

# FIRE PREVENTION & MITIGATION PLAN

River Lane, Saltney, Chester CH4 8RH

Massey Metals Ltd

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## Contents

Document History:	i
Contents	ii
<b>1 INTRODUCTION</b>	<b>1</b>
1.1 GENERAL	1
1.2 SITE DESCRIPTION	2
1.3 STAFFING AND MANAGEMENT	3
1.4 PLANT AND EQUIPMENT	3
1.5 POTENTIALLY COMBUSTIBLE MATERIALS	4
1.6 POTENTIAL IGNITION SOURCES	4
1.7 SENSITIVE RECEPTORS	5
<b>2 PREVENTING FIRES</b>	<b>7</b>
2.1 SITE INSPECTION PROGRAMME	7
2.2 STAFF TRAINING	7
2.3 WASTE ACCEPTANCE	8
2.4 SITE SECURITY	9
2.5 PLANT AND EQUIPMENT MAINTENANCE	9
2.6 PREVENTATIVE MAINTENANCE	10
2.7 ELECTRICAL FAULTS OR DAMAGED/EXPOSED ELECTRICAL CABLES	11
2.8 PROCEDURES FOR HOT WORKING ACTIVITIES	11
2.9 BURNING OF WASTE ON SITE	12
<b>3 REDUCING SELF COMBUSTION</b>	<b>13</b>
3.1 WASTE STORAGE ELV'S	13
3.2 ELV FLUIDS STORAGE	13
3.3 WASTE STORAGE CONTAINERS	14
3.4 STOCK ROTATION SCRAP METAL	15
3.5 ELV STOCK ROTATION	16
3.6 CATALYTIC DE-CANNING	16
3.7 OVERHEATING OF STORED WASTE / HOT LOADS	16
<b>4 FIRE CONTAINMENT AND INFRASTRUCTURE</b>	<b>18</b>
4.1 STORAGE ON FLAT GROUND	18
4.2 FIRE BREAKS	18
4.3 WASTE STORAGE GENERAL / FIRE BREAKS	19
4.4 WASTE STORAGE WITHIN 6M OF BUILDINGS	19
4.5 FIRE WALLS AND BAYS	19
4.6 QUARANTINE AREA	20
<b>5 Detecting and suppressing fires</b>	<b>21</b>
5.2 FIRE DETECTION PROCEDURE	21
5.3 FIRE DETECTION PROCEDURE (OUT OF HOURS)	23
5.4 OTHER SUPPRESSION TECHNIQUES	23
5.5 NO SUPPRESSION SYSTEM IN BUILDING/S	23
<b>6 CONTAINMENT &amp; WATER SUPPLY</b>	<b>25</b>
6.1 CONTAINMENT OF FIREWATER RUNOFF	25
6.2 ADEQUATE SUPPLY OF WATER (ON SITE)	26

6.3	ADEQUATE SUPPLY OF WATER (OFF SITE) .....	26
<b>7</b>	<b>FIRE RESPONSE PROCEDURES .....</b>	<b>27</b>
7.1	ACCESS FOR EMERGENCY SERVICES .....	27
7.2	GENERAL STAFF/VISITOR PROCEDURE .....	27
7.3	MAINTENANCE & TESTING .....	27
7.4	EVACUATION OF STAFF .....	28
7.5	NOTIFYING NEARBY PROPERTIES .....	30
7.6	CONTINGENCY PLANNING .....	30
<b>8</b>	<b>POST-FIRE SITE RECOVERY.....</b>	<b>32</b>
8.1	GENERAL RECOVERY PROCEDURE .....	32
8.2	FIRE DEBRIS .....	32
8.3	SURFACE WATER CONTAINMENT.....	33
8.4	INVESTIGATION PROCEDURES AND REMEDIATION .....	34

**ANNEX**

Fire Check Inspection Form (Operational Hours)

Preventative Maintenance Checklist

Stockpile Detail Table

Stock Rotation Sheet

Stock Rotation Diagram

Layout & Fire Plan

Sensitive Receptor Plan

Fire Curtain Specs

## Site Information & Contacts List

Site Address:	River Lane, Saltney, Chester CH4 8RH		
Site Operator:	Massey Metals Ltd	National Grid Ref:	SJ 38487 65268

Contact	Description	Office Hours	Out of Hours
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<u>Countess of Chester Hospital</u> Liverpool Rd, Chester CH2 1UL	Local NHS Hospital (Main)	01244 365000	999
	Accident & Emergency (A&E)	999, 112 or 111	999
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<u>North Wales Police</u> High Street, Saltney, CH4 8SF	Local Police Non-Emergency	101	999 or 112
	Police Emergency	999 or 112	999 or 112
<u>North Wales Fire &amp; Rescue Service</u> Gorsaf Dân Fire Station 25 Chester Rd E, Deeside CH5 1SA	Fire and Rescue Service (in Emergency Dial 999)	01244 813512	999 or 112
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			999 or 112
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<u>Dee Valley Water</u>	Mains water and sewerage supplier	01978 833200	01978 833200
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# **1 INTRODUCTION**

## **1.1 General**

- 1.1.1 This document considers the risks associated with fire on site at River Lane, Saltney, Chester CH4 8RH. The site is operated by Massey Metals Ltd
- 1.1.2 In accordance with Natural Resources Wales (NRW) '*Fire Prevention & Mitigation Plan (FPMP) Guidance- Waste*' released in 01 May 2016, this FPMP details the measures which will be put in place with regards site design, infrastructure and management to ensure the waste operations will be carried out with paramount consideration to the risk of fire.
- 1.1.3 All necessary prevention measures and procedures will be strictly implemented and followed through essential training and inspection regimes as detailed in this document site's Environmental Management System (EMS);
- 1.1.2 In summary, operations which take place at the site involve:
- a) The importation of End-of-Life Vehicles (ELVs) to depollute, dismantle and remove all potentially hazardous components;
  - b) Separation of different elements and parts of ELVs e.g. batteries, tyres, engines etc. for resale and/or onward processing at an alternative facility;
  - c) The importation of ferrous metals for storage pending further processing at an alternative facility;
  - d) The importation of non-ferrous metals for storage and processing (shearing/bulking) for onward delivery to an alternative facility; and
  - e) De-canning of catalytic convertors to remove the potential of refractory ceramic fibre (RCF) matting and sale of catalysts.
- 1.1.2 In addition to this document the site will be operated in accordance with a fully comprehensive Environmental Management System (EMS) Ref. RIV-2303-A and Environmental Permit (EP) regulated by NRW.

1.1.3 All key staff should be provided with a copy of this Fire Prevention & Mitigation Plan (FPMP) and/or be aware of where it is located on site.

1.1.4 All site staff and contractors must be aware and understand the contents of the FPMP and what they must do during a fire.

## **1.2 Site description**

1.2.1 **Internal areas:** The site will comprise of a large building which will be subdivided into three different areas:

- i) Customer delivery and waiting area i.e. sales reception
- ii) Storage and process of non-ferrous metal which is non-combustible; processing consisting of manual cutting e.g. copper pipes
- iii) Site offices, non-ferrous metal granulating equipment and catalytic convertor de-canning.

1.2.2 The building will have a floorspace of approximately 615m<sup>2</sup> as shown on the Layout and Fire Plan in the Annex and all internal / external walls will be constructed to a thickness to stop fire spreading and minimise radiant heat.

1.2.3 The external yard which will store combustible waste measures 1,530 m<sup>2</sup> and will be surfaced with impermeable concrete. All surface water will fall into an aco drain and connect to the foul sewer via a 10,000 litre capacity bypass oils separation system. Details of the above are shown on the Layout & Fire Plan. All external fire walls are 0.3m thick which as above will prevent fire spreading and minimise radiant heat.

1.2.4 The site is not open to the general public and there are no public rights of way through the site.



### **1.3 Staffing and management**

- 1.3.1 The site will be manned by up to 11-12 employees during normal operating hours including waste/plant operatives, administrative and managerial staff, plus any visiting drivers. The list below details the staff structure of the site when operating at full capacity. Positions in bold italic print below are the minimum staff requirements when the site is open for the reception of waste:

<b><u>POSITION</u></b>	<b><u>EMPLOYEES</u></b>	<b><u>RESPONSIBILITIES</u></b>
Site manager	1 ( <b><i>1</i></b> )	Overseeing all activities which take place at the site
Admin	1	Administrative duties
Operatives	2 ( <b><i>1</i></b> )	Assist in general duties, vehicle dismantling, plant operation and maintenance

### **1.4 Plant and equipment**

- 1.4.1 The table below details the plant/equipment on site. Only trained operators will be permitted to drive/operate the plant/equipment listed below.

<b><u>ITEM</u></b>	<b><u>NUMBER</u></b>	<b><u>FUNCTION</u></b>
Depollution rig & tanks for storage of drained fluids	1	Depolluting ELVs / fluid storage
Baler	1	Size reduction of ELVs / scrap metal
Cable cutter	1	Recovering non-ferrous metals
Forklift truck	3	Movement/loading/collection of waste
Granulator	1	Separation of metals from plastics i.e. cutting
360° grab (scrap handler)	1	Movement/sorting/loading of waste
Catalytic de-canner	1	Extraction of catalyst elements

## **1.5 Potentially Combustible Materials**

1.5.1 The following list outlines the materials which have been identified on site as having combustible potential along with the maximum quantity of these materials stored on site at any given time. The below materials, storage quantities and containment for each are shown in the Stockpile Detail Table in the Annex:

- a) Depolluted ELVs - **Piles/Rows 1C - 1F.**
- b) Undepolluted ELVs - **1C.**
- c) Drained Fluids / Oil, Fuel Tanks - **1B.**
- d) Rejected / reactive waste (non-permitted wastes) - **Quarantine area (1F).**
- e) Ferrous scrap metal - **Stockpile 1E.**
- f) Rubber i.e. tyres - **Container 1D.**
- g) Batteries - **Pallets 2A.**
- h) Overhead lines - **no overhead lines traverse the site.**
- i) Hazardous wastes (some catalytic convertors) - **Pallets 2A.**
- j) Oily / greasy material i.e. oil filters - **Piles/Rows 1C.**

## **1.6 Potential Ignition Sources**

1.6.1 The following list outlines potential sources of ignition for the material on site and outlines specific examples of these sources.

- a) arson or vandalism
- b) self-combustion (e.g. due to chemical oxidation) - .
- c) plant or equipment failure
- d) electrical faults
- e) naked lights
- f) discarded smoking materials
- g) hot works (e.g. welding or cutting)
- h) industrial heatershot exhausts
- i) open burning (on site or adjacent sites)
- j) damaged or exposed electrical cables
- k) reactions between incompatible materials - neighbouring site activities
- l) sparks from loading buckets/grabs

m) hot loads

## **1.7 Sensitive receptors**

- 1.7.1 A Sensitive Receptors Plan has been provided in the Annex I to highlight all main receptors within 1,000m of the site.
- 1.7.2 To minimise the impact on the local area and associated receptors from a fire on site, this document details mitigation measures which will decrease the likelihood of a fire occurring on site and limit the size and duration of a fire if it does occur. These measures will ensure the potential impact on any of the surrounding land is as minimal as practicably possible.
- 1.7.3 The primary sensitive receptors for any fire event would be the site itself and any site users and the adjacent site and its users.
- 1.7.4 Key receptors such as critical infrastructure, schools, hospitals, residential areas, workplaces, protected habitats and rivers are clearly shown on the Receptors Plan.
- 1.7.5 There are no Groundwater Source Protection Zones or boreholes, wells and springs supplying water for human consumption situated within 1,000m of the site.
- 1.7.6 Schools, industrial and commercial premises are all clearly visible on the Sensitive Receptors Plan. There are no hospitals, care homes, or railway lines within 1,000m of the site.
- 1.7.7 To minimise the impact on the local area and associated receptors from a fire on site, this document details mitigation measures which will decrease the likelihood of a fire occurring on site and limit the size and duration if it does occur. These measures will ensure the potential impact on any of the surrounding land is as minimal as practically possible.
- 1.7.8 The primary sensitive receptors for any fire event would be the site itself and any site users and the adjacent site and its users.



## **2      PREVENTING FIRES**

### **2.1      Site inspection programme**

- 2.1.1      Inspections of all site areas will be undertaken in accordance with the site's EMS and using the Daily Fire Check Inspection Form shown in the Annex. Areas just outside of the permit boundary will also be checked by the operator. As a minimum, the checklist will be completed at the start and end of each working day and each operative will be trained to ensure they are familiar with the checks so the checks can be monitored constantly throughout the day.
- 2.1.2      These inspections will be conducted by a person who is familiar with the requirements of the EMS, EP and this document. This 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 (i.e. bays, piles or stacks) are functioning effectively in accordance with the storage limitations provided in the Stockpile Detail Table in the Annex.
- 2.1.3      The results of site inspections will be recorded either on the appropriate record form Annex this FPMP or in the site diary. The appropriate form will be available to NRW, Fire Service and Local Authority upon request.

### **2.2      Staff training**

- 2.2.1      Staff will be suitably trained in how to raise a fire alarm with site management. Staff will be trained on how to use the extinguishing equipment should the fire be small enough to tackle. Staff would also seek formal fire extinguisher training for anyone specifically designated to use such equipment.
- 2.2.2      A full understanding of the site's EMS and the procedures outlined in this FPMP document will be required to be demonstrated as part of the site induction for all new staff.
- 2.2.3      Ongoing training will also be provided to ensure site staff are informed of any changes to any of the site management documentation subject to regular review.

All staff will be rigorously tested about the requirements of this FPMP on a 6 monthly basis to ensure.

## **2.3 Waste acceptance**

2.3.1 Strict waste acceptance procedures are in place at the site and will be used to detail how long waste has been on site and how long other separated wastes are stored prior to removal from the site. This will ensure compliance with the maximum storage duration for specific wastes (as shown on the Stockpile Detail Table in the Annex).

2.3.2 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.

2.3.3 Any wastes identified during the incoming waste inspections which are likely to be either particularly combustible or reactive will be removed and quarantined immediately to await safe removal from site and NRW will be contacted (where necessary) if the non-conforming waste discovered is likely to lead to a breach of permit conditions.

## **2.4 Site security**

- 2.4.1 The boundary of the site is protected from unauthorised access by members of the public for security. The site access gates are of steel construction and are lockable should the site be left unmanned at any time, to prevent unauthorised vehicular or pedestrian access.
- 2.4.2 The site benefits from site-wide 24 hour CCTV coverage with on and off-site supervision. CCTV can be remotely accessed by the manager and TCM of the site to detect any flames or smoke.
- 2.4.3 There is also an out-of-hours night watchman who will patrol all areas of the site to prevent unauthorised access.
- 2.4.4 The site security infrastructure will be inspected on a daily basis and any defects which impair the effectiveness of the security will be repaired to the same or better standard within 7 working days.

## **2.5 Plant and equipment maintenance**

- 2.5.1 External separation distances of 6m will be observed between plant and stored material when the site is not staffed. In the building, all plant will be powered-down and completely shut off prior to cessation of operations on any given day.
- 2.5.2 Bucket loaders will contain fire-fighting equipment in the cab rather than rubbers strips as the main problem is that loading shovels equipped with buckets are used on most sites on ground that is not completely flat and for loading non-homogeneous waste which has the potential to remove a rubber strip on the day it is fitted.
- 2.5.3 Mufflers will be fitted onto hot exhausts to ensure the source of ignition from plant/equipment is reduced to a minimum
- 2.5.4 Dust from processing/treatment operations on site can settle at the end of the shift / working day onto hot exhausts and engine parts so a fire-watch will be

implemented after cessation of works. Any build of dust/fluff will be removed from the equipment and comments noted in the inspection sheet shown in the Annexe.

- 2.5.5 All items of plant and equipment listed in Section 1.4 are subject to preventative maintenance checks to ensure their safe operation and to prevent any potential situations which may give rise to faults or malfunction. A preventative maintenance and fire checklist are shown in the Annex of this FPMP.
- 2.5.6 The plant, equipment and all vehicles in the fleet on site are subject to periodic manufacturer maintenance to ensure proper working order in the form of service contracts.
- 2.5.7 Site management will undertake or delegate additional preventative maintenance checks on a more frequent basis to ensure, where possible, the machinery is mechanically sound.

## **2.6 Preventative Maintenance**

- 2.6.1 All items of plant and vehicles are subject to preventative maintenance checks to ensure their safe operation and to prevent any potential situations which may give rise to adverse impacts on the environment.
- 2.6.2 Much of the plant and equipment on site and all vehicles in the fleet are subject to annual manufacturer maintenance to ensure proper working order in the form of service contracts. Site management will undertake or delegate additional preventative maintenance checks on a more frequent basis to ensure i.e. daily, before, during and at the end of each working day to ensure where possible, the machinery is mechanically sound. These checks will be carried out using the preventative maintenance checklist shown in the Annex and any results which are flagged as needing attention will also be recorded in the site diary and alerted to the site manager of TCM.



## **2.7 Electrical faults or damaged/exposed electrical cables**

- 2.7.1 All electrical cabling and appliances (including the panel heaters in the offices) on site will be inspected weekly and annually serviced by a fully qualified electrician to ensure they are not damaged or exposed.
- 2.7.2 Any potential ignition sources from suspected electrical faults will be isolated and an electrical engineer 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.

## **2.8 Procedures for hot working activities**

- 2.8.1 As mentioned in section 1.6.1, hot works take place at the site and all staff will be suitably trained in safe working practices when undertaking hot working, the procedures when undertaking hot working at the site are as follows:
- Staff will ensure fire extinguishers, hoses etc. are provided at the scene of any hot work so that they can be used immediately should a fire occur. Such equipment should be stationed adjacent to the pathway of escape from the work area and not in a place where staff using them could be trapped by fire.
  - In areas where wastes or other combustible materials are present hot work should be a two-person job: One person doing the hot work and a second watching – someone who is welding will rarely look behind them at where any sparks may land.
  - All wastes will be cleared away from the area of any hot work before hot work starts;
  - Potentially combustible materials, including mobile plant should be covered by a fire blanket and/or damped down with water as appropriate before hot work starts;
  - Implement the fire checklist shown in the Annex at the scene of any hot work at least one 1 hour after hot work has finished due to the risk sparks from hot work can smoulder for a significant time period.
  - A permit to work system to ensure that appropriate controls are in place before, during and after any and all forms of hot works.

## **2.9 Burning of waste on site**

- 2.9.1 No waste will be burnt on site at any time.
- 2.9.2 Extensive training will be provided to all site staff and contractors on fire prevention, protection and occurrence procedures.
- 2.9.3 Employment contracts and staff handbooks recognise the severity of any instances of unauthorised burning of waste and would lead to immediate dismissal and threat of prosecution through civil/criminal courts depending on the circumstances.
- 2.9.4 Firefighting equipment (owned by the applicant) and/or mains water supply points are located near to the areas of waste storage should accidental burning of waste occur (see the Layout & Fire Plan in the Annex for location details). In addition, fire extinguishers are located around the site to aid the quick suppression of a fire if detected.

### **3      REDUCING SELF COMBUSTION**

#### **3.1      Waste storage ELV's**

- 3.1.1      Undepolluted ELVs are taken directly to the separately bunded area via a recovery vehicle as shown on Layout & Fire Plan. There is also a spill kit i.e. sand / absorbents located to northern part of the bund to ensure a leak (if it were to occur) is cleaned up immediately.
- 3.1.2      Upon arrival, the operator will disconnect or remove the batteries from undepolluted ELVs on arrival to prevent the risk of short circuit which could lead to a fire. The operator will also remove any LPG tanks immediately if the ELV has one.
- 3.1.3      The undepolluted ELV storage area is separately drained to ensure the risk of leaking fuels and combustible liquids trailing to other areas of the site are reduced to a minimum.
- 3.1.4      Each ELV stored will be accessible from at least one side or from above.
- 3.1.5      A suitably trained person will carry out the depollution process to ensure the ELV is fully depolluted prior to be taken to the ELV storage area.

#### **3.2      ELV fluids storage**

- 3.2.1      Drained fluids from the ELV process will be stored in dedicated tanks located adjacent to the depollution rig they will be collected by an approved contractor for recovery/disposal at a suitably permitted facility once full.
- 3.2.2      The tanks will be surrounded by a bund capable of containing a minimum of 110% of the volume of fluids.
- 3.2.3      All pipework and associated infrastructure will be enclosed within the bund and a lock fitted to the tank valve to prevent unauthorised operation.
- 3.2.4      Each tank is clearly marked showing the product within and also its capacity.

### **3.3 Waste storage containers**

- 3.3.1 Where possible, clearances of stored wastes will be undertaken when the stored materials reach the capacity of the collection vehicle or skip/container. This is particularly relevant to the following storage areas shown on Layout & Fire Plans B & C:
- a) Non-ferrous containers/pallets (2A)
  - b) The ELV battery storage (2A)
  - c) Tyres (1D)
  - d) Oils/fluids (1B)
- 3.3.2 Containers 1D & 1B are accessible from the top should the skips/containers ignite. In the unlikely event they do, the operator would begin to manually extinguish the fire using on site firefighting equipment; if necessary the skips could also be smothered using inert material to ensure the fire is fully extinguished. The skip would then be loaded onto a skip wagon or articulated trailer using the sites forklift and removed to the quarantine area to await removal to a suitably permitted facility. Containers/pallets 2A will consist of disconnected batteries, copper, brass etc.. all which have been manually placed in pallet boxed and are not considered combustible as non-ferrous is not likely to rust.
- 3.3.3 Due to health and safety purposes and potential risk of the fire spreading, the operator would not attempt to move a skip full of waste which has ignited.
- 3.3.4 **Out of hours** - All waste stored in containers has been subject to rigorous hand sorting and the waste types stored have a very low chance of self-combustion; the only risk of waste in containers igniting would be during operational hours i.e. staff negligence or arson when the site is open. Section 2.4 shows there is ample security at the site and Section 4 and 5.1.1 details sufficient infrastructure in place to ensure an out of hours container fire could be put out within 30 minutes maximum.

### **3.4 Stock rotation scrap metal**

- 3.4.1 The aim of the site is to follow a 'first in, first out' principle where incoming waste is sorted processed and arrange for its export off site as soon as practicably possible, to minimise over-stocking which in-turn minimises the risk of overheating and spontaneous combustion (albeit that this only applies to a limited number wastes handled at the site). Therefore, the maximum storage capacities of all wastes as defined in the Stockpile Detail Table in the Annex are considered excessive and 'worst-case scenario' to account for plant downtime, holding stock and market fluctuations.
- 3.4.2 Where stock rotation is essential is for un-recycled stockpiles; in this instance Pile 1E (scrap metal), 1C undepolluted ELVs. Stock rotation for undepolluted ELVs are shown in the next section.
- 3.4.3 The above pile of incoming waste will be added to the stockpile and with each delivery/push-up of waste, the 360° excavator which extracts the wastes after sorting will preferentially excavate those wastes from the rear of the stockpile (where safety allows). This ensures that the waste towards the rear of the bay is circulated as well as the waste towards the front and will ensure that the stockpile (in its entirety) is rotated as per the Stockpile Detail Table.
- 3.4.4 The above section will be referenced using the Stock Rotation Sheet in the Annex and will be completed by site staff on a weekly basis to ensure the storage of wastes in holding areas/bays will be adequately rotated according to their maximum storage times.
- 3.4.5 Despite the fact that all wastes storage times on site fall within the 3 month limit specified in NRW FPMP guidance, staff will be trained to identify any potential hotspots and manage them accordingly either through:
- a) removal or isolation of any suspect material to the quarantine area;
  - b) continuous turning and monitoring until any heat is fully dissipated; or,
  - c) smothering any suspect material using inert materials stored in the external yard areas on site.

### **3.5 ELV stock rotation**

- 3.5.1 Upon receipt of an ELV in its undepolluted state the vehicle will be marked with a unique number for tracking purposes (along with all other accompanying documentation). Once consigned and marked the vehicle will be stored in the undepolluted vehicle storage area (5B) to await depollution as shown on Layout & Fire Plan. This will allow the residence times of the undepolluted ELVs to be recorded to ensure storage times in accordance with the Stockpile Detail Table.
- 3.5.2 Following the depollution process where all hazardous components/fluids are removed, the vehicle shell (i.e. depolluted ELV) will be transferred to area 1F prior to baling. The unique identification number will then be logged, again to ensure residence times of the depolluted ELVs are in accordance with the Stockpile Detail Table.

### **3.6 Catalytic de-canning**

- 3.6.1 Catalytic Converters are de-canned under local extraction with equipment fitted with HEPA Filters – this set up is being upgraded in line with the latest guidance on the presence of RCF matting in some of the converter bodies. It has been noted by that approximately 50% of catalytic convertors could contain RCF material so all converters are being treated as hazardous as a precaution.
- 3.6.2 This activity will take place inside the main building and as a precaution, a 3m x 5m fire curtain will be fitted to the building interior which can be manually implemented in any circumstances where users are at risk from RCF fibres if a fire were to occur.

### **3.7 Overheating of stored waste / hot loads**

- 3.7.1 Sources of heat will be kept 6m away and isolated from any suspected combustible or flammable materials.
- 3.7.2 Any waste which discovered to be a 'hot load' after being tipped will either be removed off site immediately assigned to the quarantine area. The hot load will

then be smothered or sprayed with firefighting equipment enabling cooling to ensure the combustion risk is reduced to a minimum.

- 3.7.3 All stockpiles, bales, stacks will be detected daily for hot spots and any piles where steam is visible will be immediately removed to the quarantine area or removed off site immediately.

## **4      FIRE CONTAINMENT AND INFRASTRUCTURE**

### **4.1      Storage on flat ground**

- 4.1.1      Site surfaces where wastes are to be stored are flat, therefore reducing the risk of falling materials accelerating the spread of fire.
- 4.1.2      All storage of combustible waste takes place undercover/in buildings with a sealed drainage system.

### **4.2      Fire breaks**

- 4.2.1      Fire break distances and bay, stack and pile locations are clearly shown on the 'Layout & Fire Plan' and the surface areas and dimensions of each storage area is provided in the Stockpile Detail Table, both of these documents can be found in the Annex to this document. All pile sizes, heights, widths, lengths, volumes and separation distances are in accordance with NRW FPMP document.
- 4.2.2      If a fire on site were to be discovered, site operatives are provided with appropriate training to create additional fire breaks on site under the guidance of the emergency services which may involve the clearance of any adjacent bays/stacks.
- 4.2.3      Site surfaces which are not used for plant or stockpiles, and are therefore providing a fire break, will be kept clear of waste throughout the working day and enforced upon cessation of operations at the end of each day through the site shut-down procedure.
- 4.2.4      Appropriate separation distances will be observed for all stored wastes in accordance with NRW FPMP guidance document as described further in Section 5.0.



### **4.3 Waste storage general / fire breaks**

- 4.3.1 Combustible waste will be stored as per the Layout & Fire Plan and reference should be made to the Combustible Waste Storage Table to ensure the waste is stored within the guidelines of the NRWS fire prevention guidance.
- 4.3.2 There are 6m separation distances between combustible waste piles and 6m breaks from storage waste within external faces of the site's building.
- 4.3.3 **Storage on flat ground:** Site surfaces where wastes are flat, therefore reducing the risk of falling materials accelerating the spread of fire.

### **4.4 Waste storage within 6m of buildings**

- 4.4.1 Other than internal storage, all waste is stored more than 6m from any buildings. The only waste storage in the building is high value non-ferrous metals (2A) which will not self-combust.
- 4.4.2 Non-ferrous metals at the site will have been sorted by hand and are then stored in appropriate containers which eliminates the heat process of the metal.
- 4.4.3 All metals inside the building will be moved by a forklift truck or by hand as the building is too small for any large plant i.e. 360° excavator.

### **4.5 Fire walls and bays**

- 4.5.1 As specified on the Layout & Fire Plan, all fire walls bays are constructed of concrete and 150mm wide, 3-4m high meaning they are of sufficient height, thickness to stop fire spreading and minimise radiant heat. The waste is stored 1m below the height of the wall i.e. 3m to prevent free boarding and the fire spreading.

## **4.6**     **Quarantine area**

- 4.6.1     A 67m<sup>2</sup> quarantine area/bay will be available at the site which is surrounded by three sides of fire wall and the accessible area is 10m from anything considered combustible.
- 4.6.2     In the event of a fire, this area will be used either to isolate wastes which are smouldering to allow safe dissipation of heat without placing other areas on site at risk of ignition.
- 4.6.3     The site would use the forklift truck to transfer any burning material or for large amounts of burnt material, the site can deploy the 360<sup>0</sup> excavator. The forklift truck and 360 benefit from having completely enclosed cabs and fire and heat protected hydraulic systems to avoid combustion/reaction with the fire.
- 4.6.4     In the unlikely event that both the forklift and 360<sup>0</sup> excavator were out of action, the operator would contact one of the nearby industrial premises to obtain a suitable piece of plant to help assist in moving any hot loads or burnt material.

## 5 Detecting and suppressing fires

5.1.1 The following measures are in place to ensure that fires are detected and tackled quickly on site:

- a) **PPE & First Aid Kits** – These will be located in the site office
- b) **Manual fire alarm system** – Will be activated on discovery of a fire (located at various locations as shown on the Fire Plan in the Annex).
- c) **Integrated intruder alarm system** - There is an intruder alarm system which is 24 hour operational and any trespassers will sound the alarm which signal sirens, beacons and also sends a text message to the site manager who can take the necessary action. This would also deploy for any smoke/fire detection.
- d) **IC International Ltd Fire Curtain (DH0/651)** - Manually deployable over de-canning area
- e) **Fire Extinguishers** – Powder (ABC), foam (AFFF) and carbon dioxide firefighting equipment will be provided and stored at a number of designated areas on site as shown on the Layout & Fire Plan and appropriate and regular training will be given for their use in tackling small fires.
- f) **Mains water supply** – There is a mains water connections for the site as shown on the Layout & Fire Plan which are each served by a 32mm bore pipe from the water main on River Lane. A hose reel is located at each mains water connection point which provides full coverage of the whole site where each pile/stack of combustible waste can be accessed safely.
- g) **Fire Hydrant** – There are two hydrants situated on River Lane two of which are located within 50 metres of the site. All hydrants in the vicinity of the site are shown the Receptors Plan in the Annex.
- h) **Visible worded signs** - Will be placed strategically around the site, giving full and clear instructions for fire alarm and means of escape (Meeting point, 999 instructions).

### 5.2 Fire detection procedure

5.2.1 If a fire is detected or suspected it must be immediately reported to the site manager or TCM. The site manager will then conduct the following procedure:

- Raise the fire alarm (if not already done by another staff member).
- 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.
- 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.
- If viable and safe, instruct necessary site staff to commence extinguishment or removal of affected waste to quarantine area to isolate the source.
- If successfully extinguished, follow procedure in Section 6.
- If not viable or safe, call the FRS immediately using 999.
- Prior to the FRS arriving, inform all neighbouring premises likely to be affected.
- If not previously informed, senior management of the company should be informed at this point of the details, nature and extent of the fire and whether assistance from staff from other depots is required.
- Ensure access routes are clear.
- If safe to do so, the TCM or a senior member of staff will inspect the location of the fire, to identify immediate risks to surrounding premises and the FRS.
- 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.
- Ensure relevant site staff are standing by in a safe location to deploy surface water protection equipment under the direction of the FRS when they arrive.
- The site manager / TCM will identify themselves to the fire service as soon as they arrive on site and will provide them with a copy of this document and update them with relevant information that will assist them in dealing with a fire more effectively.
- Implement pollution control measures only when safe to do so.

5.2.2 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.

### **5.3 Fire detection procedure (out of hours)**

- 5.3.1 For those times when a fire may occur during out-of-hours times, an optical smoke detection system with intruder alarm system is installed at the site (details provided in the Annex) which will be linked to the intruder alarm which, in-turn, links to the out of hours call centre who would then call the FRS immediately. The designated persons (minimum of 3) who are on call will also be contacted and will be on site within 5/10 minutes and begin the firefighting techniques IF SAFE TO DO SO.

It is considered the fire risk out of hours to be low as following cessation in operational hours, a detailed fire watch is undertaken and checklist completed to ensure the only risk of combustion would be through arson in which the security measures and the intruder alarm would minimise.

### **5.4 Other suppression techniques**

- 5.4.1 **Fire Curtain:** The site will have access to a fire curtain which would take approximately 10-15 mins to deploy and ensure the pile is fully smothered. The curtain would immediately stop flames/smoke and the fire spreading and enable the FRS to access the fire inside the building. The FRS would also use the curtain as a means of suppression whilst implementing other techniques i.e. connecting the water mains/fire hydrants.
- 5.4.2 The fire curtains are industry (BS) standard and will be purchased from IC International Ltd who are UKAS accredited suppliers in firefighting equipment.

### **5.5 No suppression system in building/s**

- 5.5.1 The operator will not be installing a suppression system inside the building as quotes have indicated the cost will be in excess of £300,000 + VAT & maintenance which is unethical; therefore, appropriate measures have been presented:

### ***MEASURES TO MEET THE THREE OBJECTIVES***

#### **MINIMISE**

- Daily checks as shown in the fire checklist
- Storage of only non-ferrous metals and catalysts which are not considered combustible
- Operational hours thermal imagery checks of all piles by a trained Fire Marshall
- Storage limits within FPMP guidance
- Plant / equipment preventative maintenance checklist
- Remotely accessible 24 CCTV with on and off site supervision
- BS fire curtains deployed over de-canning area in the event of a fire
- Processing and reception areas of waste are cleared at the end of each working day

#### **EXTINGUISHED WITHIN 4 HOURS**

- Implement fire curtain over de-canning area
- 6m separation distances or fire walls are in place so only one pile is required to be extinguished at any one time.
- Addition of manual fire alarms i.e. rotary bells
- Adequate supply of water on and off site if required by staff and the FRS
- All operational staff are trained in reporting a fire enabling the FRS to implement professional techniques to ensure the fire can be extinguished within 4 hours.

#### **REDUCE SPREAD**

- All buildings which store waste are constructed of fire retardant components i.e. asbestos, concrete and cladding meaning a fire cannot spread from one building to another
- No receptors sited less than 6m of the site boundary or the building walls
- Adequate supply of water
- Constant daily monitoring all piles; any piles which show hot spots will be immediately moved to the quarantine area
- On site fire-fighting equipment for smaller fires
- Storage of waste has appropriate separation distances
- Dedicated quarantine area
- Staff training in the event of a fire
- Containment of hot fire water / combustible wastes on site

## **6      CONTAINMENT & WATER SUPPLY**

### **6.1      Containment of firewater runoff**

- 6.1.1      All surface water will fall into a series of aco drains and connects to the foul sewer via a 10,000 litre capacity bypass oils separation system. Details of the above are shown on the Layout & Fire Plan. The site is also entirely contained by a minimum height of 4m concrete walls.
- 6.1.2      The only outlet for water to escape into the sewer system is via the interceptor. Should a fire occur, the immediate response would be to lift the manhole using manhole keys and initiate the shut off/flow restrictor manually which would mean all drain outlets are blocked. This would mean the interceptor would fill to capacity and then all other water would pool in the yard where there is ample containment as shown below.
- 6.1.3      In the event of a worst case scenario fire, it is estimated that containment is required for 480,000 litres or 480m<sup>3</sup> of water. The klargestester has the capacity of 10,000 litres and the 1,530m<sup>2</sup> with 4m firewalls has containment for over 6,000m<sup>3</sup> of water which is more than enough containment on site.
- 6.1.4      In addition, fire water would pool in the containment areas which would allow for fire water to be re-circulated, thus reducing the effective volume of containment required; only if the FRS advise it is safe to do so.
- 6.1.5      Surface water protection measures will be checked by a designated person regularly throughout the duration of the fire incident whilst water is being applied by the Fire Service. Periodic inspections should continue after the Fire Service have left until all run off has pooled. Breaches in control should immediately be notified to the site management and NRW to allow additional measures of control to be considered and deployed.
- 6.1.6      Control measures should remain in place until after the clean-up operation has been completed and all contaminated fire water removed from site.

- 6.1.7 These measures ensure that there is sufficient storage on site for any contaminated water and under no circumstances will firewater be released into surrounding drains which might lead to contamination of water or land.

## **6.2 Adequate supply of water (on site)**

- 6.2.1 There is an on-site 50m fire hose reel which has a 20mm bore to begin extinguishing the fire as well as firefighting equipment i.e. extinguishers. If a fire broke out in this area, the FRS would be called to assist with tackling the fire.

## **6.3 Adequate supply of water (off site)**

- 6.3.1 There are two hydrants situated on River Lane as shown on the Receptor Plan. The fire hydrants pressure has been tested as being 2.1 bar by Dee Valley Water and situated in a 150mm distribution main. The flow rate has not been tested as the figures are too variable and can be increased on the day by Dee Valley Water at the request of the FRS. There is also access for the FRS to pump into the River Dee to use as additional water flow.
- 6.3.2 The water manager from FRS has confirmed that these hydrants ideally situated form an operational point of view and would utilise these hydrants in the event of a fire at the site. The operator would not attempt to use these hydrants as they are not professionally trained in doing so.
- 6.3.3 In addition to the fire hydrant, the fire water used in tackling a fire would accumulate in the sealed concrete/hardstanding areas of the site which can be re-circulated only if the FRS advise it is safe to do so. For smaller fires which can be tackled by the operator, the site benefits from mains water supply.
- 6.3.4 Based on the above, it is considered there is sufficient firewater available to extinguish a worst case scenario fire at the site.



## **7 FIRE RESPONSE PROCEDURES**

### **7.1 Access for emergency services**

- 7.1.1 The site has its own access from River Lane which is adequate for the emergency services. The width of the surrounding roads and the gateway provide sufficient access onto the site for the FRS. Access routes for emergency services around the site are clearly shown on the Layout & Fire Plan.

### **7.2 General staff/visitor procedure**

- 7.2.1 The following actions will be undertaken by site operatives when 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 ON OR VISITING SITE ARE ASSEMBLED SAFELY AND ACCOUNTED FOR
- h) DO NOT RETURN TO THE SITE UNTIL YOU HAVE BEEN GIVEN THE 'ALL CLEAR' BY THE EMERGENCY SERVICES AND/OR THE SITE MANAGER

### **7.3 Maintenance & testing**

- 7.3.1 The equipment will be properly installed, tested and maintained and staff will be trained about the system.

7.3.2 All staff will be trained and assessed every 6 months or if the site layout changes to ensure the below section is rigorously monitored.

7.3.3 The following checks are made daily using the fire check inspection form in as a minimum for all waste which is stored in buildings:

- The optical beam smoke detector is sound.
- Any emergency lighting is working.
- All escape routes are clear and the concrete floor is in good condition.
- Fire exit signs are in the right place.
- Firefighting equipment i.e. extinguishers, blankets are sound (these will be tested twice a year by an approved fire-safety consultant to ensure they are fit for purpose).
- Depollution/dismantling activities are carried out as per DEFRA guidance (industry standards) to minimise the risk of faults.
- Storage of combustible waste is as per the stock rotation sheets to prevent self-combustion.
- Mobile 24 CCTV is functioning correctly.

7.3.2 The aforementioned points ensure that the risk of fire is minimal; avoids the need to test whether the plan works and if a fire were to occur, all firefighting equipment is sound and available.

## **7.4 Evacuation of staff**

7.4.1 An evacuation plan has been formulated for the site and all persons have been made aware of it (through site induction and refresher training / 'tool box talks'). The fast and effective evacuation of staff to the Meeting Point as shown on the Fire Plan in the document Annex will work towards increasing safety on site and limit the impact of a fire on human life.

7.4.2 Regular fire drills are carried on site as per article 15 of the Regulatory Reform (Fire Safety) Order 2005 to ensure evacuation times are acceptable and that site staff remain informed of evacuation procedures. The operator will also appoint

and train fire marshals on site with 24 hour patrol, to aid in the above. The fire drills are carried out every 6 months using the following methods:

- a) Inform all employees of that a fire drill is going to happen, providing them with specific details and also firmly letting them know their participation is required.
- b) Nominate observers (if necessary) to assess the fire drill, paying attention to the appropriateness of actions, the behaviour of employees and any problems which may arise during the drill.
- c) Additionally, if there are likely to be any visitors present at the time of the fire drill you should also pre-warn them.

7.4.3 Throughout the drill, the 'responsible person' and any nominated observers or fire safety wardens should:

- a) Keep an eye out for any inappropriate behaviour, such as stopping to collect coats, bags and other personal belongings.
- b) Closely observe any difficulties experienced by people with disabilities, such as an inability to get out of an exit or get down stairs easily.
- c) Make sure employees are using the nearest fire escape route, rather than just the exit they are most familiar with.
- d) Pay attention to any difficulties experienced as a result of the chosen escape routes, such as doors being difficult to open or exits being blocked.
- e) Listen closely to the roll call taken once the evacuation has been completed, making sure everyone is present and accounted for and checking for any issues which may arise.

7.4.4 After the drill, it is vital the person in charge:

- a) Thoroughly and comprehensively logs all details of the fire drill, including how the evacuation procedure went and any inappropriate actions or problems which were noted as a result.
- b) Any significant findings of the drill should be recorded within this FPMP and reviewed regularly as part of your workplace fire safety.

- c) Remedial action deemed necessary, such as the installation of additional fire safety signs or fire alarms, should be undertaken by a professional, reputable fire safety company.

7.4.5 If a fire is detected on site outside of normal operating hours, the site manager or out-of-hours emergency contact will notify the FRS, NRW and any members of the public who could be affected who can take the necessary course of action.

7.4.6 The site manager/out-of-hours contact will then conduct the following procedure:

- 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 and to ensure that surface water protection and control measures are deployed, 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 ensuring that surface water protection, smothering and/or separation measures may be effectively deployed. Ideally this will be a minimum of three other staff members (enabling safe working in pairs) with at least one machine operator.

## **7.5 Notifying nearby properties**

7.5.1 The nearest receptors within 100m of the site i.e. houses, business will be informed of the fire by employees of the operator and the FRS, Local Council and NRW will be contacted to ensure further properties are informed should the fire become problematic.

## **7.6 Contingency Planning**

7.6.1 Massey Metals Ltd would direct customers to one of 6 other scrap / ELV sites within a 7 mile radius of the site. The following sites are as follows:

- City Metals ( U K ) Limited - CH4 8RW (0.8 miles) ***Scrap metals & ELVs***
- Chadwick Car Breakers - CH4 0BY (2.0 miles) ***Scrap metals & ELVs***

- Alan's Skip Hire Ltd - CH4 0BY - (2.0 miles) ***Scrap metals***
- Copart U K Ltd - CH5 2QZ - (5.5 miles) ***ELVs***
- J Chadwick Scrapyard - CH5 2QJ (5.7 miles) ***Scrap metals***
- Jackson & Sons - CH5 3AH (7.0 miles) ***ELVs***

7.6.2 It is considered the above sites would have capacity to cope with any large scale contracts which the operator would have to fulfil. If the site's couldn't, the operator would have no choice other than close contracts with any large suppliers until the site is able to accept waste material.

7.6.3 No waste will be accepted on site until the post-fire site recovery procedures outlined in Section 6 below have been fully implemented and the site is authorised to re-open for trade and waste acceptance.

## **8 POST-FIRE SITE RECOVERY**

### **8.1 General recovery procedure**

8.1.1 When the fire has been successfully dealt with the following actions will take place:

- a) Any fires will be reported to NRW on the working day that they occur and will be confirmed in writing within 3 working days, including all steps taken by site staff, management and/or emergency services to deal with the fire.
- b) Removal of burnt material using appropriate and lawful disposal.
- c) Investigation into the cause of the fire, to ensure it does not reoccur.
- d) A review of the FPMP, 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.

8.1.2 In addition to the abovementioned procedures, the sections below outline specific procedures following a fire.

### **8.2 Fire debris**

8.2.1 Fire debris should continue to be turned using the on-site plant and doused as necessary with the loading shovel and hosepipe or bowser if necessary until site management confirm that the embers are cooled and there is no chance of a flare up.

8.2.2 Debris can then be cleared and isolated to a series of storage piles for onward temperature monitoring until they have cooled to an acceptable level for landfill disposal (<40 degrees C). Once cooled to an acceptable temperature, as described above, bulk haulage will be arranged for the removal of the ash from the site.

### **8.3 Surface water containment**

8.3.1 Surface water protection measures will remain in place and regular checks on them will be maintained until the clean-up and removal of all fire water has occurred and the final brushing up of the affected area has been undertaken. It is the site management who are responsible for deciding when an appropriate level of clean-up has been achieved to remove the surface water protection measures.

8.3.2 Surface water on site will be cleared using the following methods.

- a) Using a bowser, all standing fire water will be sucked up and taken off site or stored in a tank/bowser prior to removal off site.
- b) Using all available resources, manually clean out areas removing the debris to the pile of fire damaged waste for removal to landfill or other appropriately permitted site.
- c) Using a road sweeper, sweep all areas (damp as required using the bowser) until all ash and clinker has been removed.
- d) All debris has now been isolated and all contaminated water holding areas have been cleaned and emptied.
- e) It is at this stage that site management will decide whether it is appropriate to remove the surface water protection measures, or repeat areas of the clean-up.

8.3.3 If the clean-up operation has been deemed complete, the surface water protection measures can now be removed. This will be achieved using the following

- a) Surface water discharge from the site is now possible the next time it rains. Ensure that surface water checks are made during the next rainfall event to validate that clean-up has been undertaken satisfactorily. Record all findings and actions in the site diary.
- b) Account for all consumables that have been used in the fire and re-order / replace immediately.
- c) Restack, and re-locate all items used for the surface water protection during the fire to their storage locations ready for future deployment.

- d) Check monthly that items are still present and correct and still serviceable for use in an emergency.

## **8.4 Investigation procedures and remediation**

8.4.1 Following a fire event, the affected area will be subject to the following:

- a) Ground sampling of any permeable areas and around the vicinity of the affected area – the frequency, location and depth of the samples required would be agreed between the operator, ground investigation contractor and NRW.
- b) The samples would be sent for analysis at an MCERTS accredited laboratory to ascertain the nature and extent of contamination (if any).
- c) Following receipt of the analysis results a remediation strategy would be submitted to NRW for consideration (if required).
- d) Following agreement of the remediation strategy, it will be implemented as agreed and any contaminated material removed from the site will be sent to a facility suitably permitted to accept the material.
- e) Following remediation, a completion report will be submitted to NRW.

8.4.2 If any significant contamination is found to be present, the operator will work with NRW to implement further measures which may be necessary should a subsequent event occur.



## **ANNEX**

MASSEY METALS LTD - FIRE CHECK INSPECTION FORM DURING OPERATIONAL HOURS (DAILY INSPECTIONS) - MINIMUM OF TWICE DAILY								
WEEK STARTING								
TYPE OF INSPECTION		DAY						
		M	T	W	T	F	S	S
EMERGENCY ACCESS								
SECURITY - GATES								
SECURITY - FENCING								
SITE ROADS / SURFACES (CLEAR FROM HAZARDS)								
WASTE CONTAINERS & BAYS- PROVISION OF FIRE BREAKS								
WASTE TYPES- COMPATIBILITY								
COMBUSTIBLE WASTE STORAGE (WITHIN PROPOSED LIMIT)								
COMBUSTIBLE WASTE STORAGE (AWAY FROM POTENTIAL IGNITION SOURCES)								
FIRE FIGHTING EQUIPMENT EG FIRE EXTINGUISHERS, FIRE ALARMS /SMOKE DETECTORS								
PLANT & EQUIPMENT- FIT FOR PURPOSE AND UNDERGONE MAINTENANCE CHECKS								
STAFF ON SITE HAVE RECEIVED FIRE SAFETY TRAINING								
DRAINAGE CHANNELS/GULLIES								
HOUSEKEEPING	DUST							
HOUSEKEEPING	LITTER							
HOT WORKS FIRE WATCH UNDERTAKEN								
HOT EXHAUSTS FIRE WATCH								
WELFARE FACILITIES (CHECKED FOR ANY POTENTIAL FIRE RISK)								
NO SMOKING SIGNS IN PLACE								
QUARANTINE AREA CLEAR								
FIRES (ANY INCIDENTS REPORTED)								
OTHER -								
INSPECTION CARRIED OUT BY								
NOTES/ACTION (CONTINUE ON A SEPARATE SHEET IF NECESSARY):								
CHECKED BY					SIGNATURE			

NB: The above checklist may be used on more than one occasion throughout the day depending on operations i.e. hot works

## MASSEY METALS LTD

### PREVENTATIVE MAINTENANCE CHECKLIST

CHECKED BY	POSITION
DATE	DATE OF LAST CHECKLIST

ITEM	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						

COMBUSTIBLE WASTE STORAGE TABLE – See the ‘Layout & Fire Plan’ for details of all waste storage locations and references

PLAN REF	DESCRIPTION	WASTE STORED	FORM	COMBU-STIBILITY	MAX STORAG E TIME	MAX LENGTH (M)	MAX WIDTH (M)	MAX HEIGHT (M)	SURFACE AREA (M²)	EXP. DAILY INPUT	TOTAL VOLUME (M³)	CONTAINMENT TYPE	FIREWATER CONTAINMENT	COMMENTS
1A	UNDEPOLLUTED ELVS	ELVS ON RAMPS FOR DEPOLLUTION & DISMANTLING	UNPROCESSED	HIGH	<2 HOURS	N/A	N/A	N/A	20 (TOTAL)	N/A	<20 = 10M3 PER VEHICLE	SEPARATELY CONCRETE PAD AND STORAGE TANK	CONCRETE PAD	ELVS WILL BE DEPOLLUTED / DISMANTLED WITHIN 1 HOUR OF BEING ON THE RAMP; THE SHELL WILL THEN MOVED TO AREA 1F OR REMOVED FROM SITE FOR FURTHER PROCESSING
1B	DRAINED FLUIDS	LIQUID FROM ELVS I.E. BRAKE, TRANSMISSION FLUID, SCREENWASH ETC..	UNPROCESSED	MEDIUM	EMPTIED ONCE FULL	1.2	1	1.2	1.2	N/A	3.6 = 1.2 X 3 IBC'S	IBC'S STORED IN SEPARATELY BUNDED AREA	CONCRETE PAD	CONTAINERS WILL BE COLLECTED BY A SUITABLY PERMITTED CONTRACTOR ONCE FULL
1C	UNDEPOLLUTED ELVS	INCOMING ELVS TO AWAIT DEPOLLUTION	UNPROCESSED	HIGH	<12 HOURS	12 (PER ROW X 3)	3 (PER ROW)	HEIGHT OF THE ELV	<100	5-10	APPROX. 180 - 200 (18 - 20 BASED ON 10M3 PER ELVS	CONCRETE PAD	CONCRETE PAD	ELVS AT MAXIMUM CAPACITY WILL BE STORED AT 3 ROWS OF 6 VEHICLES WHICH ALLOW A FIRE TO BE FOUGHT TO PREVENT SPREAD WILL CONTINUOUSLY DEPOLLUTED ON ARRIVAL AND NO UNDEPOLLUTED ELV WILL BE STORED FOR MORE THAN 12 HOURS PRIOR TO PROCESSING. ALL BATTERIES AND LPG TANKS WILL BE DISCONNECTED/REMOVED PRIOR TO PROCESSING
1D	WASTE TYRES	TYRES FROM ELVS	UNPROCESSED	HIGH	<28 DAYS	6.15	2.42	2.4	<15	N/A	<35	STEEL CONTAINER	CONCRETE PAD	TYRES REMOVED FROM ELVS WILL BE DEPOSITED DIRECTLY INTO THE SKIP AND ONCE FULL WILL BE COLLECTED BY A SUITABLY PERMITTED TYRE RECYCLER
1E	FERROUS METAL	RECEPTION AREA FOR FERROUS METALS	UNPROCESSED	MED	<8 - 12 WEEKS	9.5	7.25	3	<70	1 - 10 TONNE	<70	CONCRETE FIREWALL BAY	CONCRETE PAD	ONCE THE AREA IS FULL, METAL WILL BE DEPOSITED INTO THE ADJACENT BAY TO AWAIT PROCESSING OR REMOVED FROM SITE
1F	DEPOLLUTED ELVS & SCRAP METAL	ELV SHELLS AND NON-RECYCLABLE SCRAP METAL	PROCESSED	MED	<8 - 12 WEEKS	9.5	7.25	3	<70	N/A	<70	CONCRETE FIREWALL	CONCRETE PAD	THIS PILE WILL BE CONTINUOUSLY TURNED/MOVED AS IT IS AWAITING PROCESSING/BALING
2A	NON-FERROUS METAL	COPPER, BATTERIES, CATALYSTS, ALLOYS, ALUMINIUM, BRASS ETC.	PROCESSED	LOW	<7 DAYS	10	10	4	<35	UP TO 1 TONNE	100	SEALED BUILDING	BUILDING OR CONCRETE PAD	METALS WILL BE STORED IN PALLET CONTAINERS. THE MATERIAL WILL NOT BE KEPT FOR LONG PERIODS DUE TO RISK OF THEFT AS THEY ARE HIGH VALUE METALS

TOTAL AREA FOR COMBUSTIBLE WASTE MATERIAL TOTAL STORAGE = 370M²  
VOLUME FOR ALL COMBUSTIBLE WASTES ON SITE = <555m³  
DAILY INPUTS ARE AN ESTIMATE AS THE SITE IS NOT FULLY OPERATIONAL

**STOCK ROTATION SHEET (4-WEEKLY) – WEEKS 1-52**

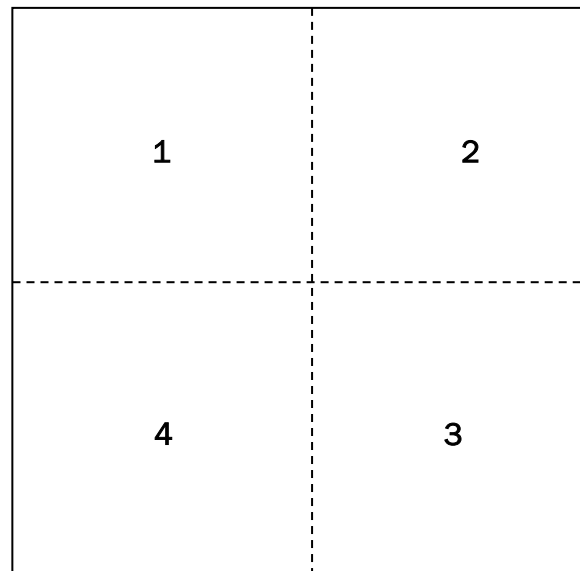
	MAX STORAGE TIME	WEEK No ____			WEEK No ____			WEEK No ____			WEEK No ____		
		MATERIAL PRESENT (% FULL)*	WEEK NO. FOR LAST CLEARANCE	WEEK NO. FOR NEXT CLEARANCE	MATERIAL PRESENT (% FULL)*	WEEK NO. FOR LAST CLEARANCE	WEEK NO. FOR NEXT CLEARANCE	MATERIAL PRESENT (% FULL)*	WEEK NO. FOR LAST CLEARANCE	WEEK NO. FOR NEXT CLEARANCE	MATERIAL PRESENT (% FULL)*	WEEK NO. FOR LAST CLEARANCE	WEEK NO. FOR NEXT CLEARANCE
1E	1 WEEK	%			%			%			%		
1E	1 WEEK	%			%			%			%		
1E	1 WEEK	%			%			%			%		
1E	1 WEEK	%			%			%			%		
1F	1 WEEK	%			%			%			%		
1F	1 WEEK	%			%			%			%		
1F	1 WEEK	%			%			%			%		
1F	1 WEEK	%			%			%			%		

**\*Estimates of how full the storage area is should be made by the same person (if possible) to improve reproducibility and reliability**

## STOCKPILE ROTATION DIAGRAM

### STOCKPILES 1E & 1F

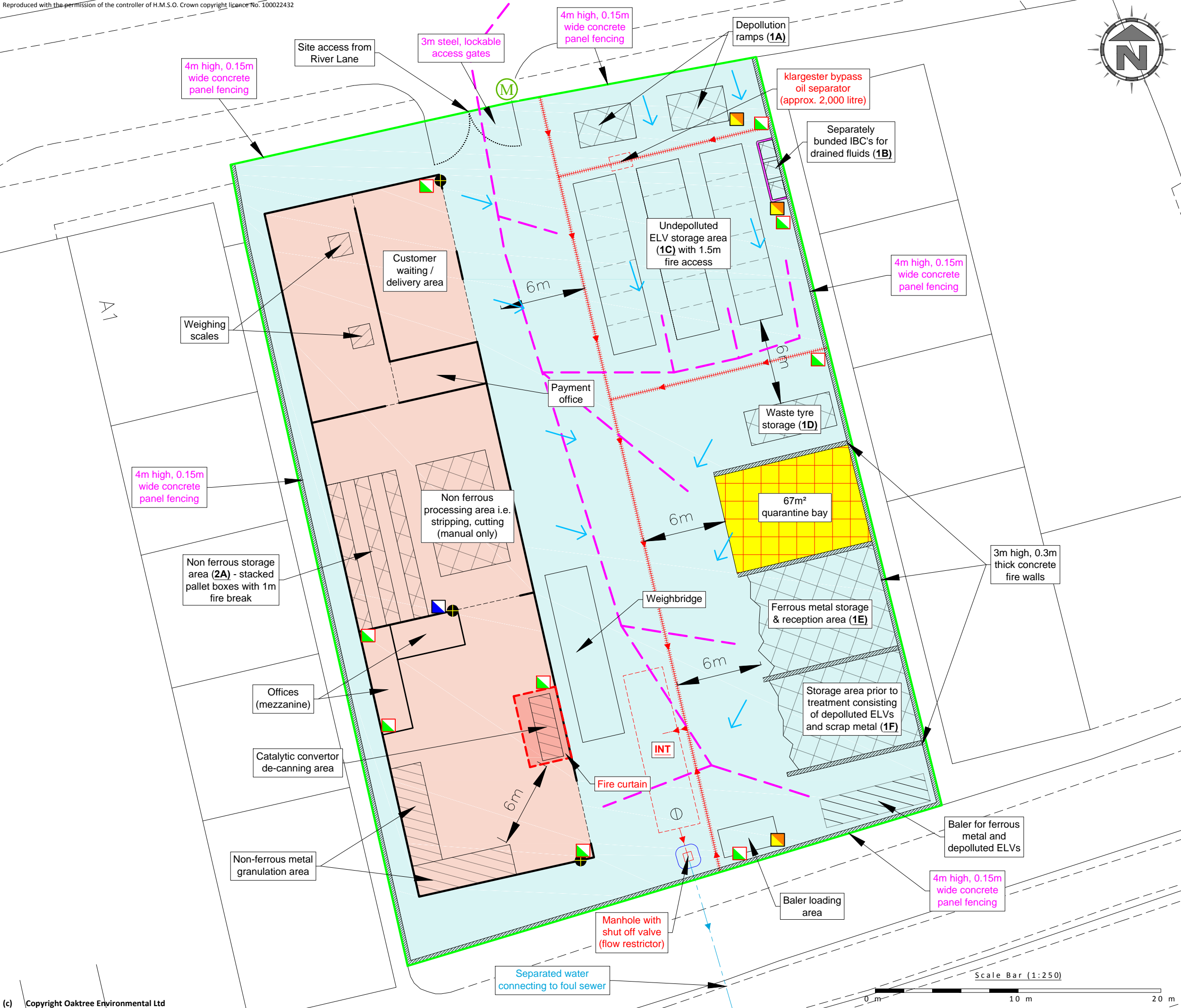
BACK



FRONT

The diagram above shown the stock rotation layout for the stockpiles included Stock Rotation Sheet checklist.

ANNEX





**Oaktree Environmental Ltd**  
Planning, Waste Management  
and Environmental Consultants

Lime House, 2 Road Two  
Winsford Industrial Estate  
Winsford, Cheshire CW7 3RY

Tel: 01606 558833 Fax: 01606 861182  
E-mail: sales@oaktree-environmental.co.uk

Title: SITE LAYOUT & FIRE PLAN			
Drawing No: RIV/2303/03		Revision: B	
Client: MASSEY METALS LTD			
Site: River Lane, Saltney, Chester CH4 8RH			
Date: 10 August 2017		Printed At: A3	
Scale: 1:250			
Job No: 3724	Client No: 2303	Drawn By: CP	Checked: DM

KEY:

Site boundary

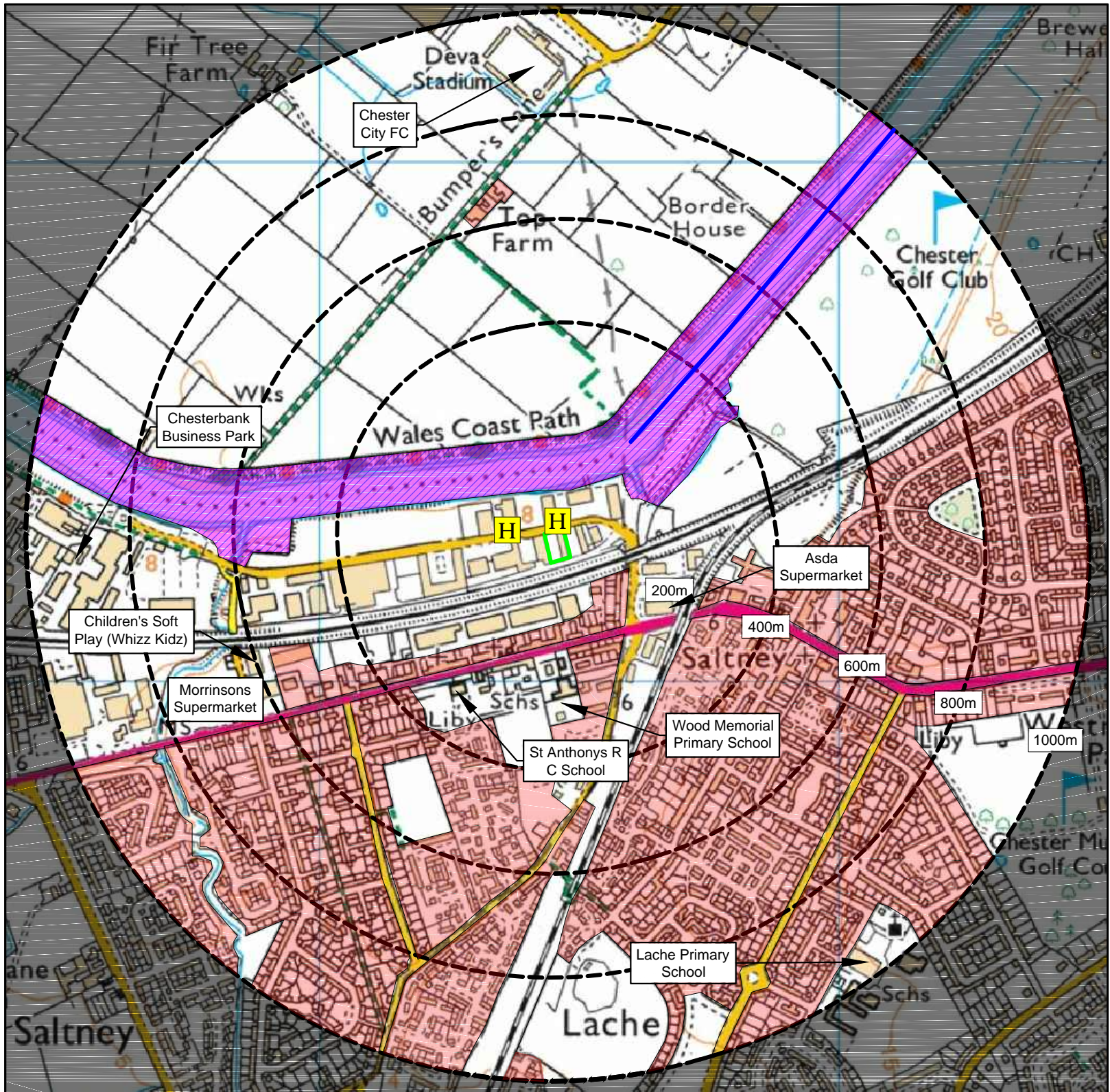
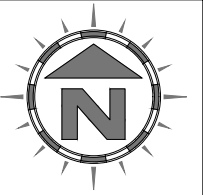
Storage areas

Notes:

(1) Drawing for indication only.  
(2) Do not scale from this drawing.

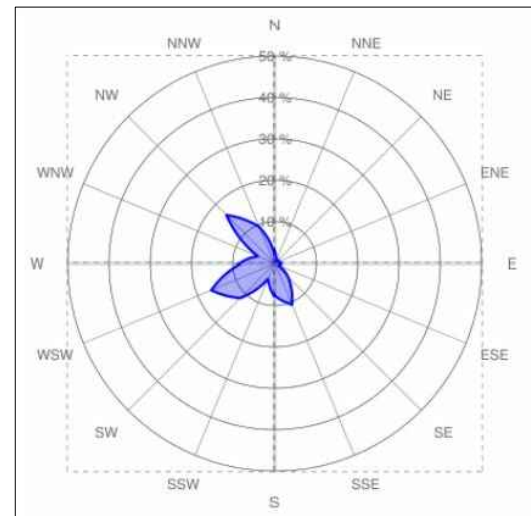
REVISION HISTORY:			
Rev:	Date:	Init:	Description:
-	28/06/17	CP	Initial drawing
A	01/08/17	CP	Amended as per EA comments
B	10/08/17	CP	Amended as per EA comments





KEY:

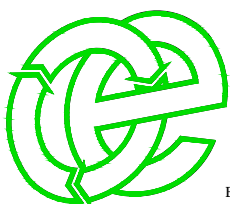
- |  |  |
|--|--|
| Permit boundary  | Mixture of retail, commercial, and industrial premises |
| Surface water body (river / stream / pond / pool / lake) | Recreational / green areas                             |
| Residential blocks / workplaces                          | Mixture of A, B, C roads                               |
| Woodland habitats  | Railway line   |
| Fire hydrant   |  |
| Main river   |  |
| River Dee (SSSI, SAC)                                    |  |



Compass Wind Rose for Station at Hawarden (EGNR) Period 2000-2010

Scale Bar (1:10,000)

0 m 500 m 1000 m



**Oaktree Environmental Ltd**  
Waste Management and  
Environmental Consultants  
Unit 5, Oasis Park, Road One  
Winsford Industrial Estate  
Winsford, Cheshire CW7 3RY  
Tel: 01606 558833 Fax: 01606 861182  
E-mail: sales@oaktree-environmental.co.uk

Title: RECEPTOR PLAN

Drawing No: RIV/2303/04

Client: Massey Metals Ltd

Site: River Lane, Saltney, Chester CH4 8RH

NGR: SJ 38487 65268

Date: 28 June 2017

Scale: 1:10,000

Client No: 2303

Revision: -

Job No: 3724

Printed At: A3

Drawn By: CP

Checked: DM

Notes:

- (1) Boundaries of designated sites (habitats and protected sites) are shown indicatively.
- (2) Wind rose data shows the prevailing wind direction to be SW.

Revision Details:

Rev:	Description:	Date:
-	Initial drawing	28/06/17





**Bridela™  
Product  
U.K.**

**IC International are quality U.K. manufacturers  
and produce high specification fabric curtains  
(not the complete mechanical system)**

### **Fire Curtains and Smoke Curtains**

In the event of a fire, fire curtains may contain the affected area, preventing the spread of flames, smoke and heat and can provide compartmentation between different areas. The use of fire curtains means that initial small fires are prevented from escalating into disasters, safeguarding people and property. A variety of applications including above false/suspended ceilings, factories, lofts, offices, shopping centres, stadiums, hangars, etc.

IC International are dedicated to providing the highest quality fire and smoke curtains and fire cavity barriers. BRIDELA™ fire curtains provide a cost-effective alternative to fire doors, fire shutters, etc.

**Our fire curtains and smoke curtains are produced from specially designed fabrics (BS 476 part 20 with a 2 hour integrity rating awarded).**

- Fire curtain and smoke curtain fabrics are available in standard roll form, if this is the most suitable for your own particular end use
- Alternatively, our fire curtain and smoke curtain fabrics can be cut and stitched into specific sized fire curtains, smoke curtains, draft curtains, fire cavity barriers, etc. If you advise our sales department the particular size(s) you require (width x height/drop), we can then advise individual prices accordingly. **We are U.K. manufacturers so we can make almost any size you may require**
- Brass metal eyelets (grommets), in-built sleeves, etc. can be provided along the edge(s) of these products to facilitate easy suspension/securement
- All these fire curtains and smoke curtains are completely non-asbestos (asbestos free)
- Our fire curtain and smoke curtain fabrics are independently tested and certified (by the prestigious and world renowned test laboratory Warrington Fire Research Centre, United Kingdom) to strict British Standard specifications
- **IC International is a United Kingdom manufacturing company who are certified (and independently audited) to the globally recognised international quality management standard ISO 9001**