered fire suppression systems, the sprinkler system MUST NOT be shut off to allow hot works to place – localised adequate precautions should be taken to prevent accidental discharge of the sprinkler system.
- 9.1.5. When hot work is being undertaken in premises fitted with an automatic fire detectionsystem, only the local detectors or zone where the work is being carried out should be isolated. The zone or detectors should be reinstated as soon as the task has been completed.
- 9.1.6. A trained person, not directly involved with the work, should provide a continuous firewatch during and after each period of work (see section X 'Following completion of hot work'), to detect and extinguish any incipient burning in the work area and in all adjoining areas to which sparks and heat may spread. These areas could include the floors below and above where the hot works have taken place, and areas on the other sides of walls from where the work is being carried out.

#### 10. Fire Precautions

- 10.1. At least two appropriate fire extinguishers should be provided at the place where the hot work is to take place and made ready for immediate use in the event of an outbreak of fire.
- 10.2. One or more of the individuals directly involved with the hot work and the person undertaking the fire watch should be trained in the use of the firefighting equipment.
- 10.3. Fires involving flammable gases should only be controlled and not extinguished until such time as the gas supply can be shut off.
- 10.4. All personnel involved with the hot work should be familiar with the means of escape from the premises and the method of raising the fire alarm and summoning the fire brigade should a fire occur.

#### 11. Following completion of the work

- 11.1. When work is complete, all potential hot items (cut off metals, paint stripping's, hot stub endsof welding rods and other hot waste materials) should be removed and disposed of safely
- 11.2. All equipment, including gas cylinders, should be removed to a secure area at the end of the working period or when the task is completed, if this is sooner.
- 11.3. A continuous fire watch should be maintained for at least 60 minutes after work is completed, followed by further checks being made at regular intervals, of no more than 20 minutes, up to 120 minutes after cessation of hot work, before the permit is signed off. The fire watch periods should be extended where determined necessary by a suitable and sufficient fire risk assessment.
- 11.4. Once hot works has completed, all hot wastes removed, and a mandatory 60-minute fire watch completed, the hot works user will inform the permit issuer that all works are complete and verify that there is no risk of fire.
- 11.5. The permit issuer will then sign off the permit as complete.

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#### 12. Exemptions

- 12.1. The principle of this document applies to ALL hot working.
- 12.2. An exemption to the issuing of a Hot Work Permit is given to the following tasks ONLY:
  - 12.2.1. Cat cutting operations (using gas cutting or abrasive wheel)
  - 12.2.2. Use of angle grinder for export operations
  - 12.2.3. Hot working taking place inside the designated fabrication workshops
- 12.3. Then exemptions apply ONLY if the following requirements are met in full:
  - 12.3.1. There is a specific risk assessment in place for the work
  - 12.3.2. There is a specific Safe Working Procedure in place for the work
  - 12.3.3. The work is undertaken in the designated area ONLY
  - 12.3.4. The work area is clean and free of combustible materials and other fire hazards.

#### 13. Referenced Documents

10: Neitricited Bootiments				
Ref	Title	Document Type		
HS041	Permit to Work	Procedure		
FRM-105	Hot Work Permit	Form		
N/A	Regulatory Reform (Fire Safety) Order 2015	Regulation		
CS15	Cleaning and gas freeing of tanks containing flammable residues	HSE Document		
DSEAR	Dangerous Substances and Explosive Atmospheres Regulations	Regulation		

14. Document History

Version	Details	Date
1.0	New Document	19/12/2022
2.0	Altered to include the new company name and logo	20/11/2024

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