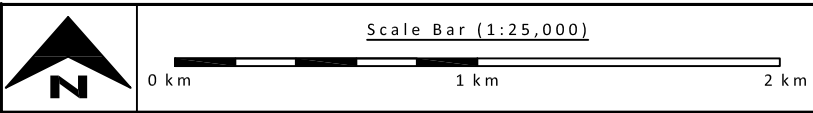


Appendix I

Drawings





Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

Unit 5, Oasis Park
19 Road One
Winsford Ind. Est.
Winsford, Cheshire
CW7 3RY

t: 01606 558833
f: 01606 861182

w: www.oaktree-environmental.co.uk
e: sales@oaktree-environmental.co.uk

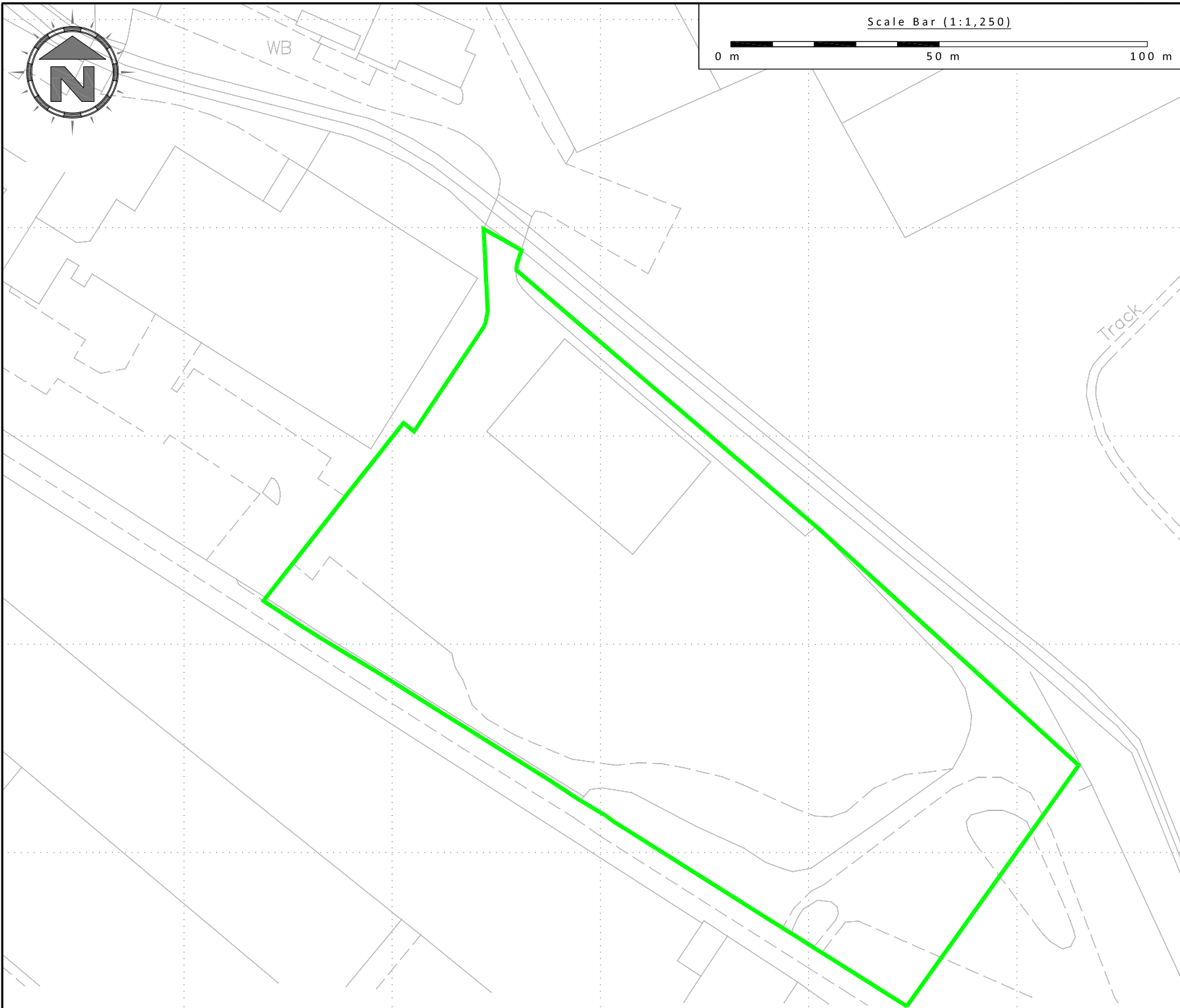
Drawing No: 2399/426/01		Rev: -
Title: SITE LOCATION MAP		
Site: Redwither Road, Wrexham Industrial Estate, Wrexham, LL13 9RD		
Client: Alan's Skip Hire (Wales) Ltd		
Date: 23 July 2013	Job: 2399	
Drawn: CP	Checked: JE	Client: 426
Scale: 1:25,000	Printed @: A4	

KEY:



Site Location

REVISION HISTORY			
Rev:	Date:	Init:	Description:
-	23/07/13	CP	Initial drawing





Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

Unit 5, Oasis Park
19 Road One
Winsford Ind. Est.
Winsford, Cheshire
CW7 3RY

t: 01606 558833
f: 01606 861182

w: www.oaktree-environmental.co.uk
e: sales@oaktree-environmental.co.uk

Drawing No:		2399/426/02	Rev:	A
Title:				
PERMIT BOUNDARY PLAN				
Site:				
Redwither Road, Wrexham Ind. Estate, Wrexham, LL13 9RD				
Client:				
Alan's Skip Hire (Wales) Ltd				
Date:		21 November 2014	Job:	2399
Drawn:	CP	Checked:	JE	Client: 426
Scale:		1:1,250	Printed @:	
			A4	

KEY:

Permit boundary

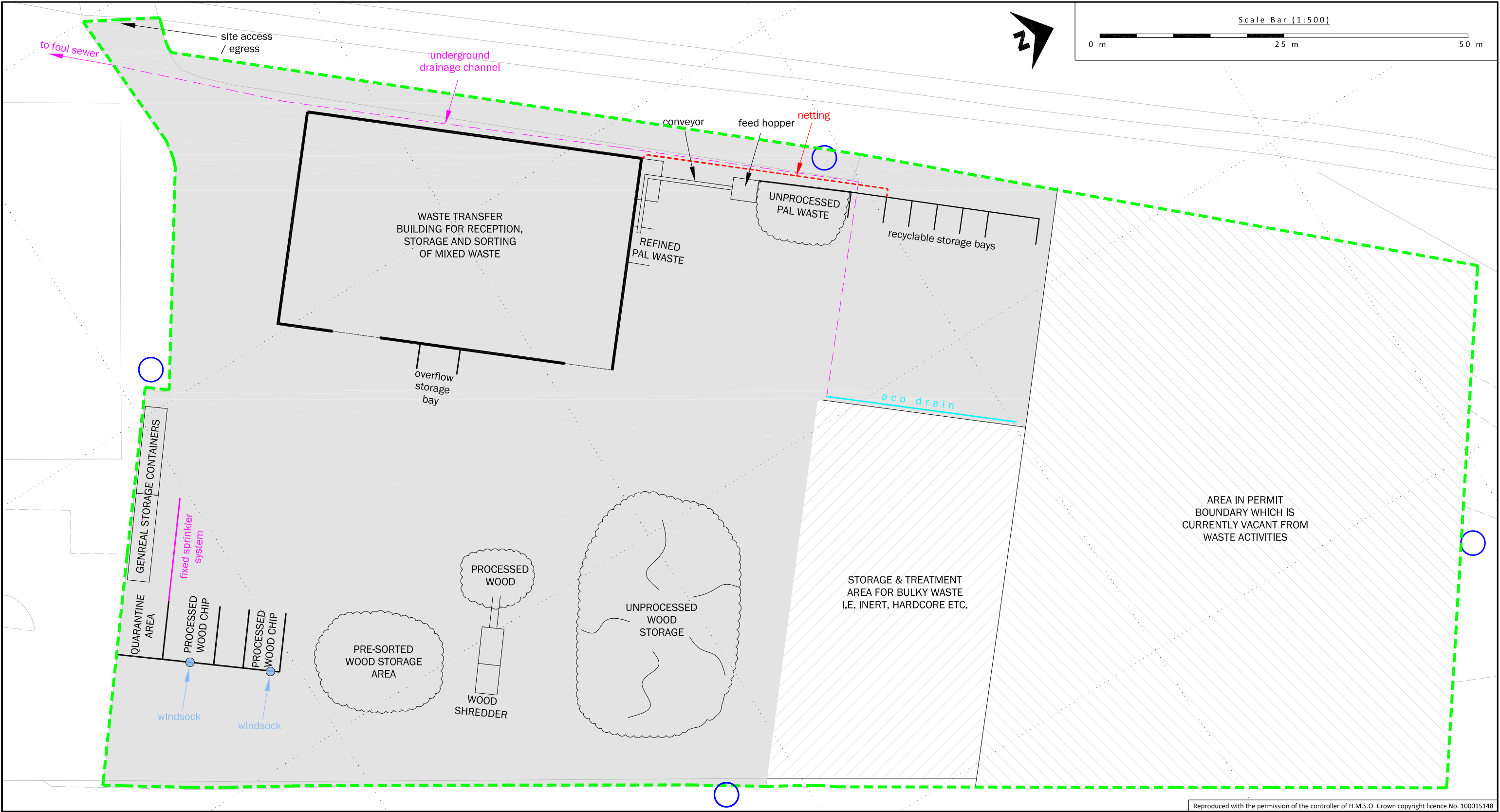
Notes:

(1) Drawing for indication only.
(2) Do not scale from this drawing.
(3) All measurements must be verified on site.

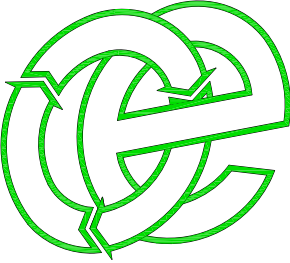
REVISION HISTORY			
Rev:	Date:	Init:	Description:
-	23/07/14	CP	Initial drawing
A	21/11/14	CP	Updated with OS data

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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

NOTES:

- (1) Drawing for indication only.
- (2) Do not scale from this drawing.
- (3) All measurements must be verified on site.

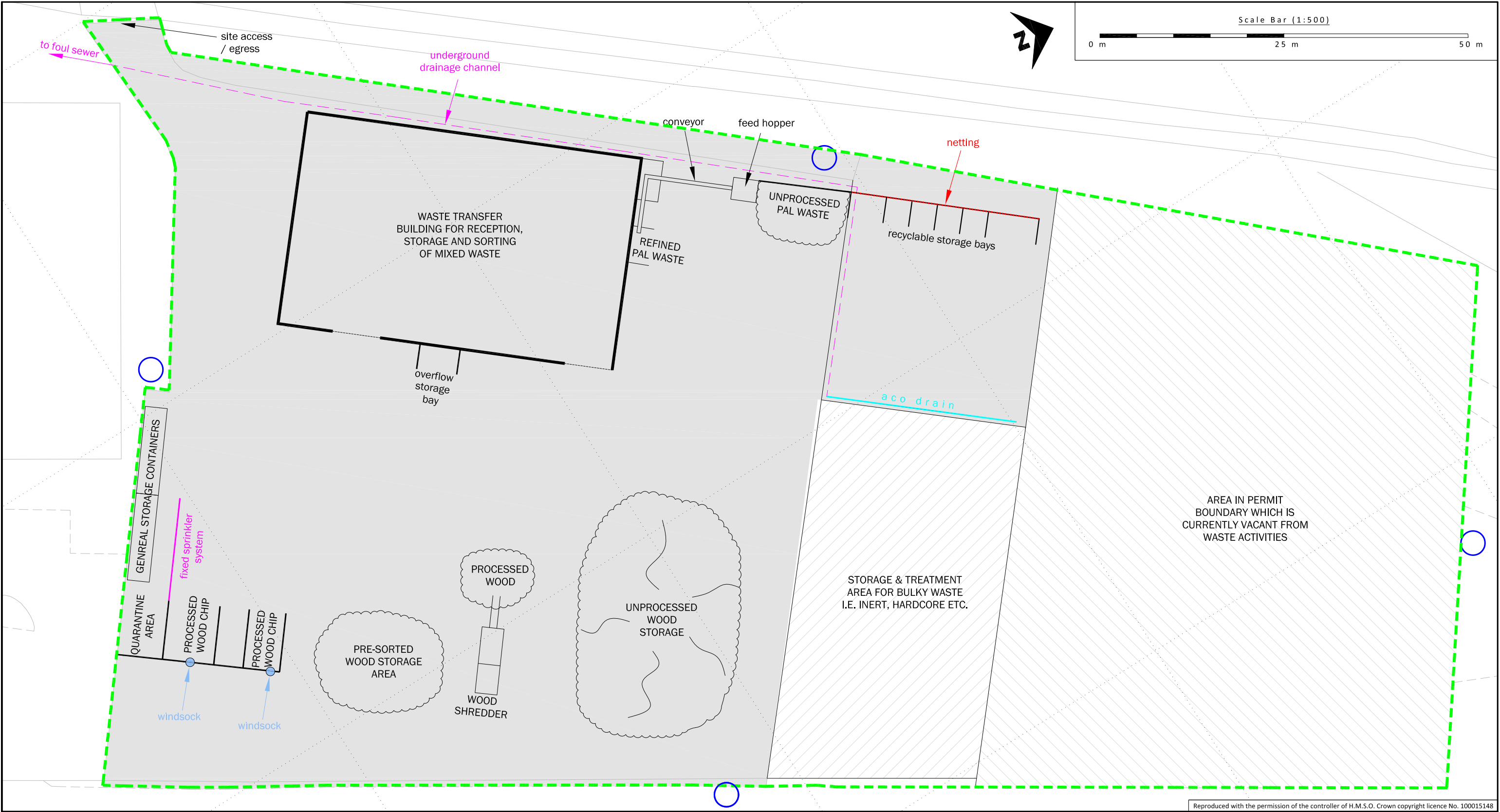
(c) Copyright Oaktree Environmental Ltd

KEY:

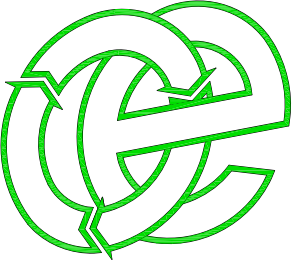
-  Permit boundary
-  Concrete hardstanding surface
-  Dust monitoring points

REVISION HISTORY			
Rev:	Date:	Int:	Description:
-	19/07/13	CP	Initial drawing
A	16/09/13	CP	Issued to EA for OMP
B	28/03/14	RS	Issued for EP variation
C	08/09/14	CP	Operational site changes
D	07/10/14	CP	Amended storage areas
E	24/11/14	CP	Updated with accurate OS data

Drawing No: 2399/426/03		Date: 24 November 2014	
Title: SITE LAYOUT PLAN		Rev: E	
Site: Redwither Road, Wrexham Ind. Estate, LL13 9RD			
Client: Alan's Skip Hire (Wales) Ltd		Scale: 1:500 @ A3	
Drawn: CP	Checked: JE	Job: 2399	Client: 426



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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

NOTES:

- (1) Drawing for indication only.
- (2) Do not scale from this drawing.
- (3) All measurements must be verified on site.

(c) Copyright Oaktree Environmental Ltd

KEY:

-  Permit boundary
-  Concrete hardstanding surface
-  Dust monitoring points

REVISION HISTORY			
Rev:	Date:	Int:	Description:
-	19/07/13	CP	Initial drawing
A	16/09/13	CP	Issued to EA for OMP
B	28/03/14	RS	Issued for EP variation
C	08/09/14	CP	Operational site changes
D	07/10/14	CP	Amended storage areas
E	21/11/14	CP	Updated with accurate OS data

Drawing No: 2399/426/03		Date: 21 November 2014	
Title: SITE LAYOUT PLAN		Rev: E	
Site: Redwither Road, Wrexham Ind. Estate, LL13 9RD			
Client: Alan's Skip Hire (Wales) Ltd		Scale: 1:500 @ A3	
Drawn: CP	Checked: JE	Job: 2399	Client: 426

Appendix II

Record Keeping Forms

TIME	PRODUCER	WASTE TYPE	QUANTITY TONNES / M³	NAME OF CARRIER	DRIVERS NAME	DRIVERS SIGNATURE	VEHICLE REG. NO.	WASTE ACCEPTED/ INSPECTED BY
TOTAL FOR THIS SHEET								
TOTAL FROM PREVIOUS SHEET				SHEET No. OF . CHECKED.....				
TOTAL WASTE DEPOSITED								

ALAN'S SKIP HIRE LTD - WASTE TREATMENT FACILITY
REJECTED WASTE - RECORD FORM RF/2

DATE	
TIME	
WASTE DESCRIPTION	
QUANTITY OF WASTE	
PRODUCER/HOLDER'S NAME, ADDRESS & TELEPHONE No.	
NAME OF CARRIER	
VEHICLE REGISTRATION	
CARRIER REG. No.	
REASON FOR REJECTION OF WASTE	
ACTION TAKEN	

NOTE: FAX TO ENVIRONMENT AGENCY ON _____

DATE	TIME	WASTE TYPE	QUANTITY (TONNES)	DESTINATION SITE (INCLUDING COUNTY)	NAME OF CARRIER OR EMPLOYEE REMOVING WASTE	VEHICLE REG. NO.
TOTAL FOR THIS SHEET						
TOTAL FROM PREVIOUS SHEET =				SHEET No. OF . CHECKED.....		
TOTAL WASTE EXPORTED (TONNES) =						



Daily Site Monitoring, Inspections and Environmental Log [ASH/RF/4]
Week Commencing: 11 November 2013
Site: WREXHAM RECYCLING CENTER

Topic	Mon	Tues	Wed	Thur	Fri	Sat	Sun
Site Entrance & Notice Board							
Perimeter fence, Gates & CCTV							
Weighbridge, Car Park & Bottom Yard							
Condition of site roads & surfaces	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM
Vermín (Birds, Rats, Flies)							
Odours (on and off site)	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM	AM PM
Emergency Stops on plant							
Control of Litter / Mud / Debris							
Fuel bund & Fuel Storage Area							
Foul water drains & Interceptor							
Surface water drains & ditches							
Waste types / Quantities							
Waste types / Quantities Inert							
Waste types / Quantities Biodegradable							
Waste types / Quantities Wood							
Waste / Container Storage							
Machine breakdowns							
Weekly Fire equipment & Ladder check							
Evidence of Fire / Fires							
Accidents on site							
Rejected loads							
Weather conditions							
Completed By (Daily)							
Checked By (Weekly)							

COTC Cover.

NAME

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ALAN'S SKIP HIRE LTD - WASTE TRANSFER FACILITY- VISITOR LOG/COMPLAINTS RECORD - RF/5

[illegible]

EMPLOYEE TRAINING NEEDS ASSESSMENT / REVIEW* - RF/6

[illegible]

ALN'S SKIP HIRE LTD – WASTE TRANSFER FACILITY

Complaints Report Form (RF/7)

Date Recorded	Reference Number
Name and address of caller	
Telephone number of caller	
Time and Date of call	
Nature of complaint (noise, odour, dust, other) (date, time, duration)	
Weather at the time of complaint (rain, snow, fog, etc.)	
Wind (strength, direction)	
Any other complaints relating to this report	
Any other relevant information	
Potential reasons for complaint	
The operations being carried out on site at the time of the complaint	
Follow Up	
Actions taken	
Date of call back to complainant	
Summary of call back conversation	
Recommendations	
Change in procedures	
Changes to Written Management System	
Date changes implemented	
Form completed by	
Signed	
Date completed	

Complaint recording procedure.

- 1) Any complaints received will be recorded on form RF/7. This form will normally be completed, signed and dated by the Site Manager, if they are not available the Office Manager will complete the form.
- 2) The name, address and telephone number of the caller will be requested.
- 3) Each complaint will be given a reference number.
- 4) The caller will be asked to give details of:
 - the nature of the complaint;
 - the time;
 - how long it lasted;
 - how often it occurs;
 - is this the first time the problem has been noticed; and
 - what prompted them to complain
- 5) The person completing the form will then, if possible, make a note of :
 - the weather conditions at the time of the problem (rain, snow, fog etc.)
 - strength and direction of the wind; and
 - the activity or activities taken place on the site at the time the noise was detected, particularly anything unusual.
- 6) The reason for the complaint will be investigated and a note of the findings added to the report.
- 7) The caller will then be contacted with an explanation of the source of the complaint if identified and the action taken to prevent a recurrence of the problem in future.
- 8) If the caller is unhappy about the outcome or unwilling to identify themselves the caller will be invited to contact the Environment Agency and or the Local Authority.

Following any complaint the relevant management plan(s) will be reviewed to ensure appropriate actions are in place to counter any problems.

Alan's Skip Hire Ltd

EMERGENCY DRILL RECORD -RF/8

DRILL TYPE	FIRE	
DATE:		
TIME:		
LOCATION OF INCIDENT/DRILL		
COMPLETED BY		
DATE OF LAST DRILL:		
<i>ACTION/ OBSERVATION</i>	<i>PERFORMANCE / COMMENTS</i>	
Delay to first staff member leaving yard/building		
Delay to last staff member leaving yard/building		
Did staff leave in an orderly and calm manner?	YES/NO (delete)	
Did staff leave without collecting their personal belongings?	YES/NO (delete)	
Did staff congregate at the designated roll call area?	YES/NO (delete)	
Was the register taken?	YES/NO (delete)	
How were the buildings left? (Computers left on, plant left running etc.)		
General comments		
<i>Follow up action</i>		
General staff training		
Modify procedures		
Specific staff training		
Additional equipment required		
Other comments		

MONTH:
RF/10

[illegible]

ALAN'S SKIP HIRE LTD
EMPLOYEE TRAINING RECORD RF/20

NAME		
POSITION		
TRAINER		
POSITION		
TRAINING GIVEN	DATE	OUTCOME
STARTUP PROCEDURE		
SHUTDOWN PROCEDURE		
EMERGENCY PROCEDURES		
FIRE SAFETY/ FIRE FIGHTING		
DUST CONTROL PROCEDURES		
RECOGNITION OF WASTE TYPES		
PERSONAL PROTECTIVE EQUIPMENT		
VEHICLE CHECKS		
DUTY OF CARE NOTES		
PLANT OPERATION: FORKLIFT		
PLANT OPERATION: DEPOLLUTION RIG		
PLANT OPERATION: OTHER		
SITE RULES		
OTHER		

ALAN'S SKIP HIRE LTD

RF/22

MOBILE PLANT INSPECTION SHEET

VISUAL 250 HOUR

DATE

HOURS

MACHINE

ITEM	DESCRIPTION	DEFECT	ACTION TAKEN
LIGHTS	WORK LIGHTS WARNING BEACONS		
WINDSCREEN	CRACKS/CHIPS/ ETC		
WASHERS	RESERVOIR LEVEL BLOCKED JETS		
HORN	WORKING		
MIRRORS	CRACKS CLEAN		
ACCESS LADDERS	GRAB HANDLES FITTED		
HYDRAULICS	HYDRAULIC OIL LEVEL		
	HYDRAULIC LEAKS ON ALL PIPES		
	AND IN ENGINE BAY		
	CHECK ALSO FOR CHAFED PIPES		
	LIKELY TO BURST OR LEAK		
ENGINE	OIL LEVEL ALSO CHECK FOR		
	EXCESSIVE LEAKS		
WATER	RADIATOR LEVEL, RADIATOR FOR		
	BLOCKAGES AND LEAKS		
EXHAUST	CHECK FOR HOLES EXCESSIVE NOISE		
	AND EXCESSIVE SMOKE		
AIR FILTER	REMOVE AND BLOW OUT DUST		
BRAKES	CHECK FOR LEAKS AIR/OIL AND		
	CORRECT OPERATION		
TRACKS	TENSION		

INSPECTED BY

NAME

.....

SIGNED

.....

Appendix III

*Permit conditions
including
list of permitted wastes*

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Alan's Skip Hire (Wales) Limited

ASH Wrexham Recycling Centre
Site one
Redwither Road
Wrexham Industrial Estate
Wrexham
LL13 9RD

Variation application number
EPR/WP3094FB/V002

Permit number
EPR/WP3094FB

ASH Wrexham Recycling Centre

Permit number EPR/WP3094FB

Introductory note

This introductory note does not form a part of the notice.

The following notice gives notice of the variation and consolidation of an environmental permit.

This variation is the result of an Environment Agency led permit review project across Wales. As part of our statutory duties we aim to ensure that permit conditions are fit for purpose and meet statutory requirements.

As part of modernising and updating this permit, the recovery (R) and disposal (D) codes and a list of site specific waste codes from the European Waste Catalogue (EWC) have been referenced.

The schedules specify the changes made to the permit.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
EAWML 37211 issued	09/03/00	Waste management licence for the keeping and treating of waste issued to A M Reclaim Limited
Informative	07/02/01	Change of operator name from A M Reclaim Limited to Alpha Environmental Management Ltd
EAWML 37211 modified	03/12/03	Financial provision modification
EAWML 37211 transferred	09/06/05	Full transfer from Alpha Environmental Management Ltd to Alan's Skip Hire (Wales) Limited.
EPR/WP3094FB/V002 (variation and consolidation)	22/03/13	Permit issued to Alan's Skip Hire (Wales) Limited

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies and consolidates

permit number
EPR/WP3094FB

issued to
Alan's Skip Hire (Wales) Limited ("the operator")

whose registered office is

The Mill
Morton
Oswestry
Salop
SY10 8BH
company registration number **05338002**

to operate a regulated facility at

ASH Wrexham Recycling Centre
Site one
Redwither Road
Wrexham Industrial Estate
Wrexham
LL13 9RD

to the extent set out in the schedules.

The notice shall take effect from 22/03/13

Name

Date

 E Franks	22/03/13
--	-----------------

Authorised on behalf of the Environment Agency

Schedule 1

All conditions have been varied by the consolidated permit as a result of an Environment Agency initiated variation.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Alan's Skip Hire (Wales) Limited

ASH Wrexham Recycling Centre
Site one
Redwither Road
Wrexham Industrial Estate
Wrexham
LL13 9RD

Permit number
EPR/WP3094FB/V002

ASH Wrexham Recycling Centre

Permit number EPR/WP3094FB

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

This permit allows the operator to operate a Household, Commercial and Industrial Waste Transfer Station with waste treatment. The only hazardous wastes to be accepted on site are those associated with the depollution of end of life vehicles. The total quantity of waste that can be accepted at the site under this permit must not exceed 24,999 tonnes a year. Wastes can be bulked up for disposal or recovery elsewhere and can also be treated by sorting and screening. This permit does not allow the burning of any wastes, either in the open, inside buildings or in any form of incinerator.

The site drainage discharges to Redwither Brook via a settlement chamber, as we are not imposing monitoring requirements on this discharge (which has a discharge consent) it falls under condition 3.1 'Emissions of substances not controlled by emission limits'.

The status log of the permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit

Description	Date	Comments
EAWML 37211 issued	09/03/00	Waste management licence for the keeping and treating of waste issued to A M Reclaim Limited
Informative	07/02/01	Change of operator name from A M Reclaim Limited to Alpha Environmental Management Ltd
EAWML 37211 modified	03/12/03	Financial provision modification
EAWML 37211 transferred	09/06/05	Full transfer from Alpha Environmental Management Ltd to Alan's Skip Hire (Wales) Limited.
EPR/WP3094FB/V002 (variation and consolidation)	22/03/13	Permit issued to Alan's Skip Hire (Wales) Limited.

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number
EPR/WP3094FB

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010

Alan's Skip Hire (Wales) Limited ("the operator"),

whose registered office is

The Mill
Morton
Oswestry
Salop
SY10 8BH

company registration number **05338002**

to operate waste operations at

ASH Wrexham Recycling Centre
Site one
Redwither Road
Wrexham Industrial Estate
Wrexham
LL13 9RD

to the extent authorised by and subject to the conditions of this permit.

Name	Date
 E Franks	22/03/13

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme.

1.2 Avoidance, recovery and disposal of wastes produced by the activities

- 1.2.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.2.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).

2.2 The site

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

2.3 Operating techniques

- 2.3.1 (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- (b) If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan specified in schedule 1, table S1.2 or otherwise required under this permit, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 table(s) S2.1 [, S2.2 etc]; and
- (b) it conforms to the description in the documentation supplied by the producer and holder.

2.4 Technical requirements

Vehicle depollution and dismantling

- 2.4.1 The storage (including temporary storage) and treatment of waste motor vehicles shall meet the requirements of article 6(1) of the End-of-Life Vehicles Directive.

WEEE treatment

- 2.4.2 The storage (including temporary storage) and treatment of WEEE shall be carried out in accordance with the technical requirements of Annex III of the WEEE Directive.
- 2.4.3 Equipment shall be provided to record the weight of untreated WEEE accepted at, and components and materials leaving the site.

Hazardous waste storage and treatment

- 2.4.4 Hazardous waste shall not be mixed, either with a different category of hazardous waste or with other waste, substances or materials, unless it is authorised by schedule 1 table S1.1 and appropriate measures are taken.

2.5 Improvement programme

- 2.5.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

- 2.5.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

3 Emissions and monitoring

3.1 Emissions of substances not controlled by emission limits

- 3.1.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.1.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
 - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.1.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.2 Odour

- 3.2.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.2.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
 - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.3 Noise and vibration

- 3.3.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.3.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Pests

3.4.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.

3.4.2 The operator shall:

- (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution from pests;
- (b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and
 - (ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

- 4.2.2 Within one month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.3 Notifications

- 4.3.1 The Environment Agency shall be notified without delay following the detection of:

- (a) any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution;
- (b) the breach of a limit specified in the permit; or
- (c) any significant adverse environmental effects.

- 4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

- 4.3.3 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address (es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

- 4.3.4 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made “without delay”, in which case it may be provided by telephone.

Schedule 1 - Operations

Table S1.1 activities

Activity reference	Description of activities for waste operations	Limits of activities
A1	R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced).	All wastes shall be stored on an impermeable surface with a sealed drainage system. The maximum quantity of hazardous waste stored, in total, at the site pending recovery or disposal shall not exceed 50 tonnes per day.
	D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection on the site where it is produced).	No more than a total of 50 tonnes of intact and shredded waste vehicle tyres (waste codes 16 01 03 and 19 12 04) shall be stored on site. Any wastes that consist solely or mainly of dusts, powders or loose fibres shall be stored in a container with a lid when stored externally.
		Treatment consisting only of: - physical sorting, and - screening of wastes into different components for disposal or recovery.
	R3: Recycling/reclamation of organic substances which are not used as solvents.	The maximum quantity of hazardous waste treated at the site for recovery or disposal shall not exceed 10 tonnes per day in total, by means of a D9 or R5 activity.
	R4: Recycling/reclamation of metals and metal compounds.	The maximum quantity of non-hazardous waste treated at the site for disposal shall not exceed 50 tonnes per day in total, by means of a D9 activity.
	R5: Recycling/reclamation of other inorganic compounds.	
	D9: Physicochemical treatment not specified elsewhere which results in final compounds or mixtures which are disposed of by any of the operations numbered D1 to D12.	Treatment of hazardous and non-hazardous shall take place on an impermeable surface with sealed drainage. Treatment of hazardous and non-hazardous waste shall only take place within a building.

Table continued overleaf

Table S1.1 activities

Inert waste may be stored and treated on impermeable surface with sealed drainage or hard standing.

WEEE shall be accepted on site for storage and bulking only prior to onward transport.

Waste types as set out in Table S2.1.

Table S1.2 Operating techniques

Description	Parts	Date Received
How To Comply With Your Environmental Permit	All	N/A

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
IPC 1	The operator is required to provide an EMS in line with How to comply and H6 Environmental management systems guidance.	4 months from date of permit issue

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Permitted waste types and quantities

Maximum quantity

The total quantity of waste accepted at the site must not exceed 24,999 tonnes per year.

Exclusions

Wastes having any of the following characteristics shall not be accepted:

- Hazardous wastes other than those listed below

Waste code Description

01	WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS
01 01	wastes from mineral excavation
01 01 01	wastes from mineral metalliferous excavation
01 01 02	wastes from mineral non-metalliferous excavation
01 03	wastes from physical and chemical processing of metalliferous minerals
01 03 06	tailings other than those mentioned in 01 03 04 and 01 03 05
01 03 08	dusty and powdery wastes other than those mentioned in 01 03 07
01 04	wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
01 04 10	dusty and powdery wastes other than those mentioned in 01 04 07
01 04 11	wastes from potash and rock salt processing other than those mentioned in 01 04 07
01 04 12	tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11
01 04 13	wastes from stone cutting and sawing other than those mentioned in 01 04 07
02	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 03	plant-tissue waste
02 01 04	waste plastics (except packaging)
02 01 07	wastes from forestry
02 01 10	waste metal
02 03	wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 03 04	materials unsuitable for consumption or processing
02 04	wastes from sugar processing
02 04 01	soil from cleaning and washing beet
02 04 02	off-specification calcium carbonate
02 06	wastes from the baking and confectionery industry
02 06 01	materials unsuitable for consumption or processing
02 06 02	wastes from preserving agents
03	WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD
03 01	wastes from wood processing and the production of panels and furniture
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	wastes from pulp, paper and cardboard production and processing
03 03 01	waste bark and wood
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	wastes from sorting of paper and cardboard destined for recycling
03 03 10	fibre rejects, fibre-, filler- and coating-sludges from mechanical separation

04	WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES
04 01	wastes from the leather and fur industry
04 01 08	waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium
04 01 09	wastes from dressing and finishing
04 02	wastes from the textile industry
04 02 09	wastes from composite materials (impregnated textile, elastomer, plastomer)
04 02 10	organic matter from natural products (for example grease, wax)
04 02 15	wastes from finishing other than those mentioned in 04 02 14
04 02 17	dye stuffs and pigments other than those mentioned in 04 02 16
04 02 21	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres
05	WASTES FROM PETROLEUM REFINING, NATURAL GAS PURIFICATION AND PYROLYTIC TREATMENT OF COAL
05 01	wastes from petroleum refining
05 01 16	sulphur-containing wastes from petroleum desulphurisation
05 01 17	bitumen
05 06	wastes from the pyrolytic treatment of coal
05 06 04	waste from cooling columns
05 07	wastes from natural gas purification and transportation
05 07 02	wastes containing sulphur
06	WASTES FROM INORGANIC CHEMICAL PROCESSES
06 03	wastes from the MFSU of salts and their solutions and metallic oxides
06 03 16	metallic oxides other than those mentioned in 06 03 15
06 06	wastes from the MFSU of sulphur chemicals, sulphur chemical processes and desulphurisation processes
06 06 03	wastes containing sulphides other than those mentioned in 06 06 02
06 09	wastes from the MFSU of phosphorous chemicals and phosphorous chemical processes
06 09 02	phosphorous slag
06 09 04	calcium-based reaction wastes other than those mentioned in 06 09 03
06 11	wastes from the manufacture of inorganic pigments and opacifiers
06 11 01	calcium-based reaction wastes from titanium dioxide production
06 13	wastes from inorganic chemical processes not otherwise specified
06 13 03	carbon black
07	WASTES FROM ORGANIC CHEMICAL PROCESSES
07 02	wastes from the MFSU of plastics, synthetic rubber and man-made fibres
07 02 13	waste plastic
07 02 15	wastes from additives other than those mentioned in 07 02 14
07 02 17	wastes containing silicones other than those mentioned in 07 02 16
07 05	wastes from the MFSU of pharmaceuticals
07 05 14	solid wastes other than those mentioned in 07 05 13
08	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01	wastes from MFSU and removal of paint and varnish
08 01 18	wastes from paint or varnish removal other than those mentioned in 08 01 17
08 02	wastes from MFSU of other coatings (including ceramic materials)
08 02 01	waste coating powders
08 03	wastes from MFSU of printing inks
08 03 18	waste printing toner other than those mentioned in 08 03 17
08 04	wastes from MFSU of adhesives and sealants (including waterproofing products)
08 04 10	waste adhesives and sealants other than those mentioned in 08 04 09
09	WASTES FROM THE PHOTOGRAPHIC INDUSTRY
09 01	wastes from the photographic industry
09 01 07	photographic film and paper containing silver or silver compounds
09 01 08	photographic film and paper free of silver or silver compounds

09 01 10	single-use cameras without batteries
09 01 12	single-use cameras containing batteries other than those mentioned in 09 01 11
10	WASTES FROM THERMAL PROCESSES
10 01	wastes from power stations and other combustion plants (except 19)
10 01 01	bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 01 02	coal fly ash
10 01 03	fly ash from peat and untreated wood
10 01 05	calcium-based reaction wastes from flue-gas desulphurisation in solid form
10 01 15	bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14
10 01 17	fly ash from co-incineration other than those mentioned in 10 01 16
10 01 19	wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18
10 01 24	sands from fluidised beds
10 01 25	wastes from fuel storage and preparation of coal-fired power plants
10 02	wastes from the iron and steel industry
10 02 01	wastes from the processing of slag
10 02 02	unprocessed slag
10 02 08	solid wastes from gas treatment other than those mentioned in 10 02 07
10 02 10	mill scales
10 03	wastes from aluminium thermal metallurgy
10 03 02	anode scraps
10 03 05	waste alumina
10 03 16	skimmings other than those mentioned in 10 03 15
10 03 18	carbon-containing wastes from anode manufacture other than those mentioned in 10 03 17
10 03 20	flue-gas dust other than those mentioned in 10 03 19
10 03 22	other particulates and dust (including ball-mill dust) other than those mentioned in 10 03 21
10 03 24	solid wastes from gas treatment other than those mentioned in 10 03 23
10 03 30	wastes from treatment of salt slags and black drosses other than those mentioned in 10 03 29
10 05	wastes from zinc thermal metallurgy
10 05 01	slags from primary and secondary production
10 05 04	other particulates and dust
10 05 11	dross and skimmings other than those mentioned in 10 05 10
10 06	wastes from copper thermal metallurgy
10 06 01	slags from primary and secondary production
10 06 02	dross and skimmings from primary and secondary production
10 06 04	other particulates and dust
10 07	wastes from silver, gold and platinum thermal metallurgy
10 07 01	slags from primary and secondary production
10 07 02	dross and skimmings from primary and secondary production
10 07 03	solid wastes from gas treatment
10 07 04	other particulates and dust
10 07 05	sludges and filter cakes from gas treatment
10 08	wastes from other non-ferrous thermal metallurgy
10 08 04	particulates and dust
10 08 09	other slags
10 08 11	dross and skimmings other than those mentioned in 10 08 10
10 08 13	carbon-containing wastes from anode manufacture other than those mentioned in 10 08 12
10 08 14	anode scrap
10 08 16	flue-gas dust other than those mentioned in 10 08 15
10 08 18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 08 17
10 08 20	wastes from cooling-water treatment other than those mentioned in 10 08 19
10 09	wastes from casting of ferrous pieces
10 09 03	furnace slag
10 09 06	casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05
10 09 08	casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07

10 09 10	flue-gas dust other than those mentioned in 10 09 09
10 09 12	other particulates other than those mentioned in 10 09 11
10 09 14	waste binders other than those mentioned in 10 09 13
10 09 16	waste crack-indicating agent other than those mentioned in 10 09 15
10 10	wastes from casting of non-ferrous pieces
10 10 03	furnace slag
10 10 06	casting cores and moulds which have not undergone pouring, other than those mentioned in 10 10 05
10 10 08	casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07
10 10 10	flue-gas dust other than those mentioned in 10 10 09
10 10 12	other particulates other than those mentioned in 10 10 11
10 10 14	waste binders other than those mentioned in 10 10 13
10 10 16	waste crack-indicating agent other than those mentioned in 10 10 15
10 11	wastes from manufacture of glass and glass products
10 11 03	waste glass-based fibrous materials
10 11 05	particulates and dust
10 11 10	waste preparation mixture before thermal processing, other than those mentioned in 10 11 09
10 11 12	waste glass other than those mentioned in 10 11 11
10 11 16	solid wastes from flue-gas treatment other than those mentioned in 10 11 15
10 11 18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 11 17
10 11 20	solid wastes from on-site effluent treatment other than those mentioned in 10 11 19
10 12	wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 01	waste preparation mixture before thermal processing
10 12 03	particulates and dust
10 12 05	sludges and filter cakes from gas treatment
10 12 06	discarded moulds
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)
10 12 10	solid wastes from gas treatment other than those mentioned in 10 12 09
10 12 12	wastes from glazing other than those mentioned in 10 12 11
10 13	wastes from manufacture of cement, lime and plaster and articles and products made from them
10 13 01	waste preparation mixture before thermal processing
10 13 04	wastes from calcination and hydration of lime
10 13 06	particulates and dust (except 10 13 12 and 10 13 13)
10 13 07	sludges and filter cakes from gas treatment
10 13 10	wastes from asbestos-cement manufacture other than those mentioned in 10 13 09
10 13 11	wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10
10 13 13	solid wastes from gas treatment other than those mentioned in 10 13 12
10 13 14	waste concrete and concrete sludge
11	WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY
11 02	wastes from non-ferrous hydrometallurgical processes
11 02 03	wastes from the production of anodes for aqueous electrolytical processes
11 02 06	wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05
11 05	wastes from hot galvanising processes
11 05 01	hard zinc
11 05 02	zinc ash
12	WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS
12 01	wastes from shaping and physical and mechanical surface treatment of metals and plastics
12 01 01	ferrous metal filings and turnings
12 01 02	ferrous metal dust and particles
12 01 03	non-ferrous metal filings and turnings
12 01 04	non-ferrous metal dust and particles

12 01 05	plastics shavings and turnings
12 01 13	welding wastes
12 01 17	waste blasting material other than those mentioned in 12 01 16
12 01 21	spent grinding bodies and grinding materials other than those mentioned in 12 01 20
15	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01	packaging (including separately collected municipal packaging waste)
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 04	metallic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 07	glass packaging
15 01 09	textile packaging
15 02	absorbents, filter materials, wiping cloths and protective clothing
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
16	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 01	end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)
16 01 03	end-of-life tyres
16 01 04*	end-of-life vehicles
16 01 06	end-of-life vehicles, containing neither liquids nor other hazardous components
16 01 07*	oil filters
16 01 12	brake pads other than those mentioned in 16 01 11
16 01 17	ferrous metal
16 01 18	non-ferrous metal
16 01 19	plastic
16 01 20	glass
16 02	wastes from electrical and electronic equipment
16 02 14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13
16 02 16	components removed from discarded equipment other than those mentioned in 16 02 15
16 03	off-specification batches and unused products
16 03 04	inorganic wastes other than those mentioned in 16 03 03
16 03 06	organic wastes other than those mentioned in 16 03 05
16 06	batteries and accumulators
16 06 04	alkaline batteries (except 16 06 03)
16 06 05	other batteries and accumulators
16 08	spent catalysts
16 08 01	spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 07)
16 08 03	spent catalysts containing transition metals or transition metal compounds not otherwise specified
16 11	waste linings and refractories
16 11 02	carbon-based linings and refractories from metallurgical processes others than those mentioned in 16 11 01
16 11 04	other linings and refractories from metallurgical processes other than those mentioned in 16 11 03
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 01	concrete, bricks, tiles and ceramics
17 01 01	concrete
17 01 02	bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06

17 02	wood, glass and plastic
17 02 01	wood
17 02 02	glass
17 02 03	plastic
17 03	bituminous mixtures, coal tar and tarred products
17 03 02	bituminous mixtures other than those mentioned in 17 03 01
17 04	metals (including their alloys)
17 04 01	copper, bronze, brass
17 04 02	aluminium
17 04 03	lead
17 04 04	zinc
17 04 05	iron and steel
17 04 06	tin
17 04 07	mixed metals
17 04 11	cables other than those mentioned in 17 04 10
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 06	dredging spoil other than those mentioned in 17 05 05
17 05 08	track ballast other than those mentioned in 17 05 07
17 06	insulation materials and asbestos-containing construction materials
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03
17 08	gypsum-based construction material
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01
17 09	other construction and demolition wastes
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
18	WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care)
18 01	wastes from natal care, diagnosis, treatment or prevention of disease in humans
18 01 04	wastes whose collection and disposal is not subject to special requirements in order to prevent infection(for example dressings, plaster casts, linen, disposable clothing, diapers)
18 01 09	medicines other than those mentioned in 18 01 08
18 02	wastes from research, diagnosis, treatment or prevention of disease involving animals
18 02 03	wastes whose collection and disposal is not subject to special requirements in order to prevent infection
18 02 06	chemicals other than those mentioned in 18 02 05
18 02 08	medicines other than those mentioned in 18 02 07
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE
19 01	wastes from incineration or pyrolysis of waste
19 01 02	ferrous materials removed from bottom ash
19 01 12	bottom ash and slag other than those mentioned in 19 01 11
19 01 14	fly ash other than those mentioned in 19 01 13
19 01 16	boiler dust other than those mentioned in 19 01 15
19 01 18	pyrolysis wastes other than those mentioned in 19 01 17
19 01 19	sands from fluidised beds
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 03	premixed wastes composed only of non-hazardous wastes
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09

19 03	stabilised/solidified wastes ¹
19 03 05	stabilised wastes other than those mentioned in 19 03 04
19 03 07	solidified wastes other than those mentioned in 19 03 06
19 04	vitrified waste and wastes from vitrification
19 04 01	vitrified waste
19 05	wastes from aerobic treatment of solid wastes
19 05 01	non-composted fraction of municipal and similar wastes
19 05 02	non-composted fraction of animal and vegetable waste
19 05 03	off-specification compost
19 08	wastes from waste water treatment plants not otherwise specified
19 08 02	waste from desanding
19 09	wastes from the preparation of water intended for human consumption or water for industrial use
19 09 01	solid waste from primary filtration and screenings
19 09 04	spent activated carbon
19 09 05	saturated or spent ion exchange resins
19 10	wastes from shredding of metal-containing wastes
19 10 01	iron and steel waste
19 10 02	non-ferrous waste
19 10 04	fluff-light fraction and dust other than those mentioned in 19 10 03
19 10 06	other fractions other than those mentioned in 19 10 05
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 01	paper and cardboard
19 12 02	ferrous metal
19 12 03	non-ferrous metal
19 12 04	plastic and rubber
19 12 05	glass
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 09	minerals (for example sand, stones)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
19 13	wastes from soil and groundwater remediation
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 01	separately collected fractions (except 15 01)
20 01 01	paper and cardboard
20 01 02	glass
20 01 08	biodegradable kitchen and canteen waste
20 01 10	clothes
20 01 11	textiles
20 01 28	paint, inks, adhesives and resins other than those mentioned in 20 01 27
20 01 32	medicines other than those mentioned in 20 01 31
20 01 34	batteries and accumulators other than those mentioned in 20 01 33
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 40	metals
20 01 41	wastes from chimney sweeping

¹ Stabilisation processes change the dangerousness of the constituents in the waste and thus transform hazardous waste into non-hazardous waste. Solidification processes only change the physical state of the waste (e.g. liquid into solid) by using additives without changing the chemical properties of the waste.

20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 02 02	soil and stones
20 02 03	other non-biodegradable wastes
20 03	other municipal wastes
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 03	street-cleaning residues
20 03 07	bulky waste

Schedule 3 – Emissions and monitoring

There are no emission limits or associated monitoring requirements.

Schedule 4 - Reporting

There is no reporting under this schedule.

Schedule 5 - Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution

To be notified within 24 hours of detection

Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit

To be notified within 24 hours of detection unless otherwise specified below

Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B - to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 - Interpretation

“accident” means an accident that may result in pollution.

“Annex I” means Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“Annex II” means Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“building” means a construction that has the objective of providing sheltering cover and minimising emissions of noise, particulate matter, odour and litter.

“D” means a disposal operation provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“End-of-Life Vehicles Directive” means Directive 2000/53/EC of the European Parliament and Council of 18 September 2000 on end-of-life vehicles.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“Emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit..

“Groundwater protection zones 1 and 2” have the meaning given in the document titled "Groundwater Protection: Policy and Practice" published by the Environment Agency in 2006.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“R” means a recovery operation provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

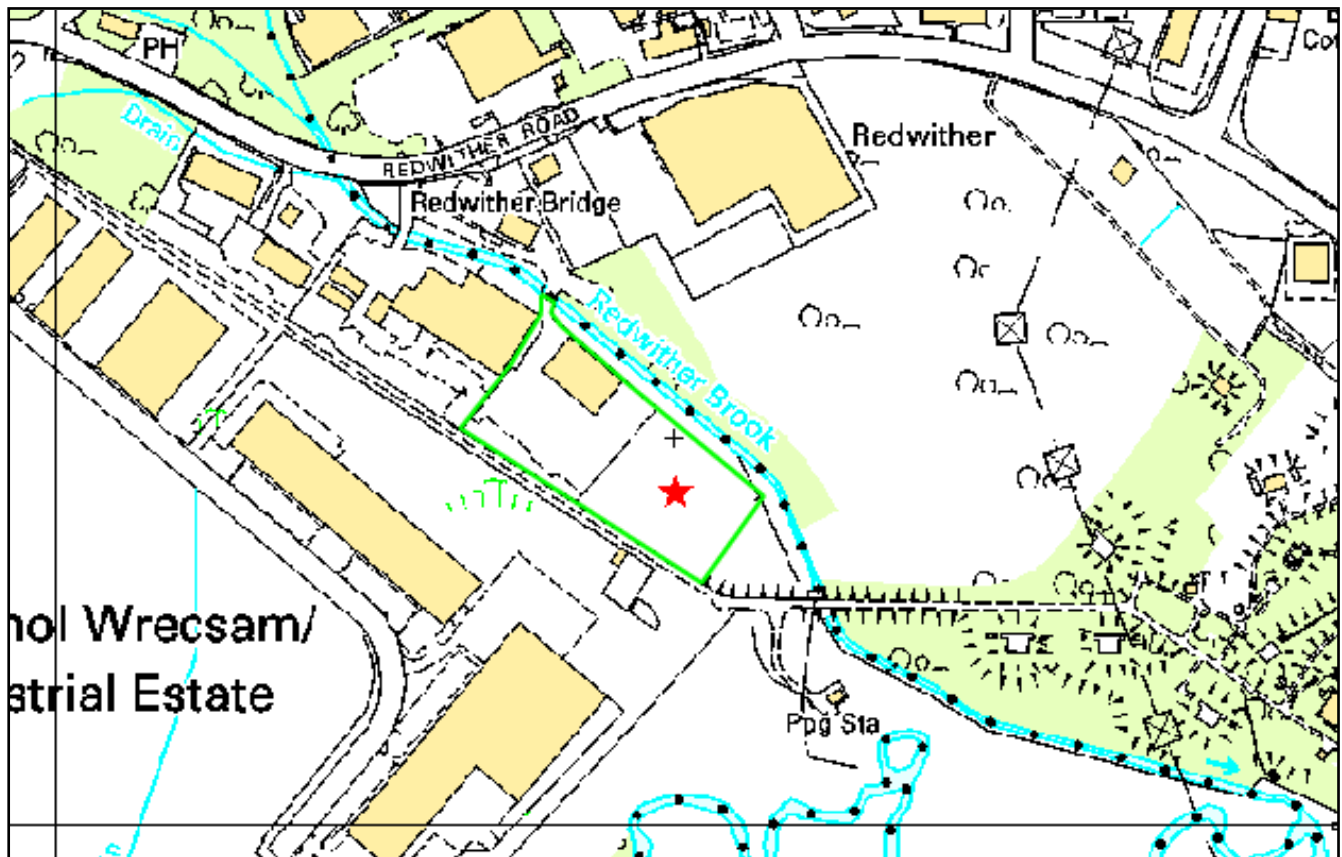
“Waste Framework Directive” or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste.

“WEEE” means waste electrical and electronic equipment.

“WEEE Directive” means Directive 2002/96/EC of the European Parliament and of the Council of 27th January 2003 on waste electrical and electronic equipment (WEEE) as amended by Directive 2003/108/EC of the European Parliament and of the Council of 8th December 2003 on waste electrical and electronic equipment (WEEE).

“year” means calendar year ending 31 December.

Schedule 7 - Site plan



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END OF PERMIT

Appendix IV

Health & Safety- Conditions of Site use for Staff and Visitors

ALAN'S SKIP HIRE LTD WASTE TRANSFER FACILITY

HEALTH AND SAFETY - CONDITIONS OF SITE USE

The following guidelines apply to all site personnel, contractors and visitors using the site (where applicable).

1. The site is covered by the Health and Safety at Work Act 1974 and its associated regulations and all users must abide by any relevant provisions. Any person found to be in contravention of the requirements of this Health and Safety Statement will be asked to leave the site.
2. All visitors and contractors must sign the visitors book upon entry to and exit from the site. All vehicle drivers must report to the site office and await instruction from the site manager/deputy before proceeding to deposit waste at the site.
3. All accidents, diseases, injuries or dangerous occurrences shall be reported to the site manager. All instructions issued by the site manager in respect of health and safety at the site must be followed by all site users.
4. A first aid box (including eye-wash bottles) is kept in the site office. If you are injured on site please alert a member of staff/trained first aider for assistance.
5. All persons must wear high visibility clothing on site to avoid collision with loading plant.
6. Safety boots must be worn by all persons in the waste sorting area.
7. Protective gloves must be worn for any operations which present a hazard of puncture to or laceration of the skin or for any manual handling work carried out within the site.
8. Ear defenders, safety helmets (hard hats) and eye protection will be issued when deemed necessary and must be worn by all employees and contractors where required by the site manager or other site representatives.
9. Fire extinguishers are kept on site to deal with any fires - fires shall only be dealt with by employees of Alan's Skip Hire Ltd unless alternative instructions are given by the site manager. Access to fire exits and fire fighting equipment must be kept clear at all times. When the fire alarm sounds please follow instructions and leave the site in an orderly fashion.
10. Persons who are suspected to be under the influence of drugs or alcohol will be removed from the site.
11. Smoking is not permitted on site.
12. Observe and follow all traffic directions and traffic/safety signs.
13. Drivers must comply with all safety instructions given by the site manager or his appointed deputy.
14. All drivers are responsible for ensuring that their vehicle is safely loaded. Unsafe loads will not be accepted at the site and will not be allowed to leave the site until they have been made safe.
15. Drivers waiting to tip at the site shall follow the instructions of the operator and shall only tip in the designated area unless advised otherwise. No tipping shall take place over sorted stockpiles.
16. Drivers must remain in the cab or stand well clear of the vehicle during loading or tipping. Once the vehicle has been loaded it must be securely sheeted (if necessary) before leaving the site. When sheeting and unsheeting the vehicle ensure that the engine is switched off, the ignition key removed and the parking brake is on. Do not gain access using the mudguards and wheels. Ensure that your ropes, hooks and sheets are in good condition.
17. Never travel with the vehicle body raised. Ensure that you know the maximum height of the raised body of your vehicle.

Declaration: To be completed by site users.

I have read and understand the conditions of use for this site and agree to comply with them at all times. I accept that neither Alan's Skip Hire Ltd nor any of its employees shall be liable for any loss or injury arising from my non-compliance with the above conditions.

Signed.....Print name.....

Company/Organisation..... Date.....

Note: these conditions are included in the working plan for information only and may be revised regularly as a part of the site health and safety policy.

Appendix V

Miscellaneous Documents

FACTORS TO CONVERT WASTE VOLUME (m³) TO WEIGHT (tonnes)

Source - Environment Agency Wales

CATEGORY	TYPE OF WASTE INERT	CONVERSION FACTOR
General/mixed Specific	MIXED CATEGORY WASTE	1.2
	Rock and stone	1.2
	Sub-soils	1.3
	Glass (cullet)	0.75
	Ceramics	0.3
	Concrete and/or mortar	1.3
	Moulding sands and/or clays	0.4/0.6
	Clay absorbents	1.3
	Other mineral absorbents	1.3
	Man-made mineral fibres (MMMFs) including glass fibre	0.1
	Silica	1.3
	Mica	1.3
	Abrasives	1.3
	DEGRADABLE	
General/mixed	MIXED DEGRADABLE CONSTRUCTION AND DEMOLITION WASTE	1.2
	MIXED DEGRADABLE INDUSTRIAL WASTE	0.3
	MIXED HOUSEHOLD WASTE - NON COMPACTED	0.3
	MIXED HOUSEHOLD WASTE - COMPACTED	0.5
	MIXED COMMERCIAL	0.2
	SEWAGE	1.0
Specific	Uncontaminated topsoil	1.3
	Uncontaminated peat	0.5
	Uncontaminated silt and dredgings	1.3
	Coal	1.1
	Asphalt, bitumen and coated roadstone	1.2
	Streetworks waste	1.2
	Plaster	1.0
	Plasterboard	1.0
	Paper and/or card	0.6
	Plastics and polymers	0.8
	Rubber	0.7
	Tyres (whole) - car	6.5kg / tyre
	Tyres (whole) - truck	52.5kg / tyre
	Unshredded tyres	0.2
	Synthetic textiles	0.2
	Mixed unidentified textiles	0.2
	Wood	0.7
	Coated or chemically treated timber	0.7
	Laminates	0.7
	Composites	0.7
	Vegetable fibres	0.75
	Sawdust, shavings and/or wood pulp	0.75
	Vegetation and/or vegetable waste	0.75
	Bark	0.75
	Mixtures of vegetation, soil and/or stones	0.75
	Vegetable food	0.75
	Composted material	0.75
	Leather	0.1

FACTORS TO CONVERT WASTE VOLUME (m³) TO WEIGHT (tonnes)

Source - Environment Agency Wales

CATEGORY	TYPE OF WASTE	CONVERSION FACTOR
	Animal fibres	0.1
	Waste From Biological Processes Other Than Sewage Treatment	1.0
	Residues of fermentation and other microbiological Processes	1.0
	Wastes from biological treatments of effluents and wastes	1.0
	Landfill leachate	1.0
	Civic amenity waste - non compacted	0.2
	Civic amenity waste - compacted	0.4
	Street sweepings and litter	0.2
General/mixed	MIXED FERROUS METAL	1.5
	MIXED/UNKNOWN NON-FERROUS	1.5
	MIXED FERROUS AND NON-FERROUS METALS	1.5
	WHITE ELECTRICAL GOODS	0.2
	OTHER DOMESTIC APPLIANCES	0.2
	VEHICLES AND/OR METAL VEHICLE PARTS	1.5
	CABLE AND WIRE	1.5
	OTHER (including bicycles, shopping trolleys ,metal furniture)	1.5
	MAINLY NON-METALLIC ELECTRONIC EQUIPMENT	1.0
Specific	Iron	7.9
	Lead	11.35
	Copper	9.0
	Zinc	7.1
	Tin	7.3
	Aluminium	2.7
	Chromium	7.2
	Titanium	4.5
	Manganese	7.2
	Nickel	8.9
	Alloys	0.9
	Metal Catalysts	1.0
	Light bulbs (including fluorescent tubes & street lamp bulbs)	1.0
MINERAL WASTES AND RESIDUES FROM THERMAL PROCESSES (NOT LISTED ELSEWHERE)		
General/mixed	SLAG FROM PRIMARY METAL PRODUCTION	1.2
	DROSS FROM SECONDARY METAL PRODUCTION	1.0
	BOTTOM ASH AND/OR CLINKER	0.8
	FLY ASH AND/OR OTHER STACK AND/OR STACK GAS CLEANING RESIDUES	1.0
Specific	Vitrified wastes	0.7
	Cement	1.3
	Pigments	1.0

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Detailed Public Register Information

'Waste Exemptions' by 'PostCode Search' - '1 km' - 'LL13 9RD'

EPR/GE5355EV/A001--ALAN'S SKIP HIRE WALES LTD

Exemption Reference: EPR/GE5355EV/A001

Exemption Name: ALAN'S SKIP HIRE WALES LTD

Exemption Code: N/A

Exemption Other Id: N/A

Exemption Telephone: 01606 558 833

Site Address: Wrexham Recycling Centre, Redwither Road, Wrexham Industrial Estate, Wrexham, Clwyd

Site PostCode: LL13 9RD

Exemption Activity Subpara: EPWaste

Exemption Activity Description: EP Simple Exemption - EPWaste

Notification Status: Completed

Site Status: N/A

Activity Status: Effective

EA Area: North

EA Region: EA Wales

Notified Date: 19/03/2013

Registered Date: 25/03/2013

Start Date: 25/03/2013

End Date: 24/03/2016

Easting: 338311

Northing: 349400

Paragraph Numbers: (S1 - Storage of Waste in Secure Containers (Both agricultural and non-agricultural waste))
 (S2 - Storage of Waste in a Secure Place (Both agricultural and non-agricultural waste))

Related links

[Whats in your backyard \(WIYBY\)](#)
[UNECE Aarhus Website](#)

(T4 - Preparatory treatments (baling, sorting, shredding etc) (Both agricultural and non-agricultural waste))
 (T5 - Screening and Blending of Waste (Both agricultural and non-agricultural waste))
 (T8 - Mechanical treatment of end-of-life tyres (Both agricultural and non-agricultural waste))
 (T9 - Recovery of scrap Metal (Both agricultural and non-agricultural waste))
 (U4 - Burning of Waste as a Fuel in a Small Appliance (Both agricultural and non-agricultural waste))

Request Documents: 

EPR/WH0814GE/A001--ALAN'S SKIP HIRE WALES LTD

Exemption Reference: EPR/WH0814GE/A001

Exemption Name: ALAN'S SKIP HIRE WALES LTD

Exemption Code: N/A

Exemption Other Id: N/A

Exemption Telephone: 01606 558 833

Site Address: Waste Transfer Station, Redwither Road, Wrexham Industrial Estate, Wrexham, Clwyd

Site PostCode: LL13 9RD

Exemption Activity Subpara: EPWaste

Exemption Activity Description: EP Simple Exemption - EPWaste

Notification Status: Completed

Site Status: N/A

Activity Status: Effective

EA Area: North

EA Region: EA Wales

Notified Date: 05/03/2012

Registered Date: 06/03/2012

Start Date: 07/03/2012

End Date: 05/03/2015

Easting: 338345

Northing: 349250

Paragraph Numbers: (T6 - Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising (Non-agricultural Waste only))

Request Documents: 

[Back](#) [Request Documents](#)

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Appendix VI

Odour Management Plan

and associated Risk Assessment

**For submission as part of the Minor
Technical Variation application to include
EWC 19 08 01**

Odour Management Plan

Version 1.1 (05/11/2013)

Document ref.
2399/426/OMP/01



Oaktree Environmental Ltd

Document History:

Version	Issue date	Status	Written by	Reviewed by
1.0	16/09/2013	Formal Requested as part of Minor Technical Variation application	Jan Edwards	
1.1	05/11/2013	For submission	Jan Edwards	Following additional comments for NRW

Contents

1.0	Introduction	
2.0	Background	
3.0	Sources, Releases and Impacts	
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5.0	Monitoring	
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5.4	Monitoring Impacts	
6.0	Odour Management Plans (Revisions)	
7.0	Contingencies & Emergency Plans	
	Identification Potential Source of Odour	
8.0	Assessment Procedure for Odour Monitoring	
9.0	Olfactory Survey Assessment Form OAR/1)	
10.0	Complaints Procedure	
	Complaints Report Form	
Appendix I	Drawing No. 2399/426/01	Location Plan
	Drawing No. 2399/426/02	Permit Boundary Plan
	Drawing No. 2399/426/03(R Rev A)	Site layout and Odour Monitoring Plan
	Drawing No. 2399/426/10	Odour Receptors Plan
Appendix II	Inspection Form RF/4	
Appendix III	Risk Assessment	

1.0 INTRODUCTION

This Odour Management Plan (OMP) has been produced in accordance with Environment Agency (EA) guidance on OMPs including EPR H4 Odour Management Consultation Draft (version 1.2) and Internal Guidance for the Regulation of Odour at Waste Management Facilities (Version 3.0).

This OMP structure is aimed at assisting the operator in effectively managing potential odour releases associated with the operations proposed in the Minor Technical Variation (MTV) application recently submitted to Natural Resources Wales (NRW) and minimise the risk of abnormal operations conditions which could lead to increased risk of odours being generated at the site.

Structure of Odour Management Plan

Background of facility

Source, releases and impacts

Controls

Monitoring-to assess control and potential odorous releases

Contingencies- action to be taken

Emergency plans

2.0 BACKGROUND AND PROCESS DESCRIPTION PROPOSED IN THE MINOR TECHNICAL VARIATION APPLICATION

- 2.1 Reference should be made to MTV application and the supporting documents and especially Drawings 2399/426/01, 2399/426/03 and 2399/426/10 for site location and layout.
- 2.2 The activity, which is the subject of this Odour Management Plan will be operated by Alan's Skip Hire (Wales) Ltd and is located within the permitted area as shown on Drawing No. 2399/426/02 which forms the Wrexham Recycling facility permitted under EAWML37211. The site has been operating as a Household, Industrial and Commercial Transfer Station with treatment for many years and provides a facility for local companies to enable them to recycle their waste at a cost effective rate and to encourage recycling and thus reducing the burden on our natural resources.
- 2.3 The activity which is the subject of the MTV involves the importation of one additional waste stream ie EWC 19 08 01 dewatered grit and screenings for bulking up on site. The reason for the request is to allow small quantities of this waste stream to be bulked up and then transported off site for full recovery at an authorised treatment facility. The bulking up operation at a transfer station reduces the transport required, for example transporting a 10 tonnes load is more viable than running 5 separate 2 tonne loads a distance to the processing facility.

- 2.4 *The maximum tonnage of grit/screenings (requested in the MTV) to be stored on site at any time will be limited to a maximum of 24 tonnes to cover any unforeseen events but it is anticipated that generally the maximum quantity of this waste stream will be around 6-8 tonnes maximum. The tonnage will also be limited to the capacity of the designated storage bay/s provided on site.*
- 2.5 *Grit and screenings will only be bulked up on site and stored on site, they will not undergo any treatment process on this site. The maximum storage time requested in the MTV is 14 working days to cover any unforeseen events. It is however the aim of the operator to only bulk and store grit and screenings for maximum 5 days before the material is removed off site. **Maximum quantities and storage time** are detailed in the Environmental Management System and are as follows:-*

<u>WASTE TYPE</u>	<u>MAX DURATION OF STORAGE</u>	<u>MAX QUANTITY STORED AT ANY ONE TIME</u>
Grit & Screenings (19 08 01)	14 working days	24 tonnes

- 2.6 The waste type which is the subject of the MTV and hence this Odour Management Plan (OMP) will consist of dewatered non-hazardous grit and screenings from local waste water treatment facilities for bulking up before being transported south to an authorised treatment facility where the grit and screenings will be fully recycled.
- 2.7 The designated bay to be used to store the dewatered grit and screenings will be clearly labelled and has a concrete reinforced floor and concrete 'lego' block walls and drains via a co drain to foul sewer as shown on Drawing No. 2399/426/03. The bay has been selected as it is located as far away as possible from sensitive receptors and protected from prevailing winds.
- 2.8 The (dewatered) grit and screenings will be checked as per the waste acceptance procedures outlined in Section 3.4.9 of the Environmental Management System (EMS) (and as detailed below) before being directed to the designated storage bay for temporary storage.

Bulking of Grit & screenings

It is proposed for the site to accept compacted (dewatered) grit and screening on site for bulking up and then forward movement off site for recovery at an authorised treatment facility.

The material will be disturbed as little as possible after it has been deposited and the retention time on site will be limited to help minimise odour. The bay and surrounding area will be subjected to good housekeeping and any spillages cleaned up promptly to also help reduce any odour potential.

The skip containing the grit and screening will be tipped direct onto the floor of the storage bay where any excess moisture will be allowed to evaporate. The waste will be bulked up and no processing will take place on site. The walls of storage compound are constructed of concrete 'lego' blocks. The floor of the storage bay is made from reinforced concrete and drains via a co drain and piped to main sewer (as shown on

Drawing No. 2399/426/03 Rev A). Generally only one bay will be used to store the grit and screenings but as a contingency plan if additional storage is required, an enclosed skip will be provided which will be located within the top area of the site (which has concrete hardstanding with sealed drainage) as near as possible to the grit & screenings designated storage bay.

- 2.9 The material will be disturbed as little as possible after it has been deposited and the retention time will be limited to help minimise odour.
- 2.10 The bay and surrounding area will be subjected to good housekeeping and any spillages cleaned up promptly to help reduce any odour potential.
- 2.11 There will be a planned inspection and maintenance regime in place. Sniff tests will be carried out round the site boundary by a trained operative when the grit and screenings are being either deposited or removed from the storage compound bay. The waste will be carefully loaded and unloaded to ensure minimal risk of emissions. A record will be made of when the material is being imported or exported from the site and the results of the sniff tests recorded in the site diary.
- 2.12 A complaints procedure is in place specifying how any complaints will be administered and progressed. If odours from the grit and screenings compound are detected outside the site boundary the operator will evaluate the source and causes of the odour and if deemed necessary actions will be taken to either remove the offending material off site by the end of the working day or a temporary cover will be placed over the top of the storage bay to contain the odour.

3.0 SOURCES, RELEASES AND IMPACTS

3.1 Potential Odour Sources

Reception of waste

Storage of waste

Process/treatment operations

3.2 Release Points

Waste vehicles arriving and reception of waste

Storage, moving the waste

Waste/material leaving the site

Accidents, human error etc.

3.3 Pathways

The pathway for odour dispersal from the site is going to be airborne transport.

3.4 Receptors

- Adjacent occupiers/users
- Site personnel/visitors

Potentially sensitive receptor locations for odour are typically defined as locations where people spend time and expect a reasonable level of amenity eg their homes.

The plan numbered Drawing 2399/426/10 shows the position of the site in relation to sensitive receptors, along with topographical and physical features which may mitigate any potential impact.

Outlined below are the main best practice elements for dealing with potential environmental impacts associated with the reception, storage and movement of dewatered grit and screenings which will be implemented by the operator.

Engaging Neighbours

The site is situated within a large mature industrial estate and a large waste water treatment works approximately 500m away from the application site. There is only one residential property within 500 metres of the proposed site (approx 350m north-west of the site).

The designated storage bay for the grit and screenings is located as detailed above within a site which is an established mixed waste recycling centre and is covered by relevant planning and environmental permit.

4.0 CONTROLS

Wherever possible, activities with the potential for causing odour issues should be located away from any sensitive receptors. There are however a number of operational procedures which can minimise the impact of such activities. Outlined below are the main best practice elements for dealing with potential environmental impacts which will be implemented by the operator.

4.1 Odour control

The following controls are in place to minimise the production of odours:

Delivery of waste to site- Waste vehicles and reception

- Rigorous control of delivered waste, contaminated or odorous wastes (stored too long) should be rejected. Trained competent staff are in place to recognize odorous material and to select only suitable loads before they are delivered to the site. Any unsuitable waste will be returned or sent to another authorized facility for treatment.
- The grit and screenings waste will originate from local waste water treatment plants where the material will have been subjected to a dewatering process to help minimise any potential odour emissions.

Wastes entering the site will be inspected by qualified staff to ensure it complies with the terms of the Environmental Permit. Section 3 of the Environmental Management System 2399/426/01/MS gives full details of the waste reception procedures for the site, including the procedures for rejection of unauthorised wastes.

Guidance is given by the site management to all employees, sub-contractors, other waste carriers and customers regarding the waste types permitted to be accepted. The site is primarily used for the receipt of waste from Alan's Skip Hire (Wales) Limited's own operations and regular contract customers.

Where waste is brought in under sub-contract or is delivered by other hauliers then the carrier registration details will be taken for all new haulage operators bringing waste to the site and the details will be periodically checked with Natural Resources Wales to ensure that they are still registered. The procedures below are followed prior to the receipt of waste on site.

When a driver employed by Alan's Skip Hire (Wales) Limited arrives at the customers site to pick up a consignment of waste he will inspect the load for conformity with relevant regulations and safety procedures.

If the load is satisfactory the driver will sign the relevant paperwork and remove the load from the customer's premises.

If the waste does not meet the description stated on the controlled waste transfer note the customer will be advised to check the note and give a more detailed description of the waste.

If the more detailed description of the waste reveals that the waste is not permitted at the transfer site then the customer will be advised to contact Natural Resources Wales to find an alternative site.

The driver may also report back to the site manager for instructions.

Where it is suspected that the details given on the transfer note are incorrect the Natural Resources Wales may be contacted for advice.

Waste vehicles entering the site will be sheeted to minimise any risk of odours. Sheets will be removed and the load inspected for acceptability. After the load has been tipped into the correct designated storage area it will again be inspected to confirm its acceptability.

All incoming vehicles are required to report to site supervisor in the weighbridge office or loading plant operator upon arrival at the site. The details of the load will be recorded and the duty of care note/company documentation will be further checked by the supervisor/operator to ensure that the load is acceptable at the recycling centre. Any deviation from the procedures or problems with any loads will be reported to the site manager.

Once a load has been accepted by the supervisor/operator the driver will be asked to un-sheet the vehicle (if it is sheeted) and a visual inspection of the contents will be carried out to ensure that the waste types comply with the environmental permit.

If unsuitable waste is discovered before deposit the load will not be tipped and will be rejected by the operator and returned to the producer. In cases where the unauthorised waste is likely to lead to a breach of permit conditions or where the rejected waste is special/ hazardous Natural Resources Wales will be contacted.

Vehicles carrying loads must be weighed in on arrival and on exit if loaded to obtain a tare weight.

If there are operational difficulties on site or if the site capacity has been reached, no further waste will be accepted on site, the grit and screenings being diverted to another authorised facility for either storage or treatment.

Once a load has been accepted by the supervisor/operator the contents of the delivery vehicles will be discharged in the relevant stockpile/storage bay in accordance with the procedures outlined below:-

Storage

- Waste will be stored in compliance with the Environmental permit and as stated in Section 2.0 above. The amount and retention time grit and screenings are stored on site will be kept to a minimum and will only be stored in the designated storage bay compound.

The designated bay/s to be used to store the dewatered grit and screenings will be clearly labelled and has a concrete reinforced floor and concrete 'lego' block walls and drains via aco drain to foul sewer as shown on Drawing No. 2399/426/03. The bay has been selected as it is located as far away as possible from sensitive receptors and protected from prevailing winds.

- The material will be disturbed as little as possible after it has been deposited and the retention time will be limited to help minimise odour.

- The bay and surrounding area will be subjected to good housekeeping and any spillages cleaned up promptly to help reduce any odour potential.
- No hazardous waste accepted
- Masking agents (odour neutralising chemicals) will not be used on site as they are rarely effective and can be regarded as being more offensive than the odour they are trying to mask.
- If odours from the grit and screenings compound are detected outside the site boundary the operator will evaluate the source and causes of the odour and if deemed necessary actions will be taken to either remove the offending material off site by the end of the working day or a temporary cover will be placed over the top of the storage bay to contain the odour.
- Control operations if possible during adverse meteorological conditions

Treatment Process

- No treatment of the grit and screenings will take place on site

Waste/Materials leaving site

- Regular cleaning of operational areas such as roads and drainage channels to discourage generation from old degrading materials.
- Vehicles carrying waste/product from the site will be sheeted.

Accidents, human error

The operator has an Accident Management Plan (AMP) in place for the permitted site which is to be reviewed at least every 4 years. The AMP will detail the following:-

- Identifying events or failures which have the potential to cause adverse environmental impacts;
- Assessing the likelihood of these occurrences and the potential environmental consequences;
- Taking action to minimise the potential causes and consequences of accidents; and
- Identifying the actions to be taken to minimise the consequences should such accidents occur.

Technical competence –

The relevant staff are technically competent to assess the site operations as to any potential risk of causing an odour nuisance. As detailed in the Environment Management System the site has the relevant technical competent management personnel available as required under the Environmental Permitting (England & Wales) Regulations 2010 and there is a training programme to ensure sufficient suitably competent persons are available on site and this will include training for relevant staff who will be responsible for odour monitoring. The site's Technically Competent Manager is Neil Hassall who has obtained his Continuing Competence Certificate from WAMITAB (Waste Management Industry training and Advisory Board) in accordance with EA/NRW requirements (i.e. 4TMSH).

The site's Technically Competent Manager (and any additional Technically Competent Managers) are required to enter their time spent on site in the site diary. The required managerial cover is a percentage of the site's operational hours based on the site's OPRA score calculated by Natural Resources Wales (NRW). Any changes to the site management would be notified to NRW within 5 working days, naming the new manager providing the cover.

Personnel competency records are kept on site.

Procedures for monitoring and recording odour are in place as part of the staff training requirement. (See Section 8.0)

5.0 MONITORING

5.1 Monitoring Process controls

Odour Control relating to:-

- Permitted waste types, composition,
- Processing-reception, storage, loading and unloading

5.2 Monitoring Odorous Releases

Olfactory Monitoring-

- Odour will be monitored daily at specific points around the perimeter of the site and when grit and screenings are being loaded or unloaded by a trained member of staff (see below). If odour is noted on the site boundary additional monitoring will be undertaken between that point and sensitive receptors. Recording sheets have a plan and map where points can be marked.
- The monitoring points will generally be selected from those shown on plan numbered 2399/426/03 (Rev A) having regard to the wind direction prevailing at the time of monitoring. The external monitoring points will be selected with particular reference to wind direction.
- At each location observations shall be made concerning odour intensity, persistence and character.

5.3 Meteorological Monitoring

A wind sock is located on site to provide data about the local wind direction and hence provide information on the pathways from the odour source to the receptors potentially affected by the odours.

5.4 Monitoring Pathways

Monitoring Requirements	Frequency
Observed description of conditions: precipitation, drizzle, rain, sleet, snow, temperature, winds etc	Recorded Daily
Wind speed * and direction	Record Daily

How to monitor:

A relevant training procedure will be in place for all staff undertaking assessment duties. Sniff tests will be carried out by trained competent staff daily. All staff will be trained in sniff testing and will be expected to report any odours detected outside the permit boundary during the course of day to day duties. Within the site, waste reception/product storage will be monitored throughout the day.

Assessments will be carried out both routinely and in response to specific complaints (See 10.0).

The assessor should not:-

- i smoke or consume strongly flavoured food or drink for at least 30 minutes before the assessment.
- ii. consume confectionery or soft drinks immediately before or during the assessment
- iii. apply scented toiletries, such as perfume or aftershave immediately before an assessment.

5.4 Recording results:

Site inspection forms based on the pro-forma in the H4 guidance document will be used to record and analyse olfactory tests. Examples are given in Section 9 for recording daily tests a diary for recording detected odours and complaints and a complaints form and procedure for recording and responding to any odour complaints.

5.5 Monitoring Impacts

Monitoring of impacts shall be achieved by analysis of olfactory test records and the recording and monitoring of complaints. Complaints may be reported directly to the site or via the Local Authority or Natural Resources Wales (NRW). Complaints records will include: date and time, nature of complaint, locality of complaint, name of complainant (if available), summary of investigation, actions taken and outcome. See Section 9 below for full details of complaint recording procedures.

6.0 ODOUR MANAGEMENT PLANS (Review/Revisions)

The OMP will be reviewed at least annually unless it becomes apparent that the activities are giving rise to pollution outside the site due to odour, then the Odour Management Plan will be revised if necessary as part of the investigative procedure and a copy forwarded to the NRW for approval before implementation.

7.0 CONTINGENCIES AND EMERGENCY PLANS

In accordance with the EA guidance on OMPs, Contingency Plans have been prepared to react to situations where 'monitoring indicates that a potential odour source is not completely under control, meteorological conditions are unfavourable or that adverse impact has occurred'.

Identification Potential Source of Odour and Actions to be taken

A Risk Assessment has been carried out detailing the potential sources of odour and the likelihood of it impacting on sensitive receptors. A copy of this Risk Assessment has been included as Appendix III to this document.

Problems

If excessive odours are detected at the site boundary or other monitoring point or a complaint is received, the following remedial procedures will be taken:

Firstly identify source of odour- Is it from:-

Site operations, or an off site source

If on site

- Report to duty manager
- Identify the point of release of the odour
- Identify the cause of the release- break down, leakage, fault etc.
- Identify a solution
- Implement solution
- Carry out olfactory tests to check if fix working

In detail the actions taken if odour is being produced on site will be:

i Normal Operations:

The offending odour will be traced and the reason for causing the problem investigated.

In such instances there may be a need to modify management or maintenance procedures.

NRW would be kept informed of any problems encountered.

Once solutions are in place olfactory monitoring would be scrutinised to ensure the solutions put in place are having the desired effect.

ii Abnormal conditions:

Adverse Weather Conditions:

Control operations if possible during adverse meteorological conditions. Cease tipping if control measures are not proving effective. Review Emergency Procedures.

The applicant is confident that the management system in place will control operations during adverse meteorological conditions.

Errors and Accidents

These will occur in almost every operation but there are robust checks carried out on site. The site accident management plan will seek to address the possible scenarios and the solutions available.

Breakdowns

All systems and equipment will be subject to a regime of regular inspection and preventative maintenance.

In the event of breakdown of the loading plant an alternative loading shovel/ 360 machine will be brought on site until it is repaired. If an alternative machine cannot be used then no further waste will be accepted until suitable plant is obtained. Minor repairs on plant and machinery will be carried out on site with absorbents used to clear oil or fuel spillages. All other operations on site will continue as normal.

Non conforming wastes- of odorous nature

Any wastes which are confirmed to be offensively odorous will be removed off site by the end of the working day or if this is not practical a temporary cover will be placed over the designated storage bay.

8.0 ASSESSMENT PROCEDURE FOR ODOUR MONITORING:

The assessor should not:-

- smoke or consume strongly flavoured food or drink for at least 30 minutes before the assessment.
- consume confectionery or soft drinks immediately before or during the assessment
- apply scented toiletries, such as perfume or aftershave immediately before an assessment

Routine Assessment:-

- Starting point of assessment should be down wind of the site, progressing towards the site boundary and then away from the site in an up wind direction.

Assessment to be carried out as result of complaint:-

- The starting point should be the location from which the complaint was made.

Method of Assessment

- Walk slowly and breathe normally.

Classification System for Odour Parameters:

Intensity:

Odour Intensity	Description
1	No detectable odour
2	Faint odour (barely detectable, need to stand still and inhale facing into wind)
3	Moderate odour (odour easily detected while walking and breathing normally, possibly offensive)
4	Strong odour (bearable, but offensive- will my clothes/hair smell?)
5	Very strong odour (this is when you really wish you were somewhere else)

Extent: (assuming odour is detectable, if not then 0)

Odour Intensity	Description
1	Local and impersistent (only detected during brief periods when wind drops or blows)
2	Impersistent as above, but detected away from site boundary)
3	Persistent, but fairly localised
4	Persistent and pervasive up to 50m from site boundary
5	Persistent and widespread (odour detected >50m from site boundary)

Sensitivity of Location where Odour Detected: (assuming detection, if not then 0)

Odour Intensity	Description
1	Remote (no housing, commercial/industrial premises or public area within 500m)
2	Low sensitivity (no housing etc within 100m of area affected by odour)
3	Moderate sensitivity (housing etc within 100m affected by odour)
4	High sensitivity (housing etc within area affected by odour)
5	Extra sensitive (complaints arising from residents within area affected by odour)

Training Date:.....

Signed.....

Name.....

9.0 OLFACTORY SURVEY ASSESSMENT REPORT (ASH/OAR/1)

Odour report form					Date	
Time of test						
Location of test e.g. street name point 1 below etc						
Weather conditions (dry, rain, fog, snow etc):						
Temperature (very warm, warm, mild, cold, or degrees if known)						
Wind strength (none, light, steady, strong, gusting)						
Wind direction (e.g. from NE)						
Intensity (see below)						
Duration (of test)						
Constant or intermittent in this period						
What does it smell like?						
Location sensitivity (see below)						
Is the source evident?						
Any other comments or observations						

Sketch a plan of where the tests were taken, the potential source(s).

Intensity (Detectability) 1 No detectable odour 2 Faint odour (barely detectable, need to stand still and inhale facing into the wind) 3 Moderate odour (odour easily detected while walking & breathing normally) 4 Strong odour 5 Very strong odour (possibly causing nausea depending on the type of odour)	Location sensitivity where odour detected 0 not detectable 1 Remote (no housing, commercial/industrial premises or public area within 500m) 2 Low sensitivity (no housing, etc. within 100m of area affected by odour) 3 Moderate sensitivity (housing, etc. within 100m of area affected by odour) 4 High sensitivity (housing, etc. within area affected by odour) 5 Extra sensitive (complaints arising from residents within area affected by odour)
--	---

Odour Diary		Sheet No
Name:	Address:	
Telephone Number:		

Date of odour:				
Time of odour:				
Location of odour, if not at above address:				
Weather conditions (dry, rain, fog, snow etc):				
Temperature (very warm, warm, mild, cold or degrees if known):				
Wind strength (none, light, steady, strong, gusting):				
Wind direction (eg from NE):				
What does it smell like? How unpleasant is it? Do you consider this smell offensive?				
Intensity – How strong was it? (see below 1-5):				
How long did go on for? (time):				
Was it constant or intermittent in this period:				
What do believe the source/cause to be?				
Any actions taken or other comments:				

Intensity (Detectability)

- 1 No detectable odour
- 2 Faint odour (barely detectable, need to stand still and inhale facing into the wind)
- 3 Moderate odour (odour easily detected while walking & breathing normally)
- 4 Strong odour
- 5 Very strong odour (possibly causing nausea depending on the type of odour)

ALAN'SKIP HIRE (WALES) LTD
WREXHAM RECYCLING CENTRE, REDWITHER ROAD,
WREXHAM INDUSTRIAL ESTATE, WREXHAM
Odour Complaints Report Form (RF/ASH/2399/426)

Date Recorded	Reference Number
Name and address of caller	
Location of caller in relation to site	
Telephone number of caller	
Time and Date of call	
Date, time and duration of offending odour	
Caller's description of odour eg. comparison with other odours, strong/weak, continuous, fluctuating	
Any other comments about the offending odour	
Weather at the time of complaint (rain, snow, fog, etc.)	
Wind (strength, direction)	
Any other previous complaints relating to this report	
Any other relevant information	
Potential odour sources that could give rise to the complaint	
The operations being carried out on site at the time of the complaint eg delivery of waste, turning of waste	
Follow Up	
Actions taken	
Date of call back to complainant	
Summary of call back conversation	
Recommendations	
Change in procedures	
Changes to Odour Management Plan	
Date changes implemented	
Form completed by: Signed	Signed by: _____ Print Name:.....

Complaints Procedures

Complaints at the site are most likely to be generated by odour and possibly noise or dust. Each likely source of emitter is discussed in detail below:

Vehicles entering/leaving the site manoeuvring on site

Vehicles entering and leaving the site and manoeuvring on the site can generate noise. The following protocols are in place:

- 1) All vehicles are fitted with effective silencers, are well maintained and as such are inspected on a regular basis with necessary repairs being conducted immediately, records of vehicle maintenance are kept.
- 2) Drivers comply with the 10mph speed limit in force on site
- 3) Engines are switched off when the vehicle is not in use.
- 4) Drivers are instructed to keep engine revving to a minimum and to avoid loud cab radios blowing horns etc at all times.

Odour

Stored wastes are a potential source of odour and every effort is made to minimise the potential impact. Odorous wastes will be transferred off site as soon as possible.

Dust

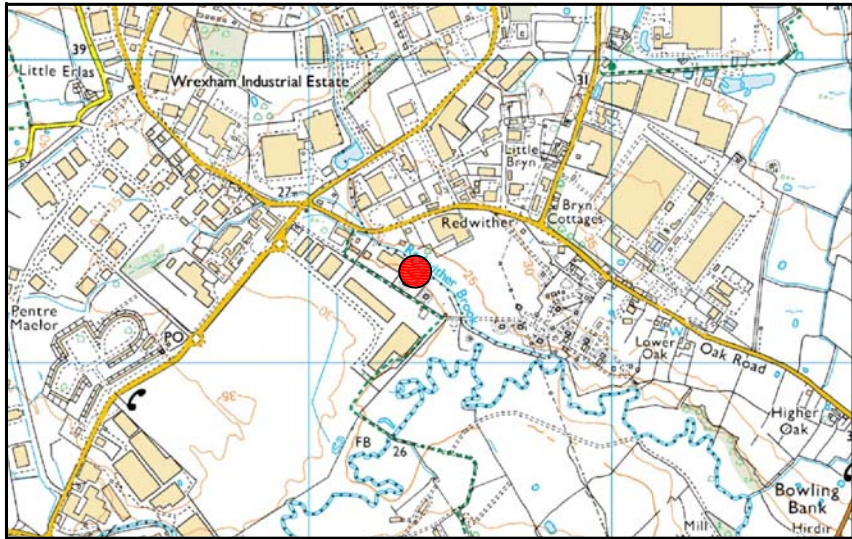
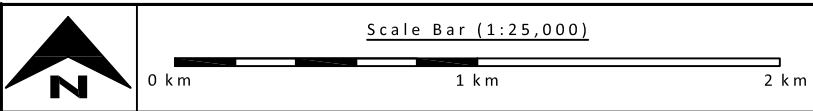
Movement of vehicles and plant within the site can generate dust the layout of the site reduces the likely hood of dust causing a nuisance beyond the site boundary. Dust suppression equipment is available and will be deployed should observations show visible dust escaping from the site boundary towards sensitive receptors.

Complaints

Alan's Skip Hire Ltd will fully investigate any complaints received about the site, the complaints form and procedure can be seen above.

Appendix I

Drawings



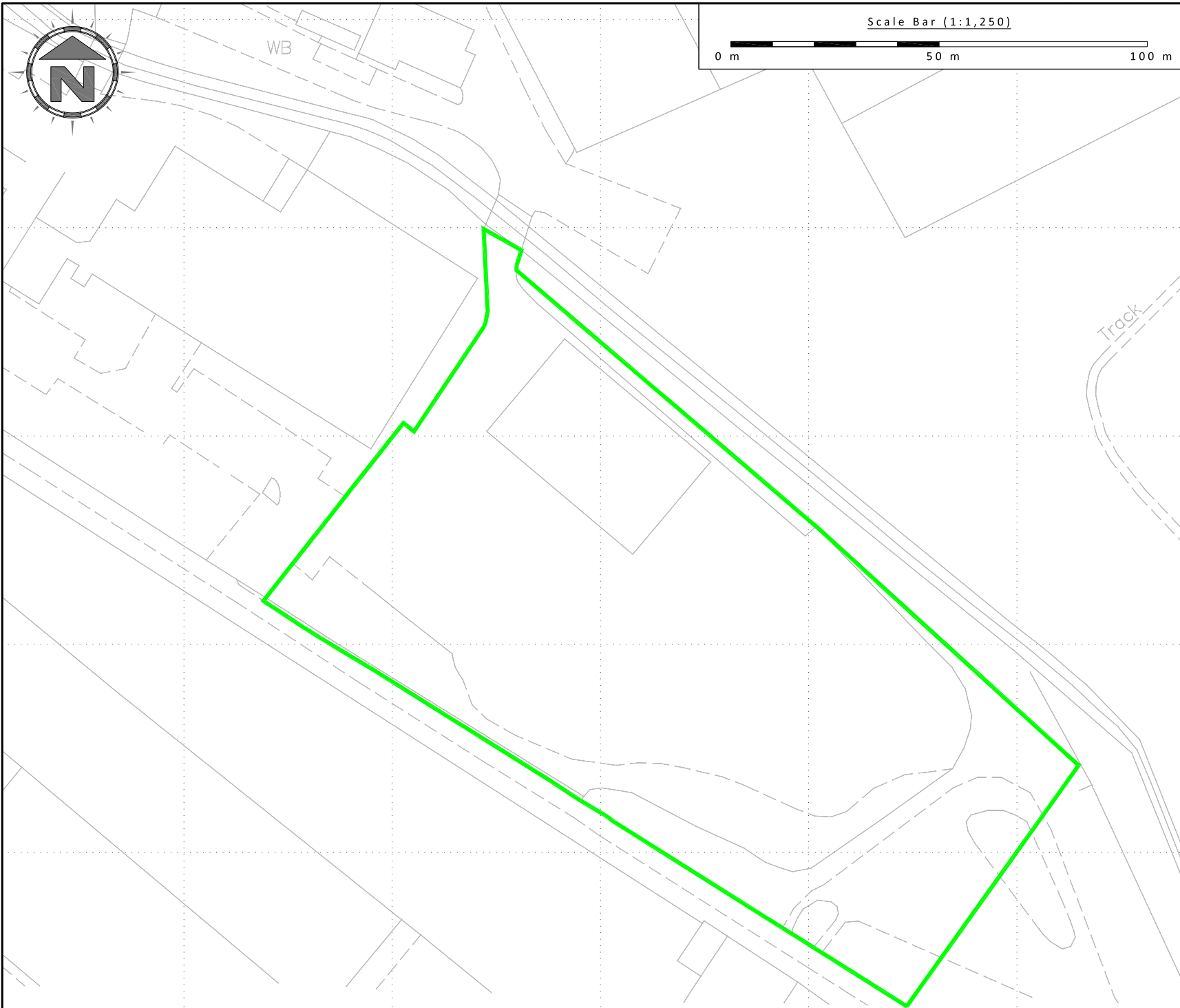
Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants
 Unit 5, Oasis Park
 19 Road One
 Winsford Ind. Est.
 Winsford, Cheshire
 CW7 3RY
 t: 01606 558833
 f: 01606 861182
 w: www.oaktree-environmental.co.uk
 e: sales@oaktree-environmental.co.uk

Drawing No:		2399/426/01		Rev:	-
Title:					
SITE LOCATION MAP					
Site:					
Redwither Road, Wrexham Industrial Estate, Wrexham, LL13 9RD					
Client:					
Alan's Skip Hire (Wales) Ltd					
Date:				Job:	
23 July 2013				2399	
Drawn:		Checked:		Client:	
CP		JE		426	
Scale:			Printed @:		
1:25,000			A4		

KEY:

Site Location

REVISION HISTORY			
Rev:	Date:	Init:	Description:
-	23/07/13	CP	Initial drawing





Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

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w: www.oaktree-environmental.co.uk
e: sales@oaktree-environmental.co.uk

Drawing No:		2399/426/02	Rev:	A
Title:				
PERMIT BOUNDARY PLAN				
Site:				
Redwither Road, Wrexham Ind. Estate, Wrexham, LL13 9RD				
Client:				
Alan's Skip Hire (Wales) Ltd				
Date:		21 November 2014	Job:	2399
Drawn:	CP	Checked:	JE	Client: 426
Scale:		1:1,250	Printed @:	
			A4	

KEY:

Permit boundary

Notes:

(1)

 Drawing for indication only.

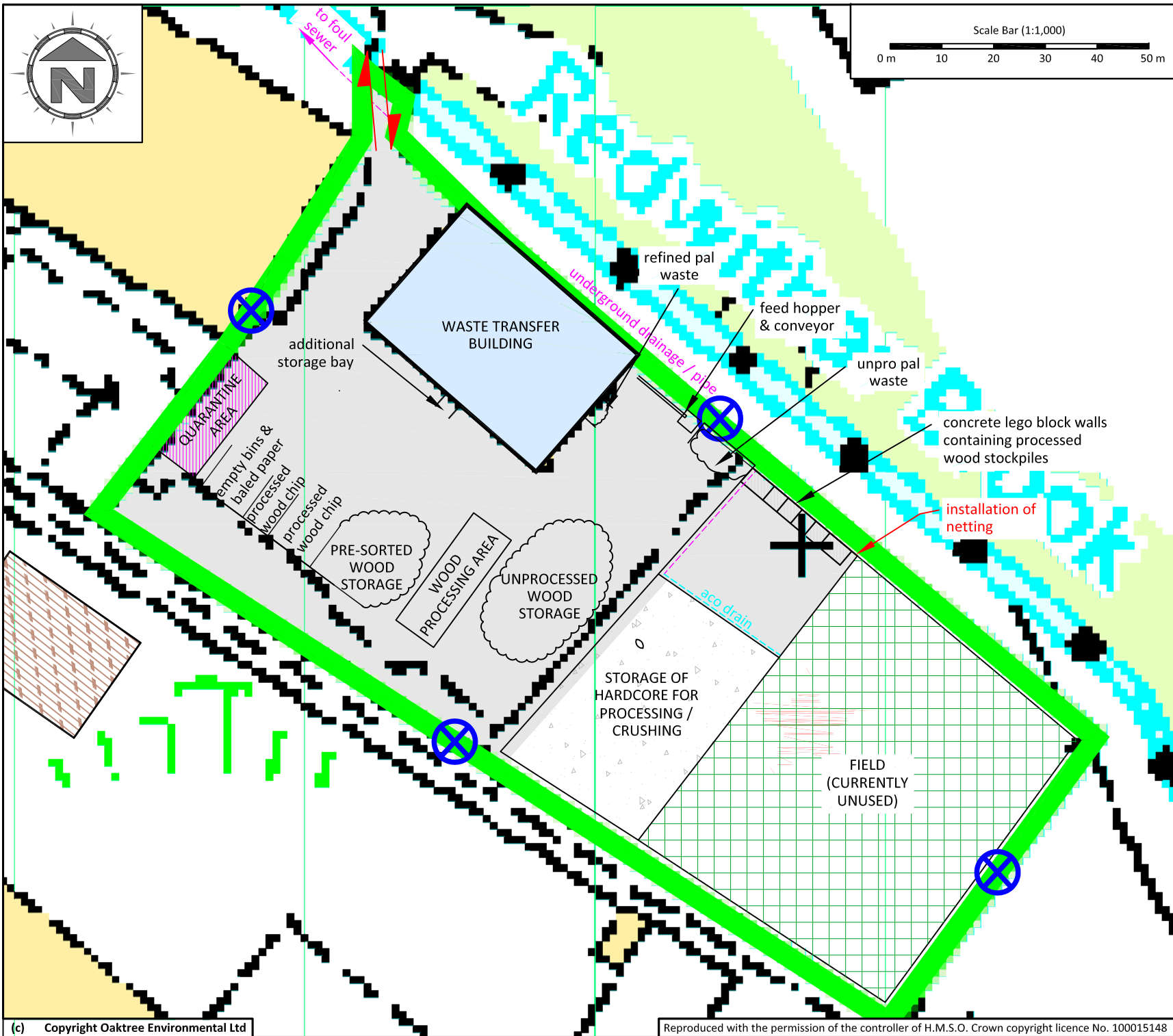
(2)

 Do not scale from this drawing.

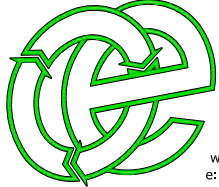
(3)

 All measurements must be verified on site.

REVISION HISTORY			
Rev:	Date:	Init:	Description:
-	23/07/14	CP	Initial drawing
A	21/11/14	CP	Updated with OS data



Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants



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e: sales@oaktree-environmental.co.uk

Drawing No:
2399/426/03

Rev:
D

Title:
SITE LAYOUT PLAN

Site:
Redwither Road, Wrexham Industrial
Estate, Wrexham, LL13 9RD

Client:
Alan's Skip Hire (Wales) Ltd

Date:
7 October 2014

Job:
2399

Drawn:
CP

Checked:
JE

Client:
426

Scale:
1:1,000

Printed @:
A4

KEY:

 Permit boundary

 Monitoring points

 Impermeable concrete surfacing

Notes:

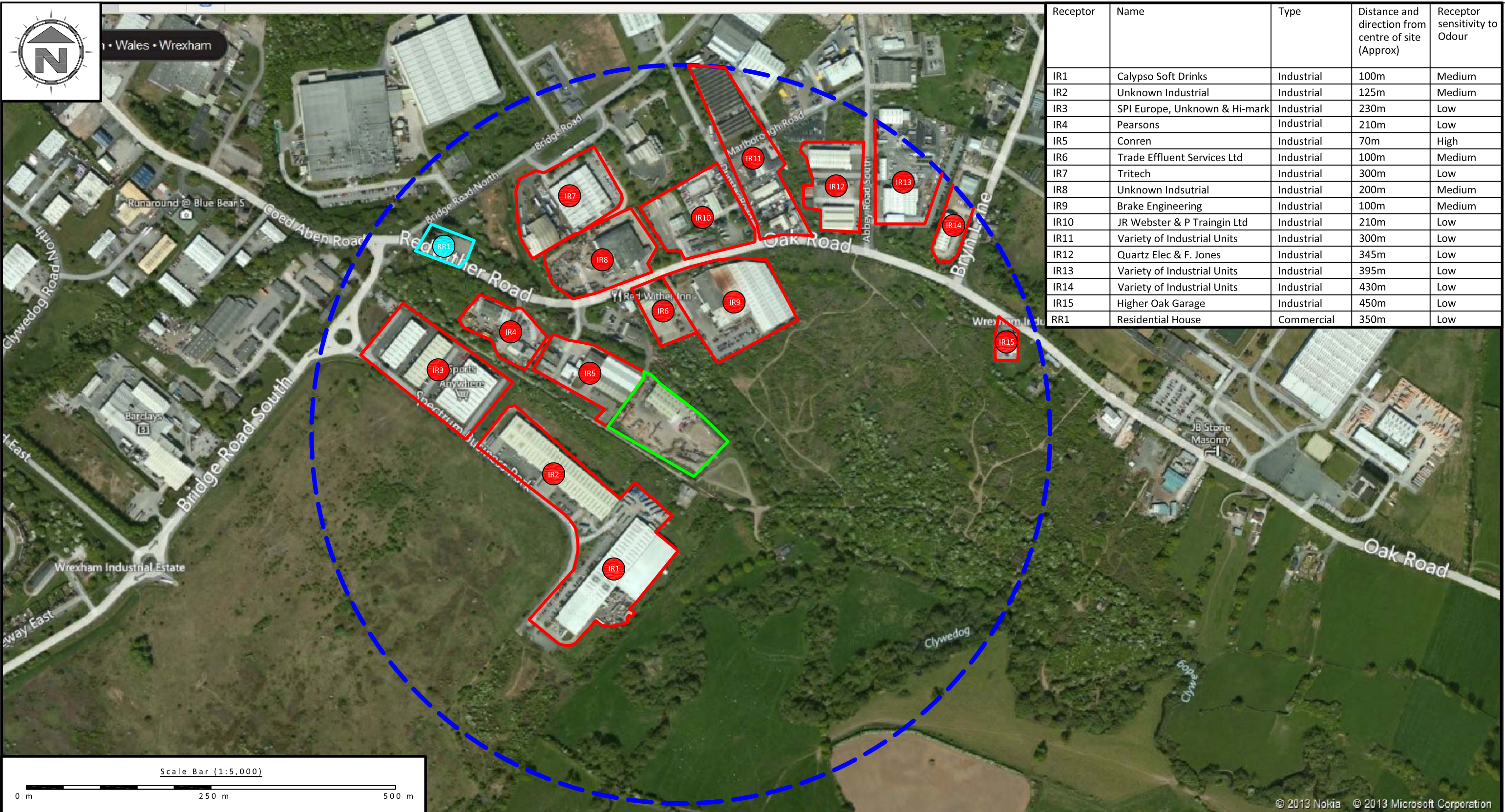
(1) Drawing for indication only.

(2) Do not scale from this drawing.

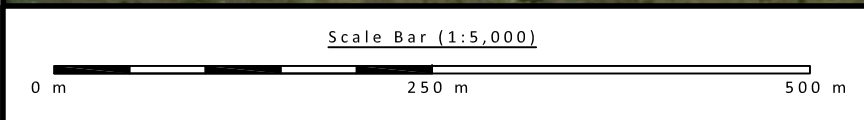
(3) All measurements must be verified on site.

REVISION HISTORY

Rev:	Date:	Init:	Description:
-	19/07/13	CP	Initial drawing
A	16/09/13	CP	Issued to EA for OMP
B	28/03/14	RS	Issued for EP variation
C	08/09/14	CP	Operational site changes
D	07/10/14	CP	Amended storage areas



Receptor	Name	Type	Distance and direction from centre of site (Approx)	Receptor sensitivity to Odour
IR1	Calypso Soft Drinks	Industrial	100m	Medium
IR2	Unknown Industrial	Industrial	125m	Medium
IR3	SPI Europe, Unknown & Hi-mark	Industrial	230m	Low
IR4	Pearsons	Industrial	210m	Low
IR5	Conren	Industrial	70m	High
IR6	Trade Effluent Services Ltd	Industrial	100m	Medium
IR7	Tritech	Industrial	300m	Low
IR8	Unknown Indsutrial	Industrial	200m	Medium
IR9	Brake Engineering	Industrial	100m	Medium
IR10	JR Webster & P Traingin Ltd	Industrial	210m	Low
IR11	Variety of Industrial Units	Industrial	300m	Low
IR12	Quartz Elec & F. Jones	Industrial	345m	Low
IR13	Variety of Industrial Units	Industrial	395m	Low
IR14	Variety of Industrial Units	Industrial	430m	Low
IR15	Higher Oak Garage	Industrial	450m	Low
RR1	Residential House	Commercial	350m	Low



- (1) Drawing for indication only.
- (2) Do not scale from this drawing.
- (3) All measurements must be verified on site.

 Permit boundary
 Industrial receptor boundary (approx.)
 Residential receptor boundary (approx.)
 500m radius from centre of site

Rev:	Date:	Description:
-	16/09/13	Initial drawing

Drawing No: 2399/426/10		Date: 16 September 2013	
Title: ODOUR RECEPTORS PLAN		Rev: -	
Site: Redwither Road, Wrexham Industrial Estate, Wrexham			
Client: Alan's Skip Hire (Wales) Ltd		Scale: 1:5,000@ A3	
Drawn: CP	Checked: JE	Job: 2399	Client: 426

Appendix II

Inspection Form/ Site Diary



Daily Site Monitoring, Inspections and Environmental Log [ASH/RF/4]

Week Commencing: 11 November 2013

Site: WREXHAM RECYCLING CENTER

Topic	Mon		Tues		Wed		Thur		Fri		Sat		Sun	
Site Entrance & Notice Board														
Perimeter fence, Gates & CCTV														
Weighbridge, Car Park & Bottom Yard														
Condition of site roads & surfaces	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Vermin (Birds, Rats, Flies)														
Odours (on and off site)	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Emergency Stops on plant														
Control of Litter / Mud / Debris														
Fuel bund & Fuel Storage Area														
Foul water drains & Interceptor														
Surface water drains & ditches														
Waste types / Quantities Inert														
Waste types / Quantities Biodegradable														
Waste types / Quantities Wood														
Waste / Container Storage														
Machine breakdowns														
Weekly Fire equipment & Ladder check														
Evidence of Fire / Fires														
Accidents on site														
Rejected loads														
Weather conditions														
Completed By (Daily)														
Checked By (Weekly)														
Grit and Screenings														

COTC Cover.

NAME _____

		1st Day		2nd Day		3rd Day		4th Day		5th Day		6th Day		7th Day	
	IN	A.M.		IN	A.M.	IN	A.M.	IN	A.M.	IN	A.M.	IN	A.M.	IN	A.M.
	OUT	NOON			OUT		NOON		OUT		NOON		OUT		NOON
	IN	P.M.		IN	P.M.	IN	P.M.	IN	P.M.	IN	P.M.	IN	P.M.	IN	P.M.
	OUT				OUT				OUT				OUT		
TOTAL		TOTAL													

Appendix III

Risk Assessment

ALAN'S SKIP HIRE (WALES) LTD

ENVIRONMENTAL RISK ASSESSMENT

**Acceptance of EWC 19 08 01
WREXHAM RECYCLING CENTRE, REDWITHER
ROAD, WREXHAM INDUSTRIAL ESTATE**

Version 1.0 - 10/09/2013
Document Reference: 2399-426-RA/01

Prepared by:



Oaktree Environmental Ltd

**Oaktree Environmental Ltd - Unit 5, Oasis Park, 19 Road One, Winsford Industrial Estate,
Winsford, Cheshire, CW7 3RY**

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

ENVIRONMENTAL RISK ASSESSMENT MODEL

OPERATOR: Alan's Skip Hire (Wales) Ltd
FACILITY: Wrexham Recycling Centre
SITE LOCATION: Red Wither Road, Wrexham Industrial Estate
ASSESSMENT COMPILED: 10/09/2013

NOTES:

Hazard: A property or situation that in particular circumstances could lead to harm.
Consequences: The adverse effects or harm as the result of realising a hazard which causes the quality of human health or the environment to be impaired in the short or long term.
Risk: A combination of the probability of occurrence of a defined hazard and the magnitude of the consequences of the occurrence

ABBREVIATIONS USED:

Consequences of hazard:

A: MINOR INJURY
B: MAJOR INJURY
C: DEATH
D: AIR POLLUTION
E: WATER POLLUTION
F: POLLUTION OF LAND

Pathways, examples:

Air
Water
Ground
Direct contact

Effect of consequences

S: SEVERE (Management required in all cases)
Mo: MODERATE (Management required in most cases)
Mi: MILD (Management required occasionally)
N: NEGLIGIBLE (Management not required)

Note: Management is the action required to reduce the risk of a hazard causing a problem on site. Contingency measures are procedures which are in place to reduce the consequences of a hazard.

Risk estimation and evaluation - probability/frequency of occurrence of hazard

- 1: High - could occur during any working day
- 2: Medium - could occur regularly - management/contingency required
- 3: Low - event possible - contingency measures/management advisable
- 4: Negligible - event very unlikely - contingency measures/management advisable but not absolutely necessary

Risk assessment outcomes (combination of probability & consequence)
Management i.e. action required to reduce risk is based on the outcome

High, Medium, Low, Near Zero or Zero

No.	Hazard	Consequences	Effect	Probability	Assessment Outcome	Control required	Relevance for Minor Technical Variation- to accept EWC 19 08 01 (Highlighted)
1	ELECTRICAL	A,B,C	S,Mo	3	LOW	Compliance with Electricity at Work Regulations 1989	
2	MINOR FUEL/OIL SPILLAGES	A,E,F	Mo,Mi	1/2	LOW	Spill kit & clearance procedures on site	
3	SPILLAGE - FUEL TANK	A,B,E,F	S, Mo	3	LOW	Bunded fuel tank, locked	
4	CHEMICAL SPILLAGE	A-F	S-N	3	LOW	Emergency procedures	
5	RELEASE OF GASES/VAPOURS	A-D	S-N	3	LOW	Emergency procedures as detailed in EMS	
6	DRUMMED WASTE	A-F	S-N	4	LOW	Emergency procedures	
7	BIOLOGICAL HAZARD	A-C,E,F	S-N	4	MEDIUM	PPE will be worn when handling 19 08 01 wastes	
8	REACTION BETWEEN WASTES	A-F	S-N	4	LOW	Emergency procedures as detailed in EMS. No other waste types will be stored with the 19 08 01 waste, it has its own designated storage bay.	
9	HIGH WINDS	A,D,E,F	Mo-Mi	3	LOW	Cease tipping	
10	POOR VISIBILITY	A-B	Mo-Mi	3	NEAR ZERO	Emergency procedures	
11	PLANT FAILURE	A-C,D-F	Mo	2	MEDIUM	Replace plant, clear spills	
12	OVERTURNED VEHICLE/PLANT	A-F	S	4	LOW	Emergency procedures	
13	BOMB SCARE	A-F	S	4	NEAR ZERO	Emergency procedures	
14	VIBRATION	A-D	Mo	3	NEAR ZERO	N/A	
16	FIRE	A-F	S	3	LOW	Emergency procedures	

No.	Hazard	Consequences	Effect	Probability	Assessment Outcome	Control required	Relevance for Minor Technical Variation- to accept EWC 19 08 01 (Highlighted)
17	NOISE	A,D	Mo	3	LOW	Maintain plant/silencers	
18	DUST - EXTERNAL	A,D,E	Mo-Mi	1	MEDIUM	Dust control equipment/procedures as detailed in the EMS	
19	VERMIN	A	Mo-Mi	2	MEDIUM	Pest control contractor	
20	FIBRE	A,D	Mi	3	LOW	Restrict waste types accepted	
21	FUME	A-D	S-N	3	LOW	Restrict waste types accepted	
22	VAPOURS (CHEMICALS)	A-D	S-N	3	LOW	Restrict waste types accepted	
23	BURIED SERVICES	A-C,D	S-N	4	NEAR ZERO	Cat/Jenny - find services	
24	OVERHEAD SERVICES	A-C	S-N	3	LOW	Observation/health and safety procedures	
25	LANDFILL GAS	A-D	S-N	4	NEAR ZERO	N/A	
26	LEACHATE	A,E,F	Mo	4	LOW	Designated storage bay provided with sealed drainage	
27	NON-ION. RADIATION	A-C	S	4	NEAR ZERO	Outdoor workers - low risk - health and safety issue	
28	IONISING RADIATION	A-C	S	4	NEAR ZERO	No scanning devices used	
29	MUD ON ROADS	A,B,F	S,Mo	2	LOW	Contingency measures	
30	ODOUR	D	Mo	3	MEDIUM	Contingency measures- no treatment undertaken and storage quantities and time of storage limited. Complaints procedure in place. Waste can be stored under temporary cover if required.	

No.	Hazard	Consequences	Effect	Probability	Assessment Outcome	Control required	Relevance for Minor Technical Variation- to accept EWC 19 08 01 (Highlighted)
31	COLLAPSE OF STORED MATERIALS	A-C	S	2	LOW	Restrict storage heights	
32	FALLING MATERIALS	A-C	S	2	LOW	Restrict storage heights	

Appendix VII

Dust (including fibres and particulate matter) Management Plan

and

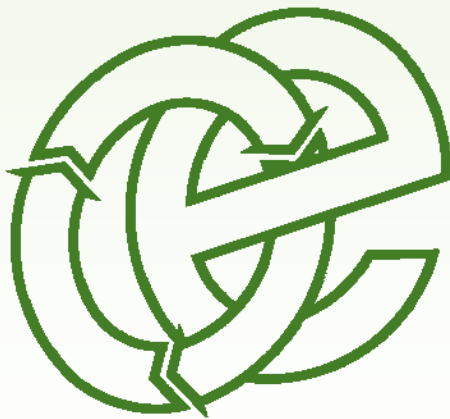
*Dustscan Report Oct
2014*

DUST MANAGEMENT PLAN

Wrexham Recycling Facility, Redwither Road, Wrexham LL13 9RD

ASH_WREXHAM

VERSION:	1.0	DATE:	20/11/2014		
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1 Introduction

1.1 Site Location

1.1.1 The site which is the subject of this Dust Management Plan (DMP) is located at Wrexham Recycling Facility, Redwither Road, Wrexham LL13 9RD and will be operated by ASH_WREXHAM.

1.1.2 ASH_WREXHAM have applied for a variation to bespoke Environmental Permit EPR/TP399VA to increase the annual throughput and to include the storage and processing of waste wood within the permit. Currently the waste wood is accepted under a registered T6 EXEMPTION.

1.1.3 The permit boundary of the site to which this DMP relates to is shown on Drawing No. 2520/426/02 in Appendix I of the site's EMS and all subsequent references in this document shall mean this area.

1.1.4 The site address and contact details for ASH_WREXHAM:

ASH_WREXHAM	Contact:	Neil Hassall
Redwither Road	Position:	Director
Wrexham Industrial Estate	Manager:	Keith Morris
Wrexham	Tel:	01978 663510
LL13 9RD		

1.1.5 The site will be operated in accordance with a detailed Environmental Management System (EMS) along with other documents targeted to specific environmental considerations including this DMP.

1.2 Reason for Implementation

1.2.1 Oaktree Environmental Ltd have been employed to produce this DMP in response to a Natural Resources Wales request as part of the permit variation application.

1.2.2 The objective of the Dust Management Plan is to:-

- prevent migration beyond the permit boundary
- control dust within site to reduce associated potential health risks and the likelihood of off-site migration
- ensure the necessary actions are implemented as required in any management system, dust management plan or action plan and undertaking ad hoc monitoring of air quality as and when required.

1.3 **Site management**

- 1.3.1 Mr Neil Hassall is the Technically Competent Manager and Keith Morris is the Site Manager and are responsible for the general management of the site including those operations which have the potential to be dust-forming.

2 Site operations

2.1 Waste Types

- 2.1.1 The waste types handled on site will consist of solid, inert and non-hazardous household, commercial and industrial waste arising from activities within the surrounding area. The sorting, storage and treatment of waste on site will involve predominantly mixed waste being subjected to mechanical sorting (trommel and picking station) and storage and chipping of waste wood. Inert construction & demolition waste may also be accepted on site for screening and crushing using mobile plant.

2.2 Storage & Treatment Operations

- 2.2.1 The main operations on site involving the mechanical sorting of mixed waste takes place within the transfer building and the processing of grade A and Grade B waste wood taken place externally on the yard. Occasionally construction and demolition waste will be processed on site using a mobile screen or crusher.
- 2.2.2 The recycling and recovery operations will produce recyclable materials such as metals, plastics, paper/card and wood for further recovery elsewhere. Waste wood is processed to produce feedstock for the furniture manufacture sector (Grade A and B or as feedstock for biomass (Grade B) or used for cover or site roads at landfill. The site will not be open to the general public.
- 2.2.3 The location of the operational and storage areas are shown on Drawing No. 2520/426/03 in the site's EMS.

2.3 Plant & Equipment

2.3.1 The table below shows the plant and equipment in operation at the site.

Table 5: Plant & Equipment at site

PLANT/EQUIPMENT	NO.	FUNCTION
<i>Loading shovel</i>	1(1)	<i>Loading/unloading/movement/sorting</i>
<i>360° excavator grab</i>	1	<i>Loading/unloading/movement/sorting</i>
<i>360° excavator bucket</i>	1	<i>Loading/unloading/movement/sorting</i>
<i>Vibrating screen</i>	1	<i>Screening mixed wastes, soil, etc</i>
<i>Overband magnet & eddy current</i>	1	<i>Removal of ferrous metals</i>
<i>Picking line/shed</i>	1	<i>Manual separation of wastes by operatives</i>
<i>Trommel</i>	1	<i>Screening of waste</i>
<i>Vacuum/road sweeper</i>	1	<i>Sweeping site surface</i>
<i>Crusher</i>	1	<i>Crushing of inert waste</i>
<i>Wood Shredder</i>	2	<i>Shredding clean waste</i>
<i>Shredder and baler</i>	2	<i>Processing exempt wastes</i>

2.3.2 When in use, all plant and equipment will be operated by staff employed by ASH_WREXHAM.

2.3.3 Abatement measures considered include preventative measures which reduce the emission release at source and remedial or suppressive measures that are used to control emissions once released.

2.3.4 Abatement equipment available to the operator includes as a minimum:

- i) Dust suppression: Fixed sprinkler system, mobile mist cannon
- ii) Vehicle sheeting
- iii) Road sweeper, brushes
- iv) Dust netting
- v) Hose reels
- vi) Conveyor hoods (C&D plant)
- vii) Good housekeeping

- 2.3.5 Personal Protective Equipment (PPE) will be issued to all plant operators to ensure their safety. Such items will include safety goggles, gloves, hi-visibility vests/jackets, ear defenders/plugs, hard hats and safety boots. All staff will be trained in the correct usage of their PPE and the plant and equipment they manage. Training records will be kept in the site office.
- 2.3.6 Essential spares for plant maintenance will be kept on site for all operators. If there is a risk that dust will be emitted following a malfunction or breakdown the plant will be shut down for repairs.
- 2.3.7 This plan has been written to encompass the controls required on site to ensure that fugitive emissions of dust from the normal operation of the site and any items of plant can be controlled effectively.

3 Risk Assessment

3.1 General

- 3.1.1 Risk assessment is the standard tool by which environmental hazards (source) are assessed for their potential impacts upon receptors through defined pathways. Risk assessment assists in providing a better understanding of the potential impacts from the site being studied and permits facilitation of remedial action if required through further investigation and action. This section assesses the environmental factors and the potential liabilities presented by the risks evaluated in a qualitative rather than quantitative format. A quantitative risk assessment is not possible as there is rarely sufficient data at waste transfer stations to make such an assessment.

3.2 Sources

- 3.2.1 Observation of activities similar to those on site reveals that the sources of dust arise from the following actions, in the absence of mitigation:
- i) Vehicle movement on surfaced and unsurfaced ground
 - ii) Unsheeted vehicle loads (incoming or outgoing)
 - iii) Tipping vehicle loads (incoming)
 - iv) Loading vehicles using 360° excavator or loading shovel
 - v) Loading feed hoppers using 360° excavator or loading shovel
 - vi) Open conveyors and drop conveyors without dust suppression
 - vii) Stockpiling and stockpile management
 - viii) Open concreted areas

3.3 Pathway

- 3.3.1 The main pathway for dust is airborne transmission which can deposit material on the ground off site in breach of planning and permitting conditions as well as being a potential health and safety hazard to staff on site.

- 3.3.2 Dust can also be deposited into surface water causing a reduction in water quality. The main hazards are presented when dust settles on the ground and is carried off site by wind, vehicles or surface runoff (as mud/silt).

3.4 **Receptors**

- 3.4.1 The main receptors are staff on site, as they are in close proximity to the dust source. The site is located on Wrexham Industrial Estate and shares an access with a neighbouring business off Redwither Road. The site is bounded by Redwither Road and other industrial units to the north, an expanse of grass/scrubland to the east, and other industrial units to the south and west. The closest residential properties are to the east of the site along Oak Road at approximately 700 m distant. The target of this document is to ensure dust is managed entirely within the site boundary to comply the Environmental Permitting (England and Wales) Regulations 2010. The procedures set out in Section 4.0 are designed to ensure that dust is not emitted beyond the site boundary and is suitably controlled within the site.

4 Abatement Methods and Procedures

4.1 General

- 4.1.1 The operator has installed a number of dust control measures and recently have commissioned a PM₁₀ Survey first of which was carried out on the 16th October 2014 and the second on 19th November 2014 with a further session possibly being carried out next year during spring or summer when the weather is dry. Two depositional dust gauges have also been deployed on the neighbouring sites as ASH are keen to investigate the scale of dust and fine particulate emissions from their various site processes.
- 4.1.2 A permanent water supply will be made available on site in all climatic conditions to ensure that the dust suppression systems can function effectively.
- 4.1.3 Water will be provided from the mains supply or from a mobile vacuum tanker depending on the target areas for dust mitigation.
- 4.1.4 All external water pipes will be lagged to prevent frost damage during winter months.
- 4.1.5 Site surfaces will be dampened-down as required to ensure that operation of vehicles, plant and equipment do not give rise to fugitive dust.

4.2 Vehicle movements

- 4.2.1 Water sprays and mobile mist cannon will be used to reduce dust levels on all site surfaces where necessary. This particularly applies to site roads, storage, loading and unloading areas. The dust suppression equipment will be deployed when wood is being processed or loaded and unloaded and when observations show visible dust escaping from the site boundary towards sensitive receptors. The mist cannon will be directed onto any potential sources of dust. In extreme conditions the mobile water cannon can be deployed for continuous dampening of the relevant areas of the site. The water cannon is fitted with variable nozzles and the spray pattern can be controlled and varied between jet and fog. Water

cannons can often used for fire protection and are also efficient for dust and particulate abatement. The mist cannon can produce large amounts of run-off is used for long period and or operated at a high density, therefore its usage will be managed to prevent pollution and this has been taken into consideration by the Drainage consultancy currently investigating and developing any upgrades to the drainage system on site at Wrexham.

- 4.2.2 Concreted areas which are not covered by plant or stockpiles may give rise to dust and will therefore be dampened periodically using a combination of the fixed sprinklers, vacuum sweeper and mist cannon to ensure that no significant dust emissions are observed.
- 4.2.3 Sweeping of the yard and haul road on at least a daily basis is also implemented to ensure that the potential for dust migration is minimized. The deposit of material on to the highway will be treated as an emergency and will be cleared before the end of the working day by a vacuum/road sweeper. Silt will not be washed into roadside drains or gullies. A sweeper will also be engaged as necessary to ensure that hard surfaced areas of the site are free from mud and debris.
- 4.2.4 During maintenance of the sprinkler system the mobile mist cannon, bowser or hose pipe will be used to spray the site surfaces to prevent the formation of excessive dusts etc- this particularly applies to site yard, storage, loading and unloading areas. Maintenance of the sprinkler system will however be scheduled to be undertaken when there is no urgent need to process or move the woodchip.
- 4.2.5 The sprinkler system currently in place on site ie the fixed sprinkler system and the mobile mist cannon when operational appear to be effective at reducing dust emissions from site activities. Any malfunction which reduces the effectiveness of the dust suppression will be reported to the site manager and will be repaired without delay. Alternative arrangements will be implemented until the repair/replace has been carried out (eg greater use and output flow from mist cannon).

- 4.2.6 There will be a maximum of three vehicles loading or unloading on site at any one time.
- 4.2.7 Vehicle speed on site is restricted to 5 miles per hour. Signs will be erected at the relevant areas of the site to advise drivers of the speed limit.
- 4.2.8 Exiting vehicles will leave the site and will avoid all areas where wastes are stored or stockpiled. All vehicles will be checked before they leave the site to ensure any mud/dust which could stretch beyond the site access will be kept to a minimum.
- 4.2.9 Any mud/dust deposited onto the public highway will be treated as an emergency and cleaned by operatives or by way of a road sweeper which would be hired-in as necessary.
- 4.3 **Unsheeted vehicle loads (incoming or outgoing)**
 - 4.3.1 All incoming and outgoing loads must be sheeted unless the material they are carrying has been sufficiently conditioned to ensure that no fugitive dust can be emitted from the vehicle body.
 - 4.3.2 Vehicles when loading the processed waste for export off site will be positioned as far away as possible from the sensitive receptors on the western boundary.
- 4.4 **Tipping vehicle loads (incoming)**
 - 4.4.1 Vehicles will be directed by the plant operators to deposit loads at the relevant locations as detailed in the site's EMS to reduce the effects of wind i.e. storage bays, mixed waste inside waste transfer building.
 - 4.4.2 Drivers will not be permitted to travel with raised vehicle bodies.
- 4.5 **Loading vehicles using 360° excavator or loading shovel**
 - 4.5.1 The operator of the loading plant will direct vehicles to a position and location which reduces wind whipping of loaded material i.e. the lee side of the loading

plant or against the side of a bay wall but also complying with Section 4.3.2 above.

- 4.5.2 The operator will ensure stockpiles of processed wood chip will be dampened prior to loading.

4.6 **Loading feed hoppers using 360° excavator or loading shovel**

- 4.6.1 Water sprinklers have been installed along the western boundary of the site and must be in operation prior to and during the processing and movement of the processed wood.

- 4.6.2 The mist cannon will be available in addition to the fixed water suppression on site to allow the operator to spray areas on or around the machinery which are likely to give rise to dust emissions.

4.7 **Open conveyors and discharge conveyors without dust suppression**

- 4.7.1 Wind boards will be made available to enclose wind sensitive areas of conveyors on the mobile plant used to screen and crush soils and stone etc to reduce the risk of dust emissions as standard or if conditions deem necessary.

- 4.7.2 Where material <3 mm in size is present in the C&D material to be screened or crushed the last metre of the final size discharge conveyor and the first metre of the free fall of the materials will be fitted with a hood to reduce dust emissions.

- 4.7.3 Drop heights from all discharge points will be kept to a minimum to prevent dust emissions where adjustment of conveyors permits.

- 4.7.4 From the initial monitoring survey undertaken by Dustscan the conveyors associated with the wood processing operation generally did not seem to be causing any problems. The dust tended to be generated when the wood was being removed from the stockpile during the loading into the HGVs and when it dropping off the end of the belt and hitting the existing stockpile. If these areas are kept dampened (not soaked) the dust emissions appear to be minimised.

There seemed little benefit from covering all the conveyors at this stage. However it has been suggested that further monitoring should be undertaken early spring when conditions are likely to be drier, if the conveyors then seem to be an issue, this will be addressed and the dust management plan revised accordingly.

4.8 **Stockpiling and stockpile management**

4.8.1 Following the DustScan initial Report there are recommendations to locate specific wastes which have the potential to produce dust as far as possible from sensitive receptors. A revised plan Ref No. 2399/426/03 Rev E shows the latest site layout. The processed wood is now stored within storage bays which have been located further away from potential sensitive receptors than the previous stockpiles.

4.8.2 The PAL* waste storage and processing operation has also been relocated away from the sensitive receptors. The PAL waste screening area is now located behind the transfer building and this area will be protected by the boundary wall of the transfer building and by the erection of dust netting (Rhino Textile) located on the north east boundary to capture any released dust and particles prior to being dispersed off-site. The netting will be regularly inspected to ensure it is still fit for purpose and any repairs will be carried out within 7 working days. The storage and processing kit for the PAL waste is now located to the south east of the waste transfer building as shown on Drawing No. 2399/426/03 Rev E. The recommendation of keeping the plant and equipment as free as possible from excess fine dust settling out by regular brushing and keeping the yard surface brushed has been taken on board. If necessary the mobile mist cannon can temporarily be relocated to this area to help minimise any dust emissions.

(This is the name given to the material which has passes through the screening machine at the furniture manufacturing site. 'PAL' is the name of the manufacturer (IMAL PAL Group) which designed and supplied the piece of kit which produces the material sent to ASH site in Wrexham for refining).*

4.8.3 Dust netting will be installed on site in the appropriate areas (to the rear of the area used to store and process the PAL waste and to the sensitive western

boundary of the site). The leylandi hedging has been upgraded with the dead trees now replaced with new saplings which have completed the screening barrier on the western perimeter of the site. It is proposed to plant additional leylandii on site as a screening barrier to the south of the site on the bank located behind the storage bays. It is also proposed to install Rhino dust netting on the relevant part of the western boundary where the leylandii have been replaced but not yet reached mature size, to capture any released dust and particles prior to being dispersed off-site. The netting reduces wind speed across the site which directly controls the potential for dust and particulate emissions. The netting will be regularly inspected to ensure it is still fit for purpose and any repairs will be carried out within 7 working days.

- 4.8.4 Two storage container units have been placed near the western boundary which should help shelter the site and provide a physical barrier in front of the palisade fencing.
- 4.8.5 The site layout plan will be revised to reflect any further changes in locations and copy submitted to NRW.
- 4.8.6 The general site layout aims to take into account the best locations for the processing equipment to be sited, the processed wood stockpiles and where the loading of the HGVs take place. These should be as far away from the sensitive receptors on the western boundary as possible. The staff will be constantly looking for any improvements to help reduce the risk of dust emissions from the site's operation and these will be incorporated into the Dust Management Plan as a revision.
- 4.8.7 Possible future developments on site may include moving the storage of specified wastes and or specific treatment activities eg shredding of wood, crushing/screening of inert waste towards the south east area of the site but before this can happen major changes to the current site infrastructure will be required which will take time and entail considerable costs as there is overhead cables across the far end of the site which will need to be re located or made higher and the yard surface will need to be prepared.

- 4.8.8 The stockpiles at the time of the Dustscan initial survey were visibly damp and very little dust was observed during waste wood handling and processed woodchip product handling. This demonstrates the effectiveness of water suppression in minimising dust propagation from the stockpiles and from loading activities. The mobile mist cannon will therefore be moved and directed so as to service the stockpiles during periods of dry weather. The fixed sprinkler system also appears effective in dampening any material in its range.
- 4.8.9 Stockpiles will therefore be sprayed with water during periods of dry/windy weather to prevent excessive drying and dust formation.
- 4.8.10 External stockpile heights will be limited to 3 metres unless otherwise agreed with the LPA.
- 4.8.11 Storage bay walls have been erected on site using lego blocks to contain the processed wood stockpiles. The heights of the bay walls containing the woodchip are being increased to ensure stockpiles (3m planning restriction) are lower than the walls for both dust and fire implications.
- 4.8.12 Material which is screened to produce an end product <3 mm in size will be processed such that the material is screened directly into a three-sided bay or a skip/container and sheeted if necessary to prevent fugitive dust emissions.
- 4.8.13 During particularly adverse windy conditions, stockpiles will be reduced in height and conditioned with crusting agents if necessary to prevent airborne transport of material or dampened down.
- 4.8.14 Stockpiles are located to ensure that vehicles leaving the site do not track through the screened material to prevent deposit of debris on the highway. The deposit of material on the highway will be treated as an emergency and cleaned immediately by operatives or by way of a road sweeper which would be hired-in as necessary.
- 4.8.15 As standard, the removal of material from stockpiles will be carried out from the most sheltered location adjacent to the containment wall.

4.9 Housekeeping arrangements

- 4.9.1 Plant and equipment is regularly cleaned and any visible dust deposits removed. Any deposits under the shredder are removed. These fines should not be re-introduced into the waste wood stock piles as re-circulating this fine material back into the processing cycle is likely to increase dust and PM₁₀ emissions from the shredding plant. These deposits should be removed and disposed of separately.
- 4.9.2 In drier conditions vehicle movements and strong winds have the potential to re-suspend fine material from the site surfaces. It is important to therefore ensure the yard surfaces areas (particularly the tipping and loading areas) are wetted down to minimise dust re-suspension. Good housekeeping is essential to minimise the amount of dust laying on site yard, therefore the yard and parts of the equipment (where relevant and safe to do so) will be brushed/swept regularly. Staff will be trained to identify when this is required.

4.10 Monitoring and recording for all operators

- 4.10.1 Details of how and when shredding of wood and loading of wood has been undertaken are recorded in the site diary. Also information on weather conditions must be included. Any specific comments/actions such as change in weather conditions which have may have necessitated the operations to cease will also be noted, together with full details of any visual signs of dust escaping off site. These actions are already being recorded on site and have been witnessed and reported on the latest CAR forms. Details relating to the wood processing activities are recorded in the site's diary. There is a separate record sheet for the general daily inspections undertaken on site. There is also a separate complaints form which is included in Appendix II of the EMS.
- 4.10.2 In accordance with the site inspection procedures detailed in the site's EMS, the site supervisor will make a visual inspection of dust emissions at the site perimeter at least twice daily to ensure that no dust blows off the site. The results of monitoring exercises and any remedial action taken will be entered into the site diary or on the inspection forms which are available for regulatory officers to inspect during operating hours.
- 4.10.3 Site staff will continuously visually monitor dust emissions whilst the waste treatment plant is in operation and will control dust emissions using the procedures listed above, asking the site supervisor for advice as required.
- 4.10.4 If any dust complaints are received, the relevant operator will complete a 'complaints and events log' and detailed individually on the complaints form (in Appendix II of the site's EMS), both of which will be kept for inspection on request by the local authority and/or NRW. Details of information to be completed are dates, nature of complaint, weather conditions at the time of the complaint, investigation details, action taken and a signature (as a minimum).
- 4.10.5 The operator would also be required to make a note of any unavoidable events such as bad weather in the site diary, rather than just actual complaints received. This will ensure that if complaints are received retrospectively from either the local authority/NRW or directly, any circumstances which led to that complaint as

a result of elements outside of the operator's control would be able to be attributed to the cause of the complaint.

- 4.10.6 To assist in finding the main sources of dust emissions on site ASH commissioned DustScan (which incorporates Alex Grant AirQ) to carry out a full investigation/monitoring exercise which involves undertaking a workplace TSP dust survey on site and the production of a summary report. The survey will include 20 minute spot readings and at different locations around the Wrexham site and on neighbouring premises. Both PM₁₀ concentrations (to relate to National Air Quality Standard Air Quality Objectives NAQS AQO) and Total Suspended Particulate TSP readings (to relate to wood dust Workplace Exposure Limits WELs) during the survey. The survey was to commence on Tuesday 7th October 2014 on site in Wrexham but unfortunately due to rain predicted the survey needed to be re arranged as the real-time dust sampler for PM₁₀/TSP site surveys cannot be operated in the rain as water droplets in the air give incorrect readings.

The first inspection and PM₁₀ survey was carried out by Dustscan Ltd on 16th October 2014 at the following six locations using a Quest Technologies potable EVM-3 real time direct-reading particle monitor. This device uses an internal air sampling pump to draw air through a 'dial-in' impactor, which selects the size of particles to monitor and a laser photometer that generates real-time indicative particle counts using light-scatter technology.

1. On ASH's yard by the bin storage area ie near to site boundary
2. On ASH's yard, adjacent to the wood stockpiles and shredder
3. On neighbour's car park (Bostock)
4. By neighbour's picnic area (Chesapeake)
5. Car park (Chesapeake)
6. ASH's car park

- 4.10.7 Unfortunately the time of the year is not the ideal to undertake such survey work. The winds on the day were slight and generally south-easterly, initially overcast and temperature 13°C raising to 17°C. There was no precipitation during the survey although damp conditions were observed on site as a result of previous rainfall. The site was operational during the survey: HGV movements were

observed both entering and leaving the site, wood processing and shredding plant was in use, front-loading shovels were both loading the shredder hopper with waste wood and the HGVs with wood chip. The mobile mist cannon and dust suppression measures were switched off to create a 'worst case scenario'. Despite this the stockpiles were visibly damp and the site road and haul route were saturated with water. A full report of the survey work and results are presented in Dustscan Report Oct 2014.

- 4.10.8 Recommendations and mitigation measures detailed in this initial report have been considered by the applicant and included in the emissions management plan for the site.
- 4.10.9 An automatic weather station could be installed on site to enable the staff to check the forecast and therefore able to plan activities accordingly based on weather forecasts and the immediate weather conditions on site at the time. ASH have been in touch with a supplier and are currently looking at the Davies Vantage Pro 2 Weather Station a wireless weather station which displays and records barometric pressure, temperature, humidity, rainfall and wind to assess its suitability.
- 4.10.10 It was beneficial to wait until after the initial site meeting and monitoring survey was carried out by DustScan to produce the Dust Management Plan. We now have details of the methodology and locations etc for the monitoring they have undertaken for both PM10s concentrations and Total Suspended Particulate TSP readings. The recommendations suggested in the initial report have been included in the Dust Management Plan taking into account the TGN M17 guidance. It has been agreed after the second monitoring survey which was carried out on the 19/10/2014 that Autumn/Winter is not the ideal time of the year to undertake dust monitoring due to the general damp atmosphere which does not lend to the greater chance of creating elevated emissions which would be more likely to be produced when the weather is dry and windy. A progress report will be prepared in April 2015 based on any additional

information/evidence including investigating any complaints and any follow actions, and any NRW or staff observations. From this a decision will be taken to see if there is a still a need for any further monitoring to be carried in during dry, windy conditions.

ASH GROUP LTD

REDWITHER ROAD, WREXHAM INDUSTRIAL ESTATE

SITE PM₁₀ SURVEY REPORT

**DustScan Ltd
October 2014**

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Ash Group Ltd

Site PM₁₀ Survey Report

1. Introduction

DustScan Ltd was instructed by Ash Group Ltd to evaluate and report PM₁₀¹ concentrations at and around their waste wood, plastic and cardboard recycling facility. The site is located approximately 2.5 km to the east of Wrexham, north Wales and is accessed via a shared entrance (with Bostock Air Conditioning and Chesapeake) off Redwither Road on Wrexham Industrial Estate. The site is bounded by Redwither Road and other industrial units to the north, an expanse of grass/scrubland to the east, and other industrial units to the south and west (Calypso, Bostock and Chesapeake). The closest residential properties are to the east of the site along Oak Road at approximately 700 m distant.

It is understood that Ash Group Ltd do not have any PPC permit or other operating conditions relating to dust monitoring nor have they been instructed to undertake any by the local regulatory body, Wrexham County Borough Council (WCBC). However, complaints relating to annoyance wood dust deposits and visible fine particulate matter have been directed to the WCBC Environmental Health Officer (EHO) from neighbouring industrial properties, and the EHO has recently inspected the site. Consequently, Ash Group Ltd has installed a number of dust control measures and employed an environmental consultant (Oaktree Environmental) Ltd). Furthermore, they have consulted Natural Resources Wales and the Environment Agency and commissioned a PM₁₀ survey, of which this is the report. Ash Group Ltd have also committed to subsequent works that include the installation of two depositional dust gauges (date to be arranged) and additional PM₁₀ surveys to be conducted during different weather conditions. Ash Group Ltd is very keen to investigate the scale of dust and fine particulate emissions from their various site processes.

1.1 Site Description

The site has a predominantly metalled hard standing yard. Waste timber is imported to the site by heavy goods vehicle (HGV), tipped and then stockpiled in 3-sided, uncovered bays. Waste plastic and cardboard is imported by the same means, tipped and stockpiled in a large building which is fully enclosed but open on one side. Waste timber is transferred from the stockpiles to crushing/shredding plant by front-loading shovel. Processed woodchip product

¹ PM₁₀ is essentially particulate matter with an aerodynamic diameter less than 10 microns (µm).

is stored in separate open-air stockpiles and transferred to HGV by front-loading shovel and then transported off site.

The site does not benefit from wheel washing facilities. A mobile mist cannon is installed adjacent to the shredding plant and product loading area. Water sprinklers are also installed along the western site boundary, where there is a gap in a vegetation screen between the site and Chesapeake.

1.2 Site Inspection and PM₁₀ Survey

The site inspection and PM₁₀ survey was conducted by DustScan Ltd on 16 October 2014. It is important to note that arrangements had been made for the survey to be undertaken earlier in October but was postponed and rescheduled twice due to inclement weather conditions.

2. Standards and Controls

The Air Quality Regulations (AQR) prescribe National Air Quality Strategy (NAQS) objectives (known as Air Quality Objectives (AQO)) to be achieved for a range of pollutants. Under AQR, local authorities are required to review the existing and projected airborne concentrations of these pollutants and compare them with the NAQS objectives. If an exceedence of any NAQS objective appears likely, then an Air Quality Management Area (AQMA) is to be designated with the aim of achieving the objective by the due date.

The objective of potential concern in this study is PM₁₀ and the NAQS objectives for PM₁₀ are listed in Table 1.

NAQS Objectives

Table 1

Pollutant	Objective	Date
PM ₁₀	40 µg m ⁻³ , annual mean	31 December 2004
	50 µg m ⁻³ , 24 hour mean, not to be exceeded more than 35 times per annum	31 December 2004

The AQO for PM₁₀ is currently 50 µg m⁻³ (microgrammes per cubic metre) as a 24-hour mean not to be exceeded 35 times per year and 40 µg m⁻³ not to be exceeded as an annual mean.

Where there is an exceedence for one or more pollutant in the AQO the local authority is required to declare an Air Quality Management Area (AQMA). WCBC currently has not declared any AQMAs for PM₁₀.

As part of LAQM, background PM₁₀ concentrations are mapped (estimated) for every local authority in the UK at 1 × 1 km grid square resolution². The estimated PM₁₀ concentrations for 2014 and 2020, for the grid square in which the Ash Group Ltd site is located are set out in Table 2.

Estimated PM₁₀ concentrations

Table 2

Location	Grid Square (Easting / Northing)	Mean PM ₁₀ (µg m ⁻³)	
		2014	2020
Ash Group Ltd, Redwither Road, Wrexham Industrial Estate	337500 348500	13.46	12.84

The data in Table 2 above indicate that in 2014 the predicted PM₁₀ background concentration in the vicinity of the Ash Group Ltd recycling site on Redwither Road would be around 34 % of its respective NAQS AQO annual mean objective, with a slight reduction predicted to occur by 2020.

3. PM₁₀ Survey

This section sets out the methodology, results and observations of the site PM₁₀ survey undertaken for this assessment.

3.1 Methodology

PM₁₀ concentrations were assessed at and around the site on 16 October 2014. Samples were collected by taking a number of short-term 'spot' readings at 6 different ground level locations (see Drawing No. 1). The sampling locations were selected after consultation with Ash Group Ltd and Oaktree Environmental Ltd. The aim of this PM₁₀ survey was to assess whether site processes might contribute to local PM₁₀ levels and to establish if any elevations in concentrations extend beyond the site boundary to the west. Table 4 details each spot sampling location.

² <http://uk-air.defra.gov.uk/data/laqm-background-maps?year=2011>

PM₁₀ spot sampling locations**Table 3**

Point No.	Location	Easting	Northing
1	Ash Group yard, bin storage area nr Chesapeake boundary	338299	349280
2	Ash Group yard, adjacent to product stockpiles and shredder	338329	349268
3	Bostock Air Conditioning car park	338201	349371
4	Chesapeake picnic area	338249	349318
5	Chesapeake car park, nr Ash Group boundary	338286	349294
6	Ash Group office car park	338274	349409

The concentrations were determined using a Quest Technologies portable EVM-3 real-time direct-reading particle monitor. This device uses an internal air sampling pump to draw air through a 'dial-in' impactor, which selects the size of particles to monitor and a laser photometer that generates real-time indicative particle counts using light-scatter technology.

It should be noted that short-term readings taken by portable, real-time instruments can sometimes give rise to anomalous results due to a variety of factors including, for example, short-term fluctuations in PM₁₀ concentrations (which would be smoothed out over longer sampling intervals). Consequently, whilst the data obtained are informative, in that they indicate relative PM₁₀ concentrations at and around the Ash Group Ltd site, they are not definitive in terms of AQO. It is also important to note that measurements collected by different instruments are not usually directly comparable.

The EVM-3 monitor was set to average PM₁₀ concentrations every 15 seconds and average again over a 20-minute sampling interval.

Table 4 below shows the PM₁₀ concentrations (in $\mu\text{g m}^{-3}$) recorded at each spot sample location during the PM₁₀ survey. The results are discussed in Section 4.

3.2 Findings and Results

Winds were slight and generally south-easterly at the site during the morning of 16 October 2014. The weather was initially overcast with a temperature of 13°C and latterly sunny with a temperature of 17°C. There was no precipitation during the survey although damp conditions were observed on site as a result of previous rainfall.

The site was operational during the survey: HGV movements were observed both entering and leaving the site; wood processing and shredding plant was in use; and front-loading shovels were both loading the shredder hopper with waste wood and HGVs with woodchip

product. The mobile mist cannon and water sprinkler dust suppression measures were not in operation to try to create a 'worst case scenario'. Despite this stockpiles were visibly damp and the site yard and haul route were saturated with water.

16/10/14 Survey - PM₁₀ spot sample data

Table 4

Point No.	Start Time	Min PM ₁₀	Max PM ₁₀	Ave PM ₁₀	Comment
1	10:15	3	63	14	Site staff at break, no shredding or loading activities
2	10:50	3	206	75	Max concentration coincided with visible dust cloud from shredder
3	11:25	2	18	10	
4	11:50	3	20	10	
5	12:35	2	26	10	
6	13:00	2	31	11	

Table 4 above, in relation to Drawing No. 1, shows that PM₁₀ concentrations in and around the site were generally comparable with the LAQM estimated 2014 concentration for the area (see Table 2). The highest 20-minute average concentration was recorded at sampling point 2, adjacent to the product stockpiles and shredder.

4. Assessment

20-minute average PM₁₀ concentrations in and around the Ash Group Ltd recycling facility on Redwither Road, Wrexham Industrial Estate on 16 October 2014 were generally consistent with the LAQM estimated 2014 concentration (13.46 µg m⁻³) for the area. However, a high 20-minute average concentration was recorded at sampling point 2 (adjacent to the product stockpiles and shredder). It can be seen from the data in Table 4 in relation to Drawing No. 1, that the relatively elevated concentration of PM₁₀ in the vicinity of the wood shredder was very localised, and did not appear to extend to the boundaries of the site downwind.

The 20-minute average concentration recorded adjacent to the wood shredder in the centre of the sites processing/stockpile yard was considerably higher than LAQM estimated 2014 background and the 24-hour mean AQO (50 µg m⁻³). Because AQOs apply when considering relevant public exposure, elevated 20-minute average PM₁₀ concentrations within the site do not necessarily indicate exceedence in terms of NAQS objective thresholds. Where there is not public exposure, workplace exposure to elevated PM₁₀ concentrations may still be of concern.

20-minute average PM₁₀ concentrations recorded off-site to the north-west were slightly lower than the LAQM estimated background concentration for the area. If these concentrations were indicative of those experienced over a 24-hour period, they would be well within NAQS thresholds.

There appeared to be a correspondence between higher 'real-time' PM₁₀ concentrations and when visible dust emissions were observed emanating from the wood shredder. This suggests that wood crushing and handling operations generated localised PM₁₀ emissions.

5. Recommendations and Mitigation

The data collected from this site PM₁₀ survey indicate that site wood shredding activities generate PM₁₀ emissions in the immediate locality of the operation. Consequently, consideration could be given to enclosing the wood shredding plant. If this is not practicable, then it is recommended that this plant is regularly cleaned and any visible dust deposits removed. Fine wood chip deposits were observed under and around the shredder during the survey site visit and it is understood that these deposits are swept away 3-times a day and reintroduced to the waste wood stock pile. Re-circulating this fine material back into the processing cycle is likely to increase dust and PM₁₀ emissions from the shredding plant. These deposits should be removed and disposed of separately.

The site PM₁₀ survey was undertaken after recent precipitation in the area and stockpiles on site were visibly damp. Very little dust was observed during waste wood handling and processed woodchip product loading. This demonstrates the effectiveness of water suppression in minimising dust propagation from the stockpiles and from loading activities. It is recommended that the mobile mist cannon be moved and directed so as to service the stockpiles during periods of dry weather.

Consideration should also be given in installing an automatic weather station on site and the site manager should pay close attention to local weather forecasts. Site activities should be planned and undertaken based on weather forecasts and the immediate weather conditions on site at the time. Wood shredding operations could be suspended during strong east-south-easterly/south-easterly winds for example.

As a general recommendation, the general site layout and the level of site housekeeping could be improved. Consideration should be given to re-locating the processed woodchip stockpile further away from the sensitive western processing area boundary and the side

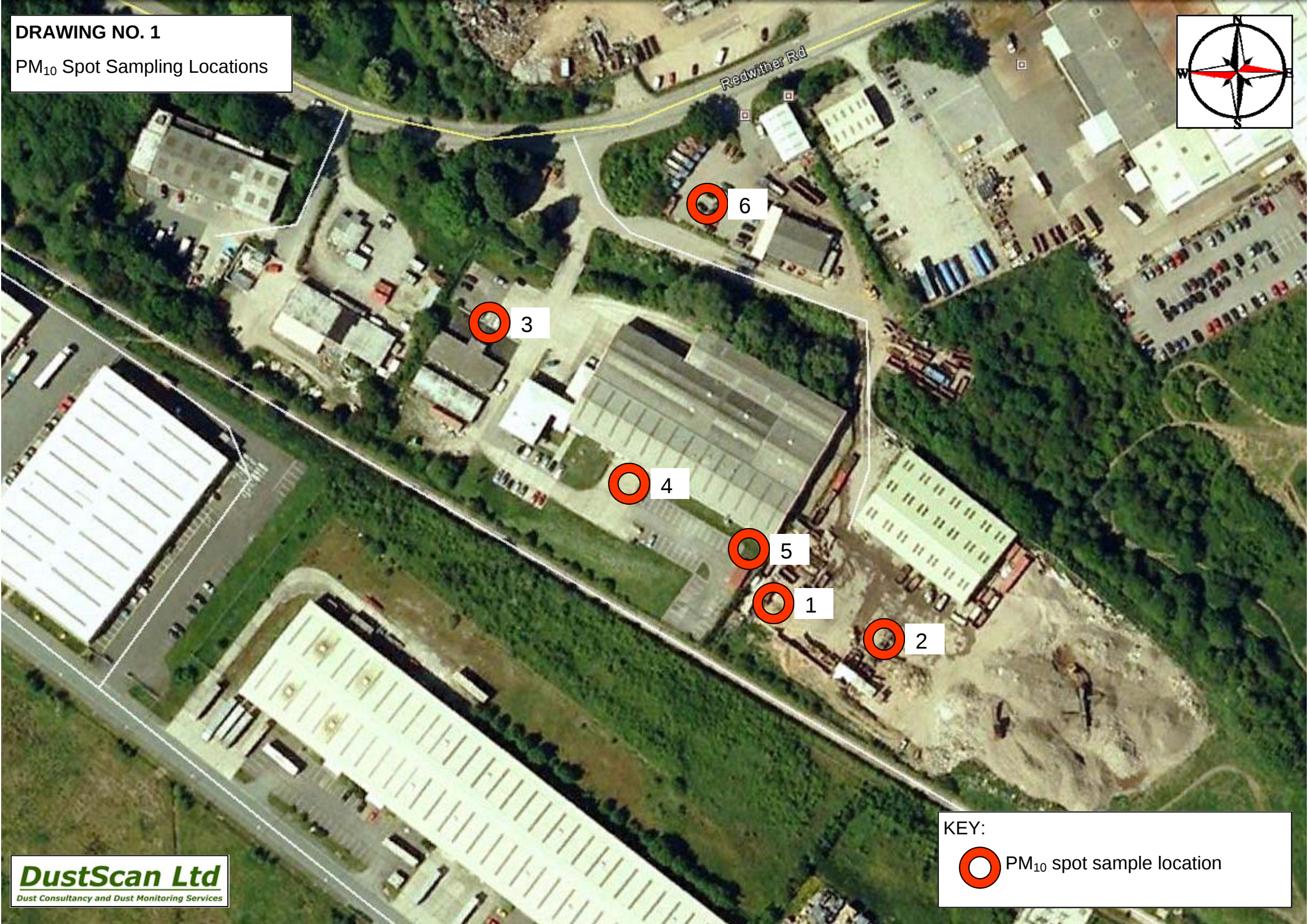
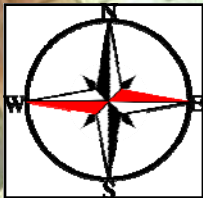
walls of the open-air stockpile bays could be heightened. During the survey visit the surface of the sites processing yard was visibly dirty. In drier conditions vehicle movements and strong winds have the potential to re-suspend fine material from site surfaces. Consideration could be given into hiring a water bowser for the site during drier months, so that the yard surfaces (particularly in the tipping and loading areas) can be wetted down to minimise dust re-suspension. These measures may help in reducing the number of complaints towards the site relating to dust in summer months.

As an overriding requirement, the site should be operated in accordance with current best practice such as the Environment Agency's "Guidance for dust and particulate abatement techniques at Waste Management Facilities", attached at Appendix 1.

This report has presented and briefly discussed the PM₁₀ concentrations recorded at and around the Ash Group Ltd recycling facility on Redwither Road on 16 October 2014, during slight south-easterly winds and after a period of wet weather. The findings may not be consistent with those for higher wind speeds or with winds from different directions. Subsequent PM₁₀ surveys are planned to assess the site in different weather conditions. Further investigations could also be made by comparing site complaint records with local MET data for example and also with the depositional monitoring data, when a reasonable data set has been collected.

DustScan Ltd
October 2014

DRAWING NO. 1
PM₁₀ Spot Sampling Locations



KEY:

 PM₁₀ spot sample location

Appendix 1 – Guidance for dust and particulate abatement techniques at Waste Management Facilities. Environment Agency Quick Guide 02_13



Guidance for dust and particulate abatement techniques at Waste Management Facilities

Quick guide 02_13

Issued 02/01/2013

What's this document about?

This document provides various dust and particulate abatement techniques for waste management facilities. The main focus of this document is on waste transfer stations, but many of the abatement techniques could be successfully applied to other types of waste facilities. The abatement options are provided in this guide to enable a more informed decision to be made and use the most appropriate option where there are dust and particulate issues on site.

It is not designed to replace or duplicate other guidance and there are a number of referenced documents which need to be considered – See [related documents section](#).



Document details



Related documents

Who does this apply to?

All competent officers carrying out investigations into dust and particulate emission pollution through routine site visits or incident response.



Feedback

Introduction

Dust and particulate sources will be specific to the activities carried out at each site.

Dust and particulates are primarily generated by mechanical grabbers and mobile plant which sort and load the waste. Sites that shred waste or fragmentise metals can also cause dust and particulates. Heavy Duty Vehicle (HDV) traffic delivering waste and removing sorted wastes off-site may generate 'fugitive dust and particulate emissions' which can be entrained onto the local road network.

Contact for queries
Faye Charlesworth

Dust and particulate Management

The objective is to:

- prevent migration beyond the site permit boundary;
 - control dust within site to reduce associated potential health risks and the likelihood of off-site migration, and
 - ensure that the necessary actions are implemented as required in any management system, dust management plan or action plans.
-

Our Remit with Respect to Air Quality at permitted sites

We have a number of duties under Environmental Permitting related to air quality and nuisance as follows:

- to ensure that the waste facilities we regulate do not cause air quality problems or make existing ones worse; and
- to ensure that any fugitive dust released from them is minimised and does not cause a 'statutory nuisance'.

We regulate waste management facilities under the Environment Permitting Regulations 2010. We must ensure that no single waste operation will cause a breach of a national or EU air quality standard. We have committed that these facilities will not make a significant contribution to a breach of these standards either. Additionally we will ensure that appropriate measures are used to minimise releases of particulates and dust.

We should investigate what improvements can be made if a facility we regulate is contributing significantly to the breach of an air quality standard or is projected to do so. We have a standard permit condition for emissions and action plans that are required for any facilities meeting this criterion. If required we can add bespoke conditions. Also we may require an operator to carry out ad hoc monitoring of local air quality or to install permanent monitoring stations where necessary. Exempt waste operations are registered with us and must meet the relevant objectives as laid down in the Waste Framework Directive, but do not as such, have conditions or action plans.

Nuisance

Section 79(1)(d) of the Environmental Protection Act 1990 defines one type of 'statutory nuisance' as "any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance".

Statutory nuisance falls within the remit of Local Authorities (LAs) but **Note:** [at EPR sites we are the lead for nuisance](#) (link to Defra Guidance). It is our job to prevent nuisance from those sites, using our permit conditions.

Where a LA is satisfied that a statutory nuisance exists, or is likely to occur or recur, it must serve an abatement notice. Failure to comply with an abatement notice is an offence. However, it is a defence if an operator employs the best practicable means to prevent or to counteract the effects of the nuisance.

Review of available abatement technologies

Appendix 1 below provides some examples of dust and particulate abatement technologies that could be employed at a variety of waste management facilities.

Abatement Types

Can be classified into two types,

1. preventative measures which reduce the emission release at source, and
2. remedial or suppressive measures that are used to control emissions once released.

The most effective methods of abatement are those that reduce emissions at source.

Related documents

Links

- [How to comply with your Environmental Permit \(EPR 1.00\)](#)
- [181_04 Targets for completing NIRS records](#)
- [04_01 Common Incident Classification Scheme](#)
- [National Investigations Manual](#)
- [1429_10 Enforcement and Sanctions statement](#)
- [Enforcement and Sanctions – Guidance](#)
- [1430_10 Offence Response Options Document](#)
- [Environmental Permitting Guidance](#)
- [RGN No. 11 Enforcement powers \(version 2.0, updated December 2010\)](#)

If the operator holds a permit under the Environmental Permitting Regulations 2010 they are required to have an appropriate Environment Management System (EMS) in place. It must set out in written detail (procedures), how all the activities that happen on your site will be managed in accordance with the permit. In newer permits the permit condition or rule requiring an operator to have an EMS in place is typically condition 1.1.1.

The type of EMS implemented must be proportionate to both the scale and the risk that the activities, covered by the permit, pose to the environment. In order to comply with these permit conditions, an operator must ensure that an EMS is in place, that it's adequate for the activities taking place and that it's being implemented.

With regards to dust and particulate management we would expect to see the methods the operator proposes to use, some examples of which are given in Annex 1 below, to be identified clearly in the site management system and implemented as appropriate to enable them to comply with their permit.

Annex 1. Dust and Particulate Abatement and Remediation Measures Applied at Waste Sites

Abatement Measure	Description / Effect	Overall consideration and implementation
Preventative Measures		
Low Cost Options		
Site / process layout in relation to receptors	Locating particulate emitting activities at a greater distance and downwind from receptors may reduce receptor exposure, provided that emissions from the source are not dispersed over significant distances.	May be worthwhile in combination with other measures to reduce dust and particulate generation. If at all possible discuss at pre-application and prior to site design if the activity is known to be cause lots of dust and particulates. For existing sites this will require the operator to think about moving the site around or proposing temporary areas in inclement weather.
Site speed limit, 'no idling' policy and minimisation of vehicle movements on site	Reducing vehicle movements and idling should reduce emissions from vehicles. Enforcement of a speed limit may reduce resuspension of particulates by vehicle wheels.	Easy to implement as part of good practice. Should be identified clearly in the site management system and implemented as appropriate measures.
Minimising drop heights for waste. Use of enclosed chutes for waste drops/end of conveyor transfers and covered skips / storage vessels.	Minimising the height at which waste is handled should reduce the distance over which debris, dust and particulates could be blown and dispersed by winds. Enclosing processes will further reduce dispersion.	Relatively easy to implement at many sites. These steps should be identified clearly in the site management system and implemented as appropriate measures.

Abatement Measure	Description / Effect	Overall consideration and implementation
Preventative Measures Medium Cost options		
Sheeting of vehicles	Prevents the escape of debris, dust and particulates from vehicles as they travel.	Relatively easy to implement at many sites. Should be identified clearly in the site management system and implemented as appropriate measures.
Hosing of vehicles on exit	May remove some dirt, dust and particulates from the lower parts of vehicles although likely to be less effective than a more powerful wheel wash.	May be worthwhile where wheel wash installation is not feasible. This should be in the site procedures and training. If the action works as a control measure, then consideration must be given to installing a wheel wash as the appropriate measure.
Ceasing operation during high winds and/or prevailing wind direction	Mobilisation of dust and particulates is likely to be greater during periods of strong winds and hence ceasing operation at these times may reduce peak pollution events.	Likely to reduce dust and particulate emissions, however, not a long-term solution. Procedures should be in place to identify when operations will cease. May require a weather station to be installed.
Preventative Measures High Cost Options		
Installed wheel wash	Provides a high pressure wash of vehicle wheels and lower parts (including under body) using a series of jet sprays. More effective if vehicles drive through the wheel wash slowly in order that there is sufficient time for dirt to be removed.	Proven results where wheel wash is well designed and vehicles drive through slowly on entry and exit. Should be identified clearly in the site management system and implemented as appropriate measures.
Easy to clean concrete impermeable surfaces	Creating an easy to clean impermeable surface, using materials such as concrete as opposed to unmade (rocky or muddy) ground within the site and on site haul roads. This should reduce the amount of dust and particulate generated at ground level by vehicles and site activities.	Considered good overall based on dust and particulate reduction but potentially costly and disruptive to retrofit. For sites that have concrete surfaces ensure there are maintenance and cleaning procedures in the management system and they are implemented.
Minimisation of waste storage heights and volumes on site	Minimising the height at which waste is handled should reduce the distance over which debris, dust and particulates could be blown and dispersed by winds. Reducing storage volumes should reduce the surface area over which particulates can be mobilised.	Likely minimal return on potentially costly layout changes. The amount of waste that can be managed on site without causing dust and particulate pollution should be identified in the management system and may have to be reduced if it is considered an appropriate measure.
Reduction in operations (waste throughput, vehicle size, operational hours)	Reducing the amount of activity on site, including no tipping, shredding, chipping or screening of high risk loads during windy weather as well as associated traffic movements should result in	Effective in terms of dust and particulate reduction but unlikely to be popular/implemented by operators. It may be the only option when other steps fail. Ensure the site has

Abatement Measure	Description / Effect	Overall consideration and implementation
	reduced emissions and re-suspension of dust and particulates from a site.	procedures to reduce activity on site if required through complaints or known issues. This may include installing a weather station to alert the site to windy weather and when they need to reduce agreed activities.
Negative pressure extraction	Within enclosed buildings, controlled extraction can be undertaken to ensure a constant negative pressure relative to the outside air. This system should prevent the emission of particulates from any openings in the building. Extracted air should be treated through a suitable filtration system prior to discharge to atmosphere. This method is more frequently applied for odour control.	Very effective despite relatively high costs and may cause disruption to install in already operational sites. Operational costs may also be high. Ideally discuss at site design and pre-application stage if at all possible.
Enclosure of processes within buildings	Creating a solid barrier between the source of dust and particulates and receptors is likely to be the most effective method of control, provided that the building entrances and exits are well managed.	Very effective despite costs and the high potential for disruption to already operational sites. Required 'standard design feature' by Office of the Deputy Prime Minister (ODPM) guidance. Ensure that procedures are in place to manage the building and its integrity.
Remedial Measures		
Low Cost Options		
Netting / micro netting around equipment	Erecting netting around equipment that could give rise to large amounts of dust and particulates may be effective within the site boundary and prevent their dispersion off-site / their re-suspension within the site.	Reduces wind speed across the site which indirectly controls the potential for dust and particulate emissions. Maintenance should be covered in the management system and procedures.
On-site sweeping	Sweeping could be effective in managing larger debris, dust and particulates but may also cause the mobilisation of smaller particles. Road sweeping vehicles damp down dust and particulates whilst brushing and collecting dust and particulates from the road surface, particularly at the kerbside. This may generate dust and particulate movement that may become a Health and Safety issue if the filters and spray bars on the sweepers are not maintained.	Easy to apply but less effective than other measures. Should be covered in the management system and procedures and implemented thoroughly. We would expect to see training procedures to ensure that staff are clear on what needs to happen and when. We would expect to see procedures detailing when consumable items on road sweepers are replaced (Filters, brushes etc).

Abatement Measure	Description / Effect	Overall consideration and implementation
Site perimeter netting / micro netting	Erecting netting around the site perimeter may capture released debris and dust and particulates prior to it being dispersed off-site.	Reduces wind speed across the site which indirectly controls the potential for dust and particulate emissions. Maintenance should be covered in the management system and procedures. Can look untidy and dirty creating negative impression of the facility.
Remedial Measures		Medium Cost Options
Water suppression with hoses on site or at the weighbridge	Damping down of site areas using hoses can reduce dust and particulate re-suspension and may assist in the cleaning of the site if combined with sweeping.	Quite water intensive. Can reduce the calorific value of the material which should be considered if sent for energy recovery/biomass type operations. Maintenance should be covered in the management system and procedures.
Water suppression with mist sprays	Installation of mist sprays around sites, at building entrances/exits and within buildings at point source emissions like conveyors, trammels etc. It can also assist in the damping down of dust and particulates, therefore, reducing emissions from site.	Very effective at controlling point source emissions of dust and particulates. Uses less water than water bowser Maintenance should be covered in the management system and procedures.
Water suppression with bowser	Using bowzers is a quick method of damping down large areas of the site with large water jets. This method could also be used on easy-to-clean, impermeable concrete surfaces.	Highly water intensive and more likely to minimise dust and particulates on the ground that is at risk of being re-suspended rather than already airborne dust and particulates. Can reduce the calorific value of the material which should be considered if sent for energy recovery/biomass type operations. Maintenance should be covered in the management system and procedures.
Dust and particulate monitor with trigger alarm	Installation of a dust and particulate monitor with specified alarm trigger level can alert site staff when short-term particulate concentrations are elevated in order that site practices can be reviewed or application of mitigation measures increased. Note - The alarm trigger isn't set in permit conditions as a "compliance limit" but by the operator in the Dust Management Plan as an "action level" to alert the operator that they may be generating dust. The operator should stop once the alarm sounds and if they believe they are the source then they should modify	Worthwhile installing as a real-time tracker of dust and particulate concentrations. It is important that the equipment is backed up by a suitable maintenance contract and initial capital costs, with maintenance is sub £10k for a suitable system. At multi-operator sites this kind of system can be used to demonstrate a specific site is not a source of dust and particulate pollution.

Abatement Measure	Description / Effect	Overall consideration and implementation
	<i>their operations and report to the EA. If the dust isn't coming from their operations then they should note it down and continue with their operations. Experience has shown us that a limit of less than 100ug/m3 (over a 5 min average) for PM10 should be considered by operators initially and reviewed down after the system has been in place for some time. Regulatory emphasis should NOT be placed on the exceedance but on the action the operator takes, if they are the source, to prevent a re-occurrence. Bespoke permit conditions are already available to require this monitoring.</i>	
Shaker grids	Similar to cattle grids, these are installed at a site entrance and exit. The movement of vehicles over the grids shakes dust and particulates from the wheels, thus removing them before vehicles enter the site.	Unlikely to be as effective as thorough wheel washing. Maintenance should be covered in the management system and procedures.
Water Cannons	Water cannons provide a means for delivery of powerful water streams from a water truck. With variable nozzles, the spray pattern can be controlled and varied between jet and fog. Typical water flows are up to 5000 litres per minute. Water cannons are most often used for fire protection, mining operations, heavy machinery wash down, cleaning and dust and particulate abatement.	Highly water intensive and more likely to minimise dust and particulates on the ground that is at risk of being re-suspended rather than already airborne dust and particulates. Can reduce the calorific value of the material which should be considered if sent for energy recovery/biomass type operations. Should be identified clearly in the site management system and implemented as appropriate measures. Produces large amounts of run-off that need to be managed to prevent pollution.
Remedial Measures		
High Cost Options		
Screening of buildings / site areas using plastic strips	Installing plastic strips to cover entrances/exits to buildings may reduce emissions of dust and particulates dispersing through doorways.	This is a well established approach and works well in association with other measures e.g. hosing of waste and misters at building entrance. Vehicles can damage them and they do wear out over time. Sites could consider holding small supplies of spares.

Abatement Measure	Description / Effect	Overall consideration and implementation
		Maintenance should be covered in the management system and procedures.
Application of CMA / chemical suppressant	Diluted Calcium Magnesium Acetate (CMA) or other chemical based dust suppressant is regularly applied by spraying using a back-pack applicator for small areas or by road sweeper to cover larger areas. CMA acts as a suppressant with the aim of reducing dust and particulate re-suspension and hence ambient concentrations.	Trials indicate this can be an effective process. It shouldn't be applied during rain and once applied it needs to be re-applied regularly. Price and efficacy vary depending on the brand selected. Maintenance should be covered in the management system and procedures.
Heavy Water	H water is used to improve the compaction and stability and reduce dust and particulates on unsealed roads or areas of land. Ideally it is blended into the road construction material as the road is constructed, but where this is not possible it can be sprayed onto the top of the road. Heavy water combines fast acting wetting agents with polymer binders, to allow penetration deep into the material and to 'agglomerate' the dust and particles together.	Potentially useful but only for sites with large areas of unmade ground. Should be identified clearly in the site management system and implemented as appropriate measures.
Foam Suppression	The aggregate and mining industries frequently use foam suppression for the control of dust and particulate emissions, mixing the foam with broken material to increase efficiency. Foaming agents can be added to increase the efficiency of dust and particulate reduction. Foam suppression has seen increased attention in recent years and has previously been applied to waste transfer facilities where crushing of waste occurs. If using foam suppression to control dust and particulates from waste drops, the foam must be entrained within the waste material and as such must be injected prior to dropping the waste rather than at the bottom of the drop.	Potential to be useful at waste transfer sites. There is some evidence that this method is highly effective for controlling dusts and particulates on conveyor drops. Should be identified clearly in the site management system and implemented as appropriate measures.
Dust Extraction Systems	A large variety of abatement technologies exist for the removal of dust and particulates from a flowing gas and have typically been applied to combustion plants and other sites where controlled emissions of particulates occur. These include Electrostatic Precipitators (ESPs), wet scrubbers, baghouses, viscous media	Very effective despite costs and potential disruption to already operational sites. Operational costs may be prohibitive. Should be identified clearly in the site management system and implemented as appropriate measures.

Abatement Measure	Description / Effect	Overall consideration and implementation
	(e.g. oil) filters and gravitational settling. Although not all of these may be appropriate for dust and particulate suppression at waste management sites, and they cannot be applied to controlling external fugitive emissions, they may be effective when coupled with local exhaust extraction, ventilation or negative pressure extraction systems from enclosed buildings to remove dust and particulates from the airstream.	Note: sites in Air Quality Management Areas are finding this the only effective way to control dust and particulate emissions so point sources at waste transfer stations are becoming more common now. The proliferation of enclosed “super” waste transfer stations makes this even more pertinent

Technical Note

Reference:	TN.ZASHRR.141120
Client:	ASH GROUP LTD
Site:	REDWITHER ROAD, WREXHAM INDUSTRIAL ESTATE
Scope:	PM10 SITE SURVEY DATED 19/11/14
Date Issued:	21 November 2014

Introduction

This Technical Note should be taken as an addendum to our October 2014 Site PM₁₀ Survey Report.

DustScan Ltd was instructed by Ash Group Ltd to undertake a second site PM₁₀ survey on 19 November 2014. The aim of the second survey was to re-assess PM₁₀ concentrations at and around the ASH Group Ltd recycling facility in drier conditions than the previous survey. 6 locations were sampled during the first survey on 16 October 2014 and it was hoped that these locations could be re-tested along with an additional sampling point adjacent to the PAL woodchipper (Easting 338385 Northing 349291).

Unfortunately, only 3 locations were sampled on 19 November 2014 due to technical issues. Consequently a smaller data set than anticipated was produced, these data however are considered representative of the conditions on the day.

This Technical Note reports on the limited findings of the second site PM₁₀ survey but has been issued as an addendum to our previous report.

Findings and Results

Winds were slight and generally south-easterly at the site on 19 November 2014. The weather was overcast with low level cloud cover and a temperature of 9°C was recorded. There was no precipitation during the survey and the site surfaces and stockpiles were noticeably drier than during the first survey.

The site was operational during the survey: HGV movements were observed both entering and leaving the site; wood processing and chipping plant was in use; and front-loading shovels were both loading the chipper hopper with waste wood and HGVs with woodchip product for subsequent export. The mobile mist cannon was again not in operation, but the sprinklers along the Chesapeake boundary were. The site was noticeably 'cleaner' than during the first survey: the hard standing yard

surface had less loose deposits of soil and wood chippings and the stockpiles were smaller and largely within their 3-sided bays.

19/11/14 Survey - PM₁₀ spot sample data

Point No.	Start Time	Min PM ₁₀	Max PM ₁₀	Ave PM ₁₀	Comment
7 (PAL woodchipper)	11:25	6	45	26	PAL woodchipper running but not chipping
2 (Near stockpiles and shredder)	11:50	17	214	57	Shredder running but not shredding. Max' concentration coincided with an odour of diesel fumes from the shredder exhaust
1 (Near Chesapeake boundary)	12:10	10	62	30	HGV being loaded nearby for duration of sample run

Assessment

The table above shows that the few 20-minute average PM₁₀ concentrations recorded on 19 November 2014 at the ASH Group Ltd recycling facility on Redwither Road, Wrexham Industrial Estate were higher than the LAQM estimated 2014 concentration for the area (13.46 µg m⁻³). These concentrations were higher than those recorded during the first survey and again the highest 20-minute average concentration (57 µg m⁻³) was recorded at sampling point 2, adjacent to the product stockpiles and shredder. This 20-minute average concentration is slightly higher than the 24-hour mean AQO for PM₁₀ (50 µg m⁻³), but because AQOs apply when considering relevant public exposure, elevated PM₁₀ concentrations within the site do not necessarily indicate exceedence in terms of NAQS objective thresholds.

Drier weather conditions in the days prior to the second survey are thought to be partly responsible for the higher PM₁₀ concentrations recorded, but other factors such as trans-boundary events may also have influenced local PM₁₀ concentrations.

Observations & Recommendations

During the second survey HGV loading was observed adjacent to the sensitive Chesapeake boundary. Dust and steam emissions were generated as woodchip product was tipped into the HGV trailers. It is recommended that HGVs are loaded away from this boundary.

Fine wood chip dust deposits were again observed under and around the shredder and deposits were also observed on and around the PAL woodchipper. These deposits should be swept free, removed and disposed of. The wood processing plant

vibrates, even at idle, and any loose material on or around this plant has the potential to become re-suspended.

As site and weather conditions have not been ideal for the first two surveys it is recommended that a third site PM₁₀ survey is conducted in the new year, the results of which could also be compared to the findings of the dust deposition monitoring that commenced on 19 November 2014.

Appendix VIII

Fire Prevention & Risk Plan

FIRE PREVENTION AND RESPONSE PLAN

Wrexham Recycling Facility, Redwither Road, Wrexham Industrial
Estate, Wrexham, LL13 9RD

Alan Skip Hire (Wales) Ltd

Version:	1.0	Date:	21/11/2014		
Doc. Ref:	2520-426-J	Author:	JCM	Checked:	JE
Client No:	426	Job No:	2520		



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*THIS DOCUMENT IS DUE FOR REVIEW IN **NOVEMBER 2016** 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:	Wrexham Recycling Facility, Redwither Road, Wrexham Industrial Estate, Wrexham, LL13 9RD		
Site Operator:	Alan Skip Hire (Wales) Ltd	National Grid Ref:	SJ 38364 49258

<u>CONTACT</u>	<u>Description</u>	<u>Office Hours</u>	<u>Out of Hours</u>
<i>Neil Hassall</i>	<i>Technically Competent Manager</i>	<i>01244 660 422</i>	
<i>Wrexham Maelor Hospital NHS</i>	<i>Local NHS Hospital (Main)</i>	<i>01978 291 100</i>	<i>999</i>
	<i>Accident & Emergency (A&E)</i>		<i>999</i>
	<i>NHS Direct</i>	<i>0845 46 47</i>	
<i>The Health Centre, Prince Charles Road, LL13 8TH</i>	<i>Local Doctor Surgery (GP)</i>	<i>01978 291 129</i>	<i>999</i>
<i>Holt Police Station (North Wales Police)</i>	<i>Local Police Non-Emergency</i>	<i>0300 330 0101 or 101</i>	<i>999</i>
	<i>Police Emergency</i>	<i>999</i>	<i>999</i>
<i>Wrexham Fire Station</i>	<i>Fire and Rescue Service (in Emergency Dial 999)</i>	<i>01978 367 870</i>	<i>999</i>
<i>Natural Resources Wales</i>	<i>Environmental Regulator</i>	<i>0300 065 3000</i>	<i>0800 80 70 60</i>
<i>Wrexham County Borough Council</i>	<i>General Enquiries</i>	<i>01978 667 000</i>	<i>01978 292 075</i>
<i>Dee Valley Water</i>	<i>Mains Water Provider</i>	<i>01978 846 946</i>	<i>01978 846 946</i>
<i>DCWW</i>	<i>Sewage provider</i>	<i>0800 085 3968</i>	<i>0800 085 3968</i>
<i>N/A</i>	<i>Gas Company</i>		
<i>Oaktree Environmental Ltd</i>	<i>Specialist Advisor (Waste and Planning Issues)</i>	<i>01606 558833</i>	

List of Appendices

Appendix I

Temperature Monitoring Sheet

Appendix II

2520/426/03 Rev E – Site Layout Plan

Appendix III

Fire Extinguisher Location Plan

Appendix IV

Fire Hydrant Location Plan

Comments from local fire and rescue service

This Fire Prevention and Response Plan has been formed with the assistance of the Environment Agency and the local fire and rescue service. A member of the ***** visited the site on ***** and was provided with a copy of this document. Their comments can be found below.

<i>Name</i>	
Comments	

Signed

Date

1 INTRODUCTION

1.1 General

1.1.1 This Fire Prevention and Response Plan (FPRP) considers the risks associated with fire on site at Wrexham Recycling Facility, Redwither Road, Wrexham Industrial Estate, Wrexham, LL13 9RD, which is used as a mixed waste and wood recycling facility.

1.1.2 The site will be operated by Alan Skip Hire (Wales) Ltd in accordance with a fully comprehensive Environmental Management System (EMS) and a Bespoke Environmental Permit (Ref No. EPR/TP399VA), regulated by Natural Resources Wales (NRW).

1.1.3 All site staff should be provided with a copy of this Fire Prevention and Response Plan and be aware of where it is located on site.

1.1.4 The registered address and contact details for Alan Skip Hire (Wales) Ltd:

Alan Skip Hire (Wales) Ltd
Wrexham Recycling Facility
Redwither Road
Wrexham Industrial Estate
Wrexham
LL13 9RD

Contact: Neil Hassall
Position: Director
Contact: Keith Morris
Position: Site Manager

1.2 Reason for Implementation

1.2.1 Oaktree Environmental Ltd have been employed to produce this FPRP in response to request from NRW, following an application to vary the existing permit for the site.

1.2.2 In accordance with the Environment Agency's/NRW's Technical Guidance Note (TGN7.01), this document will outline fire hazards on site and a number of accompanying measures which will be implemented to ensure every action is

taken to prevent fire, contain fire on site if it does occur and ensure quick suppression and detection.

1.3 Site description

1.3.1 The site consists of two prefabricated offices, two workshops, a canteen and a transfer station building located to the rear of the site. The offices are of a wooden construction. The canteen and the smaller workshop are of metal construction in entirety. The large workshop area is constructed from a concrete frame, which is roofed with asbestos sheeting and the walls clad in the main with 'Big 6' cement sheets. The transfer station building is a steel clad, metal framed structure with large open access doors.

1.3.2 The canteen can typically be used by up to six persons. The large workshop is not used on a permanent basis. However, personnel do use this area to conduct general repairs. The transfer station building is manned by up to ten operators during normal hours, plus any visiting drivers. The site is not open to the general public and there are no public rights of way through the site.

1.4 Staffing and management

1.4.1 The table 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 and, therefore, shows the minimum number of staff available to tackle a fire on site during operational hours. Only the site manager, machine/plant operators and general operatives will be permitted to tackle fires on-site.

<i>POSITION</i>	<i>EMPLOYEES</i>	<i>RESPONSIBILITIES</i>
<i>Site manager (TCM)</i>	<i>1</i>	<i>Overseeing all activities which take place at the site</i>
<i>Admin / Office Staff</i>	<i>2</i>	<i>Managing site administration</i>
<i>Machine / Plant Operator</i>	<i>2(1)</i>	<i>Waste handling/processing, reception and plant operation</i>
<i>General Operatives</i>	<i>6(2)</i>	<i>Waste sorting, maintenance & tidying</i>

- 1.4.2 Mr Neil Hassall is the Technically Competent Manager and responsible for the general management of the site.

1.5 Plant and equipment

- 1.5.1 Table 4 below shows the plant on site which are available to assist with the construction of fire breaks. Only trained operators will be permitted to drive/operate the plant listed below and construct fire breaks. Any changes to the list will be notified to the Environment Agency prior to implementation. The minimum requirements when the site is operational are shown in bold italic print.

<i>ITEM</i>	<i>NUMBER</i>	<i>FUNCTION</i>
<i>Loading shovel</i>	<i>1(1)</i>	<i>Movement of material for fire breaks</i>
<i>360° excavator grab (317 CAT)</i>	<i>1</i>	<i>Movement of material for fire breaks</i>
<i>360° excavator bucket</i>	<i>1</i>	<i>Movement of material for fire breaks</i>

1.6 Scope of document

- 1.6.1 This FPRP 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. All necessary prevention measures and procedures will be strictly implemented and followed through essential training and inspection regimes as detailed in this document and in the site's EMS.

2 POTENTIAL FIRE HAZARDS ON SITE

2.1 Potentially Combustible Materials

2.1.1 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:

- a) **Waste wood** (2,500 tonnes of unprocessed, processed and 'PAL'* wood waste) – waste wood accepted on site will be in the form of used pallets, domestic and commercial timber, chipboard and medium density fibreboard. The wood will be stored in the existing permitted area and will be processed under the current permit, which is the subject of the permit variation rather than under the current registered T6 waste exemption activity. The wood will be stored separately in accordance with the grade of the material (split into A grade, B grade and 'PAL' waste wood) and further separated into stockpiles of unprocessed wood material and processed wood material. Processed wood is stored in external storage bays to the south-east of the transfer building, unprocessed wood is stored externally in the allocated area in front of the transfer building, unprocessed PAL wood waste is stored in an external stockpile to the south-east of the transfer building and refined PAL waste is stored in a stockpile which borders the transfer building on the south-east side. The locations of the abovementioned stockpiles are shown in Drawing No. 2520/426/03 Rev E. The processed A and B grade wood will be typically removed from site within a week of processing. PAL waste consists of a mixture of wood and metal and is refined on site to remove the ferrous and non-ferrous metals, with the remaining wood returned to the producer.

*Note 'PAL' is the name given to the material which has passed through the screening machine at the furniture manufacturing site. 'PAL' is the name of the manufacturer (IMAL PAL Group) which designed and supplied the piece of kit which produces the material sent to the site for refining.

- b) **Green waste** (100 tonnes) – All other green waste arriving on site will be stored externally in stockpiles on the concreted area, shown in Drawing No. 2520/426/03 Rev E, prior to processing and composting.
- c) **Mixed waste** (5000 tonnes) – This material consists of mixed general municipal waste which will be stored within the transfer building prior to processing. The unprocessed waste will be on site for a maximum of 7 working days and will be processed as described in section d below.
- d) **Other combustible waste** (<500 tonnes) – Including paper and cardboard, which are either accepted as single stream loads or received in mixed loads. This waste is processed in the transfer building, using a trommel and picking line, and then the segregated material is stored within the building before being baled on site. The resulting bales will be stored in the appropriate bays in the external yard, as shown in Drawing No. 2520/426/03 Rev E.
- e) **Rejected waste** (<5 tonnes) – This material will be stored in clearly labelled enclosed skip/containers and, if it cannot be removed from the site immediately. The location of these skips may be varied as operating conditions permit (i.e. to permit the loading of rejected wastes but clear labelling and management control will ensure its use as specified). Rejected items can sometimes contain materials which are particularly susceptible to combustion. If any such items or materials are discovered, they will be subject to individual quarantine and NRW will be contacted to agree a course of action.
- f) **Reactive wastes** – Wastes which are likely to be reactive predominantly consist of liquid or drummed wastes, neither of which are permitted for acceptance at the site. If any such wastes are discovered, they will be subject to individual quarantine and NRW will be contacted to agree a course of action.
- g) **Fuel tanks** (pressurised cylinders) - Any fuel tanks will be stored in the workshop and will be surrounded by a bund.

2.2 Potential burn times of material

- 2.2.1 The following section gives consideration to the burn time of material. The document 'Draft Fire Control Guidance 27 June 2014' was prepared by the

Environmental Services Association (ESA) and contains information on how to calculate burn times for material on site. The following calculation was outlined:

$$t_B = \frac{M_s}{Q_{rate}}$$

- 2.2.2 Where t_b = burn time, M_s = the mass of the stack in kg and Q_{rate} = mass rate of burning.
- 2.2.3 The document goes on to state that a figure for mass rate of burning (Q_{rate}) has to be calculated from experimentation through burning wastes in controlled conditions. This figure will vary from waste to waste and is dependent on a number of factors (e.g. density). The aforementioned document states that the data currently available on burn rates of waste is “virtually none” and it is anticipated this will be produced over time by contributors to the guidance.
- 2.2.4 This data is needed for a calculation of the burn time (t_b) and, as it is currently unavailable and the conditions required for testing are not available on site, it is not possible to provide any estimate of burn time for the waste on site. This document will be amended to include this information as data regarding the above is released.

2.3 Potential Ignition Sources

- 2.3.1 The following list outlines potential sources of ignition for the material on site and outlines specific examples of these sources.
- a) Burning of waste on site
 - b) Overheating of stored waste (sources of heat may include heating pipes, light bulbs, space heaters, direct sunlight or self-heating of waste)
 - c) Plant or equipment failure (e.g. spillages of fuel, sparks from machinery)
 - d) Electrical faults or damaged/exposed electrical cables
 - e) Leakage from fuel tanks (e.g. as a result of damage)
 - f) Arson or vandalism

- g) Naked flames/smoking materials

2.4 **Overhead lines**

- 2.4.1 There are overhead power lines traversing the southern part of the site, which, if ignited, would worsen the effects. However, the waste storage and processing areas are not directly under the power lines.

2.5 **Sensitive receptors**

- 2.5.1 The site is located within Wrexham Industrial Estate and the surrounding land uses are, therefore, mainly industrial, with agricultural fields and woodland also in close vicinity. Therefore, no significant receptors are close by, such as residential areas, commercial areas or main roads.
- 2.5.2 Nevertheless, Section 4 will highlight 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.

3 MONITORING

3.1 Site inspection programme

- 3.1.1 Regular inspections of all site areas will be undertaken in accordance with the site's EMS which will include areas just outside of the site boundary.
- 3.1.2 These inspections will be conducted by a person who is familiar with the requirements of the management system and of 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.
- 3.1.3 The results of site inspections will be recorded either on the appropriate record form in Appendix II of the EMS or in the site diary and made available to NRW and local authority upon request.

3.2 Preventative maintenance

- 3.2.1 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.
- 3.2.2 Much of the plant and equipment on site and all vehicles in the fleet are subject to periodic manufacturer maintenance to ensure proper working order in the form of service contracts.
- 3.2.3 Site management will undertake or delegate additional preventative maintenance checks on a more frequent basis to ensure, where possible, the machinery is mechanically sound. These checks will be carried out using a preventative maintenance checklist and any results / defects will be recorded in the site diary and actioned immediately and, in any event, prior to operational use.

3.3 Temperature Monitoring Procedure

- 3.3.1 A requirement exists to ensure that temperatures of waste piles, both processed and unprocessed, are monitored and recorded. Decomposition of various waste piles can generate sufficient heat that the material may spontaneously combust.
- 3.3.2 The waste material to be monitored for temperature will include but not be limited to:
- a) Waste wood and pre-processed wood waste (stored externally)
 - b) Processed wood (stored externally)
 - c) Mixed municipal waste (stored inside the transfer building)
 - d) Green waste
 - e) Baled combustible waste (stored externally)
 - f) C&D waste (stored externally)
- 3.3.3 Material listed in sections a-d will be monitored for temperature periodically, using either the metre long temperature probe and/or the hand-held thermographic (thermal imaging) device.
- 3.3.4 Temperatures will be recorded on the designated temperature monitoring form in Appendix I of this document. The following information should be recorded:
- a) Date
 - b) Waste Type
 - c) Lowest Temperature & highest temperature (°C)
 - d) Type of temperature recording (Probe or Thermographic)
 - e) Any relevant comments regarding the waste type (e.g. physical condition, steam etc.)
- 3.3.5 The completed temperature monitoring form should be returned to the site office for filing. Files must be retained for a minimum of 3 years.

3.4 **Record keeping**

- 3.4.1 The following forms will be completed when waste is accepted at the site and will be used to detail how long waste has been on site. This will ensure significant residence times of wastes are avoided.
- 3.4.2 The following details will be recorded for every load deposited at the site:
- i. The date and time of delivery.
 - ii. The name and address of the waste producer.
 - iii. The detailed and accurate description of the waste including type, quantity (in tonnes and/or cubic metres) and EWC codes.
 - iv. How the waste is contained e.g. loose, container type.
 - v. The carrier's name and address.
 - vi. Driver's name, signature and vehicle registration No.
 - vii. Signature or initials of person(s) producing/ accepting/ inspecting/ carrying the waste.
 - viii. Additional handling details/notes made by the driver after inspection of the load.
 - ix. SIC code of the premises which produced the waste (where relevant).
 - x. Waste hierarchy declaration.
 - xi. Information on previous treatment of the waste e.g. manual or mechanical.
- 3.4.3 Unprocessed and processed waste will be stored in stockpiles and separated according to how long the waste has been on site. The range of time for each stockpile will depend on how much material has been brought on site but, for example, it can be estimated that material brought on site in a one week period will be stored together. This, combined with the details in Section 3.4.2, will allow a reliable estimate of how long wastes in stockpiles have been on site.
- 3.4.4 This information will be used to ensure residence time of material does not exceed the maximum duration of storage for each material, listed in the table below.

<i>WASTE TYPE</i>	<i>MAX DURATION OF STORAGE</i>	<i>MAXIMUM QUANTITY STORED (TONNES)</i>
Unprocessed wood	2 months	1000
Processed wood	1 month	1000
PAL waste *	1 month	500
Green waste	1 month	100
Mixed waste	7 working days	5000
Rejected waste	5 working days	<10

- 3.4.5 All the storage durations listed above are significantly below the 6 month maximum duration of storage for combustible materials outlined in section 5.1 of TGN7.01. The aim of the site is to process the incoming material and arrange for its export as soon as practically possible, to minimise risk of odour, dust and combustion.

4 MITIGATION

4.1 Fire Prevention

- 4.1.1 The following prevention measures will be implemented on site to reduce the likelihood of fires on site. The measures required will be discussed in relation to their associated ignition sources.

4.2 Burning of waste on site

- 4.2.1 No waste will be burnt on site other than in plant specifically designed for the purpose and in accordance with the relevant statutory instruments.
- 4.2.2 Extensive training will be provided to all site staff and contractors.
- 4.2.3 Employment contracts 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.
- 4.2.4 Firefighting equipment (owned by the applicant) will be kept close to the areas of waste storage should accidental burning of waste occur through negligence. In addition, fire extinguishers will be located across the entire site (externally and internally) to aid the quick suppression of a fire once detected. Fire extinguisher locations are shown on the Fire Extinguisher Location Plan in Appendix III.

4.3 Overheating of stored waste

- 4.3.1 Direct sources of overheating may include generators, heating pipes, floodlight bulbs, space heaters or self-heating of waste. Any particularly reflective surfaces may also present a risk from direct sunlight.
- 4.3.2 Sources of heat will be kept at least 3m away from inert stockpiles and will be increased to 6m for any stockpiles of suspected combustible or flammable materials (mixed waste) including wood.

- 4.3.3 As outlined in Table 2 (Maximum stack sizes and minimum separation distances) of TGN7.01, stockpiles should be limited to 10m in height and 20m in width. Stockpile heights proposed by Alan Skip Hire (Wales) Ltd are a maximum height of 3m for aggregates and inert material, as currently agreed with the local planning authority. External stockpiles of wastes will be limited to the height of the containment bay which they are stored within or to a maximum of 3m. Internal stockpiles, usually unprocessed waste, will be limited to a maximum height of 7m. These restrictions minimise the susceptibility of wood to overheating and are well below the recommended limits in the Environment Agency's technical guidance (TGN7.01).
- 4.3.4 To avoid any risk of spontaneous combustion, all combustible materials will be stored on site for no longer than 2 months, which is 4 months less than the 6 months outlined in TGN7.01.
- 4.3.5 Prior to processing and subsequent removal off site, all material will be kept in its largest form, to reduce susceptibility to combustion. Furthermore, stockpiles will be preferentially worked from the rear of the stored wastes, to ensure the waste is transferred without significant residence times towards the rear of the stockpile, and stored wastes will be kept adequately agitated in order to prevent the occurrence of "hot spots". A clear recording method will be in place to document how long material has been on site. There is a fast turn-over of wood processed on site, with A and B grade wood removed from the site within a week. Mixed municipal wastes stored within the transfer building are stored on site for a short duration, with the aim for less than 5 days.
- 4.3.6 In the event of the stockpiles overheating, water will be added and the material will be turned to release heat. If a hot spot is identified in stored or imported waste and turning of the material is not deemed sufficient, the hot spot will be dug out of the stockpile and deposited in a designated emergency quarantine area. As it would be high risk, this area would have increased separation distances and be closely monitored until the risk of combustion had ceased.

- 4.3.7 To aid in the mitigation of dust emissions from the site, processed wood chip stockpiles on site will be regularly dampened, a process which will also decrease the susceptibility of these stockpiles to combustion.
- 4.3.8 Although unlikely due to the types of material stored on site and the strict waste acceptance and verification procedures, consideration will be given to the location of certain stockpiles to ensure no reactions take place between incompatible materials. Furthermore, 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 contacted (where necessary) if the non-conforming waste discovered is likely to lead to a breach of permit conditions.
- 4.3.9 End-of-life tyres stored on site under a T8 exemption will be subject to further measures, in addition to those above, due to their high calorific value. More stringent storage times will be imposed on any tyre stack and stacks size are limited. A maximum of 10 tonnes of end-of-life tyres will be stored on site at any one time and stockpiles will be located at least 6m from other combustible materials or waste treatment plant.

4.4 Plant or equipment failure

- 4.4.1 Any spillages of fuel will be cleared immediately by depositing sand or absorbents on the affected area.
- 4.4.2 All site surfaces will be inspected daily when the site is in operation by suitable trained operatives.
- 4.4.3 Separation distances of 6m will be observed between plant and material when the site is not staffed.
- 4.4.4 Plant and equipment will be subjected to separate manufacturer-specific and operator-specific preventative maintenance programmes which include regular inspections by the Technically Competent Manager or suitably qualified person(s).

4.5 Electrical faults or damaged/exposed electrical cables

- 4.5.1 All electrical cables on site will be inspected and periodically maintained to ensure they are not damaged or exposed.

4.6 Leakage/spillage from fuel tanks

- 4.6.1 Any fuel tanks which are stored on site will be surrounded by a bund capable of containing a minimum of 110% of the volume of fuel stored in the tank.
- 4.6.2 All pipework and associated infrastructure will be enclosed within the bund.
- 4.6.3 A lock will be fitted to the tank valve to prevent unauthorised operation.
- 4.6.4 All valves and gauges on the bund will be constructed to prevent damage caused by frost.
- 4.6.5 The tank will be clearly marked showing the product within and also its capacity.

4.7 Arson or vandalism

- 4.7.1 The western part of the site is surrounded by palisade fencing to the height of a minimum 2 metres and the eastern part of the site is surrounded by palisade fencing to the height of a minimum 3 metres.
- 4.7.2 The site access gates are of galvanised steel palisade frame construction to a height of 2m. The gates are lockable to prevent unauthorised vehicular and/or pedestrian access.
- 4.7.3 The site will benefit from CCTV with 24 hour access to coverage, with emergency response in place should the need arise.

4.8 Naked flames/smoking materials

- 4.8.1 No naked flames or substantial heat sources are to be in close proximity to potentially combustible materials.

4.8.2 Smoking is prohibited on site.

4.9 Regular correspondence with Fire and Rescue Service

4.9.1 The site manager, and any other relevant parties from Alan Skip Hire (Wales) Ltd, will meet with the local fire and rescue service (FRS) on a yearly basis to discuss this FPRP 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.

5 FIRE CONTAINMENT MEASURES

In the unlikely event that a fire were to break out on site, the site has a number of measures in place, in addition to a number of existing characteristics of the site, which would limit the size, duration and impact of a fire on site. These are listed below:

5.1 Fire Breaks

- 5.1.1 Combustible waste will be stored within bays and the height of stockpiles will not exceed the height of the bay walls, to create significant permanent fire breaks between combustible materials and limit the spread of fire. By restricting the height of the stockpiles to the height of the containment bays in which they are stored, fire will not be blown over the walls of one bay and onto the material located in an adjoining bay. Furthermore, the containment bays will provide a wind break surrounding stockpiles of material, which will impede the acceleration of a fire through the increased oxygen supply provided by wind gusts.
- 5.1.2 In addition, upon the discovery of a fire, site operatives will be trained to create fire breaks on site under the guidance of the emergency services.
- 5.1.3 Site surfaces which are not used for plant or stockpiles, and are therefore providing a fire break, will be cleared using a road sweeper as required, to ensure that any potentially combustible material between stockpiles, which would undermine the effectiveness of fire breaks, is removed.

5.2 Controlled burn

- 5.2.1 In some instances, a plan for a controlled burn might be beneficial on waste sites in the event of a significant fire, to reduce the amount of flammable material surrounding the fire, thereby impeding the spread of fire across the site.
- 5.2.2 However, it has been decided that the initiation of controlled fires on site by site operatives would not be the safest method of tackling a fire, as this technique has inherent risk associated with it and, if not conducted properly, could actually

accelerate a fire on site. If it is deemed absolutely necessary that a controlled fire is initiated on site, it will be conducted under the control and direction of the fire and rescue service (FRS), who have significantly more training with regard to fire management and equipment available to them than site operatives.

- 5.2.3 In the majority of situations, separation distances and containment bays will provide sufficient isolation of a fire prior to the FRS arriving and assessing the situation. If it is deemed that further isolation is required, operatives will be instructed to move flammable materials away from the fire and instructed to place inflammable material in the path of the fire, to impede the spread of fire across the site.

5.3 Storage on flat ground

- 5.3.1 The land to which the site relates is flat, therefore reducing the risk of falling materials accelerating the spread of fire.

5.4 Sealed drainage system (containment of firewater)

- 5.4.1 The drainage system, and associated drainage containment methods, on site are currently under review. Following completion of this review, this section of the FPRP will be updated accordingly.
- 5.4.2 All waste within the transfer building is stored on a surface of impermeable concrete within a sealed drainage system. The surface water from the external areas flows to a number of drains and interceptors on site, as described below.
- 5.4.3 Discharge to controlled waters (i.e. Redwither Brook) is permitted under the Consent to Discharge Trade Effluent (Consent Number CG0402201) issued and regulated by Natural Resources Wales. There are four direct discharges from the site to Redwither Brook, which flows directly through the centre of the site.
- 5.4.4 The first of these direct discharges intercepts the entire top yard of the site and is located in front of the waste transfer building. The top yard is impermeably surfaced and concreted and surface water drains into a 300mm Aco drain. The

water then subsequently drains to an interceptor tank, which removes contaminants, and egresses into a settlement chamber prior to discharging into the nearby Redwither Brook.

- 5.4.5 Uncontaminated surface waters arising from the roofs of the buildings on site are kept separate from the potentially contaminated yard waters. Surface water from these areas discharges directly to ground.
- 5.4.6 Any liquid arising in the waste processing building will be prevented from entering the surface water system by the location of the concrete push walls. Any non-hazardous liquids arising within the building will be soaked up with sand or sawdust and then shovelled up for disposal with the general waste.
- 5.4.7 Drainage from the new concreted area of the top yard (i.e. to the south east of the transfer building) drains to an Aco drain and then flows via an interceptor to foul sewer.
- 5.4.8 The next three direct discharge points are all from the lower external yard, along the HGV access road from the entrance gate to the river crossing.
- 5.4.9 All vehicle storage and maintenance areas in the bottom yard drain into a 300mm Aco drain which flows into a dedicated interceptor, which subsequently discharges to a foul sewer running adjacent to the Redwither Brook.
- 5.4.10 Drain blocking and surface water control equipment are located adjacent to the mess room. There is a range of equipment available on site, from sand bags, loose sand (in bags) and concrete lintels that are to be used to fabricate temporary bunds. Drain bungs and mats are located in the site workshop alongside the oil spill kit equipment.
- 5.4.11 In the event of a fire, all surface water grids should be blocked off to prevent contaminated water from entering Redwither Brook. The bottom yard interceptor should also be bagged off using sand bags to prevent water ingress. The methods for preventing water from entering Redwither Brook are as follows:

- a) To block and seal the drains, pour the contents of one of the bags of sand (white sacks) into the drain. Place the empty bag securely over the drain grid with plenty of overlap. Poor an additional two bags of loose sand over the top. The drain should now be sealed. Apply this technique to all surface water grids. The interceptor adjacent to the mess room should be bagged off using the sand bags (Green) placing them two layers high.
- b) The foul sewer manhole adjacent to the site access road should be lifted. Using the concrete lintels, place them end to end across the apex of the road forming a temporary bund. This should be on an angle, the full width of the road has been designed to channel the contaminated run off water into the foul sewer.
- c) Loose sand should then be used to support the rear of the concrete lintels and seal any gaps. Finally, place sand bags along the entire length of the bund to reinforce the structure.
- d) NRW and Welsh Water should be informed of this diversion of surface water to foul sewer. This will allow Welsh Water to notify their Five Fords treatment facility of the impending arrival of fire water, allowing them to make contingency arrangements for its' storage if required.
- e) The discharge point that drains the top yard through the interceptor and out through the consented discharge point in the field, should be blocked in the inspection chamber located adjacent to the overhead pylons. Using the inflatable drain bung kit, the bung should be inserted in the 'out' fall pipe in the chamber and then inflated using the pump. This should seal the chamber and prevent discharge to the Redwither Brook. Check at the outfall to ensure that the pipe has been sealed.
- f) Surface water protection measures should then be checked by a designated person regularly throughout the duration of the fire whilst water is being applied by the Fire Service. Periodic inspections should continue after the Fire Service have left until all run off has either pooled or stopped running to foul sewer. Breaches in control should immediately be notified to the site management and to NRW to allow additional measures of control to be considered and deployed.
- g) Control measures should remain in place until after the clean-up operation has been completed and all contaminated fire water removed from site.

- 5.4.12 Following a fire, if firewater has been contaminated through extinguishing wood fire only, it may be stored on site, as mentioned above, and used to dampen down wood stockpiles, once site operations have commenced. This contaminated water would only be used to dampen lower grade B wood stockpiles. As the water would only be contaminated with carbon from the wood fire, it is deemed safe and appropriate to use it for dust suppression on lower grade stockpiles, as this material would not be adversely affected by the contaminated water. Any surface drainage from these stockpiles would again be collected in the storage tank on site and could be recirculated further or removed by a contractor.
- 5.4.13 These measures ensure that there is more than sufficient storage on site for any contaminated water and under no circumstances will firewater be released into surrounding waterways, drains or any other system which might lead to contamination of water or land.
- 5.4.14 The operator has dealt with fires previously on his site and, using the methods described above, has avoided any pollution of surrounding surface waters or land.

5.5 Adequate supply of water

- 5.5.1 There is a sufficient supply of water on site to enable the methods of fire prevention, containment and handling outlined in this document. In the event of a fire which can be tackled with water, a water bowser, hosepipes and a portable water cannon are available on site for tackling small fires and for dampening down stockpiles. In addition, the site has a fixed sprinkler system in place, as detailed in the Dust Management Plan, which could be utilised in fighting fires on site. The abovementioned equipment will provide the means to effectively utilise water on site to tackle small fires or impede the spread of larger fires (i.e. dampen down stockpiles to reduce combustibility). A fire hydrant is located on Redwither Road and can be accessed by the Fire Brigade if required.

5.6 Evacuation of staff

- 5.6.1 An evacuation plan has been formulated for the site and all persons have been made aware of it (through site induction and refresher training). Every building on

site has at least 2 emergency exits, which are easily opened and free from obstruction. The fast and effective evacuation of staff will work towards increasing safety on site and limit the impact of a fire on human life.

- 5.6.2 Regular fire drills may be introduced on site, to ensure evacuation times are acceptable and that site staff remain informed of evacuation procedures. The operator may also appoint and train fire marshals on site, to aid in the above.

6 FIRE DETECTION & HANDLING PROCEDURES

6.1 Staff training

- 6.1.1 Staff will be suitably trained in how to raise the alarm, including supervisory contacts and guidance on how to use the extinguishing equipment should the fire be small enough to tackle.
- 6.1.2 A full understanding of the site's EMS and the procedures outlined in this FPRP document will be required to be demonstrated as part of the site induction for all new staff.
- 6.1.3 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.

6.2 Infrastructure

- 6.2.1 The following measures are in place to ensure that fires are detected and tackled quickly on site:
 - a) **Manual fire alarm systems** - Will be activated on discovery of a fire.
 - b) **Regular manual checks** - The site operator will perform visual checks for fire or situations likely to increase the risk of fire.
 - c) **Fire Extinguishers** - Firefighting equipment will be provided and stored at a number of designated areas on site, which will be known to site operatives, and appropriate and regular training will be given for their use in tackling small fires. The location of fire extinguishers can be seen on the Fire Extinguisher Location Plan in Appendix III. All vehicles on site used for the processing and moving of material will be fitted with fire extinguishers, as required by TGN 7.01.
 - d) **Visible worded signs** - Will be placed strategically around the site, giving full and clear instructions for fire alarm and means of escape (Registration point, 999 instructions).
 - e) **Water supply** – There is a constant mains water supply for the site in the unlikely event that a fire were to occur and that fire was extinguishable using

water. If a fire does occur and the site operatives are unsure of the nature of the fire, guidance will be taken from the local fire service. As previously mentioned, there is sufficient equipment on site to effectively utilise the water for fighting fires or impeding its spread (e.g. water bowser, fixed sprinkler system, portable water cannon and hosepipes).

- f) **Fire Hydrants** – In addition to the existing water supply on site, there are fire hydrants available in close proximity to the site for use by the FRS, as shown in the Fire Hydrant Location Plan in Appendix IV. The possibility of installing an additional fire hydrant in close proximity to the site has been discussed. This would involve a request to Dee Valley Water for the installation of a fire hydrant to be adopted by the FRS. This fire hydrant would be located on the main passing through the site. This possibility will be raised by Alan Skip Hire (Wales) Ltd at their next yearly meeting with the FRS in November.

6.3 Access for emergency services

- 6.3.1 The site has direct access onto Redwither Road, which provides access to the B5130, for vehicles approaching the site from the east, and to Bridge Road and, subsequently, Cefn Road, for vehicles approaching the site from the west. These surrounding road provide adequate access for the emergency services.
- 6.3.2 The width of the surrounding roads and the gateway to the site are greater than those outlined in Table 1 (Fire Appliance Accessibility) in TGN7.01, therefore, providing sufficient access onto the site for the FRS.

6.4 Fire detection procedure

- 6.4.1 If a fire is detected or suspected it must be immediately reported to the site manager or Technically Competent Manager. The site manager will then conduct the following procedure:
- a) Raise the alarm (if not already done by another staff member), initiate evacuation of staff and visitors on site to a fire assembly point and instruct delegated person(s) to conduct a roll-call to ensure all site users are accounted for.

- 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.
- c) If viable and safe, instruct necessary site staff to commence extinguishment.

If successfully extinguished, follow procedure in Section 6.

- d) If not viable or safe, call the Fire Response Service (FRS) immediately using 999.
- e) Prior to the FRS arriving, inform all neighbouring premises likely to be affected.
- f) 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.
- g) Ensure access routes are clear.
- h) 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.
- i) 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.
- j) 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.
- k) 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 the accident plan and update them with relevant information that will assist them in dealing with a fire more effectively.
- l) Implement pollution control measures, such as penstocks to divert firewater, only when safe to do so.

6.5 Staff/visitor procedure

6.5.1 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 ON THE UPPER CAR PARK
- 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 THE SITE MANAGER

6.6 Out-of-hours fire procedure

- 6.6.1 If a fire is detected on site outside of normal operating hours, the site manager or out-of-hours emergency contact will be notified of the fire by the Fire Service Incident Control Room, NRW or a member of the public.
- 6.6.2 The site manager/out-of-hours contact will then conduct the following procedure:
 - a) Irrespective of whether a Company presence is required by the Fire Service at the site, the out of hours appointed contact 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 manager/out-of-hours contact will contact as many additional members of staff as required to ensure that surface water protection measures are deployed. Ideally this should be a minimum of three other staff members (enabling safe working in pairs) with at least one machine operator.

7 POST-FIRE SITE RECOVERY

7.1 General recovery procedure

7.1.1 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 by fax or letter 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 accident plan, FPRP and EMS, associated amendments will be implemented.
- e) Review of any training requirements for site personnel.
- f) All fire extinguishers used to tackle the fire will be serviced and replaced after use.

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

7.2 Fire debris

7.2.1 Fire debris should continue to be turned using the onsite plant and doused as necessary with the tractor and bowser. Debris should be turned and doused until site management confirm that the embers are cooled and there is no chance of a flare up.

7.2.2 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 should be arranged for the removal of the ash from the site.

7.3 **Surface water containment**

- 7.3.1 Surface water protection measures should remain in place and regular checks on them should be maintained until the clean-up and removal of all fire water has occurred, the emptying of all holding tanks, gully pots and interceptors has been carried out 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.
- 7.3.2 Surface water runoff from the site should remain diverted to the foul sewer to allow any incidental rain water runoff, which may be contaminated, to run to foul sewer. The temporary bund across the site access road should remain in place to facilitate this until the yard has been cleaned from standing contaminated water, the yard swept and other surface water protection measures removed.
- 7.3.3 Surface water on site will be cleared using the following methods.
- a) Using the tractor and bowser, all standing fire water should be sucked up and discharged to foul sewer in the first instance.
 - b) Starting at the top yard interceptor, suck up the first 2 – 3 bowser loads of fire water and discharge to foul sewer.
 - c) Using all available resources, manually clean out all trapped gullies and surface water gullies removing the debris to the pile of fire damaged waste for removal to landfill.
 - d) Using the tractor and bowser, flush the drainage system to the top interceptor with clean water. Repeat no more than twice.
 - e) Remove another 2 loads of firewater from the interceptor and discharge to foul sewer.
 - f) Repeat the previous 2 steps until the water used to flush the drains runs clear into the interceptor.
 - g) Using a road sweeper, sweep the top yard (damp as required using the tractor and bowser) until all ash and clinker has been removed.
 - h) Repeat steps d and e until the discharge to the interceptor runs clear.

- i) Empty the interceptor (5 loads from full approx.) and discharge the water to foul sewer.
- j) Repeat steps d, e and i until the water in the interceptor remains clear. (Historic experience has indicated that this is 2 – 3 loads of clean water or a heavy rain shower).
- k) Pump out the underground sealed surface water tank adjacent to the middle gates and transfer building. This can be done via submersible pump (takes 6 hours) or tractor and bowser, up to 5 loads dependant on recharge from French drain behind transfer building. All water should be diverted to or pumped to foul sewer.
- l) Step k should be repeated until recharge of the tank with fire water ceases.
- m) Move to the interceptor on the lower yard behind the workshop. This is small and, therefore, one bowser load will empty this tank. Discharge it to the foul sewer. Wash the area down with clean water and empty the tank again with the tractor and bowser. Clean the area thoroughly with a road sweeper.
- n) All debris has now been isolated, all tanks have been cleaned and emptied and all surface water drains cleaned out (with the exception of those that were blocked to prevent runoff).
- o) Wash the yard down in entirety using clean water, or allow a reasonably heavy rain shower to wash the yard down. All runoff should remain discharged to foul sewer. Check all holding tanks to ensure that the water is free from fire water and contamination. Suck out all holding tanks and interceptors and discharge to foul sewer (as per steps d, e, i and k).
- p) It is at this stage that site management should decide whether it is appropriate to remove the surface water protection measures, or repeat areas of the clean-up.

7.3.4 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 methods, which are listed in order of top yard to bottom yard.

- a) Remove the drain bung in the field inspection chamber that allows the discharge of clean surface water from the top yard.

- b) Remove the drain covers that have been used to block the surface water discharge points from the bottom yard.
- c) Remove the temporary bund across the access road.
- d) Remove all sand bags.
- e) Replace the foul sewer manhole cover.
- f) 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.
- g) Account for all consumables that have been used in the fire and re-order / replace immediately.
- h) Restack, and re-locate all items used for the surface water protection during the fire to their storage locations ready for future deployment.
- i) Check monthly that items are still present and correct and still serviceable for use in an emergency.

APPENDIX I

Temperature Monitoring Sheet

Temperature Monitoring Sheet

Summary of Requirement

- A requirement exists to ensure that temperatures of waste piles both processed and unprocessed, at the Alan Skip Hire (Wales) Ltd facility are monitored and recorded on a daily basis.
- Decomposition of various waste piles can generate sufficient heat that the material may combust. This monitoring sheet is to be used for the purpose of manually recording these temperatures.

Instructions

- Two temperatures should be taken from each waste pile using either the metre temperature probe or the hand-held thermographic unit.
- Both temperatures should be recorded in the table below, identifying the time, waste type and monitoring method (probe or thermographic).
- Stockpiles which have been on site longer than 6 months should be checked twice per day.

TIME	Waste Type	Low Temp °C	High Temp °C	Probe or Thermo (P or T)	Comment
	A GRADE WOOD (PRE-PROCESSING)			T	
	B GRADE WOOD (PRE-PROCESSING)			T	
	A GRADE WOOD (PROCESSED)			T	
	B GRADE WOOD (PROCESSED)			T	
	MIXED WASTE			T	
	GREEN WASTE			T	
	REJECTED WASTE			P	

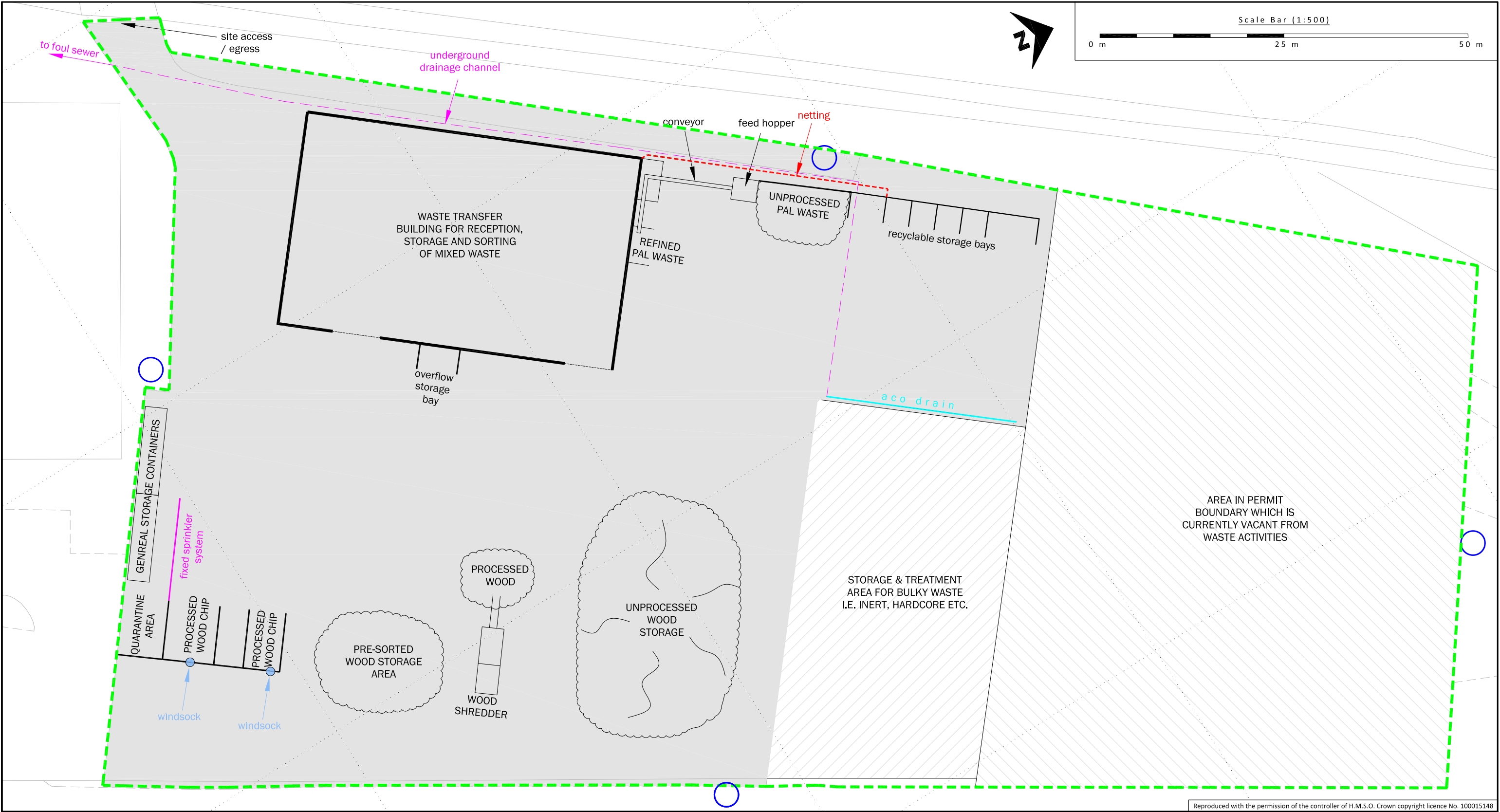
ANY RECORDED TEMPERATURE ABOVE 75°C (FOR COMPOSTED WASTE) AND 50°C (FOR ALL OTHER WASTE) SHOULD BE REPORTED IMMEDIATELY TO A SENIOR MEMBER OF THE MANAGEMENT TEAM

Day_____ Date_____

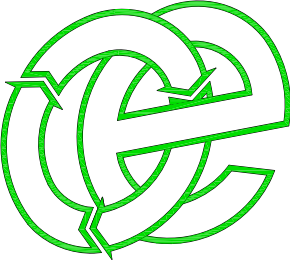
Name_____ Signed_____

APPENDIX II

Site Layout Plan



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NOTES:

- (1) Drawing for indication only.
- (2) Do not scale from this drawing.
- (3) All measurements must be verified on site.

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KEY:

-  Permit boundary
-  Concrete hardstanding surface
-  Dust monitoring points

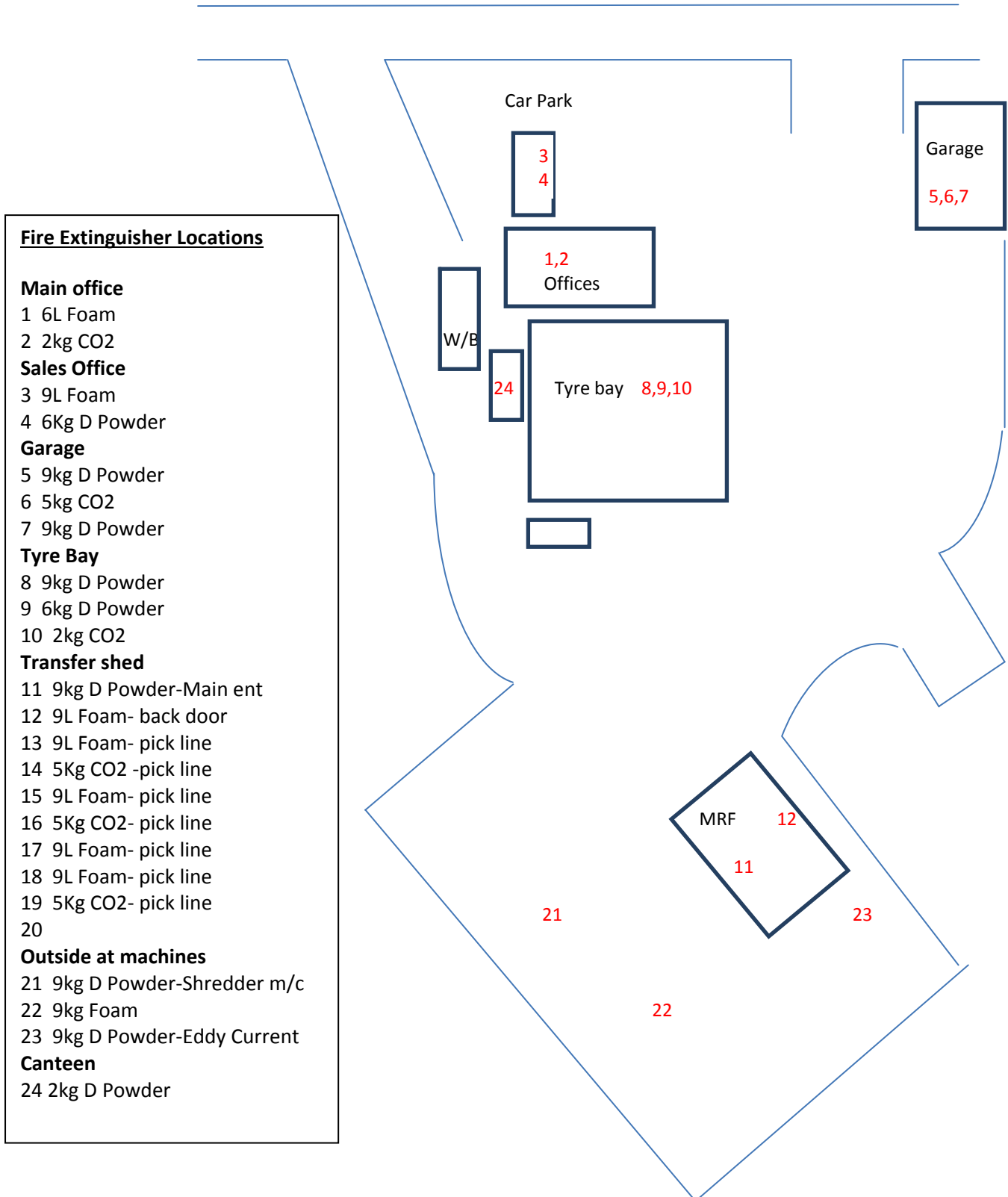
REVISION HISTORY			
Rev:	Date:	Int:	Description:
-	19/07/13	CP	Initial drawing
A	16/09/13	CP	Issued to EA for OMP
B	28/03/14	RS	Issued for EP variation
C	08/09/14	CP	Operational site changes
D	07/10/14	CP	Amended storage areas
E	24/11/14	CP	Updated with accurate OS data

Drawing No: 2399/426/03		Date: 24 November 2014	
Title: SITE LAYOUT PLAN		Rev: E	
Site: Redwither Road, Wrexham Ind. Estate, LL13 9RD			
Client: Alan's Skip Hire (Wales) Ltd		Scale: 1:500 @ A3	
Drawn: CP	Checked: JE	Job: 2399	Client: 426

APPENDIX III

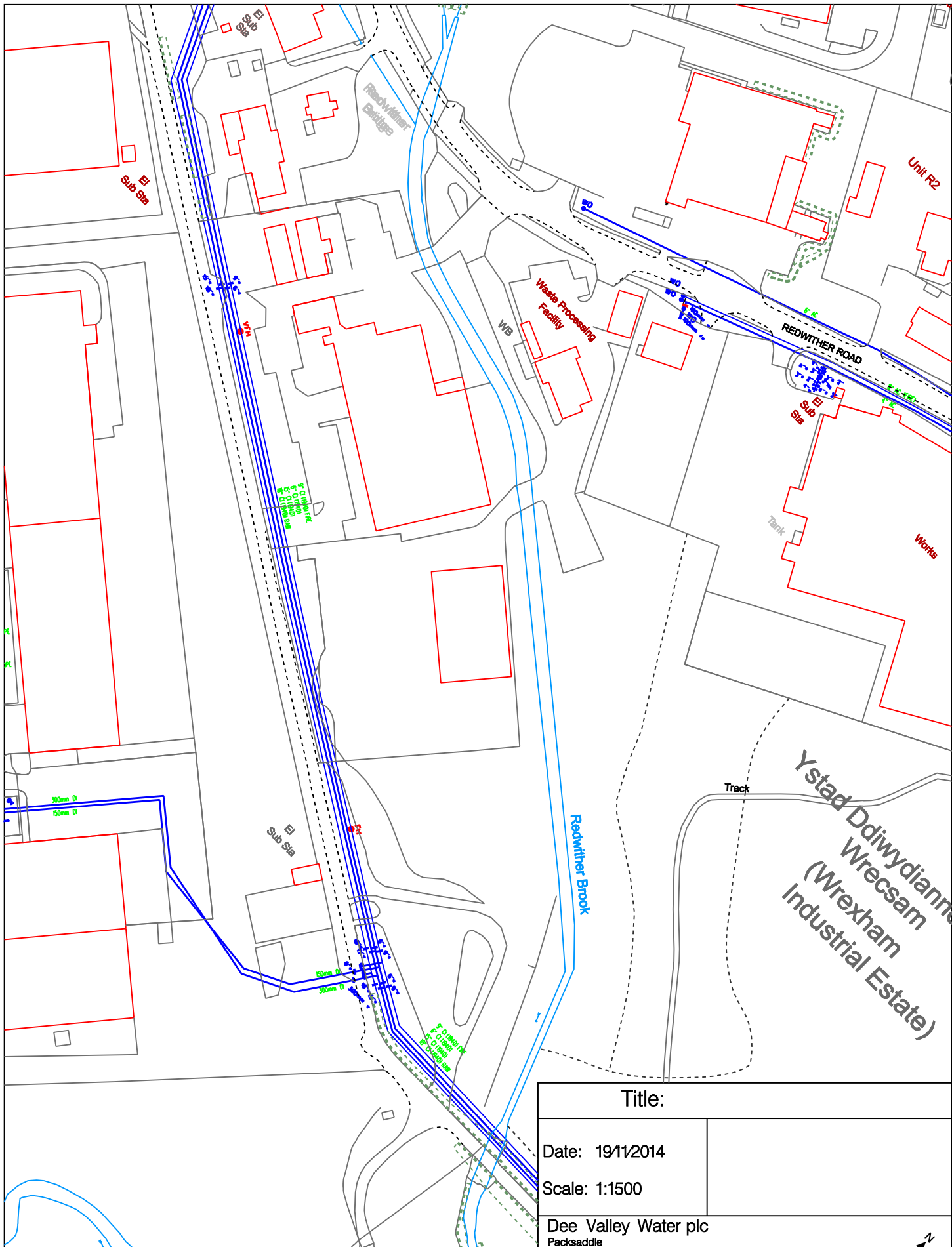
Fire Extinguisher Location Plan

Wrexham Site



APPENDIX IV

Fire Hydrant Location Plan



Title:

Date: 19/11/2014

Scale: 1:1500

Dee Valley Water plc

Packsaddle
Wrexham Road
Rhostyllen
Wrexham LL14 4EH



DEE VALLEY WATER MAINS ——— PRIVATE WATER MAINS ———

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