22nd January 2016

Permitting Support Centre
Environmental Permitting Team
Quadrant 2
99 Parkway Avenue
Parkway Business Park
Sheffield
S9 4WF

Dear Sirs

Response to Schedule 5 Notice (EPR/DP3435RJ/A001)
ANSA Environmental Services Limited – Cledford Lane Waste Transfer Station, Cledford Lane, Middlewich, Cheshire East, CW10 0JW

Further to your Schedule 5 notice dated 4th January 2016, for the aforementioned application, please find below our response to request for further information to support the application.

Environmental Risk Assessment

Table A1 Odour

In accordance with Section 4.3.10 of the Operating Techniques Document, street sweepings will be stored outside in accordance with Regulatory Position Statement 65 Version 3. The Environmental Risk Assessment has been updated to reflect this with the reference to silt materials replaced with street sweepings.

Table A2 Noise

Mitigation measures for noise have previously been included within Section 6 of the Noise Assessment provided as Appendix B to the Environmental Risk Assessment. However, for clarity these have been repeated within table A2 of the Environmental Risk Assessment for clarity.

Table A3 Fugitive Emissions (to air)

This table has been revised to address the risk of fugitive emissions of bioaerosols from the biofilter and storage of materials.

Air Quality Assessment

Section 4.5

The impact of emissions to air have been fully addressed within the H1 Environmental Risk Assessment within Appendix B. In addition, the habitats assessment in the Environmental Risk Assessment has been updated to address the Local Wildlife Site Cledford Lane Lime beds.

Section 9.1

We can confirm that aerosols are not identified as a specific waste stream. However, it is considered that aerosol canisters may be received incidentally from residual waste collection rounds under waste code 20 03 01 (mixed municipal waste).

Reference to Biomass Plant

The biomass plant that is referenced in the air quality assessment does not form part of this application.

Odour Management Plan

Section 2.2.2, 3.2.1 and 3.2.2

These sections have been amended in accordance with the comments provided under the Schedule 5 response.

Section 3.3

This section has been revised to include a windrose diagram.

Section 4.1.2

This section has been updated to reflect potentially key receptors that would be affected by the prevailing wind direction. A receptor plan (Drawing No. A092093/RCP/01) was previously provided with the application and details the location of each of the receptors assessed within the risk assessment.

Section 6.1.18

This section has been amended to state that a biofilter will be used at the proposed facility.

Section 6.2.1

This section has been amended in accordance with the comments raised in the Schedule 5 notice.

Table 5 – Abnormal Events

This table has been revised to address the failure of the biofilter as a potential abnormal event including appropriate response measures.

Table 6 – Odour Complaints

Table 6 has been amended to describe when the EA will be notified of a complaint and subsequent corrective action.

Environmental Management System summary

The indicative contents of the environmental management system have been updated to include all the required elements as stipulated in the EA guidance 'How to comply with your Environmental Permit'.

Fire Prevention Plan (FPP)

Site Plan

A site layout plan is included with this letter which addresses each of the comments provided in the Schedule 5 notice. A number of the elements requested to be within the drawing had previously been provided, however the drawing has been amended to provide further clarification. The Receptor Plan (Drawing No. A092093/PER/01) that was previously submitted has been appended in the revised FPP to detail the location of key receptors within 1km of the site.

Waste Pile Sizes

An additional section (Section 4.2.6) has been inserted to the FPP to address how the operator will ensure compliance with the waste pile sizes provided in Table 4.

Storage Time

Further to your comments that are provided under the Schedule 5 notice, Section 4.0 of the Fire Prevention Plan has been updated to address the storage times for all waste types.

Separation Distances

Table 4 has been amended to address how the minimum separation distances of the waste stockpiles will be adhered to in accordance with the requirements provided under the FPP guidance.

Combustible Materials

Section 4.2.9 and 4.2.10 of the revised FPP now detail what measures will be undertaken to prevent self combustion of combustible materials that are stored on site.

Contingency planning

Further to your comments, Section 5.1 has been updated to provide further details in the contingency planning regarding site operations in the event of a fire.

Quarantine Area

Section 4.1 of the Fire Action Plan has been amended to provide further details of the quarantine area in line with the FPP guidance. Following clarification, it is understood that this external quarantine area should only relate to materials stored outside the building as it is not considered safe to remove materials froma building which benefits from a sprinkler system. As such, the quarantine area detailed in Section 4.1 of the Fire Prevention Plan identifies the largest potentially flammable external stockpile on site which is the WEEE storage area.

Sufficient Water Supplies

The Fire Prevention Plan serves to act as a guide in the event that a major fire incident occurred at the site. In the event of the major incident, the Local Fire Service would assume control of the facility until such time as they deem it safe. Whilst ANSA would identify the canal as a potential supply of water, it would be at the discretion of the Local Fire Service as to whether this is the most suitable source. During an all party visit to the site in respect of the potential phosgene gas, Jeanette Murphy from the Local Fire Service indicated that the existing fire hydrant and/or canal would provide sufficient volume of water in the event of a fire on site.

However, Section 5.1 has been revised to include information that demonstrates the volume of water required to manage the worst case scenario. Calculations have been provided in line with the FPP guidance.

Containment of Fire Water

We can confirm that the site has been designed in order to contain the volume of firewater as detailed within the Fire Prevention Plan Guidance. The details of this containment is provided in further detail within the revised Fire Prevention Plan.

Fire Suppression System

Section 5.1.3 of the Fire Prevention states that a sprinkler system will be installed in both buildings as detailed in the site layout plan (Drawing No. PER/01). Final design details of the sprinkler system are yet to be produced, however we can confirm that the sprinkler heads will act independently and in the event of a fire be deployed to the localised area of the fire.

Potential Sources of Ignition

Section 4.0 of the Fire Prevention Plan has been revised to address how the operator will reduce the potential sources of ignition in accordance with the requirements of the FPP guidance.

Site Condition Report

The documents previously provided with the application are considered to be sufficiently detailed to demonstrate compliance with the H5 Guidance. However, for clarity, a Site Condition Report has been included in this letter to address sections 1-3 of the H5 Site Condition Report Template.

Statement of Best Available Techniques

Section 2.8.4

A site drainage plan (DR-501) has previously been provided with the application and provides details regarding the proposed foul and surface water drainage at the site. This drawing has been updated and is provided with this response. In addition, section 2.8.4 has been updated to provide details of the proposed drainage system.

Section 2.8.20

This section has been revised to state what will happen on site in connection with odour abatement.

Operating Techniques

Section 3.6.2

We can confirm that the planned preventative maintenance programme will be incorporated into the Environmental Management System for the site upon commencement of operation.

Section 4.3.7

This section has been amended in accordance with your comments that were provided under the Schedule

5 notice.

WAMITAB

Evidence of continuing competence has been provided with this letter.

We trust the above is satisfactory and allows the further determination of the permit. Should you have any further queries, please do not hesitate to contact me.

Yours sincerely

Andrew Bowker
Principal Consultant
For and on behalf of WYG

cc. Michelle Sherlock, ANSA Environmental Services Limited

Cheshire East Council

Environmental Services Hub, Cledford Lane, Middlewich

Site Condition Report

January 2016

Quay West at MediaCityUk, Trafford Wharf Road, Trafford Park, Manchester M17 1HH

Tel: 0161 872 3223

Email: andrew.bowker@wyg.com

Document Control

Project:	Environmental Services Hub at Cledford Lane, Middlewich, Cheshire
Client:	Cheshire East Council
Job Number:	A092093
File Origin:	S:\Projects\Cheshire East (C08359)\A092093 (Cledford Lane Environmental Permit)\Reports\

Document Checking:

Prepared by:	Alice Shaw	Signed:	
Checked by:	Andrew Bowker	Signed:	
Verified by:	Andrew Bowker	Signed:	

Issue	Date	Status
1	January 2016	Final

USING EA SITE CONDITION REPORT TEMPLATE

1.0 SITE DETAILS	
Name of the applicant	Cheshire East Council
Activity address	Cledford Lane Environmental Hub, Cledford Lane, Middlewich, Cheshire, CW10 0JW
National grid reference	SJ 712 648

Document reference and dates for Site Condition Report at permit application and surrender	Application Site Condition Report (January 2016)

Document references for site plans (including location and boundaries)	A095602-2/PER/01 – Permit Application Boundary

Note:

In Part A of the application form you must give us details of the site's location and provide us with a site plan. We need a detailed site plan (or plans) showing:

- Site location, the area covered by the site condition report, and the location and nature of the activities and/or waste facilities on the site.
- Locations of receptors, sources of emissions/releases, and monitoring points.
- Site drainage.
- Site surfacing.

If this information is not shown on the site plan required by Part A of the application form then you should submit the additional plan or plans with this site condition report.

2.0 Condition of the land at permit issue	
Environmental setting including: • geology • hydrogeology • surface waters	Please see Geo-environmental Ground Investigation Report (May 2015).
Pollution history including: • pollution incidents that may have affected land • historical land-uses and associated contaminants • any visual/olfactory evidence of existing contamination • evidence of damage to pollution prevention measures	Please see Geo-environmental Ground Investigation Report (May 2015).
Evidence of historic contamination, for example, historical site investigation, assessment, remediation and verification reports (where available)	Please see Geo-environmental Ground Investigation Report (May 2015).
Baseline soil and groundwater reference data	Please see Geo-environmental Ground Investigation Report (May 2015).
Supporting information	• Source information identifying environmental setting and pollution incidents • Historical Ordnance Survey plans • Site reconnaissance • Historical investigation / assessment / remediation / verification reports • Baseline soil and groundwater reference data

3.0 Permitted activities	
Permitted activities	The proposed activity is the operation of a Waste Transfer Station (WTS) that would comprise two industrial type buildings. One building would accommodate a WTS for green and recyclable waste. The other building will either be used for Refused Derived Fuel processes for residual, non-recyclable black bin waste or an additional waste transfer station for residual black bin bag waste and further capacity for

	green waste and co-mingled recyclables. It is considered that the proposed activities will fall under the following R/D codes: R3 - Recycling/reclamation of organic substances which are not used as solvents. R4 - Recycling/reclamation of metals and metal compounds. R5 - Recycling/reclamation of other inorganic materials. R13 - Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced).
Non-permitted activities undertaken	None.
Document references for: • plan showing activity layout; and • environmental risk assessment.	A092093/PER/01 – Permit Application Boundary

Note:

In Part B of the application form you must tell us about the activities that you will undertake at the site. You must also give us an environmental risk assessment. This risk assessment must be based on our guidance (*Environmental Risk Assessment - EPR H1*) or use an equivalent approach.

It is essential that you identify in your environmental risk assessment all the substances used and produced that could pollute the soil or groundwater if there were an accident, or if measures to protect land fail.

These include substances that would be classified as 'dangerous' under the Control of Major Accident Hazards (COMAH) regulations and also raw materials, fuels, intermediates, products, wastes and effluents.

If your submitted environmental risk assessment does not adequately address the risks to soil and groundwater we may need to request further information from you or even refuse your permit application.

4.0 Changes to the activity	
Have there been any changes to the activity boundary?	N/A
Have there been any changes to the permitted activities?	N/A
Have any 'dangerous substances' not identified in the Application Site Condition Report been used or produced as a result of the permitted activities?	N/A

Checklist of supporting information	Plan showing any changes to the boundary (where relevant) Description of the changes to the permitted activities (where relevant) List of 'dangerous substances' used/produced by the permitted activities that were not identified in the Application Site Condition Report (where relevant)

5.0 Measures taken to protect land	
Use records that you collected during the life of the permit to summarise whether pollution prevention measures worked. If you can't, you need to collect land and/or groundwater data to assess whether the land has deteriorated.	
Checklist of supporting information	• Inspection records and summary of findings of inspections for all pollution prevention measures • Records of maintenance, repair and replacement of pollution prevention measures

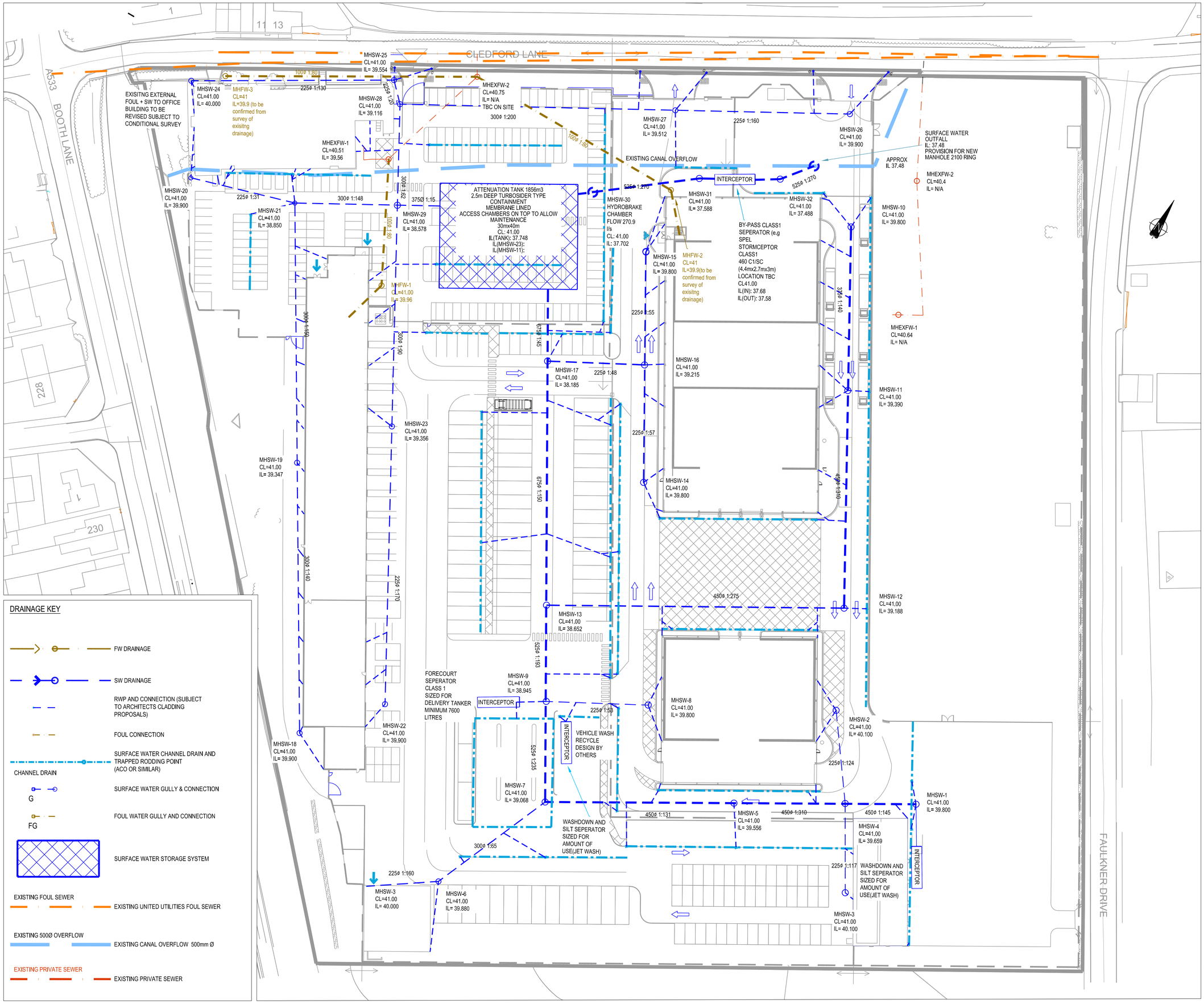
6.0 Pollution incidents that may have had an impact on land, and their remediation	
Summarise any pollution incidents that may have damaged the land. Describe how you investigated and remedied each one. If you can't, you need to collect land and /or groundwater reference data to assess whether the land has deteriorated while you've been there.	
Checklist of supporting information	• Records of pollution incidents that may have impacted on land • Records of their investigation and remediation

7.0 Soil gas and water quality monitoring (where undertaken)	
Provide details of any soil gas and/or water monitoring you did. Include a summary of the findings. Say whether it shows that the land deteriorated as a result of the permitted activities. If it did, outline how you investigated and remedied this.	
Checklist of supporting information	• Description of soil gas and/or water monitoring undertaken • Monitoring results (including graphs)

8.0 Decommissioning and removal of pollution risk	
Describe how the site was decommissioned. Demonstrate that all sources of pollution risk have been removed. Describe whether the decommissioning had any impact on the land. Outline how you investigated and remedied this.	
Checklist of supporting information	Site closure plan List of potential sources of pollution risk Investigation and remediation reports (where relevant)

9.0 Reference data and remediation (where relevant)	
Say whether you had to collect land and/or groundwater data. Or say that you didn't need to because the information from sections 3, 4, 5 and 6 of the Surrender Site Condition Report shows that the land has not deteriorated. If you did collect land and/or groundwater reference data, summarise what this entailed, and what your data found. Say whether the data shows that the condition of the land has deteriorated, or whether the land at the site is in a "satisfactory state". If it isn't, summarise what you did to remedy this. Confirm that the land is now in a "satisfactory state" at surrender.	
Checklist of supporting information	• Land and/or groundwater data collected at application (if collected) • Land and/or groundwater data collected at surrender (where needed) • Assessment of satisfactory state • Remediation and verification reports (where undertaken)

10.0 Statement of site condition
Using the information from sections 3 to 7, give a statement about the condition of the land at the site. This should confirm that: the permitted activities have stopped decommissioning is complete, and the pollution risk has been removed the land is in a satisfactory condition.



DRAINAGE KEY

- FW DRAINAGE
- SW DRAINAGE
- RWP AND CONNECTION (SUBJECT TO ARCHITECTS CLADDING PROPOSALS)
- FOUL CONNECTION
- SURFACE WATER CHANNEL DRAIN AND TRAPPED RODDING POINT (ACO OR SIMILAR)
- CHANNEL DRAIN
- SURFACE WATER GULLY & CONNECTION
- G
- FOUL WATER GULLY AND CONNECTION
- FG
- SURFACE WATER STORAGE SYSTEM
- EXISTING FOUL SEWER
- EXISTING UNITED UTILITIES FOUL SEWER
- EXISTING 500Ø OVERFLOW
- EXISTING CANAL OVERFLOW 500mm Ø
- EXISTING PRIVATE SEWER
- EXISTING PRIVATE SEWER

DO NOT SCALE: CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ANY OMISSIONS OR ERRORS

NOTES

1. 1. ALL LEVELS ARE IN METRES UNLESS NOTED OTHERWISE.
2. ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH "PART H OF THE BUILDING REGULATIONS ".
3. LOCATION SIZE AND DEPTH OF ALL CONNECTIONS TO EXISTING SEWERS TO BE CONFIRMED ON SITE.
4. ALL DRAINS TO BE LAID IN CLASS S GRANULAR BED AND SURROUND GENERALLY. DRAINS WITH LESS THAN 750mm COVER TO HAVE CLASS GEN3 CONCRETE BED & SURROUND.
5. DRAINS UNDER THE BUILDING TO BE LAID WITH A MINIMUM 150mm CLASS GEN 3 CONCRETE BED AND SURROUND.
6. ALL FOUL DRAINAGE CONNECTIONS ARE TO BE 100mm Ø DIAMETER UNLESS NOTED OTHERWISE.
7. DETAILED FOUL-POP UP LOCATIONS PENDING ARCHITECTS BUILDING LAYOUTS.
8. SURFACE WATER DRAINAGE CONNECTIONS, RWP CONNECTIONS TO BE 100mm Ø. GULLY AND DRAINAGE CHANNEL CONNECTIONS TO BE 150mm Ø UNLESS NOTED OTHERWISE.
9. FOR CONNECTION TO THE EXISTING UNITED UTILITES SEWERS, SECTION 106 APPLICATIONS WILL NEED TO BE MADE BY THE CONTRACTOR.
10. BASED ON HALLIDAY MEECHAM ARCHITECTS LAYOUT DRAWING 20004 REV E
11. LOCATION OF PUPLIC SEWERS BASED ON UNITED UTILITIES RECORDS. PRECISE LOCATIONS TO BE CONFIRMED ON SITE .
12. INTERCEPTORS (OIL AND SILT) TO BE CONFIRMED FOR LOCATION, SIZE AND OUTFALL.
13. REFER TO *WINDES* MICRO DRAINAGE CALCULATIONS FOR MANHOLE SIZING.
14. RETAIN EXISTING DRAINAGE FOR BUILDINGS WHERE APPLICABLE.
15. INTERCEPTOR TYPE AND SPECIFICATION TO BE CONFIRMED FOLLOWING DISCUSSION WITH STATUTORY BODIES.
16. DRAINAGE SCHEME SUBJECT TO FURTHER TOPOGRAPHICAL SURVEY OF INTERNAL AREAS TO INCLUDE IDENTIFICATION OF PITS, CHANNELS, STEPS, LEVELS WHICH WILL INFORM TREATMENT AND POTENTIAL RE-USE OF VOIDS.
17. RWP LOCATION'S TAKEN FROM HALLIDAY MEECHAM DRAWINGS HMA-4804-20121,20151 AND 20161.
18. LAYOUT USED FOR DRAINAGE STRATEGY HALLIDAY MEECHAM DWG HM-4804-PROPOSED SITE PLAN OPTION 4.
19. OUTLINE PROPOSAL FOR DEALING WITH FIRE WATER IS INCLUDED TO BE REFINED AND REVIEWED UPON RECEIVING ADDITIONAL INFORMATION.
20. FIRE WATER FROM WTS BUILDINGS VOLUME 450M3 TO BE STORED IN 1856M3 TURBOSIDER ATTENUATION LOCATED UNDER ZONE 3 CAR PARK.
21. ATTENUATION VOLUME BASED ON STORAGE FOR 100+20% CC + ADDITIONAL 450M3 FOR FIRE WATER VOLUME.
22. IN EVENT OF FIRE AND SPRINKLERS DISCHARGE AN AUTOMATED PENSTOCK SYSTEM WILL OPERATE AT MHSW-30 TO KEEP CONTAMINATED FIRE WATER CONTAINED WITHIN THE SITE DRAINAGE. DESIGN BY OTHERS.
23. FIRE WATER SOLUTION DESIGN DEPENDANT ON RECEIPT OF MORE INFORMATION AND THE DEVELOPMENT OF A DETAILED FIRE STRATEGY.
24. SUMP PITS LOCATED WITHIN RETAINED OFFICE G1 TO BE COVERED AND PROTECTED PENDING FURTHER INVESTIGATION.
25. COVER LEVELS TAKEN AT 41.00 TO CHANGE DEPENDING ON THE FORMATION OF DETAILED LEVELS STRATEGY.

REV	DESCRIPTION	BY	CHK	APP	DATE
P3	DESIGN CHANGES TO INCLUDE RWP'S AND FIRE WATER COLLECTION METHOD	MW	DJH	TF	30.09.15
P2	ADDITIONAL INFORMATION	MW	TF	TF	09.07.15
P1	FIRST ISSUE	DJH	TF	TF	19.05.15

WATES CONSTRUCTION LTD.

QUAY WEST at MediaCity UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH
TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com

Project: A091680

CLEDFORD LANE
WASTE TRANSFER STATION

Drawing Title:

DRAINAGE STRATEGY

Scale @ A1	Drawn	Checked	Approved
1:500(1:1000@A3)	MW JULY 2015	DJH SEP 2015	TF SEP 2015

Project No.	Office	Type	Drawing No.	Revision
A091680	81	CS	DR-501	P3

FILENAME : P:\CS_PROJECTS_91000\A091680_CLEDFORD LANE MIDDLEWICH\1_DRAWINGS\CURRENT DRAWINGS\INFRASTRUCTURE\A091680 - CLEDFORD LANE - DRAINAGE_501_P3.DWG | PLOTTED BY : MATTHEW.WILLIS | PLOTTED DATE : 01 October 2015 14:28:52

Ansa Environmental Services

Environmental and Accident Management System

Cledford Lane Environmental Hub
Cledford Lane
Middlewich
Cheshire
01270 686864

Contents

Drawings

Site Layout Plan and Environmental Permit Boundary

Emergency vehicle access

Emergency vehicle access

Emergency vehicle access

A533 BOOTH LANE

Office
G1
2140m² (Est.)

Existing water hydrant

grass trees extg

splay

drop kerb and tactile paving

temporary pop-off

disabled parking no. 5

parking no. 151

car park no.69

Elec. Charge x3

60 No cycle park

MOT Parking no.5

Fleet parking x11

RCV out

RCV in

existing grass trees

existing maintenance path

G21
2529m²
Vehicle Workshop

Vehicle Parking x34

Vehicle Parking x16

Storage

car park no.22

Enviro' workshop

Fuel Store x3

pump

pump

2 no. covered jet wash

vehicle wash

Storage
G38
360m²

Residents cycle & pedestrian/ cycle path

ACCESS

DEEPDALE

Elec. substation

parking

vision splay

OUT

IN

Sprinkler pumpset

Sprinkler tank 7.5m tall

RCV Emergency drop off area (near fire hydrant)

Artic In

WASTE TRANSFER STATION - RDF
3952m² gifa

Weighbridge

Access Road

Waiting Area

Air filter zone

RCV In

Road

WASTE TRANSFER STATION - RECYCLING
1812m² gifa

Artic In

Covered Store

G37
569m²

Existing Elec. substation

Close wire security fence 3030 High

FAULKNER DRIVE

KEY

- Tarmac
- Landscape
- Paving
- High Protection Kerb
- Armco barrier
- Pin Kerbs

VACANT HARDSTANDING

Incoming Gas G7

Please note: the contents of this drawing are based on (survey/existing) information supplied by a third party. Halliday Meecham Architects can accept no responsibility or liability for the accuracy of this information and/or works based upon it. The contractor must check the accuracy of these drawings on site and notify Halliday Meecham Architects of any discrepancies.

Rev	Description	Date	Drawn	Checked
J	PLANNING 2	28/09/15	DH	SC
I	Pin Kerbs added	02.10.15	SC	DH
H	Kerbs & Armco indicated	01.10.15	DH	SC
G	AMENDED TO SITE FINISHES DRAWING	28/09/15	DH	SC
	CONTRACTORS PROPOSAL			
-	First Issue. Issued for Comment/Approval.	-	-	-
	PLANNING			
F	Planning Line drawn on red, ownership boundary line show in blue. Area omitted from planning application Walkways added in zone 5. CMWeatcher station added. Electrical charging relocated. Barrier added to zone 1	30.04.15	CM	PEH
E	G21 and WTS entrance layout updated, elec charge added	24.4.15	SK	PEH
D	Dimensioning updated, Gas store added, markings added, labels revised	23.4.15	SK	PEH
C	WTS, G21 layout revised incl. bays, trees omitted	22.04.15	SK	PEH
B	Section lines added	21.4.15	SK	PEH
A	WTS spl4, Odour control moved, road layout revised	16.04.15	SK	PEH
-	First Issue. Issued for Comment/Approval.	14.04.15	SK	PEH
	PRELIMINARY			

Halliday Meecham Architects Limited

111 Piccadilly Manchester M1 2HY
+44 (0)161 661 5566

4 Devonshire Street London W1W 5DT
+44 (0)203 440 5175

hma@hallidaymeecham.com
www.hallidaymeecham.com

HALLIDAY MEECHAM ARCHITECTS

Client:	Cheshire East Council
Project:	CEC Environmental Hub
Project Location:	Cledford Lane CW10 0JS
Drawing:	Proposed Site Plan - Materials

Scale @ A1	Scale @ A3	Date	Drawn	Checked	Job No	Drawing No.	Revision
1:500	1:1000	28.08.15	CM	PEH	4804	20004	J

Certificate No. CCC10063

Continuing Competence Certificate

This certificate confirms that

Emma Owen

Has met the relevant requirements of the Continuing Competence scheme for the following award(s) which will remain current for two years from 24/11/2015

TSH	Transfer - Hazardous Waste
TMH	Treatment - Hazardous Waste

Awarded: 24/11/2015

Expiry Date: 24/11/2017

Authorised

WAMITAB Chief Executive Officer

CIWM Chief Executive Officer

The Chartered Institution of Wastes Management

00078843

Cheshire East Council

Environmental Services Hub, Cledford Lane, Middlewich

Environmental Risk Assessment

January 2016

Quay West at MediaCityUK, Trafford Wharf Road, Trafford Park, Manchester, M17 1HH

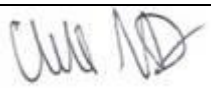
Tel: 0161 872 3223

Email: andrew.bowker@wyg.com

Document Control

Project:	Environmental Services Hub at Cledford Lane, Middlewich, Cheshire
Client:	Cheshire East Council
Job Number:	A092093
File Origin:	S:\Projects\Cheshire East (C08359)\A092093 (Cledford Lane Environmental Permit)\Reports\

Document Checking:

Prepared by:	Chris Muir	Signed:	
Checked by:	Andrew Bowker	Signed:	
Verified by:	Michael Jones	Signed:	

Issue	Date	Status
1	January 2016	Final

Contents Page

Drawing

CEC/A092093/RCP/01 – Receptor Location Plan

Appendices

Appendix A – Environmental Risk Assessment

Appendix B – Habitats Risk Assessment

Appendix C – Air Quality and Odour Assessment

Appendix D – Noise Assessment

Appendix E – Odour Management Plan

1.0 Introduction

1.1 Report Scope

1.1.1 This document corresponds to Part B2 of the Environmental Permit application form, and has been prepared by WYG on behalf of the Operator, ANSA Environmental Services (a wholly owned subsidiary of Cheshire East Council), in accordance with the requirements of the Environmental Permitting (England and Wales) Regulations 2010 (as amended).

1.1.1 This Environmental Risk Assessment is limited to a qualitative assessment of the potential risks associated with the requirements of this application, i.e. the operation of a Waste Transfer Station at Cledford Lane, Middlewich.

1.1.2 This report is a risk assessment undertaken in accordance with H1 where applicable and also provides justification for the use of other more specific risk assessment methodologies. This risk assessment process has been conducted by reference to Environment Agency Horizontal Guidance Note H1 – Annex A, December 2011.

1.2 Proposed Operations

1.2.1 A Waste Transfer Station (WTS) facility would be developed which would have a maximum throughput of 200,000 tonnes per annum (tpa). The WTS would comprise two industrial type buildings as shown on Drawing Number 20004.

1.3 Waste Transfer Station – Recycling (WTS – Recycling)

1.3.1 The smaller WTS-Recycling building would accommodate the green waste and co-mingled dry recyclable waste from household waste collections.

1.3.2 The design of the building, particularly the height, would ensure that Refuse Collection Vehicles (RCVs) can safely deposit waste within the building and that bulk haulage vehicles can be loaded with mobile plant without damaging the WTS roof or doors. Internally the WTS-Recycling building would include a number of waste bays for the storage of different streams of source segregated recyclable and green household waste. The bays would be constructed using concrete push walls

to protect the structural integrity and fabric of the WTS-Recycling building. Fast closing doors would be installed on the north western, western and eastern elevations.

1.3.3 The WTS-Recycling building would facilitate the temporary storage and bulking up of Council collected household waste prior to off-site transport. The WTS-Recycling building would accept comingled recyclable waste (i.e. silver bin waste), organic garden waste (i.e. green bin waste) as well as waste from the Council's street cleansing operations.

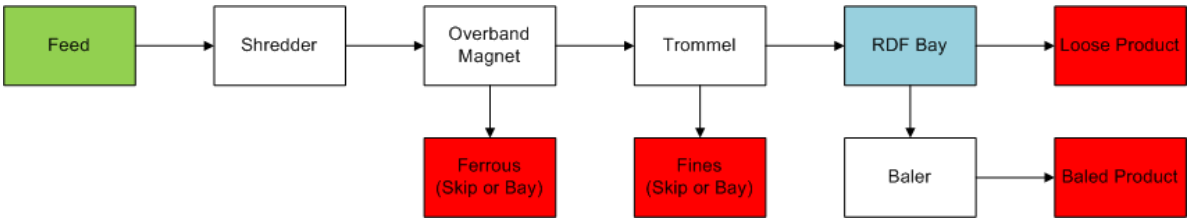
1.4 Waste Transfer Station – RDF (WTS-RDF)/Recyclate and Green Waste Transfer

1.4.1 Occupation of the larger building will be dependent upon contracts for the recovery of the residual waste streams that Cheshire East will have in place. Residual waste will be processed within an R1 rated Energy from Waste Facility however the requirements for pre-treatment of these waste streams will be dependent upon the final destination. As such, there are two possible options which are detailed below.

Option 1 Waste Transfer Station – RDF (WTS-RDF)

1.4.2 Option 1 would comprise a refused derived fuel processes. Waste deposited within this building would comprise the residual/non-recyclable black bin waste from the household collections. This material would be processed to produce a refuse derived fuel. The RDF process would necessitate a basic level of treatment of the residual waste to remove recyclates and non-combustible materials such as ferrous and non-ferrous metals and inert waste. Waste would undergo shredding (or bag splitting) to a size of ~300 mm. It would then be passed under a magnet to remove any ferrous metal and then through a trommel screen (hole size ~20-30 mm) to remove organic material. The oversize from the trommel can then be classified as RDF and suitable to label with European Waste Catalogue code 19 12 10 'combustible waste – refuse derived fuel'. A process flow diagram is provided as Figure 1 below.

Figure 1 – Process Flow Diagram



1.4.3 The RDF material would be baled prior to off-site transport. Two process lines would be included within the WTS-RDF building, which would each have a process capacity of approximately 40 tonnes per hour.

Option 2 – Waste Transfer Station – Recycling (WTS – Recycling)

1.4.4 Option 2 comprises an additional waste transfer station for residual black bin waste and further capacity for green waste and co-mingled recyclables. This process would follow the same processes as the WTS station that would occupy the smaller building.

1.2 Waste Storage

1.2.1 There will be a maximum storage capacity of 3,000 tonnes of untreated material on site at any one time. This will be split between each of the proposed buildings with 1,500 tonnes of untreated material within each building. This will allow storage capacity for 3 days of received material in the event of plant failure or unavailability of off takers.

1.2.2 Furthermore, there will be sufficient capacity to store 2,000 tonnes of processed RDF materials, recovered metals and fines within the WS-RDF building whether they be baled and wrapped or stored loosely within designated storage areas.

2.0 Environmental Risk Assessment

2.1 Methodology

2.1.1 This report has been prepared in accordance with Environment Agency guidance EPR-H1. As the site will be an installation, the following annexes to the guidance were referred to, as required by the H1 Overview guidance:

- Annex (a) Amenity and Accidents;
- Annex (d) Surface water discharges (basic);
- Annex (f) Air;
- Annex (g) Site Waste;
- Annex (h) Global Warming Potential;
- Annex (j) Groundwater; and
- Annex (k) Justifying cost and benefit analysis of control measures.

2.1.2 There will be no direct emissions to groundwater from the site, and therefore there is no assessment of annexe (j). This report addresses the risks associated with annexes (a), (d), (f), (g) and (h). Annex (k) is addressed through a standalone BAT Assessment.

2.1.3 This risk assessment addresses the above, and is based on the following methodology:

- Identification of potential sources of risk;
- Identification of all potential receptors to risk; and
- Risk assessment of each risk type.

2.1.4 The ERA is a tool used to identify the pollutant linkage i.e. source – pathway – receptor. For most risks, the atmosphere is the main pathway and will always exist. Therefore the ERA deals primarily with the sources and receptors. The ERA is shown in Appendix A and is summarised below.

2.2 Sources

2.2.1 The potential sources of risks arising from this application have been considered for each risk type, as shown in Appendix A and summarised below:

Odour

- Storage and treatment of waste.

Noise

- Vehicle movements.
- Use of plant and machinery.

Fugitive emissions

- Particulate matter (i.e. dust and bioaerosols).
- Contaminated surface water run-off.
- Mud.
- Pests, vermin.

Accidents

- Fire or failure to contain firewater.
- Leaks/spillages.
- Vandalism.
- Flooding.

2.3 Pathways

2.3.1 The pathways have been identified for each risk type as shown below in Table 1:

Table 1: Potential Pathways

Risk Type	Pathway
Odour	Atmosphere
Noise	Atmosphere
Fugitive emissions (to air, water, land)	Atmosphere
	Land
	Infiltration
	Percolation
Accidents	Atmosphere

	Surface water runoff
	Infiltration
	Percolation

2.4 Receptors

2.4.1 All potential receptors within 1000m of the proposed operating site boundary have been identified and are listed in Table 2 below. In addition, any sites of statutory ecological designation (SSSIs, SPAs, SACs, Ramsar Sites) within 2000m of the site boundary have been included as potential receptors. These protected sites are also shown on Drawing No. A092093/LOC/01 (provided with this report) and the impact of the proposed waste transfer station, and appropriate mitigation measures, have been assessed in a Habitats Risk Assessment enclosed as Appendix C.

Table 2: Location of potential receptors in relation to waste operations

Receptor	Direction from Operational Area	Minimum Distance from Permit Boundary (approx.) (m)
Designated ecological habitats e.g. Ramsar, SAC, SPA, SSSI, LNR		
Sandbach Flashes SSSI	S	1100
Other designations e.g. National Park, AONB, World Heritage Sites	N/A	N/A
Cledford Lane Lime Beds - Local Wildlife Site	N	50
Other Habitats		
Deciduous Woodland Priority Habitat	SE	<10
Deciduous Woodland Priority Habitat	N NW	730
Domestic Dwellings		
Properties on Booth Lane	W	160
Properties on Cledford Lane	N	100
Cledford Villa	NE	80
Schools/Hospitals/Shops		
Cledford Primary and Infant School	NW	650
Middlewich Methodist Church	NW	145
Commercial and Industrial Premises		
Industrial Premises on Cledford Lane	E	<50
Brooks Lane Industrial Estate	N	675
Industrial premises on E.r.f Way	NE	445
Industrial premises on Pochin Way	NE	830
Salt Works (British Salt)	S	300
Public Rights of Way		
Middlewich FP21	NE	<50
Middlewich FP20	E	180
Recreation Areas		
Sports Pitches	W	830
Highways/Minor Roads/Railways		
Cledford Lane	N	<5
Faulkner Drive	E	<5

Booth Lane (A533)	W	<20
A54	N	1500
Ancient Woodland	N/A	N/A
Historic buildings / Listed buildings / Archaeological sites		
Grade II Listed Buildings;		
Trent and Mersey Canal, Canal Milepost	S	235
Trent and Mersey Canal, Rumps Lock	S	280
Outbuildings to Cledford Hall	NE	395
Sensitive land uses e.g. farmland, allotments, commercial fish farms	N/A	N/A
Surface Water e.g. rivers and streams		
Trent and Mersey Canal	W	<10
Sanderson's Brook	E NE	200
Lagoon	SE	415
Groundwater (sensitivity)		
According to the Environment Agency the site is not located over a specified aquifer and is not situated within a GSPZ.		
Coastal / Estuarine areas	N/A	N/A

2.4.2 For the purposes of this risk assessment, all receptors further than 1000m from the boundary are not considered to be at risk from the activities, unless otherwise stated. When choosing the receptors, the closest and the most sensitive (if different from the closest) have been considered in each direction from the hazard. Account has been taken of the mechanism of transport to the sensitive receptor e.g. proximity to highway access and wind direction for airborne dust.

2.5 Risk Assessment

2.5.1 The ERA (Appendix A) looks at each specific hazard identified and assesses the likelihood of those hazards impacting on the receptors. This is achieved by fulfilling the following objectives:

- Identify the location and nature of each hazard;
- Identify the specific receptors potentially at risk and assess the sensitivity of each receptor;
- Provide a qualitative assessment of the risk posed to each sensitive receptor;
- Identify management and monitoring techniques; and
- Provide recommendations for more detailed assessments where necessary.

3.0 Annex (d) – Surface Water (Basic)

3.1 Methodology

3.1.1 The aim of this section is to assess the risks to the environment and human health from the activities proposed in the application in terms of discharge to surface water.

3.1.2 The guidance requires the identification of any substances released to surface water (which includes river, estuaries, coastal waters, lakes and canals) and the quantification of the potential impact of the discharge.

3.1.3 Imported wastes will be stored on an impermeable concrete surface with sealed drainage system. Drainage details are provided on drawing A091680/Dr-501/P2. Clean surface waters will be directed to the storage tank prior to discharge to the existing drainage system within the overflow sewer running across the northern part of the site and into Sanderson's Brook. The flow off site will be restricted to 90% of the overflow pipe capacity.

3.1.4 The impermeable concrete surface meets the following intended design objectives:

- Impermeable to incidental rain fall;
- Designed with kerbing or edge bunds so as to retain all incidental rainfall; and
- Designed with sealed joints where applicable and with sufficient falls so that collected surface water can only discharge to engineered sump/s.

3.1.5 This application does not propose the release of any substance to surface water and therefore no further assessment is required.

4.0 Annex (f) – Air

4.1 Methodology

4.1.1 This section aims to assess the risks to the environment and human health from the activities proposed in the application in terms of emissions to air.

4.1.2 The guidance requires the identification of any substances released to the air, the quantification of the emissions, and an evaluation of the potential environmental impact of the emissions.

4.1.3 The treatment and storage of wastes will take place within waste transfer station buildings. There are no processes which will lead to point source emissions to air of any declared pollutants. There are, however, two point source emissions although these are for the dispersion of odours only. An assessment of these point sources, and their impact on receptors, has been provided within a separate Air Quality and Odour Assessment report.

4.1.4 There are no significant direct emissions to air of substances detailed within H1 Annex (f) as a function of this application and it is therefore considered that no further assessment is required.

4.1.5 Fugitive emissions of dust and odour are considered within the management plans contained at Appendix B.

5.0 Annex (g) – Site Waste

5.1 Methodology

5.1.1 The recommended approach for a site waste assessment is detailed in Environment Agency guidance EPR-H1 Annex (g).

5.1.2 The following tables identify the 3 separate scenarios for the destination of the waste which is received at the site. These waste streams have been derived from the assumed mass balance as provided within the Operating Techniques.

5.1.3 Option 1 details a scenario whereby the residual waste is treated and recovered as RDF and sent to an R1 rated Energy from Waste facility. Green waste and recyclables are sent for recovery off site.

5.1.4 Option 2 details the same scenario as option 1 although the product from the RDF facility is sent to a mass burn incinerator.

5.1.5 Option 3 represents the scenario whereby all materials received on site are directly transferred to landfill.

Option 1 – Waste Treated to allow recovery at R1 rated Energy from Waste facility

Description of Waste Stream	Amount produced (tonnes/year)	Nature of waste	Disposal or Recovery Option	Impact Score
RDF	75,000	Biodegradable Non Hazardous (4)	R1 (6)	1,800,000
Recovered Metals	20,000	Non Hazardous (2)	R3 (3)	120,000
Fines	5,000	Biodegradable Non Hazardous (4)	D5 (30)	600,000
Green Waste	30,000	Biodegradable Non Hazardous (4)	R3 (2)	240,000
Recyclables	70,000	Non Hazardous (2)	R5 (3)	420,000
			TOTAL	3,180,000

Option 2 – Waste Treated for Disposal at Mass Burn Incinerator

Description of Waste Stream	Amount produced (tonnes/year)	Nature of waste	Disposal or Recovery Option	Impact Score
RDF	75,000	Biodegradable Non Hazardous	D10 (20)	6,000,000

		(4)		
Recovered Metals	20,000	Non Hazardous (2)	R3/R5 (3)	120,000
Fines	5,000	Biodegradable Non Hazardous (4)	R3/D5 (3)	600,000
Green Waste	30,000	Biodegradable Non Hazardous (4)	R3/R5 (3)	240,000
Recyclables	70,000	Non Hazardous (2)	D5 (30)	420,000
			TOTAL	7,380,000

Option 3 – Waste sent directly for landfill

Description of Waste Stream	Amount produced (tonnes/year)	Nature of waste	Disposal or Recovery Option	Impact Score
All waste streams	200,000	Biodegradable Non Hazardous (4)	D5 (30)	24,000,000

5.2 Normalised Score

Option	Impact Score
1 (Base Case)	1
2	2.32
3	7.54

5.2.1 The table above demonstrates the normalised score from the assessment above. This indicates that the proposed treatment of the residual municipal and commercial waste streams to produce an RDF, demonstrates the best environmental option for the facility.

5.3 Summary

5.3.1 ANSA will continue to explore recovery/disposal options for site waste which present the lowest environmental risk. The treatment of residual waste within the proposed plant demonstrates a far greater environmental benefit than the disposal of these wastes.

5.3.2 Where possible the disposal/recovery option that represents the least environmental impact will be chosen.

6.0 Annex (h) – Global Warming Potential

6.1 Methodology

6.1.1 The recommended approach for the assessment of Global Warming Potential is detailed in Environment Agency guidance EPR-H1 Annex (g).

6.1.2 In accordance with Environment Agency guidance, an assessment of global warming potential has been undertaken. This enables the identification of greenhouse emissions resulting from the proposed activity that contribute to global warming, and to quantify the impact of these emissions.

6.1.3 It is considered that there will be direct emissions of greenhouse gases arising from the proposed activities from machinery and vehicles.

6.1.4 There will also be indirect emissions resulting from energy use by activities and associated with heat or power imported into the site for the operation of plant and machinery and heating and lighting in the staff facilities.

6.1.5 It is considered that there will be no significant increase in global warming potential as a result of this application.

6.1.6 Details regarding energy use for the site are provided in Section 9.0 of the Operating Techniques document.

6.2 Summary

6.2.1 It is considered that there will be an increase in the global warming potential at the site as it is currently unoccupied and the proposed activities involves machinery and vehicles which will cause emissions. In order to minimise the global warming potential of activities carried out on site, energy efficiency measures will be implemented.

6.2.2 Alternative sources of electricity are not considered viable for this type of operation but ANSA will continue to explore ways of reducing energy consumption.

Drawing

CEC/A092093/RCP/01 – Receptor Location Plan

Appendices

Appendix A – Environmental Risk Assessment

Table A1 – Odour Risk Assessment and Management Plan

What do you do that can harm and what could be harmed?			Managing the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk Management**	**Probability of Exposure**	**Consequence**	**What is the overall risk?**
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
Odour from storage of biodegradable waste	Occupiers of domestic dwellings listed in Table 2 Workers in nearby industrial premises. Users of sports pitches and footpaths Staff and pupils at Cledford primary and infant school	Atmosphere.	An Air Quality Assessment was submitted with the planning application for the site in May 2015. This concluded that the projected short term odour emissions from the site are considered acceptable and following the adoption of mitigation measures, the odour emissions from the site can be reduced as can the impact on the receptors. This report is contained as **Appendix C.** An Odour Management Plan is contained as **Appendix E** The mitigation measures outlined in the assessment include Site Management Responsibility, Neighbour and Stakeholder Consultation, Physical Control Measures and Management Control Measures. The proposed activities, including waste unloading and loading will take place internally, within the waste transfer station buildings, which are fitted with roller shutter doors. The buildings are also fitted with air extraction systems.	Unlikely.	Local nuisance.	Not significant.

			Physical control measures such as making sure the pedestrian doors and the roller shutter doors are kept closed will be implemented. Other housekeeping measures will be implemented, such as the use of water to dampen stockpiles to suppress odour emissions, if necessary. Waste will be accepted at manageable volumes to avoid a backlog of wastes pending treatment. In the event of odorous materials being received at the site, or materials becoming odorous during storage, these will be treated before other materials already stockpiled at the site. The site supervisor will be responsible for the implementation of the Odour Management Plan Use of biofilter to reduce the level of odour emitted from the site. Street Sweeping wastes which are stored outside of the transfer station are subject to daily inspections which take into consideration odour and are managed in accordance with the conditions of the Regulatory Guidance Note.			
Odour from treatment of biodegradable waste	Occupiers of domestic dwellings listed in Table 2 Workers in nearby	Atmosphere.	An Air Quality Assessment was submitted with the planning application for the site in May 2015. This concluded that the projected short term odour emissions from the site are considered acceptable and following the adoption of mitigation measures, the odour emissions from the site can be reduced as can the impact on the receptors. This report is contained as **Appendix**	Unlikely.	Local nuisance.	Not significant.

	industrial premises. Users of sports pitches and footpaths Staff and pupils at Cledford primary and infant school		**C.** An Odour Management Plan is contained as **Appendix E** The mitigation measures outlined in the assessment include Site Management Responsibility, Neighbour and Stakeholder Consultation, Physical Control Measures and Management Control Measures. The majority of the proposed activities, including waste unloading and loading of household wastes including (Residual, Recycling and Garden) will take place internally, within the waste transfer station buildings, which are fitted with roller shutter doors. The buildings are also fitted with air extraction systems. Physical control measures such as making sure the pedestrian doors and the roller shutter doors are kept closed will be implemented. Other housekeeping measures will be implemented, such as the use of water to dampen stockpiles to suppress odour emissions, if necessary. Wastes stored outside the building are not considered to present a significant risk of odour. However, daily checks will be undertaken to ensure that no malodorous materials are being stored externally. Should any odorous materials be identified, they will either be moved within the building or removed from site within 24 hours.			

			Street Sweeping wastes which are stored outside of the transfer station are subject to daily inspections which take into consideration odour and are managed in accordance with the conditions of the exemption. Waste will be accepted at manageable volumes to avoid a backlog of wastes pending treatment. In the event of odorous materials being received at the site, or materials becoming odorous during storage, these will be treated before other materials already stockpiled at the site. The site supervisor will be responsible for the implementation of the Odour Management Plan Use of biofilter to reduce the level of odour emitted from the Regulatory Guidance Note.			

Table A2 – Noise and Vibration Risk Assessment and Management Plan

What do you do that can harm and what could be harmed?			**Managing the risk**	**Assessing the risk**		
Hazard	**Receptor**	**Pathway**	**Risk Management**	**Probability of Exposure**	**Consequence**	**What is the overall risk?**
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
Noise and vibration from use of plant and	Occupiers of domestic dwellings	Atmosphere.	A Noise Assessment was submitted with the planning application for the site in May 2015. The Assessment concluded noise levels from	Unlikely.	Local disturbance.	Not significant.

machinery.	listed in Table 2 above. Workers in nearby industrial premises. Users of sports pitches and footpaths Staff and pupils at Cledford primary and infant school Sandbach Flashes SSSI (which is over 1km away from the site not in the prevailing wind direction)		on-site activities including noise from HGV's, plant and the sorting of materials are predicted to fall below the Significant Observed Adverse Effect Level (LOAEL) and are not expected to have an 'adverse effect' on health or quality of life during daytime or night-time periods. This assessment is contained as **Appendix D** Mitigation measures have however been recommended to minimise the level of noise. The proposed activities, including waste unloading and loading will take place internally, within the waste transfer station buildings, which are fitted with roller shutter doors. Physical control measures such as making sure the pedestrian doors and the roller shutter doors are kept closed will be implemented. The use of Ro-Ro skips will not occur outside permitted operational hours. All machinery will be well maintained and fitted with effective silencers, where possible; Routine maintenance of plant in accordance with the manufacturer's guidance. Good working practices will be implemented, including switching off all equipment when not in regular use. The Site Supervisor will be responsible for ensuring the above measures are			

			implemented.			
Noise and vibration from vehicles movements to and from the site.	Occupiers of domestic dwellings listed in Table 2 above. Workers in nearby industrial premises. Users of sports pitches and footpaths Staff and pupils at Cledford primary and infant school Sandbach Flashes SSSI (which is over 1km away from the site not in the prevailing wind direction)	Atmosphere.	A Noise Assessment was submitted with the planning application for the site in May 2015. The Assessment concluded noise levels from on-site activities including noise from HGV's, plant and the sorting of materials are predicted to fall below the Significant Observed Adverse Effect Level (LOAEL) and are not expected to have an 'adverse effect' on health or quality of life during daytime or night-time periods. This assessment is contained as **Appendix D** Mitigation measures have however been recommended to minimise the level of noise. RCV's / HGV's will be parked so they can be driven out forwards in the morning so there will be no requirement for reverse warning alarms during the night-time period. Broadband reverse warning alarms will be used on all fleet; Council vehicles will be well maintained and fitted with effective silencers, where possible General site practices will be implemented, including switching off all vehicles when not in regular use. Deliveries of waste will only be received during consented operational hours. The Site Supervisor will be responsible for ensuring the above measures are	Unlikely.	Local disturbance.	Not significant.

			implemented. Vehicle drivers will adhere to the designated speed limits for the site and the site access roads.			
Noise from air management and extraction systems	Occupiers of domestic dwellings and businesses listed in table 2	Atmosphere.	The site will operate only within the operating hours stipulated in the planning permission. All air extraction and treatment systems will be maintained within the manufacturer's guidelines.	Unlikely	Low level of noise to receptors.	Not significant
Noise from deposition of wastes	Occupiers of domestic dwellings and businesses listed in table 2	Atmosphere.	A Noise Assessment was submitted with the planning application for the site in May 2015. The Assessment concluded noise levels from on-site activities including noise from HGV's, plant and the sorting of materials are predicted to fall below the Significant Observed Adverse Effect Level (LOAEL) and are not expected to have an 'adverse effect' on health or quality of life during daytime or night-time periods. This assessment is contained as **Appendix D** Mitigation measures have however been recommended to minimise the level of noise and these will be implemented by the site manager. The proposed activities, including waste unloading and loading will take place internally, within the waste transfer station buildings, which are fitted with roller shutter doors. Physical control measures such as making sure	Unlikely	Low level of noise to receptors	Not significant

			the pedestrian doors and the roller shutter doors are kept closed will be implemented. The use of Ro-Ro skips will not occur outside permitted operational hours. Minimise drops from height within waste bays.			
Noise from treatment processes	Occupiers of domestic dwellings and businesses listed in table 2	Atmosphere.	A Noise Assessment was submitted with the planning application for the site in May 2015. The Assessment concluded noise levels from on-site activities including noise from HGV's, plant and the sorting of materials are predicted to fall below the Significant Observed Adverse Effect Level (LOAEL) and are not expected to have an 'adverse effect' on health or quality of life during daytime or night-time periods. This assessment is contained as **Appendix D** Mitigation measures have however been recommended to minimise the level of noise and these will be implemented by the site manager. All machinery will be well maintained and fitted with effective silencers, where possible; Routine maintenance of plant in accordance with the manufacturer's guidance. Good working practices will be implemented, including switching off all equipment when not in regular use. Fast acting roller shutter doors will remain closed where possible to reduce the noise off site.	Unlikely	Low level of noise to receptors	Not significant

Noise from post treatment baling and sorting	Occupiers of domestic dwellings and businesses listed in table 2	Atmosphere.	A Noise Assessment was submitted with the planning application for the site in May 2015. The Assessment concluded noise levels from on-site activities including noise from HGV's, plant and the sorting of materials are predicted to fall below the Significant Observed Adverse Effect Level (LOAEL) and are not expected to have an 'adverse effect' on health or quality of life during daytime or night-time periods. This assessment is contained as **Appendix D** Mitigation measures have however been recommended to minimise the level of noise and these will be implemented by the site manager. Fast acting roller shutter doors will remain closed where possible to reduce the noise off site.	Unlikely	Low level of Noise to receptors	Not significant

Table A3 – Fugitive Emissions Risk Assessment and Management Plan

What do you do that can harm and what could be harmed?			**Managing the risk**	**Assessing the risk**		
Hazard	**Receptor**	**Pathway**	**Risk Management**	**Probability of Exposure**	**Consequence**	**What is the overall risk?**
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
To Air						
Dust from the delivery of	Occupiers of domestic	Atmosphere.	An Air Quality Assessment was submitted with the planning application for the site in May	Unlikely.	Nuisance.	Not significant.

waste.	dwellings listed in Table 2 above. Workers in nearby industrial premises. Users of sports pitches and footpaths Staff and pupils at Cledford primary and infant school Sandbach Flashes SSSI (which is over 1km away from the site not in the prevailing wind direction)		2015. This concluded, in regards to traffic air quality, that following the adoption of the recommended mitigation measures, the development is not considered to be contrary to any of the national, regional or local planning policies. This assessment is contained as **Appendix C** The mitigation measures outlined in the assessment include Site Management Responsibility, Neighbour and Stakeholder Consultation, Physical Control Measures and Management Control Measures. The proposed activities, including waste unloading and loading will take place internally, within the waste transfer station buildings, which are fitted with roller shutter doors. Physical control measures such as making sure the pedestrian doors and the roller shutter doors are kept closed will be implemented. Wastes being delivered that may produce dust they will be covered or sheeted to prevent the emission of dust. All vehicle drivers will comply with the speed limits within the site and on the access roads.		Health risk to local residents and workers. Damage to local ecosystems.	
Dust from the storage of wastes at the site.	Occupiers of domestic dwellings listed in Table 2 above.	Atmosphere.	Regular housekeeping will be undertaken to prevent build up of dust on surfaces. This will include the sweeping of all site surfaces and access roads and the cleaning of items of plant	Unlikely.	Nuisance. Health risk to local residents	Not significant.

	Workers in nearby industrial premises. Users of sports pitches and footpaths Staff and pupils at Cledford primary and infant school Sandbach Flashes SSSI (which is over 1km away from the site not in the prevailing wind direction)		and machinery. Road sweepers automatically spray out water during the sweeping operation to dampen down dust. There will be a schedule of cleaning and maintenance within the site's Environmental Management System to ensure that it is undertaken regularly and that it is recorded. It is not anticipated that the type of waste accepted at the facility would produce significant dust however household waste will be stored inside the waste transfer station buildings which will prevent any dust that does accumulate from leaving the site The volumes of waste present on site will be known at all times and waste will only be accepted if there is sufficient capacity. The site staff will be vigilant and will report any incidents of unacceptable dust emissions to the site management staff. The site manager or supervisor will be responsible for visually monitoring dust levels and implementing any necessary remedial action as required. Extra care will be taken during periods of prolonged dry weather or high winds.		and workers. Damage to local ecosystems.	
Dust from the treatment of waste at the site (including the	Occupiers of domestic dwellings listed in Table 2 above.	Atmosphere.	Due care will be made to minimise the emissions of dust/particulates from this part of the process, including minimising drop heights, ongoing visual assessments of dust emissions	Unlikely.	Nuisance. Health risk to local residents	Not significant.

loading of waste into machinery and on the trommel).	Workers in nearby industrial premises. Users of sports pitches and footpaths Staff and pupils at Cledford primary and infant school Sandbach Flashes SSSI (which is over 1km away from the site not in the prevailing wind direction)		and dampening of wastes if necessary. All waste activities, including loading waste into the shredder and the subsequent treatment will take place internally. Regular housekeeping will be undertaken to prevent build up of dust on surfaces. This will include the sweeping of all site surfaces and access roads and the cleaning of items of plant and machinery. There will be a schedule of cleaning and maintenance within the site's Environmental Management System to ensure that it is undertaken regularly and that it is recorded. A road sweeper will be utilised as necessary		and workers. Damage to local ecosystems.	
Bioaerosols from the biofilter	Occupiers of domestic dwellings listed in Table 2 above. Workers in nearby industrial premises. Users of sports pitches and footpaths Staff and pupils	Atmosphere	Bioaerosols are produced during the aerobic or anaerobic degradation of compostable materials. There are no composting activities on site which have the potential to give rise to the production of bioaerosols. It is recognised that there is the potential for bioaerosols to be emitted from the treatment of odorous air from within the building. However, as there is no composting activity taking place on site, it is considered that the release of bioaerosol emissions will be	Unlikely	Health risk to local residents and workers. Damage to local ecosystems.	Not significant

	at Cledford primary and infant school		negligible. Nevertheless, as a function of the Environmental Management System monthly visual checks for plumes from the biofilter stack will be undertaken. In the event of a visible plume being emitted, specialist sampling contractors will be employed to determine the level of bioaerosols and any remedial actions required.			
To Water						
Contaminated surface water runoff from waste storage and treatment areas.	Surface waters identified in Table 2. Groundwater. Sandbach Flashes SSSI (which is over 1km away from the site not in the prevailing wind direction)		The site benefits from impermeable surfacing and sealed drainage; all site runoff from clean areas will be directed to the storage tank and discharged via a suitably sized interceptor. All waste delivered via Refuse Collection Vehicles will be stored and treated within waste transfer station buildings, which will prevent rain water from soaking stockpiles and creating run off. Any run off from within buildings will be collected within sumps and tankered off site for disposal. Certain waste streams, as detailed within the operating techniques, will be stored externally. These wastes will be stored on an impermeable surface with sealed drainage system.	Unlikely due to measures in place.	Contamination of surface water bodies and groundwater. Harm to local ecosystems.	Not significant.
Pests, vermin, and scavenging birds						

Pests and birds attracted by wastes.	Occupiers of domestic dwellings listed in Table 2 above. Workers in surrounding industrial area. Sandbach Flashes SSSI (which is over 1km away from the site not in the prevailing wind direction)	Land. Atmosphere.	The proposed waste operations will take place inside the waste transfer station buildings, which will reduce the chance of attracting pests, vermin and/or scavenging birds. Waste types that are proposed to be stored externally will not comprise putrescible waste stream. As such, it is unlikely that this will attract pests, vermin and/or scavenger birds. Waste acceptance procedures will be in place to ensure only permitted waste types are accepted.	Unlikely.	Nuisance. Health risk to site workers.	Not significant.
Mud						
Mud from HGV wheels	Users of local highways.	Tracked on wheels of vehicles travelling to, from and within the site.	The site will be maintained to a high standard of cleanliness; if necessary a road sweeper will be used to clean site haul roads. The site will benefit from impermeable hardstanding through and therefore the likelihood of the generation of mud on highways is low. Regular inspections of vehicles (checking for mud and litter on wheels) will be undertaken. The Site Supervisor will inspect the site and access road for cleanliness and implement any cleaning as required.	Unlikely due to measures in place.	Mud on roads is unsightly and can result in increased risk of road traffic accidents.	Not significant.

Table A4 – Accidents and Incidents Risk Assessment and Management Plan

What do you do that can harm and what could be harmed?			Managing the risk	Assessing the risk		
Hazard	**Receptor**	**Pathway**	**Risk Management**	**Probability of Exposure**	**Consequence**	**What is the overall risk?**
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
Fire or failure to contain firewater.	Groundwater. Surface waters identified in Table 2. Occupiers of domestic dwellings listed in Table 2 above. Site workers. Sandbach Flashes SSSI (which is over 1km away from the site not in the prevailing wind direction)	Atmosphere. Surface run-off.	Separation of incompatible materials and of combustible materials and ignition sources. The site will benefit from impermeable surfacing and sealed drainage so fire water will be contained within the site and pumped out rather than being discharged into waterways or groundwater. The drainage arrangements are described in more detail in the Operating Techniques document. The site has a strict no smoking policy. Routine maintenance of equipment in accordance with manufacturer's guidance. Fire training and emergency drills to be completed by all staff. Fire-fighting equipment will be kept on site. The Site Supervisor is responsible for actions in the event of a fire. The Fire Management Plan will be implemented by the Site Supervisor.	Unlikely.	Nuisance. Health risk from smoke. Damage to site infrastructure. Damage to surrounding farmland.	Not significant.
Leaks/spillage	Groundwater.	Surface run-off.	Waste treatment and storage activities will be	Unlikely.	Contamination	Not significant.

s of fuel/oil.	Surface waters identified in Table 2. Sandbach Flashes SSSI (which is over 1km away from the site not in the prevailing wind direction)	Infiltration. Percolation.	carried out on impermeable surfacing with sealed drainage. There will be no refuelling of vehicles within the permit boundary. All plant and machinery will be maintained and regularly inspected. All staff will be provided with appropriate spill training and there will be a spill procedure in place as part of the site's Environmental Management System. Spill kits will be available on site at all times. The kits will include absorbent materials which can be used to clear up small to medium spillages. These materials will then be transferred off-site to a suitably authorised facility for disposal. Any large spills will be contained using booms contained within the spill kits; if this is not possible then the spill will be contained anyway within the sealed drainage system. Any contaminated water would then be pumped out. The cause of any leaks and spillages will be investigated and any necessary amendments will be made to site procedures. The Site Supervisor will be responsible for ensuring any remedial works required will be implemented following a leak or spillage.		of land and watercourses.	
Vandalism.	Site workers. ANSA.	Land.	The site is surrounded by security fencing and site entrances are protected by similar lockable steel gates, which are kept locked outside of	Unlikely.	Damage to plant and machinery – safety risk to	Not significant.

			operational hours. The security fencing and gates will be inspected on a daily basis and repairs will be made as soon as practicable. The site will benefit from 24 hour security and CCTV.		site workers. Arson – see section on fires, above.	
Flooding.			According to data currently available on the Environment Agency website, the site is not in a location at risk of flooding.			

Appendix B – Habitats Risk Assessment

Habitats Risk Assessment

Introduction

ANSA proposes to operate two waste transfer stations for household waste collections at the site. One would accommodate residual/ non-recyclable waste, with refuse derived fuel (RDF) processing, and the other would accommodate green and co mingled recyclable waste.

An indicative site layout is shown in detail on Drawing No. CEC/A092093/LAY/01.

There will be a designated waste reception area and storage areas, including a weighbridge and a quarantine area for non-conforming incoming wastes. There will be specific areas for the storage of hazardous wastes (e.g. monitors, fluorescent tubes etc), which will be covered in a secure compound in accordance with the Hazardous Waste Regulations.

As part of the Environmental Risk Assessment prepared for the site, 1 Statutory Designated Site was identified within 2km of the site boundary; the Sandbach Flashes SSSI, which is located 1,100m to the south, as detailed on drawing CEC/A092093/LOC/01.

The designation of the statutory site is provided in further detail below in addition to a detailed risk assessment and mitigation strategy.

Statutory Designations

Sandbach Flashes SSSI

Natural England's citation on the Sandbach Flashes SSSI has been reviewed as part of this risk assessment. The justification for the designation and a general description of the statutory site is detailed below.

Sandbach Flashes is a site of physiographical and biological importance. It consists of a series of pools formed as a result of subsidence due to the solution of underlying salt deposits. The water varies from freshwater, chemically similar to other Cheshire Meres, to highly saline. Inland saline habitats are extremely rare and are of considerable interest because of the unusual associations of plants and animals.

Most of the flashes are surrounded by semi-improved or improved grassland. Fodens Flash is partly surrounded by an important area of wet woodland.

Biology

Due to the differing age, depth and water chemistry the flashes show considerable variation in their plant and animal communities. Generally the most recently formed have narrow disjunct stands of emergent vegetation dominated by great reedmace and occasionally by lesser pond sedge, whilst the oldest have extensive stands of common reed. At Fodens Flash the emergent vegetation grades into fen and wet woodland dominated by alder and willow. Wood small-reed is locally dominant in the ground flora and the woodland also has an exceptional lichen flora for Cheshire.

In some areas periodic flooding occurs and species such as water pepper, plicate sweetgrass and celery-leaved water-crowfoot occur. Shore-weed, a rare plant in Cheshire, is also present.

There are a number of uncommon aquatic invertebrates, such as mayfly and snail. The more saline flashes are fed by natural brine springs and contain a range of species tolerant of brackish water, for example, spiked water-milfoil, fennel-leaved pondweed and horned pondweed. Of particular interest is which is often associated with saline conditions. Adjacent to these saline flashes are areas of saltmarsh vegetation containing species such as sea aster, lesser sea spurrey and reflexed saltmarsh grass. A number of notable brackish water invertebrates occur including water boatmen and shrimps.

Several of the flashes are important for breeding birds and also support large numbers of wildfowl and waders as migrants and winter residents. Wigeon (200), teal (500), lapwing (500), snipe (200) and curlew (50) are regularly recorded.

Geology

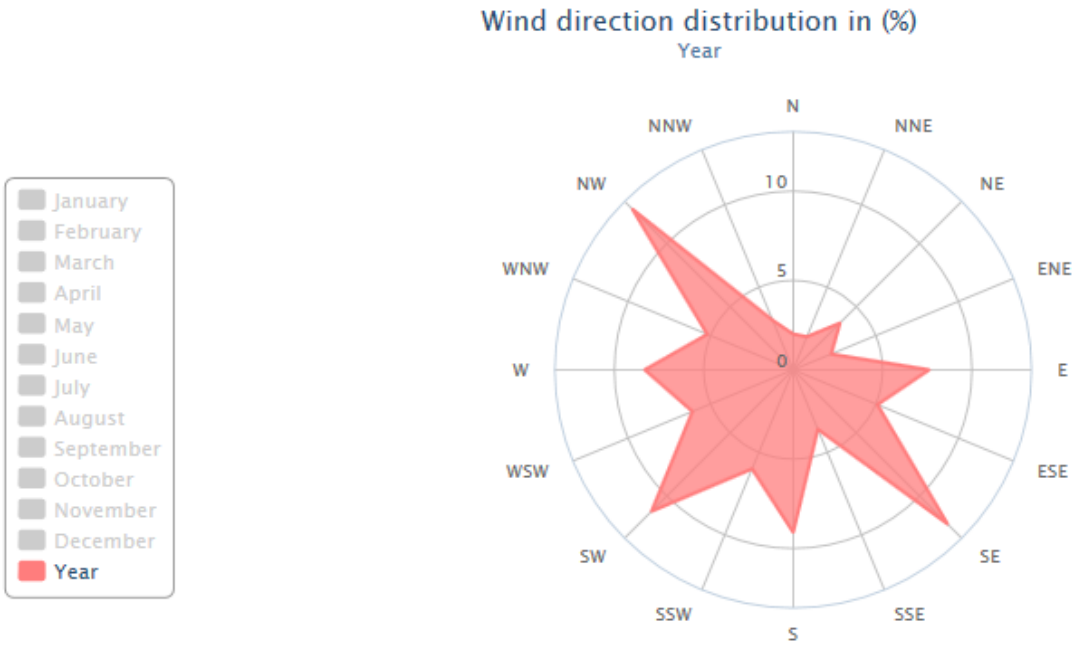
The Moston Flash area consists of two parallel, elongated hollows which were formed by the removal in solution of underlying salt deposits and resultant collapse of glacial deposits above. These features were initially formed naturally but brine extraction for salt production has accelerated their development, which continues up to the present day. The site provides an excellent illustration of the active linear subsidence features which are characteristic of the Cheshire Plan.

Cledford Lane Lime Beds (LWS)

Cledford Lane Lime Beds were identified by the Environment Agency under the Nature and Heritage Conservation Screen as a Local Wildlife Site. The site is located approximately 50m north of the application boundary.

Risk Assessment

The specific risk assessments completed for Odour, Noise and Dust Fugitive Emissions are detailed in the tables below. In many cases there is an interrelationship between these specific risk assessments and meteorological conditions, where relevant this has been identified. The pathway is determined by the location of the receptor relative to the site, the distance from the site boundary (m) and the frequency (likelihood) the prevailing wind will blow in the direction of the receptor as determined by historical windrose data available for Church Lawton/ Alsager; (www.windfinder.net).



The risk assessment tables represent the risk of exposure to a hazard before mitigating controls are put in place. The probability of exposure is therefore not necessarily a reflection of the severity of the impact on the receptor, which may not be sensitive to the hazard. The severity of the unmitigated consequence presumes the receptor has been exposed to the hazard. However, if the receptor is unlikely to be exposed, then the overall unmitigated risk is low and vice versa. The mitigated risk is the residual risk presented by the hazard after control measures have been instigated. This is the most realistic representation of the risk as effective controls will be maintained under the requirements of the environmental permit and ANSAs Environmental Management System (EMS).

What do you do that can harm and what could be harmed?						Managing the risk	Assessing the risk		
Hazard	**Receptor**				**Pathway**	**Risk Management**	**Probability of Exposure**	**Consequence**	**What is the overall risk?**
What has the potential to cause harm?	Receptor Name	Distance	Direction	Downwind Frequency %	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
Odour from storage and treatment of biodegradable waste	Sandbach Flashes SSSI	1100	S	1.4	Atmosphere	Given the wind directions are predominantly to the SE, NE & NW and the distance to the SSSI, it is considered unlikely that it would be affected by odour produced at the site. The Trent and Mersey Canal, the A533 and other industrial premises lie between the site and the designated receptor. Therefore it is unlikely that any odours from the site would affect the SSSI to the south over the other side of these features over 1km away. During a routine collection of waste, the driver/operative carry out visual inspections and check for odorous waste. Any particularly odorous wastes will be rejected and quarantined for alternative collection and disposal process. Further checks on waste will be carried out by the plant operatives within the Waste Transfer Station and odourous waste would be prioritised for expedient processing and removal	Very unlikely. Distance of receptor from site and operations taking place within buildings	Disturbance Habitat Loss Toxic Contamination	Not significant.
	Cledford Lane Lime Beds	50	N	8.1					

						from site. Waste will be accepted at manageable volumes to avoid a backlog of wastes pending treatment. The proposed activities will take place internally, within the waste transfer station buildings, which are fitted with roller shutter doors. The buildings are also fitted with air extraction systems. Use of water to dampen stockpiles to suppress odour emissions, if necessary. The treatment system will be enclosed and will take place within the waste transfer station, so there will be no odorous emissions from the treatment process. In the event of odorous materials being received at the site, or materials becoming odorous during storage, these will be treated before other materials already stockpiled at the site. An Air Quality Assessment was submitted with the planning application for the site in May 2015 which concluded that with the adoption of mitigation measures the odour emissions from the site			

						are considered acceptable.			

What do you do that can harm and what could be harmed?						Managing the risk	Assessing the risk		
Hazard	**Receptor**				**Pathway**	**Risk Management**	**Probability of Exposure**	**Consequence**	**What is the overall risk?**
What has the potential to cause harm?	Receptor Name	Distance	Direction	Downwind Frequency %	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
Noise and vibration from use of plant and machinery.	Sandbach Flashes SSSI	1100	S	1.4	Atmosphere.	The SSSI is unlikely to experience an increase in noise levels, as there is an existing high level of background noise due to the nearby industrial activities and the proximity	Unlikely. Distance from site and operations taking place	Disturbance Habitat Loss	Not significant.

	Cledford Lane Lime Beds	50	N	8.1		of the A533. Given the wind directions are predominantly to the SE, NE & NW and the distance to the receptor, it is considered unlikely that it would be affected by noise produced at the site. The proposed activities will take place internally, within the waste transfer station, which are fitted with roller shutter doors. Drop heights will be minimised where possible when transferring waste into stockpiles and into the shredder. All plant and machinery will have effective silencers where possible. Routine maintenance of plant in accordance with the manufacturer's guidance. Good working practices will be implemented, including switching off all equipment when not in regular use. The Site Supervisor will be responsible for ensuring the above measures are implemented. Therefore it is unlikely that any	within buildings are mitigating factors.		

						noise from the site would affect the receptor to the south over the other side of the A533 and Trent and Mersey Canal over 1km away. A Noise Assessment was submitted with the planning application for the site in May 2015, which concluded that noise levels from on-site activities are predicted to fall below the Significant Observed Adverse Effect Level (LOAEL) and are not expected to have an 'adverse effect' on health or quality of life during daytime or night-time periods.			
Noise and vibration from vehicles movements to and from the site.	Sandbach Flashes SSSI	1100	S	1.4	Atmosphere.	The receptor is unlikely to experience an increase in noise levels, as background noise is generated by nearby industrial activities and the A533, which are much closer to the SSSI than the proposed site. General site practices will be implemented, including switching off all vehicles when not in regular use. Deliveries of waste will only be received during permitted operational hours. The Site Supervisor will be responsible for ensuring the above measures are implemented.	Unlikely. Distance from site and noise generated on A533 and nearby industrial premises are mitigating factors.	Disturbance Habitat Loss	Not significant.
	Cledford Lane Lime Beds	50	N	8.1					

						Vehicle drivers will adhere to the designated speed limits for the site and the site access roads. Low level reverse alarms will be used wherever possible. A Noise Assessment was submitted with the planning application for the site in May 2015, which concluded that noise levels from on-site activities are predicted to fall below the Significant Observed Adverse Effect Level (LOAEL) and are not expected to have an 'adverse effect' on health or quality of life during daytime or night-time periods.			

What do you do that can harm and what could be harmed?						Managing the risk	Assessing the risk		
Hazard	**Receptor**				**Pathway**	**Risk Management**	**Probability of Exposure**	**Consequence**	**What is the overall risk?**
What has the potential to cause harm?	Receptor Name	Distance	Direction	Downwind Frequency %	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
To Air									
Dust from the delivery of waste.	Sandbach Flashes SSSI	1100	S	1.4	Atmosphere.	Wastes being delivered will be covered or sheeted to prevent the emission of dust. Given the wind directions are predominantly to the SE, NE & NW and the distance to the	Unlikely due to distance of receptors from site.	Smothering Habitat Loss Toxic Contamination	Not significant.
	Cledford Lane Lime Beds	50	N	8.1					

						receptor (over 1km away), it is considered unlikely that it would be affected by dust from waste deliveries at the site. All vehicle drivers will comply with the speed limits within the site and on the access roads. An Air Quality Assessment was submitted with the planning application for the site in May 2015, which concluded, in regards to traffic air quality, that following the adoption of the recommended mitigation measures, the development is not considered to be contrary to any of the national, regional or local planning policies.			
Dust from the storage of wastes at the site.	Sandbach Flashes SSSI	1100	S	1.4	Atmosphere.	Stockpiled wastes will be dampened using water sprinklers as and when necessary. The volumes of waste present on site will be known at all times and waste will only be accepted if there is sufficient capacity. The site staff will be vigilant and will report any incidents of unacceptable dust emissions to the site management staff. The site manager or supervisor	Unlikely due to distance of receptors from site.	Smothering Toxic Contamination Habitat Loss	Not significant.
	Cledford Lane Lime Beds	50	N	8.1					

						will be responsible for visually monitoring dust levels and implementing any necessary remedial action as required. Extra care will be taken during periods of prolonged dry weather or high winds.			
Dust from the treatment of waste at the site (including the loading of waste into machinery and on the conveyor).	Sandbach Flashes SSSI	1100	S	1.4	Atmosphere.	The treatment of wastes will take place internally Given the wind directions are predominantly to the SE, NE & NW and the distance to the receptor (over 1km away), it is considered unlikely that it would be affected by dust from the treatment of waste at the site. Regular housekeeping will be undertaken to prevent build up of dust on surfaces. This will include the sweeping of all site surfaces and access roads and the cleaning of items of plant and machinery. There will be a schedule of cleaning and maintenance within the site's Environmental Management System to ensure that it is undertaken regularly and that it is recorded. A road sweeper will be utilised as	Unlikely due to distance of receptors from site.	Smothering Toxic Contamination.	Not significant.
	Cledford Lane Lime Beds	50	N	8.1					

						necessary. Monitoring of dust emissions will be undertaken in accordance with the Dust Monitoring Procedure (Appendix B).			
To Water									
Contaminated surface water runoff from waste storage and treatment areas.	Sandbach Flashes SSSI	1100	S	1.4		The site benefits from impermeable surfacing and sealed drainage; all site runoff from clean areas will be directed to the storage tank and discharged via a suitably sized interceptor. All waste will be stored and treated within waste transfer station buildings, which will prevent rain water from soaking stockpiles and creating run off. Any run off from within buildings will be collected within sumps and tinkered off site for disposal.	Unlikely due to measures in place.	Siltation Habitat Loss Toxic Contamination	Not significant.
	Cledford Lane Lime Beds	50	N	8.1					
Pests, vermin, and scavenging birds									
Pests and birds attracted by wastes.	Sandbach Flashes SSSI	1100	S	1.4	Land. Atmosphere.	Waste will be stored and processed within the confines of the waste transfer station buildings. The SSSI is over 1km away from	Unlikely due to distance of receptors from site.	Predation Habitat Loss	Not significant.
	Cledford Lane Lime Beds	50	N	8.1					

						the proposed site. Waste acceptance procedures will be in place to ensure only permitted waste types are accepted.			

Conclusion

The proposed Waste Transfer Station to be operated by ANSA Environmental Services is located 1.1km north of the Sandbach Flashes SSSI. This Habitats Risk Assessment has been prepared to assess the impact of the facility on this Statutory Habitat.

The risk assessments detailed in the tables above indicate that site activities are unlikely to cause any disturbance to the Statutory Designated Site. As stated in the tables above; the A533, the Trent and Mersey Canal and other industrial premises lie between the site and the Sandbach Flashes. Therefore it is considered unlikely that any emissions generated by the site would affect the SSSI.

Given that the waste will be stored and treated inside the waste transfer station buildings and the SSSI is predominantly downwind of the designated site and will also employ mitigation measures where appropriate, the designated site is highly unlikely to be affected by the proposal.

The site design provides an impermeable surface to mitigate the contamination of surface water and ground water.

It has been concluded that with the use of appropriate mitigating controls where necessary, the facility will not present a significant risk to the statutory sites.

Appendix C – Air Quality and Odour Assessment

Appendix D – Noise Assessment

Appendix E – Odour Management Plan

Cheshire East Council

Environmental Services Hub, Cledford Lane, Middlewich

Fire Action Plan

January 2016

Quay West at MediaCityUK, Trafford Wharf Road, Trafford Park, Manchester, M17 1HH

Tel: 0161 872 3223

Email: andrew.bowker@wyg.com

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Contents Page

Drawing

A092093/PER/01 – Environmental Permit Boundary and Site Layout

A092093/RCP/01 – Receptor Plan

20004 – Proposed Site Plan – Materials

DR-501 – Drainage Strategy

1.0 Review

1.1 Document Review Procedures

1.1.1 This Fire Action Plan is to be reviewed every four years or when required by a change in operations.

Table 1: Document Review

Date of Review	Comments	Name and signature of Reviewer	Date of Next Review
June 2015	Plan prepared		February 2019

2.0 Document Overview

2.1 Document Requirements

2.1.1 This document has been prepared by WYG on behalf of the operator, ANSA Environmental Services, in support of an Environmental Permit Application for a waste transfer and treatment operation which will have a maximum throughput of 200,000tpa and will constitute the following activities:

- Maximum 200,000 tpa for Residual, Green Waste and Recyclable Waste Transfer; or
- Maximum 100,000 tpa for Refused Derived Fuel Processing and maximum 100,000 tpa for the above Waste Transfer.

2.1.2 The Fire Action Plan has been produced in accordance with Environment Agency guidance entitled 'Fire Prevention Plans' published in March 2015. The report identifies the potential causes and effects of a fire, and describes the measures that will be in place to prevent the occurrence of a fire at the site. In addition, the report would provide details of the planned response to a fire incident and explain how fire water would be contained.

2.1.3 This document forms part of the site's Environmental Management System (EMS) and will be reviewed on an annual basis and in the event of any fire-related incidents.

2.2 Site Context and Permitted Activities

2.2.1 The proposed development site is located off Cledford Lane, Middlewich, Cheshire. The site is located in between The Trent and Mersey Canal and Faulkner Drive, approximately 5.5km from the M6 motorway (Junction 18) on the south eastern edge of Middlewich The site is centred on approximate National Grid Reference (NGR) SJ 712 648.

2.2.2 A Waste Transfer Station (WTS) facility would be developed which would have a maximum throughput of 200,000 tonnes per annum (tpa). The WTS would comprise two industrial type buildings as shown on Drawing Number 20004.

2.2.3 The smaller WTS-Recycling building would accommodate the green waste and co-mingled dry recyclable waste from household waste collections and would have a maximum throughput of 100,000tpa.

2.2.4 The design of the building, particularly the height, would ensure that Refuse Collection Vehicles (RCVs) can safely deposit waste within the building and that bulk haulage vehicles can be loaded with mobile plant without damaging the WTS roof or doors. Internally the smaller WTS-Recycling building would include a number of waste bays for the storage of different streams of source segregated recyclable and green household waste. The bays would be constructed using concrete push walls to protect the structural integrity and fabric of the WTS-Recycling building. Fast closing doors would be installed on the north western, western and eastern elevations.

2.2.5 The larger building would potentially accommodate one of the following activities. Option 1 would comprise a Refuse Derived Fuel (WTS-RDF) processes with a throughput of not greater than 100,000tpa. The building would incorporate fast closing industrial doors on the north eastern and north western elevations as well as the southern elevation.

2.2.6 Waste deposited within this building would comprise the residual/non-recyclable black bin waste from the household collections. This material would be processed to produce a refuse derived fuel. The RDF process would necessitate a basic level of treatment of the residual waste to remove recyclates and non-combustible materials such as ferrous and non-ferrous metals and inert waste. Waste would undergo shredding (or bag splitting) to a size of ~300 mm. It would then be passed under a magnet to remove any ferrous metal and then through a trommel screen (hole size ~20-30 mm) to remove organic material. The oversize from the trommel can then be classified as RDF and suitable to label with European Waste Catalogue code 19 12 10 'combustible waste – refuse derived fuel'.

2.2.7 The RDF material would be baled prior to off-site transport. Two process lines would be included within the WTS-RDF building, which would each have a process capacity of approximately 40 tonnes per hour.

2.2.8 Option 2 would comprise an additional waste transfer station for residual black bin waste and further capacity for green and co-mingled recyclates. This facility would follow the same processes as the WTS in the smaller building and would provide a maximum throughput of 100,000tpa.

2.2.9 There will be a maximum storage capacity of 3,000 tonnes of untreated material on site at any one time. This will be split between each of the proposed buildings with 1,500 tonnes of untreated material within each building. This will allow storage capacity for 3 days of received material in the event of plant failure or unavailability of off takers.

2.2.10 Furthermore, there will be sufficient capacity to store 2,000 tonnes of processed RDF materials, recovered metals and fines within the WS-RDF building whether they be baled and wrapped or stored loosely within designated storage areas.

2.3 Permitted Activities

2.3.1 This application seeks to allow ANSA undertake the following Schedule 1 Activities:

- Section 5.4 A (1) b) ii)

2.3.2 In addition the following Directly Associated Activities will be undertaken

- Receipt and storage of non-hazardous waste pending pre-treatment of waste for incineration or co-incineration;
- Bulking of recyclable wastes recovered as an incidental part of the production of Refuse Derived Fuel.

2.3.3 In addition to the above Schedule 1 activities, the transfer of non-hazardous green and recyclable waste for the purpose of recovery will require a separate OPRA Waste Facility score and will be a separate activity within the permit. With regards to the Disposal and Recovery operations, provided for in Annex II to Directive 2008/98/EC of the European Parliament and of The Council of 19th November 2008 Waste, it is the operators intention to carry out the following activities within both the installation and waste facility aspects of the operation in Table 1 below:

Table 1

R/D Code	Activity
R3	Recycling/reclamation of organic substances which are not used as solvents.
R4	Recycling/reclamation of metals and metal compounds.
R5	Recycling/reclamation of other inorganic materials.
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced).

3.0 Assessing Fire Risk

3.1 Risk of Fire

Types of Combustible Materials on Site

3.1.1 The types of combustible wastes received at the site are likely to consist of the following materials:

- Paper and card;
- Plastics;
- Mixed packaging;
- Wood;
- Putrescible Waste; and
- Textiles.

3.1.2 The composition of the waste stream will vary and is likely to contain various proportions of the materials identified above depending on the source of the waste. The list above is not an extensive list of all permitted wastes as it just details those which are combustible and therefore relevant to this report.

Storage Capacity

3.1.3 Storage areas for received and treated waste materials are as shown on the site layout drawing. The total storage capacity for the site is 3,000 tonnes of untreated material on site at any one time. This will be split between each of the proposed buildings with 1,500 tonnes of untreated material within each building. It is unlikely that there will be this volume of waste on site at any time as the operator will have in place effective stock management procedures, as described further in this document. The anticipated quantities of combustible materials are listed in Table 2 below.

3.1.4 Received and recovered materials will be stored within the building which benefits from impermeable surfacing and sealed drainage.

Table 2: Anticipated Quantities of Combustible Materials

Material	Storage Location and Storage Method	Anticipated Quantity of Combustible Waste Stored On Site at one

		time (Approx. tonnes) *
Mixed recyclables from Silver Bins and commercial collections	Within building as loose stockpile.	750
Green waste from green bins and commercial collections	Within building as stacks or stockpile.	750
Residual Waste from black bins	Within building as loose stockpile.	1,500
Refuse Derived Fuel	Within the building – baled and wrapped.	2,000
		Total = 4,000 (approximately)

**Estimates for the purpose of assessing fire risk only*

Amounts of Waste Received Daily

3.1.5 At present, it is anticipated that there would be approximately 800 tonnes of material received at the site per day. This would be around 25% co-mingled recyclates, 25% green waste and 50% residual black bag waste.

3.1.6 These quantities are not specified within the site's permit and may be subject to review throughout the site's operation.

Causes of a Fire

3.1.7 With reference to EA guidance, it is considered that the potential causes of fire at the site are as follows:

- arson or vandalism;
- self-combustion of received and processed waste materials (e.g. chemical oxidation, microbial decomposition);
- plant or equipment failure;
- electrical faults;
- naked lights;
- discarded smoking materials;

- hot works, e.g. welding, cutting;
- industrial heaters;
- hot exhausts;
- damaged/exposed electrical cables;
- neighbouring sites activities;
- sparks from loading buckets; and
- ignited materials received at the site.

3.1.8 Any of the causes detailed above has the potential to ignite waste materials upon the site although the separated fractions consisting of RDF, paper and cardboard, wood and plastics are recognised as having the highest potential combustibility.

3.1.9 The likelihood of fire on the site is directly proportionate to the suitability of control systems in place through ANSA's Environmental Management System. The procedures for the reduction of fire risk are discussed in detail in Section 4 of this report and it is considered that through the implementation of the control measures discussed within this document that the likelihood of fire on site is considered low.

3.1.10 The consequences of a fire are discussed below with mitigation measures detailed in a further section.

3.2 Effect of a Fire

Source/Pathway

3.2.1 The effects of a fire may be both immediate and long term, presenting a significant burden for the operator and regulatory agencies. The potential causes of a fire have been discussed within Section 3 above and are reviewed below with reference to EA guidance and provide an assessment of the source and potential pathway for pollution:

- firewater run-off transporting pollutants to surface water and groundwater;
- thermal radiation harming nearby properties and residents leading to fire spread;
- creation of hazardous waste by the fire and impacts of fire-fighting;
- explosions and projectiles harming sensitive receptors and spreading the fire to unaffected areas;

- transport disruption resulting from road and rail closures;
- nuisance from smoke, odour and particulates through the air; and
- threat to life and property.

Receptors

3.2.2 Sensitive receptors within 500m of the facility have been identified in Table 3 below as they are seen as those which could be most impacted by a fire incident.

Table 3: Potentially sensitive receptors within 500m

Receptor	Direction from Operational Area	Minimum Distance from Permit Boundary (approx.) (m)
Designated ecological habitats e.g. Ramsar, SAC, SPA, SSSI, LNR		
Sandbach Flashes SSSI	S	1100
Other designations e.g. National Park, AONB, World Heritage Sites	N/A	N/A
Cledford Lane Lime Beds - Local Wildlife Site	N	50
Other Habitats		
Deciduous Woodland Priority Habitat	SE	<10
Deciduous Woodland Priority Habitat	N NW	730
Domestic Dwellings		
Properties on Booth Lane	W	160
Properties on Cledford Lane	N	<50
Cledford Villa	NE	80
Schools/Hospitals/Shops		
Cledford Primary and Infant School	NW	650
Middlewich Methodist Church	NW	145
Commercial and Industrial Premises		
Brooks Lane Industrial Estate	N	675
Industrial premises on E.r.f Way	NE	445
Industrial premises on Pochin Way	NE	830
Salt Works (British Salt)	S	300
Public Rights of Way		
Middlewich FP21	NE	<50
Middlewich FP20	E	180
Recreation Areas		
Sports Pitches	W	830
Highways/Minor Roads/Railways		
Cledford Lane	N	<5
Faulkner Drive	E	<5
Booth Lane (A533)	W	<20
A54	N	1500
Ancient Woodland	N/A	N/A
Historic buildings / Listed buildings / Archaeological sites		
Grade II Listed Buildings;		
Trent and Mersey Canal, Canal Milepost	S	235
Trent and Mersey Canal, Rumps Lock	S	280
Outbuildings to Cledford Hall	NE	395

Sensitive land uses e.g. farmland, allotments, commercial fish farms	N/A	N/A
Surface Water e.g. rivers and streams		
Trent and Mersey Canal	W	<10
Sanderson's Brook	E NE	200
Lagoon	SE	415
Groundwater (sensitivity)		
According to the Environment Agency the site is not located over a specified aquifer and is not situated within a GSPZ.		
Coastal / Estuarine areas	N/A	N/A

4.0 Fire Risk Reduction

4.1 General Site Procedures

4.1.1 The operator will enforce a "No Smoking Policy" on the whole site and there will be a designated smoking area located at the site of the office building which is positioned in the middle of the yard, by the inert processing area. Sources of ignition, such as heating pipes, naked flames, light bulbs, space heaters etc. will be kept at least 6m away from combustible or flammable materials.

4.1.2 Staff or contractors will follow approved safe working practices when undertaking hot working (e.g. cutting and welding).

4.1.3 No waste will be burnt within the curtilage of the site.

4.1.4 All building electrics will be installed by a fully certified electrician. A documented regular maintenance and inspection programme will be operated for all site areas including site machinery. Good housekeeping practices will be in place to minimise the accumulation of dust, litter, fibre or paper on the site, which could pose a fire risk.

4.1.5 Site security will be in operation both during the working day and outside of normal working hours, to ensure that unauthorised access to the site is not allowed. CCTV will be in operation at all times during the day.

4.1.6 All site vehicles shall be fitted with fire extinguishers and operatives/drivers will be trained in their use.

4.1.7 Vehicles will not be left idling immediately adjacent to stockpiles of combustible materials to reduce the risk of auto ignition from hot exhaust gases.

4.1.8 All on site electrics will be installed and tested by qualified electricians in accordance with the building control process.

4.1.9 Any hot loads received on site will be directed to the quarantine area, located at the site entrance as detailed on the site plan (Drawing No. A092093/LAY/01).

4.1.10 Gas canisters and other flammable materials will be stored in a secure location away from other combustible material, located to the south east of the site as detailed on the site layout plan. The

containment of these materials will comprise a fire retardant sheet to ensure sufficient shading from direct sunlight.

4.1.11 At the end of the working day, mobile plant and vehicles will be parked away from stockpiles of waste, in order to minimise the potential for fires from hot or overheated plant/vehicles. All processing machinery will be brushed clean to ensure that no loose waste falls onto hot exposed metalwork. All mobile plant and vehicles will be also be maintained every 6 weeks in accordance with the maintenance schedule.

4.1.12 A dedicated quarantine area shall be retained at all times to allow burning material to be moved to so as to extinguish and control fire spread. It will also be used to move piles of unburnt material, adjacent to a fire, to prevent spread. Details of the location of the quarantine area are provided in the Site Layout Plan (Drawing No. A092093/PER/01)

4.1.13 As set out in the EA guidance, the size of the quarantine area is sufficient to accommodate the largest external waste pile and provide a minimum separation distance of 10m on all sides to the nearest pile, building or site boundary.

4.1.14 With reference to the Operating Techniques and the pile size dimensions in Table 4, it is considered that WEEE will comprise the largest potentially flammable external waste pile and therefore the size of the quarantine area is in line with these requirements.

4.1.15 During any replacement of plant and infrastructure during the operation of the site, consideration will be given to the procurement of plant which benefits from fire and spark detection systems.

4.2 Waste Storage and Stock Management

4.2.1 An inventory of potentially flammable waste materials, and their storage locations, will be kept up to date on site. Staff involved in hot working will be notified of the location of all potentially flammable materials prior to the commencement of works.

4.2.2 In order to prevent spontaneous combustion of materials, care will be given to storage arrangements for all combustible waste types as detailed in the Environment Agency's Fire Prevention Plan guidance. These materials will not be stored in large stockpiles and will not be stored no longer than the 3 days prior to processing in accordance with the storage capacity limit. Waste types that will be stored in secure external compounds will not be stored longer than 14 days. Following processing, the maximum storage periods identified in Table 4, which are detailed within the Environment Agency Fire Prevention Plan

Guidance, will be strictly adhered to. Stockpiles will be identified within the site diary with a date of completion to aid stock management and ensure compliance with the periods identified below.

4.2.3 It is a condition of the permit that wastes shall be stored for no longer than 1 year prior to disposal and no longer than 3 years prior to recovery.

4.2.4 Where relevant, waste will be stored in accordance with Table 1 of the EA guidance whereby the following will be strictly adhered to:

Table 4

Material	Max height (m)	Length/ width (m)	Max volume (m^3)	Max area (m^2)	Min separation (m)	Max storage period
Paper, cardboard and rags	5	20	750	235	6	3 months
Plastic, rubber and other materials	5	20	450	235	6	3 months
Fridges, computers, and electrical equipment	5	20	300	235	15	3 months
Processed wood, including sawdust, shavings and chips	3	10	150	100	6	3 months
RDF and fragmentiser fluff	5	20	450	235	6	3 months
Unprocessed wood	5	20	750	235	6	3 months

4.2.5 Adherence with the maximum dimensions in Table 4 will be the responsibility of the Site Manager. Daily checks of stockpiles will be incorporated into the Environmental Management System. Any non-compliant stockpiles will be addressed immediately under the supervision of the Site Manager.

4.2.6 Baled RDF will be marked to show the date that it was baled and will be stored no longer than 3 days prior to being transferred off site.

4.2.7 In the event of an unforeseen event it is possible that we would consider stockpiling RDF. If this were to occur stacks. Stacks of baled RDF may be turned weekly to ensure that heat is dissipated through the stockpile. This will be undertaken under strict supervision to ensure that no flaring of the waste occurs due to the sudden presence of oxygen within the waste.

4.2.8 Consideration will be given to the utilisation of a temperature probe to ensure that stockpiled RDF and other materials are not overheating. Visual inspections of the stockpiles will also be incorporated in the daily checks.

4.2.9 Waste piles will be turned regularly to ensure that any localised heating is dissipated quickly.

4.2.10 Loosely tipped, potentially combustible materials as identified above are stored within separate bays within the WTS building. These bays will be separated by concrete push walls which will act as fire breaks in the event of ignition of one of the sources of segregated wastes. This will ensure that the spread of the fire does not affect other stockpiles.

4.2.11 Storage arrangements for all materials will be undertaken with due consideration given to access of fire fighting vehicles. The layout of the site will ensure that access is available to all areas of the site to fire appliances in the event of a fire. The site manager will be responsible for maintaining manageable stockpiles on site and ensuring that access is available to all areas of the site for emergency vehicles.

5.0 Containing and Mitigating the Effect of the Fire

5.1 Fire Response

5.1.1 Any fire on site will be treated as an emergency and will be extinguished at the earliest opportunity. If necessary the Fire Brigade will be summoned. The local Fire Service has been contacted to ensure that the proposed fire prevention and response measures in place are adequate.

5.1.2 Fire fighting equipment will be located in the site office, in accordance with Fire Regulations. All fire extinguishers shall be clearly marked and tested at appropriate intervals to confirm their integrity. Site operatives will be made aware of their location and trained in their correct use.

5.1.3 A sprinkler system will be installed within both buildings in order to control any fires. This sprinkler system will be sensitive to distinct locations within the building whereby water can be directed through a single head in order to treat a fire locally and reduce the volume of water required to treat the fire.

5.1.4 Water will be stored within the water tanks identified on the Drainage Strategy (Drawing No. DR-501) and potentially within the surface water attenuation tank in the event that the sprinkler system is employed.

5.1.5 In accordance with the Environment Agency's Fire Prevention Plan guidance, the operator must demonstrate that their facilities have sufficient water supplies to manage a worst case scenario incident. The guidance provides the following estimate to calculate the required volume of water:

5.1.6 A 300m^3 pile of combustible material will normally require a water supply of at least 2,000 litres a minute for a minimum of 3 hours'

5.1.7 The worst case scenario is considered to be when all of the waste piles are on fire within the Waste Transfer Station – RDF building. The maximum total volume of waste which may be stored within the building at any one time will be 2850m^3.

5.1.8 From the estimation above, the volume of water that would be required to manage the worst case scenario on site would be 3,420,000 litres/3,420m^3 based upon the storage volumes and water required as detailed above.

5.1.9 A canal runs along the western boundary of the site which may be used for the supply of water if required by the Fire Service. A water storage tanker with a capacity of 1406m^3 is also provided within the

permit boundary for use by either the fire service or the sprinkler system. The potential for the use of the canal will be investigated in conjunction with the relevant stakeholders, following discussion with the local Fire Service.

5.1.10 In the event of a fire at the site, the following procedure will be implemented:

i) Raise the alarm;

ii) Cordon off the area, clearing employees to a safe area and prevent any further access to the site. Conduct a check to ensure that all persons present on the site are safe and accounted for using clock cards, staff and visitor signing in sheets.

iii) Attempt to control the fire using the appropriate appliances on site. If the fire is small use mobile plant and attempt to separate the burning material from other waste. Contact the Fire Brigade on 999;

iv) When practicable and safe to do so, inform the Environment Agency of the incident in accordance with the conditions of the Environmental Permit;

v) Report the situation to the Fire Brigade on their arrival;

vi) Close all surface water drainage outlets from the site;

vii) Collected fire water to be retained within the site boundary via the internal water retention bunds and other appropriate bunds as necessary. Any retained firewater will be removed from site by tanker.

viii) Once the fire has been extinguished, seek the advice of the Fire Brigade on future precautionary action; and

ix) Record all details in the site diary.

x) Site, operations will be temporarily suspended and no further waste will be accepted on site until the Local Fire Service have advise it is safe to do so. If necessary, waste will be transferred off site to an appropriately permitted facility.

5.1.11 The site manager will act upon the advice issued by the Local Fire Service in the event of a fire. The decision as to whether a controlled burn is suitable in any instance of an outbreak of a fire will be at the discretion of the Local Fire Service.

5.1.12 Following a fire, unburned material will separated from burnt material using on site plant. Any incidents of fire will result in the accumulation of fire residues. It will be the responsibility of the Site Manager to arrange for the disposal of the fire residues. A shovel will be used to collect the residues for placement in

a plastic sack. This will then be treated as 'non-compliant waste' for disposal at an appropriately permitted facility.

5.1.13 The following table provides relevant contact details for individuals and relevant authorities in the event of a fire at the facility.

Table 5: Emergency Contact Details

Company	Position	Name	Telephone Number	Email
ANSA Environmental Services	Site Operator	Kevin Melling		
ANSA Environmental Services	Site Manager/ Technically Competent Manager	Emma Owen		Emma.Owen@ansa.co.uk
Environment Agency	Local Area Officer	John Sweeney	0800 80 70 60 (24 hour line)	j.sweeney@environment-agency.gov.uk
Local fire service	Cheshire East Fire Service	Emergency	999	

5.2 Fire Water

5.2.1 Fire water will be contained on site or within its sealed drainage system with shut off valves closed to ensure that water does not leave the site via the surface water drainage system. All areas where waste will be stored and treated will benefit from impermeable surfacing and an engineered drainage system.

5.2.2 The site drainage system benefits from a storage attenuation tank with a capacity of 1400m3. In the event of a fire, and following the closure of the shut off valve, the storage tank will be used to collect firewaters. Once the storage tank is at capacity, the permit area will be allowed to flood. The site will benefit from perimeter kerbing to contain the firewaters. From the estimated volumes provided in section 5.1 above, it has been calculated that the permit area will be required to contain 120mm of water across the whole area of the site.

5.2.3 Fire water will be retained within the permit boundary using a temporary bund at the site entrances. This bund would ensure that any fire water is contained on site and any fire water within the bunds will be removed from the site by tanker to a suitable licensed facility.

5.2.4 Advice will be sought from the Local Fire Service as to the suitability of the use of inflatable bunds and booms to prevent the run off of potentially hazardous firewater.

5.2.5 Drain mats will be used where possible to block drains to prevent the ingress of fire water.

5.3 Site Access and Neighbouring Properties

5.3.1 ANSA will ensure that the site is accessible even when it is not operational. The site entrance will be kept clear, and machinery and plant will be parked in a secure parking area, not blocking the access to the site or areas around where waste is stored. The contact details for out of hours are provided in Table 2 to ensure that the site management staff are contactable at all times.

5.3.2 In the event of a fire, it is understood that the fire service can access any property as required to control and extinguish the fire.

5.3.3 The site is located within a semi-urban location with domestic properties to the north and west and industrial uses to the south and east. The neighbouring saltworks is open 24 hours per day. There is proposed to be 24 hour security at the site to ensure that the site is accessible at all times. It is not considered that there would be any issues with accessing the site or the neighbouring sites in the event of a fire.

5.4 Reporting and Communication

5.4.1 In the event of a fire, communication with local businesses and residents identified in the sensitive receptor table above will be undertaken in the event of a fire to reduce any environmental damage and risks to human health associated with smoke and dust.

5.4.2 The local Fire Service and Environment Agency will be informed of the incident using the contact details provided in Table 5 above.

5.5 Recording

5.5.1 The incident would be recorded in the relevant section of the company's EMS and in the Site Diary.

5.6 Actions following a fire

5.6.1 Further to a fire on site, and upon safe re-commissioning of all plant and equipment, an investigation will be undertaken internally as to the cause of the fire and any future preventative measures to ensure that there is no re-occurrence.

5.6.2 This Fire Action Plan will be reviewed following this investigation to ensure that lessons learnt are documented and implemented in the future. Any new policies and procedures will be documented within this plan and the Environmental Management System.

5.6.3 Any new training requirements for site personnel will be implemented following this investigation however this is not intended to negate the requirement for ongoing training in how to reduce the risk of fire on site.

Drawing

Cheshire East Council

Environmental Services Hub, Cledford Lane, Middlewich

Odour Management Plan

January 2016

Quay West at MediaCityUK, Trafford Wharf Road, Trafford Park, Manchester, M17 1HH

Tel: 0161 872 3223

Email: andrew.bowker@wyg.com

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Contents Page

Appendix Contents

1.0 Introduction

1.1 Report Context

1.1.1 This Odour Management Plan (OMP) has been prepared on behalf of ANSA Environmental Services Limited in support of an Environmental Permit application. The document has been prepared in accordance with the relevant Environment Agency (EA) guidance, as detailed in the document.

1.1.2 The report assesses the risk of odour at the facility and provides details of the odour management procedures that will be in place to control any odorous emissions at the facility. The purpose of this to ensure that the risk of adverse odour impacts on potential nearby receptors is minimised.

1.2 Objectives of the Odour Management Plan

1.2.1 This document has been prepared in accordance with EA guidance note 'H4 Odour Management'. It is specified in the H4 guidance that the operator must 'employ the appropriate measures necessary to prevent the odour pollution or minimise it when prevention is not practicable'.

1.2.2 As required by the H4 guidance document, the OMP seeks to:

- Employ appropriate methods, including monitoring and contingencies, to control and minimise odour pollution;
- Prevent unacceptable levels of odour at all times; and
- Reduce the risk of odour releasing incidents or accidents by anticipating them and planning accordingly.

1.2.3 In order to meet the above objectives, this OMP considers the potential sources, releases and impacts of odour pollution and identifies appropriate opportunities for odour management.

2.0 Potential Sources of Odour

2.1 Overview of Site Activities

2.1.2 A Waste Transfer Station (WTS) facility would be developed which would have a maximum throughput of 200,000 tonnes per annum (tpa). The WTS would comprise two industrial type buildings as shown on Drawing Number 20004.

2.1.3 The smaller WTS would accommodate the green waste and co-mingled dry recyclable waste from household collections.

2.1.4 The design of the building, particularly the height, would ensure that Refuse Collection Vehicles (RCVs) can safely deposit waste within the building and that bulk haulage vehicles can be loaded with mobile plant without damaging the WTS roof or doors. Internally the WTS-Recycling building would include a number of waste bays for the storage of different streams of source segregated recyclable and green household waste. The bays would be constructed using concrete push walls to protect the structural integrity and fabric of the WTS-Recycling building. Fast closing doors would be installed on the north western, western and eastern elevations.

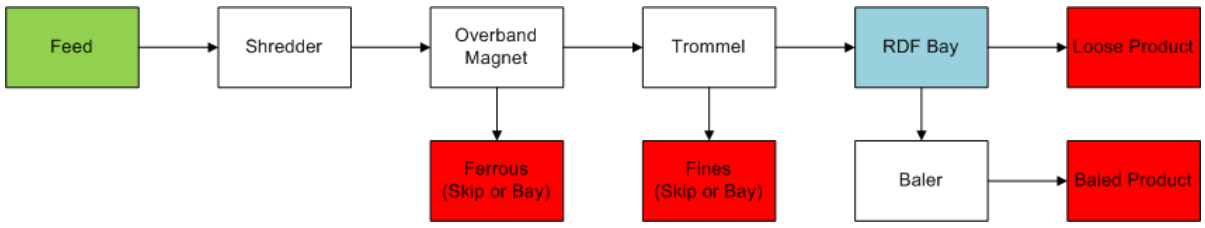
2.1.5 The proposed odour abatement equipment would require a vent stack to be included in the building design. The stack would exit the eastern elevation of the building and would rise to approximately 1.5m above the roof ridge height.

2.1.6 The WTS-Recycling building would facilitate the temporary storage and bulking up of Council collected household waste prior to off-site transport. The WTS-Recycling building would accept comingled recyclable waste (i.e. silver bin waste), organic garden waste (i.e. green bin waste) as well as waste from the Council's street cleansing operations.

2.1.7 Occupation of the larger building will be dependent upon contracts for the recovery of the residual waste streams that Cheshire East Will have in place. Residual waste will be processed within an R1 rated Energy from Waste Facility however the requirements for pre-treatment of these waste streams will be dependent upon the final destination. As such, there are two possible options which are detailed below.

2.1.8 Option 1 would comprise a refused derived fuel processes. Waste deposited within this building would comprise the residual/non-recyclable black bin waste from the household collections. This material would be processed to produce a refuse derived fuel. The RDF process would necessitate a basic level of treatment of the residual waste to remove recyclates and non-combustible materials such as ferrous and non-ferrous metals and inert waste. Waste would undergo shredding (or bag splitting) to a size of ~300 mm. It would then be passed under a magnet to remove any ferrous metal and then through a trommel screen (hole size ~20-30 mm) to remove organic material. The oversize from the trommel can then be classified as RDF and suitable to label with European Waste Catalogue code 19 12 10 'combustible waste – refuse derived fuel'. A process flow diagram is provided as Figure 1 below.

Figure 1 – Process Flow Diagram



2.1.9 The RDF material would be baled prior to off-site transport. Two process lines would be included within the WTS-RDF building, which would each have a process capacity of approximately 40 tonnes per hour.

2.1.10 The proposed odour abatement equipment would require a vent stack to be included in the building design. The stack would exit the eastern elevation of the building and would rise to approximately 1.5m above the roof ridge height. In addition, a biofilter is proposed within each of the buildings to further reduce the level of odour from the process

2.1.11 Option 2 comprises an additional waste transfer station for residual black bin waste and further capacity for green waste and co-mingled recyclables. This process would follow the same processes as the WTS station that would occupy the smaller building

2.1.12 There will be a maximum storage capacity of 3,000 tonnes of untreated material on site at any one time. This will be split between each of the proposed buildings with 1,500 tonnes of

untreated material within each building. This will allow storage capacity for 3 days of received material in the event of plant failure or unavailability of off takers.

2.1.13 Furthermore, there will be sufficient capacity to store 2,000 tonnes of processed RDF materials, recovered metals and fines within the WS-RDF building whether they be baled and wrapped or stored loosely within designated storage areas.

2.2 Inventory of Potentially Odorous Waste Streams

Residual Municipal Solid Waste (MSW)

2.2.2 Municipal Solid Waste (MSW) from kerbside collections will also be received at the facility. Residual MSW contains the fraction of the municipal waste that is not source segregated and consists of the following materials:

- paper and card;
- plastics;
- putrescible materials including food waste;
- metals; and
- textiles.

2.2.3 The odour generation potential of these wastes is considered high on account of the putrescible nature of the waste. The odour generation potential is linked to the age of waste prior to collection.

2.2.4 The residual MSW will originate from contracted municipal waste collections in the Cheshire East Borough. This waste may be up to two weeks old when collected and delivered to the facility.

Waste from Commercial and Industrial (C&I) Premises

2.2.1 The second principal waste stream to be accepted at the site will be from commercial and industrial premises in the surrounding area. A proportion of this waste stream received has the potential to be of a similar composition to residual municipal solid waste although this will

depend primarily on the nature of the supplier. The largest components by weight of this waste are likely to be in order:

- paper and card;
- plastics;
- putrescible materials;
- metals; and
- textiles.

2.2.2 This waste stream will vary depending on the producer but is likely to contain a higher proportion of paper and card than the residual MSW collections. This waste stream is likely to contain a little putrescible material that may result in similar odour to that of residual MSW. It should be practicable for the supplier/operator to identify when loads containing a higher proportion of food waste/putrescible waste are likely to arrive on site and the frequency. This assessment will be made prior to receipt of the waste based upon its origin i.e. wastes from offices are more likely to contain putrescible materials than those received from construction and demolition sites. In this instance, the odour control measures applied to the residual MSW will also be applied to this commercial and industrial waste stream.

2.2.3 Assessment of the odour potential of the waste streams is considered in the table below.

Green Waste

2.2.4 Green waste will be accepted at the site within the WTS-Recycling building for direct transfer to third party facilities. This waste stream will be seasonal with more waste received through the spring and summer months than in the winter.

2.2.5 The odour potential of the waste stream is considered lower than the MSW waste stream however it may have the potential to produce odours if it has been stored over a long period of time and has become anaerobic.

Co-mingled recyclables

2.2.6 The co-mingled recyclable waste stream will comprise source segregated materials collected within Cheshire East Council's silver bin collections. The largest components by weight of this waste are likely to be in order:

- paper and card;
- plastics;
- metals; and
- textiles.

2.2.7 It is not considered likely that these materials will represent a significant risk of odour; however consideration to the odour potential is considered below.

Table 1: Odour Potential Assessment

Waste Stream	Odour Potential	Reason	Approximate Proportion of Waste Received	Compositional Consistency of Waste Stream	Priority
MSW and C&I Wastes	High	Waste streams from kerbside collections are likely to have a higher proportion of putrescible food waste than C&I waste delivered from a waste transfer station. Collection rounds from non-food industry rounds e.g. factories will contain higher proportions of mixed packaging or miscellaneous items.	50%	Relatively inconsistent due to collection rounds and the relevant waste composition from each area.	First
Green Waste	Medium	Potential for receipt of wastes which may have commenced degradation under anaerobic conditions.	25%	Waste stream is consistent and seasonal.	Secondary to putrescible MSW and C&I Waste
Co-mingled Recyclables	Low	Waste stream does not contain any putrescible materials	25%	Waste stream is consistent and does not fluctuate with seasons	Lowest priority waste stream

2.2.8 The Chartered Institute of Wastes Management (CIWM) and the Waste Resources Action Programme (WRAP) commissioned a review that considered the odour generation potential of stored residual MSW. The review indicates that the volatile organic compounds (VOCs) from domestic waste generally peaked at one week whilst other compounds such as ammonia continued to increase over a 14 day storage period. Weather and storage conditions were also found to affect odour production. Overall, the review indicated that some odorous compounds may diminish and some increase between 7 to 14 days. The review reports typical odours that may be generated from residual MSW include those linked to microbial decomposition of the organic fraction and those associated with packaging materials and household products such as detergents. In general typical odour compounds are reported to include:

- VOC's including chloro-organics;
- hydrogen sulphide (rotten eggs);
- mercaptans (rotten vegetation e.g. cabbage); and
- amines (fishy smell).

2.2.9 Additionally it has been reported that alkanes, alkybenzenes and terpenes have been responsible for undesirable odours from kerbside waste containers.

2.2.10 The CIWM/WRAP review indicates that composition of the odorous chemicals change with time, some diminish whilst others increase, however overall it is recognised that the longer the storage time the greater the odour generation potential. In addition it is also understood that the warmer the waste the greater the odour production potential. The volume of waste stored and the depth of waste (which may result in anaerobic conditions and heat) are all factors that influence odour generation. These issues are all addressed in this report.

2.2.11 The components of odorous compounds in the wastes are likely to vary depending on proportion of the incoming wastes accepted. Odour tends to consist of a complex mix of chemicals in gaseous form, as described above wastes of the nature to be accepted exhibit accepted exhibit the following typical odours: VOC's including chloro-organics, hydrogen sulphide (rotten eggs), mercaptans (rotten vegetation e.g. cabbage) and amines (fishy smell).

2.2.12 The age of waste received and storage temperature will influence odour type and generation. It is recognised that in general increased odours are linked to longer storage of municipal type waste. However only a minority of odorous compounds appear to increase consistently with longer storage, therefore targeting particular odorous compounds is difficult. It is considered that actions aimed at reducing storage times, limiting stockpile sizes, minimising temperature, limiting evaporative losses and controlling odorous inputs are preferable and more practical control methods.

2.3 Waste Reception

2.3.1 Incoming waste delivery vehicles will enter the site and report to the weighbridge office. Each incoming delivery of waste will be checked by the weighbridge office staff to confirm that it complies with the list of permitted wastes specified in the Environmental Permit. The vehicle will be weighed and then directed to the waste reception areas where the waste will be unloaded.

2.4 Waste Storage – Pre Treatment

2.4.1 Residual MSW and C&I wastes will be directed to the WTS-RDF building and will be deposited in the waste reception area. Fast acting roller shutter doors will be in operation and the building will operate under a slight negative pressure to ensure that odours do not escape when the doors are opened.

2.4.2 Green waste and recyclates will be directed to the WTS – Recycling and will be deposited within the designated storage bays. This building will operate under the same conditions as the WTS-RDF.

2.5 Waste Processing

2.5.1 Green waste and recyclates will be received for direct transfer only with limited manual separation.

2.5.2 The incoming waste materials to the WTS-RDF will be subjected to physical treatment including screening, sorting, separating and shredding. All residual wastes will be treated within the building. Waste deposited within this building would comprise the residual/non-recyclable black bin waste from the household collections. This material would be processed

to produce a refuse derived fuel. The RDF process would necessitate a basic level of treatment of the residual waste to remove recyclates and non-combustible materials such as ferrous and non-ferrous metals and inert waste. Waste would undergo shredding (or bag splitting) to a size of ~300 mm. It would then be passed under a magnet to remove any ferrous metal and then through a trommel screen (hole size ~20-30 mm) to remove organic material. The oversize from the trommel can then be classified as RDF and suitable to label with European Waste Catalogue code 19 12 10 'combustible waste – refuse derived fuel'.

2.5.3 The potential for each waste stream to produce odour during processing is assessed in Table 2 below.

Table 2: Odour potential of waste streams during treatment

Waste Stream	Treatment Activity	
	Separation	Fines Generation
Putrescible Residual MSW and C&I Wastes	**Medium** Potentially odorous compounds may be mobilised from shredded waste. Odorous waste may get mixed with low odour waste reducing the overall odour potential Aeration of waste may dry it and reduce odour release potential.	**High** Generally non-odorous recoverable material removed as a result of eddy separation leaving more odorous material behind. If stockpile of fines grows too large or retained for excessively long periods, anaerobic conditions may develop and create significant odour potential.
Residual MSW and C&I Non-Putrescible	**Low** If not mixed with odorous waste.	**Low** Majority of material likely to be recovered as RDF and unlikely to contribute to quantity of odorous fines.
Co-mingled recyclates	**Low** If not mixed with odorous waste. Will not be treated other than manual separation	**Low** Material will not be treated other than manual separation and loading.

Green Waste	**Low** If not mixed with odorous waste. Will not be treated other than manual separation	**Low** Material will not be treated other than manual separation and loading.

2.6 Waste Storage – Post Treatment

2.6.1 Following processing the RDF will have lower moisture content and is likely to have a lower putrescible waste content when compared to waste delivered to the site. It is therefore considered that the processed RDF has a lower odour generation potential when compared to delivered wastes.

2.6.2 Once baled the RDF will be wrapped with plastic film minimising further any odour generation. A summary of how the waste treatment activities might influence the odour potential of specific waste streams is detailed in Table 3 below.

Table 3: Odour Potential of Waste Streams after Treatment

Waste Stream	Deposit of separated materials into HGVs	Transit off site
Fines derived from RDF process from MSW and C&I waste streams	**Medium** Disturbance of fines stockpile from C&I may result in odorous emissions if the stockpile has built up over long periods of time. Fines stockpile will be removed when there is sufficient material to fill a HGV, usually within 24 hours but no longer than 72 hours since last cleared.	**Low** All material loaded into HGVs/Ro-Ro inside the building and sheeted / covered when the vehicle leaves the building

RDF	**Low** Light material (plastics, paper) should have low odour potential as dry material.	**Low** Material stored within the building awaiting transport off site.
Recovered Metals	**Low** Materials have low odour potential with minimal putrescible content.	**Low** Material stored within the building or outside in dedicated bunkers.
Co-mingled recyclates	**Low** Materials have low odour potential with minimal putrescible content.	**Low** Material stored within the building.
Green Waste	**Low** Materials have low odour potential with minimal putrescible content.	**Low** Material stored within the building.

2.6.3 If there are any changes to the operations undertaken at the site, then this list of potential odour sources will be reviewed and the OMP will be updated accordingly.

3.0 Odour Pathways

3.1 Odour Pathway Characterisation

3.1.1 The principal mechanism for the transit of odorous emissions from site operations to adjacent sensitive receptors is via ambient air. The distance and direction that these emissions will be carried is determined by the following factors:

- Source related pathways;
- Meteorological conditions; and
- Topography.

3.2 Source Related Pathways

3.2.1 Odours emitted from the sources identified above are emitted to air and have the potential to be conveyed to the nearby receptors via transfer through the atmosphere.

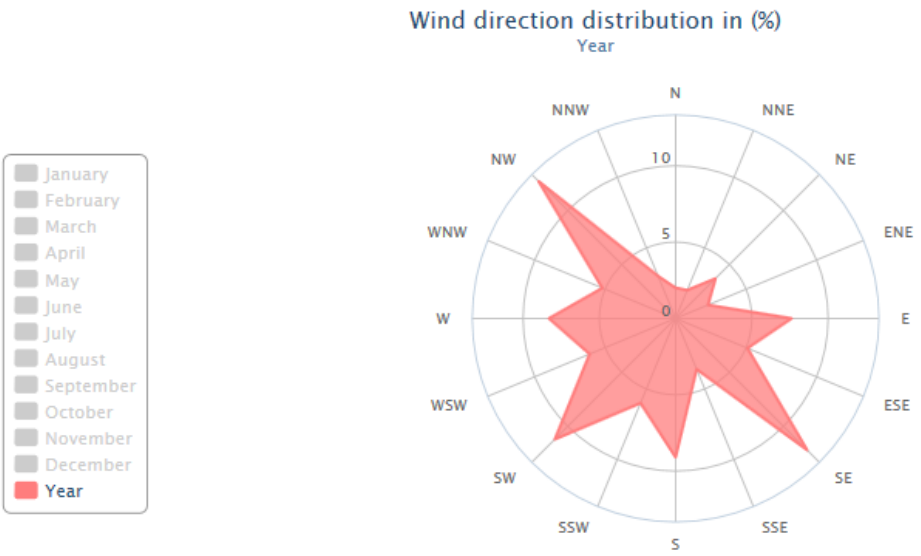
3.2.2 The pathway an odorous emission takes from a site may depend on the specific source term and/or location it arises from. The nature of the source related pathway could also influence the scale of impact on a sensitive receptor.

3.3 Meteorological Conditions

Wind Direction

3.3.1 The main controlling factor in determining the pathway of odour is the ambient meteorological conditions. This is fundamental to the transportation of odour to sensitive receptors.

3.3.2 The prevailing wind direction will determine which receptors will be affected and at what frequency. Meteorological data has been used from the Church Lawton/Alsager meteorological station (which is considered to be representative of conditions within the vicinity of the application site). The wind rose data from this station has shown that the prevailing wind direction in the local area is north westerly.



Wind Velocity

3.3.3 Wind velocity will affect the distance an odour emission will travel. Conversely, increased wind speed could also beneficially improve dispersal. However, those receptors closest to the site itself are still at the highest risk of a negative impact.

Air Temperature

3.3.4 Warm air may carry odours upwards by convection for their dispersal away from the site. However, warm weather will encourage the onset of biodegradation of exposed or temporarily stored wastes and therefore increase odour potential. Therefore, in the summer months the risk of odour emissions is greater and this must be taken into account in the site procedures.

Adverse Weather Conditions

3.3.5 Unusual weather conditions, such as a heat wave, may increase the risk of odour emissions from the site. Site staff will be vigilant to unusual trends in the meteorological data or forecasts which may indicate strong winds or extremes of temperature which may cause a potential problem.

3.4 Topography

3.4.1 The topography of the site and the surrounding area can influence the potential dispersion of odour emissions. The local topography is relatively flat with few features of significance. Therefore it is unlikely that the topography would have a significant impact on the odour emissions beyond the site boundary.

4.0 Potential Receptors

4.1 Identification of sensitive receptors

4.1.1 Locally sensitive receptors can be characterised as follows:

- Domestic dwellings or workplaces;
- Public rights of ways; and
- Locally sensitive sites.

4.1.1 The potential receptors within 500m of the site's Environmental Permit boundary have been identified (Table 4).

4.1.2 According to the wind rose data for the area, the prevailing winds in the local area are north westerly. Therefore, it is considered that the key potentially sensitive receptors are the British Salt works and deciduous woodland located to the south and south east of the site.

4.1.3 ,.

Table 4: Potential Receptors within 500m of the operations

Receptor	Direction from Operational Area	Minimum Distance from Permit Boundary (approx.) (m)
Designated ecological habitats e.g. Ramsar, SAC, SPA, SSSI, LNR		
Sandbach Flashes SSSI	S	1100
Other designations e.g. National Park, AONB, World Heritage Sites	N/A	N/A
Cledford Lane Lime Beds - Local Wildlife Site	N	50
Other Habitats		
Deciduous Woodland Priority Habitat	SE	<10
Deciduous Woodland Priority Habitat	N NW	730
Domestic Dwellings		
Properties on Booth Lane	W	160
Properties on Cledford Lane	N	<50
Cledford Villa	NE	80
Schools/Hospitals/Shops		
Cledford Primary and Infant School	NW	650
Middlewich Methodist Church	NW	145
Commercial and Industrial Premises		
Brooks Lane Industrial Estate	N	675
Industrial premises on E.r.f Way	NE	445
Industrial premises on Pochin Way	NE	830
Salt Works (British Salt)	S	300

Public Rights of Way		
Middlewich FP21	NE	<50
Middlewich FP20	E	180
Recreation Areas		
Sports Pitches	W	830
Highways/Minor Roads/Railways		
Cledford Lane	N	<5
Faulkner Drive	E	<5
Booth Lane (A533)	W	<20
A54	N	1500
Ancient Woodland	N/A	N/A
Historic buildings / Listed buildings / Archaeological sites		
Grade II Listed Buildings;		
Trent and Mersey Canal, Canal Milepost	S	235
Trent and Mersey Canal, Rumps Lock	S	280
Outbuildings to Cledford Hall	NE	395
Sensitive land uses e.g. farmland, allotments, commercial fish farms	N/A	N/A
Surface Water e.g. rivers and streams		
Trent and Mersey Canal	W	<10
Sanderson's Brook	E NE	200
Lagoon	SE	415
Groundwater (sensitivity)		
According to the Environment Agency the site is not located over a specified aquifer and is not situated within a GSPZ.		
Coastal / Estuarine areas	N/A	N/A

5.0 Potential Impacts

5.1 Impacts Associated with Odour

5.1.1 In order to minimise the impacts of odour pollution, it is necessary to have an understanding of the surrounding community and how odour emissions could affect the people living nearby.

5.1.2 The potential receptors are identified in Section 4 (above). The potential impacts of odour emissions are as follows:

- Damage to local amenity – members of the public may choose not to use footpaths or visit areas that they perceive are affected by odour emissions;
- Damage to house prices – local residents may be concerned that the value of their properties may be adversely impacted by odour emissions;
- Damage to human health – some members of the public may be severely affected by odour emissions due to existing health conditions or enhanced sensitivity; and
- Nuisance – members of the public may perceive odour emissions as a nuisance.

6.0 Odour Management

6.1 Odour Control Measures

6.1.1 The H4 guidance requires that an OMP provides specific details regarding the proposed control measures that will be in place to control odour.

6.1.2 There are specific control measures in place to minimise the risk of the emission of odours beyond the site boundary. These measures, which relate to the operation of the site during normal conditions, have been specified in relation to each potential odour source and are described below.

6.1.3 For details relating to the control of odour during abnormal conditions, see Section 8 of this OMP.

Fast Acting Roller Shutter Doors

6.1.4 In order to ensure that any odours from each of the buildings do not have the potential to escape the confines of the building, each building will be fitted with fast acting roller shutter doors. This will ensure that upon delivery and/or collection of any wastes from the building that the potential for the escape of fugitive odours from the building is minimised. The buildings will be operated at a slight negative pressure to ensure that odours do not escape the confines of the building when the doors are open.

Treatment of Odours – Biofilter

6.1.5 Each WTS building will benefit from a biofilter for the control of odours. Each biofilter will be sized to allow a minimum of 3 air changes per hour within each of the buildings to prevent the build up of odours from the process.

6.1.6 Biofilters are reactors in which a humid polluted air stream is passed through a porous packed bed that supports a mixed culture of pollutant-degrading organisms within a biofilm. Biofilters reduce odours by transferring pollutants to the water phase, which is then followed by adsorption to a medium or absorption to a biofilm. Adsorption to a filter medium provides good treatment during the initiation of a new biolfilter, however once the adsorption capacity is occupied (often in a matter of days); biodegradation in the biofilm becomes the principle

odour removal mechanism. Both odour removal processes are contingent on the movement of contaminated air to the water phase (gas-liquid mass transfer).

6.1.7 The biofilters will be provided with a mixture of wood chip and compost. Compost has a large diversity and density of microorganisms. It has good water retention properties, neutral pH and a suitable organic content. Compost on its own can suffer from bed compaction over time and lead to pressure drop, therefore it is usually mixed with various proportions (20 to 80 per cent) of bulking agents (such as wood chip and perlite)

6.1.8 Wood chip will be used as a bulking agent which will allow homogeneous air flow. Common particle sizes are 1-5 cm.

6.1.9 The biofilter will be maintained to ensure that sufficient water content is provided to ensure that the microorganisms responsible for the degradation of odorous compounds perform their normal metabolic reactions. The appropriate moisture content will also aid the gas water phase transition and movement of odourous compounds into the biofilm.

6.1.10 The performance of the biofilter will be monitored through this odour management plan. Should it be deemed, through monitoring as detailed in Section 7 of this report, that the biofilter is not performing the biofilter media will be replaced with a new compost/wood chip blend.

Acceptance of Potentially Odorous Waste

6.1.11 Vehicles are required to arrive at the site in a clean state and all waste delivery vehicles will be covered. This requirement is communicated to all potential waste carriers and producers in advance of a delivery or the commencement of a contract and any instances where this is not adhered to will be reported to carrier/producer with information reiterating the requirement. If vehicles continue to arrive which do not comply with this requirement, the operator may refuse to accept waste from that carrier/producer.

6.1.12 The access roads are inspected on a daily basis as part of routine site inspections and cleaning or sweeping of the access roads is instigated as necessary to prevent track-out of any spilled materials.

6.1.13 Upon arrival at the site, all waste delivery vehicles will be directed to the site's weighbridge. The weighbridge will be calibrated and the site will always be manned during operational

hours. Wastes that will be delivered by ANSA will be visually inspected at kerbside during household collections to ensure compliance with the permit. Following inspection, waste that is considered compliant will predominantly be delivered within a RCV. Drivers will not need to provide additional documents regarding the waste type as it is proposed that ANSA deliveries will comprise household waste.

Commercial wastes that will be delivered by third parties will however need to provide documents detailing the source and description of the waste. This will be provided by the driver who will report to the weighbridge office upon arrival.

6.1.14 The operator has systems in place that allow them to monitor the volume of waste that are present on site at all times and the site staff therefore know whether the site has sufficient capacity to accept any incoming waste while remaining in compliance with the conditions of the Environmental Permit. If the site does not have capacity then the waste will not be accepted. This will take into account any scheduled plant outages for maintenance which may temporarily reduce the site's capacity.

6.1.15 Once it has been decided to accept a delivery, the driver will be directed to the specific was deposition area as detailed on the site location plan where the waste will be unloaded.

6.1.16 Odour monitoring procedures will be in place to confirm that the odour control measures are being carried out and are effective (see Section 7).

Storage of Potentially Odorous Waste

6.1.17 All waste will be stored only within the designated storage areas.

6.1.18 The buildings and storage areas benefit from an extraction and exhaust system by which odours are dissipated via a stack. A detailed odour dispersion model has been produced in support of the permit application which concludes that through this method of dispersion the odour at the closest sensitive receptor will not be above the 1.5 odour unit level for the most offensive odours. Nevertheless, the operator will also use a biofilter to further reduce the level of odours emitted from the site.

6.1.19 Waste storage times will be kept to a minimum and will not exceed 3 days and the site will operate a 'first in first processed' procedure which ensures that under normal conditions the waste which has been on site for longest is processed first.

6.1.20 Odour monitoring procedures will be in place to confirm that the odour control measures are being carried out and are effective (see Section 7).

Processing of Potentially Odorous Waste

6.1.21 Waste will only be processed within the buildings.

6.1.22 In the event that it becomes apparent that the site has accepted too much waste then the Site Manager will assess whether the volume of waste can be processed in a timely manner (i.e. the waste should be processed within 7 days of receipt). If it cannot be processed within the specified time limit then the excess volume of waste will be transferred off-site to an alternative facility as soon as practicable.

6.1.23 Under normal operating conditions, the site will operate a 'first in, first processed' system to ensure that the oldest waste within the storage area is processed first. This will help to minimise the waste retention times and therefore odour production.

6.1.24 Odour monitoring procedures will be in place to confirm that the odour control measures are being carried out and are effective (see Section 7).

Poor Site Cleanliness

6.1.25 If the site is kept to a poor standard of cleanliness then the potential for odour generation will increase. Therefore, systems will be in place once the site is operational to ensure that the site is maintained to an extremely high standard of cleanliness. The site will have an Environmental Management System which will contain the maintenance and cleaning schedules and records.

6.1.26 In summary, the following measures will be in place:

- **Routine Site Inspection Programme** – all areas of the site, including the waste reception, storage and treatment areas and items of plant and machinery will be inspected regularly and routinely, and any necessary cleaning of these areas will be undertaken in a timely manner. All inspections will be recorded within the site's Environmental Management System and will be undertaken by appropriately trained staff.

- **Routine Site Cleaning Programme** – all areas of the site, including the waste reception, storage and treatment areas and items of plant and machinery will be cleaned regularly and routinely, to ensure that there is no build up of putrescible wastes or residues. All cleaning will be recorded within the site's Environmental Management System and will be undertaken by appropriately trained staff.

- **Vigilance and Reporting** – all site operatives will be vigilant at all times and will inform a senior member of staff as soon as practicable if they notice that the site is unclean or that high levels of odour being generated at the site.

6.1.27 Odour monitoring procedures will be in place to confirm that the odour control measures are being carried out and are effective (see Section 7).

6.2 Future Considerations

6.2.1 It is considered that the above measures should be sufficient to minimise the production of odour on this site. However this OMP will be reviewed annually and the control measures and procedures in place will be amended if required.

7.0 Monitoring

7.1 Monitoring

7.1.1 Monitoring will be undertaken at the site in order to assess the effectiveness of the control measures described above. This will ensure that should there be any odour emissions from the site, the operator will be aware and will implement the necessary remedial action.

7.1.2 The monitoring will provide an ongoing record of any odour events and this record can then be referred to if there are any odour complaints to establish whether the monitoring is effective in identifying odour incidents. This will also provide a more integrated and efficient approach to handling odour issues, for instance if an odour issue is identified through routine monitoring, the cause of this can be investigated, recorded and addressed immediately before any complaints are received. This will enable the operator to anticipate and address the concerns of complainants more proactively.

7.2 General Monitoring

7.2.1 All site personnel will be vigilant and will report any odour problems to the Site Manager or Site Supervisor.

7.2.2 The Site Manager will record any reported odour problems in the relevant section of the site's Environmental Management System (EMS).

7.3 Off-site Odour Monitoring

7.3.1 A subjective sniff testing exercise will be undertaken three times each day that the site is operational – first thing in the morning, at midday and in the afternoon. Sniff testing will also be undertaken should there be any complaints relating to odour at the site.

7.3.2 The assessor will be a member of site personnel who is trained in this procedure. The assessor will be a member of staff who is based mainly in the site office, because they will be less exposed to any site odour and so are less likely to be desensitised. In addition, the midday assessment will be undertaken after the assessor has left the site for at least half an hour for a lunch break. This ensures that all reasonable measures are taken to ensure that the assessment is robust and reliable.

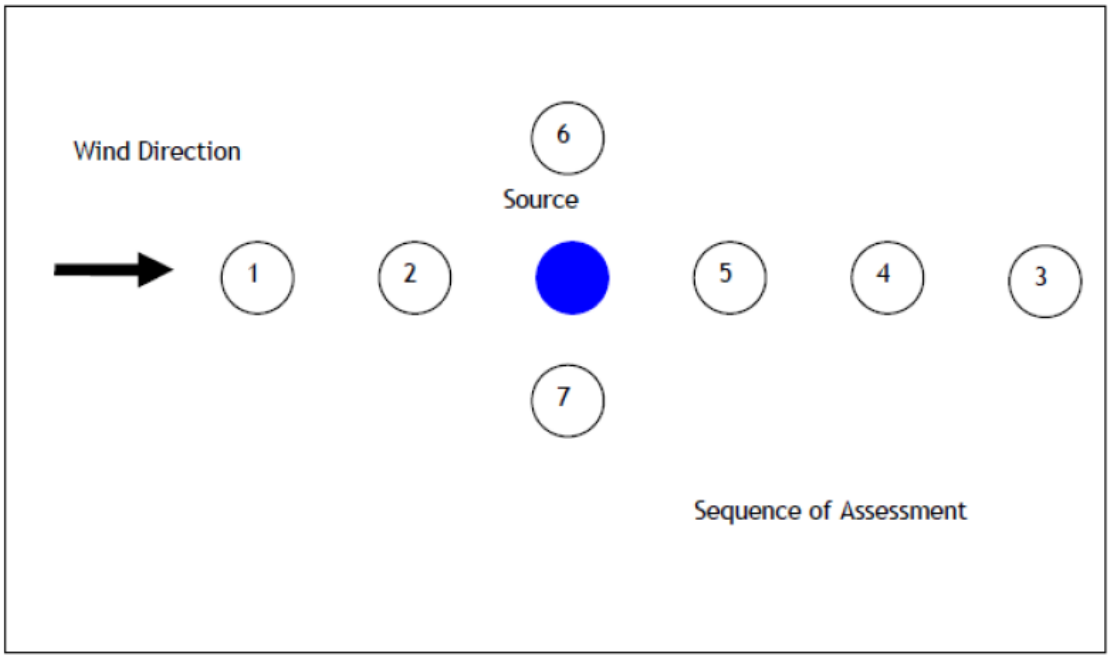
7.3.3 To ensure that the assessor is not suffering from odour fatigue, they will not enter the waste buildings on the day of the assessment until they have completed the monitoring exercise. The assessor must also not be suffering from a cold, sinusitis, or a sore throat as these may affect their sense of smell. In addition the assessor should be a non-smoker, and will avoid food and drink (except water) for at least half an hour before undertaking the assessment. These measures will ensure that the results of the assessment are robust and reliable.

7.3.4 The assessor will use their sense of smell to detect odours in the vicinity of the site and identify their sources.

7.3.5 The meteorological conditions during the assessment will be recorded and any relevant information relating to site operations will be noted. A note will also be made if there are any other noticeable sources of odour in the vicinity.

7.3.6 The exact locations for monitoring will depend on the meteorological conditions at the time of the exercise, but in general terms the following sequence of assessment (Figure 1) will be followed, with areas of weaker strength inspected prior to stronger. The 'source' will be the permitted area.

Figure 1: Odour monitoring locations



8.0 Abnormal Events and Contingency Plans

8.1 Possible Abnormal Events

8.1.1 The possible events considered to have the potential to result in an increased risk of off-site odour impact are listed in Table 5. The main reason that the risk of odour is increased in these instances will be due to the fact that the abnormal events may cause the temporary disruption of normal site activities, which can result in a back log of odorous waste pending processing.

8.1.2 It is difficult to minimise the risk of abnormal events, however the operator has in place contingency measures which allow them to mitigate and respond to the implications of the abnormal event.

8.1.3 The events and response measures to be implemented are presented in Table 5 below. The contingency arrangements explained in Table 5 describe the actions that the operator may take to ensure that biodegradable and other potentially odorous waste materials do not remain on site long enough to cause unacceptable odorous emissions.

Table 5: Abnormal events, impact and response measures

Event	Location	Potential Effect	Mitigation Measures to Prevent Occurrence	Response Measures if it Occurs
1. Severely odorous wastes received.	Waste reception areas.	Increase in emissions from reception area while severely odorous materials are present.	• Strict waste acceptance procedures (See Section 6.1).	• If deemed too odorous, the waste will not be accepted at the site. • If it is not identified that a load contains severely odorous waste until it is unloaded, the waste will either be removed from the site or priority will be given to processing this waste first. • If severely odorous waste is repeatedly received from the same producer, then they will be informed so that they can investigate potential prevention measures.
2. Plant breakdown.	Waste treatment area.	Increase in emissions if materials become backlogged and degradation occurs.	• The site will operate a planned preventative maintenance programme for all plant and equipment on site.	• Receipt of waste will cease if necessary until machinery is functioning again. • Any necessary repairs and maintenance work will be carried out in a timely

				manner. • If necessary transfer wastes off-site to an appropriately permitted facility.
3. Power failure.	Waste treatment and storage areas.	Increase in emissions if materials become backlogged and degradation occurs.	• The site will operate a planned preventative maintenance programme which will include power supply infrastructure.	• A back-up generator may be installed at the facility. • The supplier will be notified as soon as possible. • Instigate immediate investigation and remedial action as required. • If the failure is for an extended period, the site will cease or minimise the acceptance of waste, as necessary. • If necessary transfer wastes off-site to an appropriately permitted facility.
4. Restricted staff availability.	All operational areas.	Increase in emissions if materials become backlogged and degradation occurs.	• The Site Manager will ensure that they have an appropriately trained staff member that they can delegate their role to should they be unavailable. • The site management staff will have a staff resources plan that ensures that sufficient numbers of staff are available at all times to undertake each role.	• If required additional staff may be hired on a temporary basis to cover the absent staff. • If necessary transfer wastes off-site to an appropriately permitted facility. • If it is deemed that there are insufficient qualified staff to safely and properly run the plant, activities will be temporarily halted.
5. Extreme winds and gales.	All operational areas.	Increased risk of emissions off-site, depending on the prevailing wind direction.	• Stockpiles of soils may be sheeted in high winds to prevent windblown dust.	• If necessary transfer wastes off-site to an appropriately permitted facility.
6. Extreme cold/ snowfall.	All operational areas.	Difficult vehicle access could result in a backlog of material pending processing. Disruption to water supply.	• Weather conditions will be monitored.	• If possible, snow will be cleared to enable normal access into and within the site. • If necessary transfer wastes off-site to an appropriately permitted facility.
7. Fire.	All operational areas.	Risk of increased impact from any area of the site affected by fire (during and	• A fire prevention plan will be in place	• Should a fire occur on site, operations will be temporarily suspended and no further waste will be accepted on site.

		after).		• If necessary transfer wastes off-site to an appropriately permitted facility.
8. Flood.	All operational areas.	Risk of increased impact from any area of the site affected by flood (during and after).	• Site is not identified as being at risk from flooding.	• Should flooding occur on site, operations will be temporarily suspended and no further waste will be accepted on site. • If necessary transfer wastes off-site to an appropriately permitted facility.
9. Unexpected large loads of waste received.	All operational areas.	Could result in a backlog of material pending processing.	• Waste pre-acceptance procedures will ensure that the site staff will be aware of the deliveries in advance.	• The site manager will assess the volumes of waste present on site on a daily basis. • If there is not sufficient capacity to store the waste then the customer or driver will be directed to an alternative location. • The site will not accept waste on the site if there is not sufficient storage and treatment capacity to handle the waste without increasing the risk of odour emissions.
10. Failure of Biofilter	All operational areas.	Risk of increased emissions from reception area while severely odorous materials are present.	• The site will operate a planned preventative maintenance programme which will include the operation of the biofilter. • Performance of the biofilter will be monitored as detailed in Section 7.	• If it is deemed that the biofilter is not performing, the biofilter media will be replaced with a new compost/wood chip blend as soon as practicable. • If the failure is for an extended period, the site will cease or minimise the acceptance of waste, as necessary. • If necessary transfer wastes off-site to an appropriately permitted facility

8.1.4 If any abnormal events do occur, they will be recorded in the appropriate section of the EMS along with any actions taken in response. If deemed necessary, operational procedures may be reviewed and amended following the event.

8.2 Assessing Capacity

8.2.1 In the event of an abnormal event, the operator will make every reasonable effort to ensure that the site is operated within the conditions of the Environmental Permit and that there is no increased risk of odour emissions.

8.2.2 If it is apparent that the abnormal event may result in the increased risk of odour emissions then the Site Manager will make an assessment of the available storage and treatment capacity and assess how this is affected by the event.

8.2.3 In order to do this, the following steps will be taken:

- Make an assessment of the volumes of potentially odorous wastes present on site as soon as it is practicable to do so;
- Make an assessment as to whether it is possible to process the wastes that are already on site within the specified limit of three days from the receipt of the waste. In order to determine this, the operator will take into account the conditions of the Environmental Permit, the normal waste physical treatment capacity, the capacity of treatment plant and the potential impact on these capacities that the abnormal event will cause; and
- If it is apparent that the site does not have the capacity to process the waste within the specified time limit, then the Site Manager will decide to transfer the waste off-site. If the waste load contains waste which is unlikely to biodegrade within 5 days and there is available storage capacity, then the Site Manager may decide to accept it on the basis that it would be processed prior to it becoming likely to generate odour.

8.2.4 By undertaking the above assessment as soon as possible after the occurrence of the abnormal event this will prevent the build up of potentially odorous wastes on the site which is preferable to attempting to process all the waste as quickly as possible and failing to do so within the specified time limit.

9.0 Odour Complaints Management

9.1 Purpose of Complaints Procedure

9.1.1 It states in the H4 guidance that an OMP should show how the operator will respond to complaints. Any complaints should be investigated promptly and appropriate remedial action should be taken. The complainant and anyone else likely to be affect should be informed of any action taken in response to the complaint.

9.1.2 A procedure has been developed (see Table 6 below) to ensure that complaints will be handled by ANSA appropriately and consistently in accordance with the requirements of H4 and to reassure the Environment Agency and the public that any of their concerns will be acknowledged and acted upon where appropriate. The procedure will be reviewed on an annual basis or in the event of any significant odour issues

9.2 Complaints Reporting Route

9.2.1 In order to ensure that members of the public are easily able to report any complaints relating to odour emissions from the site, there will be a display board at the site entrance which details the site name, the permit number, the Environment Agency's contact details and ANSA's contact details. By providing contact details for the EA as well as the operator, this ensures that the member of public can report their complaint and be confident that it will be received by the appropriate party even if they feel uncomfortable discussing directly with the operator.

9.3 Complaints Records

9.3.1 Auditable records will be kept of any complaints made and the investigations undertaken. This will provide an ongoing record of the causes of odour incidents which will enable ANSA to identify any patterns which would prompt a review in odour management procedures and control measures.

Figure 2: Reporting Route

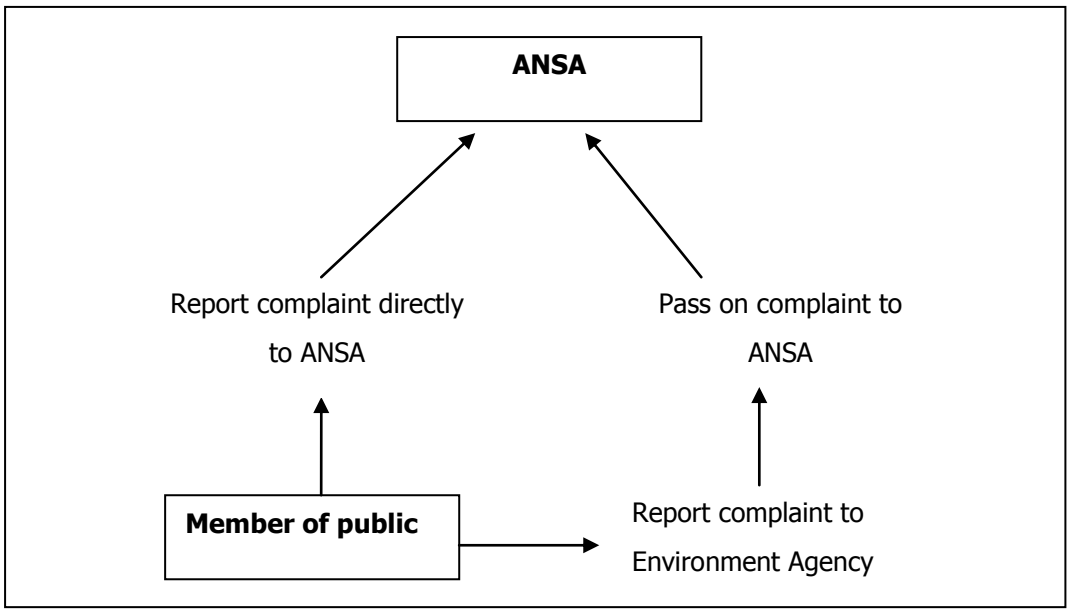


Table 6: Odour Complaints Procedure

	Action	Person responsible for ensuring action is carried out	Timescale for Action Completion
1.	The Site Manager will be notified of the complaint and will make the appropriate managerial staff and site operatives aware of the complaint. The Environment Agency will also be notified of the complaint. The complaint shall be formally recorded using the Complaint Report sheet contained within the site's Environmental Management System (Appendix A of this OMP).	Site Manager	Within one working day of receipt of the complaint.
2.	The complaint will be investigated by: a) Checking the odour monitoring records to see whether the complaint corresponds to the monitoring records. b) Checking the Site Diary and waste acceptance records to see if any particularly odorous waste was accepted. c) Checking the Site Diary to see whether the complaint corresponds to any operational issues at the site, such as damage to roller shutter doors or damage to other odour management infrastructure.	Site Manager	Within one working day of receipt of the complaint.

	If the cause of the complaint is established it will be recorded within the Complaint Record Sheet. If no particular cause is identifiable then this will also be recorded.		
3.	If a number of complaints are received about a particular incident, then it might be necessary to increase the frequency of odour monitoring.	Site Manager	Within one working day of receipt of the complaint.
4.	The Site Manager will instigate any necessary reviews of procedures and will implement any required changes. Any maintenance to odour management infrastructure will be undertaken as soon as possible.	Site Manager	Within seven working days of receipt of the complaint.
5.	If appropriate, the complainant and the Environment Agency will be informed of any corrective actions taken.	Site Manager	Within seven working days of receipt of the complaint.
6.	A follow up audit on the corrective actions implemented shall be undertaken to ensure the complaint is not made again in the future and that the preventive procedure is effective.	Site Manager	Within two weeks of receipt of the complaint.
7.	Once the follow up audit has been completed, the Site Manager will ensure that the complaint and any action taken and the effectiveness of that action are recorded in the Environmental Management System. This record shall also note any amendments to procedures, both environmental and health & safety, which may be required following the investigation. The record shall be kept in the site office at all times or if it is an electronic record it will be accessible from the site.	Site Manager	Within two weeks of receipt of the complaint.

10.0 Document Review

10.1 Document Review Procedure

10.1.1 This Odour Management Plan (OMP) will be formally reviewed by ANSA on an annual basis. This will ensure that the controls in place continue to be effective.

10.1.2 The OMP will also be reviewed following any major odour issues or in the event of any changes in site operations that may have an influence on the risk of odour emissions.

Appendices

Appendix A – Odour Complaint Form

Odour Complaint Report Form	
Time and date of complaint:	Name and address of complainant:
Telephone number of complainant:	
Date of odour:	
Time of odour:	
Location of odour (if not at above address):	
Weather conditions (i.e. dry, rain, fog, snow):	
Temperature (very warm, warm, mild, cold or degrees if known)	
Wind strength (none, light, steady, strong):	
Wind direction (e.g. from NE):	
Complainants description of odour: • What does it smell like: • Intensity: • Duration (time): • Constant or intermittent in this period: • Does the complainant have any other comments about the odour?	
Are there any other complaints relating to the installation or to that location? (either previously or relating to the same exposure):	
Any other relevant information:	
Do you accept that odour likely from your activities?	
What was happening on site at the time the odour occurred?	
Operating conditions at time the odour occurred (e.g. flow rate, pressure at inlet and pressure at outlet):	
Actions taken:	
Form completed by:	Signed: Date:

Cheshire East Council

Cledford Lane RDF Facility

Environmental Permit Application

Statement of Best Available Technique

January 2016

WYG, Quay West, Trafford Wharf Road, Trafford Park, Manchester M17 1HH

Tel: 0161 872 3223

Email: andrew.bowker@wyg.com

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Drawings

A092093/PER/01 – Environmental Permit Boundary and Site Layout

DR-501 – Drainage Strategy

1.0 Document Overview

1.1 Introduction

1.1.1 This document has been produced by WYG on behalf of Cheshire East Council (CEC) and its wholly owned company, Ansa Environmental Services Ltd (hereafter referred to as ANSA), and comprises part of the application for an Environmental Permit to authorise the operation of a Refuse Derived Fuel (RDF) production facility at their site at Cledford Lane, Middlewich, Cheshire.

1.1.2 The RDF production facility will be located within a building which will also accommodate a waste transfer station (that will be regulated as a 'waste operation') as shown on Drawing Number 20004. This BAT assessment relates solely to the RDF facility.

1.2 Scope of Document

1.2.1 This document comprises a full Best Available Technique (BAT) assessment for the operation of the RDF production activity (installation) and any Directly Associated Activities (DAAs) for the installation.

1.2.2 In order to obtain an Environmental Permit for an 'installation' listed in Schedule 1 of the Environmental Permitting (England and Wales) Regulations 2010 (as amended), the Operator is required to demonstrate that the proposed techniques are the best available for their installation.

1.2.3 The essence of BAT is that the techniques selected to protect the environment should achieve an appropriate balance between environmental benefit and financial costs. This report details how the operator proposes to meet the applicable requirements of BAT or justify any deviation from these requirements.

1.3 Installations

1.3.1 The proposed activities are described in more detail in the Operating Techniques document (Appendix B of the Environmental Permit Application (EPA)).

Production of Refuse Derived Fuel from Non-Hazardous Wastes

1.3.2 It is considered that the production of RDF at the facility will fall under the Schedule 1 reference Section 5.4 Part A (1) (b) (ii) of the Environmental Permitting (England and Wales) Regulations 2010 (as amended) which is *'the recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day... involving the pre-treatment of waste for incineration'*. As such, it will be regulated as an installation-regulated activity and is subject to the requirements of BAT.

1.4 Determining BAT requirements

1.4.1 All installation-regulated facilities are required to operate under the relevant requirements of the Best Available Techniques specified by the Environment Agency in their BREF (BAT reference) documents. The BAT requirements which are relevant to this application have been determined by review of the relevant Environment Agency's Technical Guidance and Sector Guidance documents applicable to the proposed facility and the relevant legislation.

1.4.2 The legislation and guidance that is considered relevant and has therefore been referred to include:-

- Environment Agency – Sector Guidance Note S5.06 (Guidance for the Recovery and Disposal of Hazardous and Non Hazardous Waste) (2005); and
- European Commission – Integrated Pollution Prevention and Control Reference Document on the Best Available Techniques for the Waste Treatment Industries August 2006 (referred to in this application as the Waste Treatment BREF document).

2.0 BAT Assessment for RDF Production Facility

2.1 Proposed Activity

2.1.1 The RDF production facility will accept residual/non-recyclable black bin waste from household collections. These waste streams require some level of treatment to ensure that they are suitable for use as a waste derived fuel. The treatment undertaken on site will include physical processing only as required to produce RDF from household waste. Non-suitable wastes will be removed and segregated; these will be stored pending transfer off-site to a suitable facility. The process is described in more detail in this section and in the Operating Techniques.

2.1.2 The 2005 BREF explains in section 2.5.1 the processes involved in the preparation of solid waste fuel by mechanical treatment. The main purpose of fuel preparation is described as the upgrade of selected waste materials into a specified fuel. The two recognised techniques for achieving this are:-

- "separation facilities – which seek to split residual waste into biodegradable and high calorific fractions"; and
- "dry stabilisation processes, which are less concerned with the splitting into fractions, and more aimed towards the use of heat from a compositing process to dry the residual waste and increase its calorific value".

2.1.3 It is recognised within the 2005 BREF that the manufacture of solid waste fuel is not a standardised process. The extent of the processing carried out depends on the composition of the waste inputs and the intended application of the produced fuel. The proposed techniques to be employed at the facility are within the general descriptions given in the 2005 BREF and as such have been selected to achieve a quality RDF to the specification requirements of the user from the predicted waste inputs.

2.1.4 The RDF produced at the site will be transferred offsite for use in the generation of energy. The proposed RDF production operation at the Cledford Lane facility consists of the physical processing of wastes, including separation, sorting, shredding, screening, compacting and baling. A study has been undertaken on behalf of the operator to determine the required process output for a variety of offsite recovery options. These are identified below in Table 1:-

Table 1

Parameter	Viridor	Ferry Bridge	Andusia
Size (mm)	<300	150-300	300-500
Calorific Value (kJ/kg)	9-15	13.5-16.5	8-12
Baled?	Set up for loose	Yes/No	Yes/No
Cl (%)	-	<1%	<0.1%
Sulphur (%)	-	<0.7%	-
Ash (%)	-	<25%	-
Moisture (%)	-	<25%	<30%
Other	Want all metals removed	-	Organics can stay in but probably better to remove

2.1.5 In general terms it is considered that the proposed activity is a recognised technique; the following sections explain how the proposed activities on site are compliant with indicative BAT as referenced in SGN 5.06.

2.2 Process Summary

2.2.1 The proposed RDF production activity is described in the Operating Techniques in detail and is summarised here.

2.2.2 Waste utilised in the production of RDF would comprise residual/non-recyclable black bin waste from household collections.

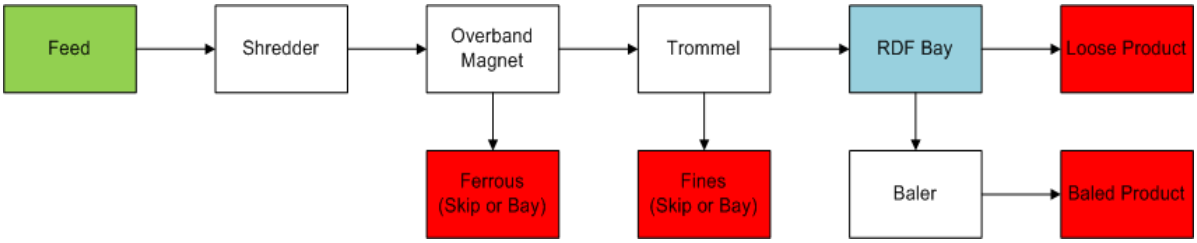
2.2.3 The RDF manufacturing facility will have a permitted annual throughput of 100,000 tonnes.

2.2.4 The RDF process would involve a basic level of physical treatment of the residual waste to remove recyclates and non-combustible materials such as ferrous and non-ferrous metals and inert waste.

The purpose of the RDF manufacturing activity is to produce a fuel which meets the specifications required for the end use.

2.2.5 A process flow diagram is provided below which details the processes that the waste will be subjected to.

Figure 1: Process Flow Diagram



2.2.6 The process will consist of sorting, shredding/bag-splitting, screening and compacting and baling. There will be systems in place to monitor the specification and quality of the manufactured RDF. The RDF material would be stored in bales prior to off-site transport.

2.2.7 All of the waste materials removed from the process will be stored in designated bunkers/skips as detailed on Drawing No. A092093/PER/01 and transferred off-site for recovery wherever possible. This will comprise mainly of over-sized materials, fines and metals. The operator is fully aware of their Duty of Care requirements and will comply with these at all times.

2.3 Process Outputs

2.3.1 The outputs of the process will comprise:-

- RDF (baled and loose); and
- Non-suitable/reject items (metals, plastics, fines, bulky materials).

2.3.2 RDF materials will be stored within designated areas within the building prior to transfer offsite to an appropriate facility. The RDF will be either baled and wrapped or loosely tipped depending upon the requirements of the offtaker.

2.3.3 Segregated recyclable materials will be loaded into containers prior to transport off site to for recovery or disposal elsewhere.

2.3.4 Organic fines will be stored within containers and removed from site by road to suitable recovery or disposal facilities.

2.3.5 Prior to leaving the site vehicles will be weighed on the exit weighbridge and all vehicles will be appropriately covered to prevent materials being deposited on the highway.

2.4 Waste Pre-Acceptance Procedures

2.4.1 Sector Guidance Note SGN 5.06 identifies in Section 2.1.1 the indicative BAT requirements in order to prevent the acceptance of unsuitable wastes which may lead to uncontrolled emissions. The relevant indicative BAT standards and how they apply to the facility are discussed in the following sections.

2.4.2 The primary objective of the facility is to process residual household waste received at the transfer stations to produce RDF for energy recovery at an appropriate offsite facility.

2.4.3 Whilst the incoming waste streams may vary slightly in composition, the overall composition is likely to be relatively consistent. Residual household waste (black bag waste) is likely to contain food waste, cardboard and paper, packaging and plastics. The facility and plant have been designed to handle these types of wastes within an operational envelope around the expected compositional range.

2.4.4 The waste pre-acceptance recommendations in SGN 5.06 include the chemical analysis of incoming wastes; however SGN 5.06 covers a wide range of waste activities with a particular focus on hazardous waste treatment processes where chemical composition information is significant to ensure safe storage and handling. In this type of facility however the analysis of detailed chemical composition of wastes is not considered necessary and is not considered an applicable BAT requirement. An understanding of the composition of the waste (e.g. percentage of plastic and paper) is relevant; this is well understood and will be subject to regular review to ensure only suitable wastes are accepted.

2.4.5 The relevant BAT pre-acceptance procedures to be applied at the site are as follows:-

- The operator will obtain and record information of the types of wastes to be accepted at the facility including likely processes producing the wastes, predicted quantities, the form of the waste and hazards associated with the wastes;
- Wastes will only be accepted at the facility when a clear method of defined treatment has been determined in advance, in this case the proposed treatment method will be applicable to all wastes accepted into the RDF manufacturing process;
- A technical assessment of the commercial wastes to be received at the site will be made of their suitability for treatment or storage prior to acceptance at the facility; and
- All records relating to pre-acceptance will be maintained for a minimum of 3 years.

2.4.6 It is considered that these pre-acceptance procedures accord with indicative BAT and will be undertaken in accordance ANSA will meet the indicative BAT requirements set out in SGN 5.06.

2.4.7 Table 2 below sets out how ANSA will meet the indicative BAT requirements set out in SGN 5.06:

Table 2: Indicative BAT assessment for pre-acceptance procedures

Indicative BAT requirement	How the requirement will be met
1. From the waste disposal enquiry the Operator should obtain information in writing relating to: • the type of process producing the waste • the specific process from which the waste derives • the quantity of waste; • chemical analysis of the waste (individual constituents and as a minimum their percentage compositions) • the form the waste takes (solid, liquid, sludge etc) • hazards associated with the waste • sample storage and preservation techniques	The specified information will be obtained in order to establish if the waste is suitable for treatment at this site. Waste will not be accepted onto the site unless the required details are provided, reviewed and deemed acceptable. Where not possible in the case of household collected waste, the operator will show reliance upon waste acceptance checks.
2. Unless a sample and analysis has already been completed by a third party and the Operator has sufficient written information from them, then the Operator should in every case obtain representative sample(s) of the waste from the production process/current holder and compare it against the written description to ensure that it is consistent.	It is not considered necessary to undertake chemical analysis of the proposed waste types. The composition of black bag waste is well understood and will provide suitable waste types for the production of RDF.
3. Other than for pure product chemicals or laboratory smalls, the chemical analysis should	Not applicable.

	relate to an actual analysis and not simply be based on product data sheets or an extrapolation of information on product data sheets. For example, taking the concentrations as specified and applying a dilution factor is not acceptable.	
4.	Wastes should not be accepted at the installation without a clear method or defined treatment and disposal route being determined in advance and costed before the waste is accepted at the installation.	The wastes accepted at the RDF facility will be treated to produce RDF. This will involve basic physical treatment, including bag-splitting/shredding, sorting, compacting and baling, as described in the Operating Techniques
5.	The Operator should ensure that the sample is representative of the waste and has been obtained by a person who is technically competent to undertake the sampling process.	Not applicable.
6.	The type of information that would demonstrate the reliability of the sample includes: • location of sampling point, for example, effluent tank • capacity of vessel sampled (for samples from drums an additional parameter would be the total number of drums) • method of sampling, e.g. sampling tap (mid flow), "top" sample • number of samples and degree of consolidation • operating conditions at time, e.g. normal operation, shut-down, maintenance and/or cleaning • preservation techniques	Not applicable.
7.	Samples should be clearly labelled and any hazard identified.	Not applicable.
8.	Sample tracking systems within the installation should be established and be auditable.	Not applicable.
9.	Analysis should be carried out by a laboratory with robust quality assurance and quality control methods and record keeping.	Not applicable.
10.	Analysis required will vary depending upon the nature of the waste, the process to be used and what is known about the waste already. Results of analysis should be kept within the tracking system. These details should include: • check on constituents declared by waste producer/ holder to ensure Permit compliance, treatment plant specification and final disposal • all hazardous characteristics • physical appearance • colour • pH • presence, strength and description of odour	Not applicable.

assessment (note COSHH implications)	
11. Further analysis may include other parameters relevant to the treatment method or waste stream e.g.: • presence of oxidants • acidity and alkalinity • COD • ammonia • flashpoint • presence of sulphide • presence of cyanide • List I and List II substances •other substances of environmental significance	Not applicable.
12. Also, for example in the case of oil recovery: • chlorine • sulphur • metals • PCBs	Not applicable.
13. Installations accepting waste oil should have the facility to hold and test loads for PCBs or a surrogate test for chlorine at a level of detection to assess compliance with the requirements of the Waste Oils Directive.	Not applicable.
14. Following characterisation of the waste, a technical assessment should be made of its suitability for treatment or storage to ensure Permit conditions are being met.	Not applicable.
15. There must be a clear distinction between sales and technical staff roles and responsibilities. If non-technical sales staff are involved in waste disposal enquiries, then a final technical assessment prior to approval should be made. It is this final technical checking that should be used to avoid build-up of accumulations of wastes.	ANSA will ensure that staff only undertake activities for which they are appropriately trained. The roles of technical and sales staff will be clearly defined within the Environmental Management System.
16. All records relating to pre-acceptance should be maintained at the installation for cross-reference and verification at the waste acceptance stage. These records should be kept for a minimum of 3 years.	ANSA will retain records relating to pre-acceptance for a minimum of 3 years.
17. For laboratory smalls, whether or not the installation Operator packs them on behalf of the producer, a full list of laboratory smalls should be created and transported with the waste. Operators should have written procedures regarding the segregation, packaging and labelling of laboratory smalls. For those Operators who accept wastes packaged by their customers, this Guidance should be provided to the customer so as to prevent problems when the material is delivered to the	Not applicable for this activity.

installation. This guidance should include the following: • What information is required in order to meet the operators pre-acceptance checks • What chemicals are prohibited by the operators permit (e.g. radioactive chemicals, Clinical wastes, explosives,) • How to identify the waste laboratory chemical • How to establish and record the hazards posed by the chemical • Supporting documentation required (e.g. manufacturers data, material safety data sheets) • Segregation policy for waste laboratory chemicals to avoid mixing of incompatible wastes in the same drum • How to pack the chemicals • What information is to accompany the waste	

2.5 Waste Acceptance Procedures

2.5.1 Reference has been made to section 2.1.2 of guidance note SGN 5.06.

2.5.2 All incoming loads will be weighed and the appropriate waste acceptance procedures undertaken. Records of received wastes will be made and retained, appropriate documentation in accordance with the Duty of Care will be completed. The following records will be retained for each load delivered:-

- Date and time of delivery
- Vehicle details (registration)
- Waste description
- Origin of waste (if known)
- Quantity of waste
- Details of rejected loads

2.5.3 Wastes that will be delivered by ANSA via RCV will be visually inspected at kerbside during collection to ensure compliance with the Environmental Permit. . Site operatives will be made aware of the permitted waste types and what actions to take with a contrary load.

2.5.4 If the document checks at the weighbridge show that the wastes are not permitted the load will be rejected. Any non-conforming wastes identified following deposit will be removed and placed in a quarantine area pending removal from the site to a suitable permitted facility. A record will be made of wastes delivered to the site that is not permitted, and this will include, if known: waste type, deliverer, date of receipt, producer and actions to be undertaken to prevent re-occurrence.

2.5.5 After passing over the weighbridge, all waste delivery vehicles will discharge waste into the reception area of the WTS-RDF building.

2.5.6 The relevant indicative BAT requirements for acceptance procedures are detailed below; these will be implemented at the facility:-

- On arrival loads will be weighed utilising the on-site weighbridge;
- Waste will not be accepted unless sufficient storage capacity is available;
- All documents will be checked and approved and any discrepancies resolved prior to waste acceptance;
- Where possible visual inspection will be undertaken before waste is deposited, although it is recognised that the majority of wastes will be delivered in black bags within enclosed containers or vehicles. Nevertheless all wastes will be inspected following discharge within the waste reception area;
- If the document checks at the weighbridge show that the wastes are not permitted the load will be rejected. Any non-conforming wastes identified following deposit will be placed in a quarantine area pending removal from the site. Rejected waste will be removed within 5 working days (indicative BAT guidance SGN 5.06 2.1.2 point 16);
- A written record will be made of wastes found not to be permitted which will include, if known: waste type, deliverer, date of receipt, producer and actions to be undertaken to prevent re-occurrence; and

- All received waste will be deposited within the waste reception areas of the processing building. The site surface of which is to be constructed of concrete and will be in accordance with the requirements to indicative BAT guidance SGN 5.06 2.1.1 point 21.

2.5.7 It is considered that these acceptance procedures accord with indicative BAT and will be undertaken in accordance with the Operator's EMS.

2.5.8 Table 3 below sets out how ANSA will meet the indicative BAT requirements set out in SGN 5.06:

Table 3: Indicative BAT assessment for waste acceptance procedures

Indicative BAT requirement	How the requirement will be met
Load arrival 1. On arrival loads should: • be weighed, unless alternative reliable volumetric systems linked to specific gravity data are available • not be accepted into site unless sufficient storage capacity exists and site is adequately manned to receive waste • have all documents checked and approved, and any discrepancies resolved before the waste is accepted • have any labelling that does not relate to the contents of the drum removed before acceptance on site.	The specified information will be obtained from all drivers arriving at the site, as prescribed in the site's waste acceptance procedures. Waste will not be accepted onto the site unless the required information is established. Loads will not be accepted if there is not sufficient capacity in the site to do so.
2. Hazardous wastes should only be received under the supervision of a suitably qualified person (HNC qualified chemist or higher).	Not applicable.
Load inspection 3. Visual inspection. Where possible, confirmatory checks should be undertaken before offloading where safety is not compromised. Inspection must in any event be carried out immediately upon offloading at the installation.	Visual inspections will be undertaken of all waste loads by suitably qualified staff in order to confirm that the waste matches the written description.
4. Check every container to confirm quantities against accompanying paperwork. All containers should be clearly labelled and should be equipped with well-fitting lids, caps and valves secure and in place. Any damaged, corroded or unlabelled drums should be put into a quarantine area and dealt with appropriately. Following inspection, the waste should then be unloaded into a dedicated sampling/reception area.	Not applicable for this activity.
5. At this stage the waste tracking system unique reference number should be applied to each container. Each container should also be labelled with the date of arrival on-site and primary hazard code.	Not applicable for this activity.
6. Where containers are bulked, the earliest date of arrival of	Not applicable for this activity.

the bulked wastes should be transposed from the original container onto the bulk container.	
7. The inspection, unloading and sampling areas should be marked on a plan and have suitably sealed drainage systems (see Section 2.8 on page 89).	Not applicable.
Sampling - checking - testing of wastes – storage 8. Other than pure product chemicals and laboratory smalls, no wastes should be accepted at the installation without sampling, checking and testing being carried out. Reliance solely on the written information supplied is not acceptable, and physical verification and analytical confirmation are required. All wastes, whether for on-site treatment or simply storage, must be sampled and undergo verification and compliance testing.	Not applicable.
9. The Operator should ensure that waste delivered to the installation is accompanied by a written description of the waste describing: • the physical and chemical composition • hazard characteristics and handling precautions • compatibility issues • information specifying the original waste producer and process	ANSA will only accept commercial waste when it is accompanied by a written description.
10. On-site verification and compliance testing should take place to confirm: • the identity of the waste • the description of the waste •consistency with pre-acceptance information and proposed treatment method • compliance with permit	The waste will be visually inspected if possible to verify that it matches the description of the waste.
11. The Operator should have clear and unambiguous criteria for the rejection of wastes, together with a written procedure for tracking and reporting such non-conformance. This should include notification to the customer/waste producer and the Regulator. Written/computerised records should form part of the waste tracking system information.	ANSA have a waste rejection procedure within the Operating Techniques document for the site. There will be a designated quarantine area at the site to store rejected wastes until they are removed from the site. There will be a system in place for keeping records of all waste that arrives at the site, including rejected waste.
12. Documentation provided by the driver, written results of acceptance analysis, details of offloading point or off-site transfer location should be added to the tracking system documentation.	ANSA will maintain records of the waste accepted at the site. However, chemical analysis is not considered necessary for this type of activity.
13. A record of the sampling regime for each load and justification for the selection of this option should be maintained at the installation.	Not applicable.

14. Wastes must not be deposited within a reception area without adequate space.	Waste will only be accepted at the site if there is sufficient capacity in the reception area. The Environmental Management System will have in place procedures for monitoring the volume of waste on site at any one time to ensure that no waste is stored outside the maximum permitted quantities.
15. Wastes in containers should be unloaded into a dedicated reception area pending acceptance sampling. Such storage should be for a maximum period of 5 days. During this period there should be no bulking up or mixing of drums or decanting the contents into bulk storage. Wastes should be stored within this reception area according to compatibility in line with HSE Guidance Note HSG71. Appropriate storage must be achieved immediately upon offloading.	Not applicable to this activity.
16. Should the inspection or analysis indicate that the wastes fail to meet the acceptance criteria (including damaged or unlabelled drums), then such loads should be stored in a dedicated quarantine area and dealt with appropriately. Such storage should be for a maximum of five working days. Written procedures should be in place for dealing with wastes held in quarantine, together with a maximum storage volume.	There will be a designated quarantine area at the site to store rejected wastes until they are removed from the site. The majority of quarantined waste will be held on site for no more than48 hours after receipt, unless chemical analysis sampling has been requested which case the unpermitted waste would then be removed as soon as practicable. .
17. If the cause of failure to meet acceptance criteria is due to incompatibility, then the wastes should be segregated immediately to remove the hazard.	Incompatible waste will be segregated as soon as possible.
18. Tankered wastes should be sampled prior to acceptance. There should be no storage pending sampling.	Not applicable.
19. The driver of the vehicle carrying the waste may arrive at the installation with a sample that has been taken at some stage beforehand. This should be the exception and only be relied on if: • there are health and safety and environmental control considerations, for example, water reactive substances which would make sampling difficult, and • the following written information has been supplied - the physical and chemical composition, hazard characteristics, incompatible substances and handling precautions, information specifying the original waste producer and process, and • the waste has been taken directly from the production site to the waste treatment installation	Not applicable.
20. The installation should have a designated sampling point or reception area. These should be in close but safe proximity to	Not applicable.

the laboratory/checking facility and the sampling point should be visible (or covered by CCTV), if sampling is not directly supervised by, for example, laboratory staff.	
21. The offloading, sampling point/reception and quarantine areas should have an impervious surface with self-contained drainage, to prevent any spillage entering the storage systems or escaping off-site. Most spills and leaks during sampling are on a small scale, resulting from releases from the back valve of a tanker if the sample is being obtained in this way. Attention should be given to ensuring that incompatible substances do not come into contact resulting from spills from sampling, for example, within a sump serving the sampling point. Absorbents should be made available.	The designated areas for offloading, sampling and waste quarantine will benefit from impermeable surfacing with an engineered drainage system (as described in Appendix E).
Sampling of bulk liquid wastes 22. Deliveries in bulk road tanker should be accompanied by a "wash-out" certificate or a declaration of the previous load so that contamination by this route can be checked.	Not applicable for this activity.
23. Samples are usually taken by the tanker driver from one of three points on the tanker: • top hatch • back valve • sight glass	Not applicable for this activity.
24. The key requirement is to obtain a sample that is representative of the load, that is, the sample takes account of the full variation and any partitioning within a bulk load such that "worst-case" scenarios are accounted for. Taking a sample through a top hatch of the surface of the liquid may not be representative, but may be useful in establishing whether there may be a layer of, for example, solvent or some other immiscible substance, which may be unsuitable for treatment. Top samples should be obtained from the cross-section of the load, that is, a core sample.	Not applicable for this activity.
25. A gantry should be used to avoid the need to take samples from the back valve of tankers, which is likely to result in a small spillage.	Not applicable for this activity.
Sampling drummed waste 26. The contents can only be identified with certainty if every container is sampled. Acceptance should involve sampling every container. However, analysis of composite samples is acceptable with such a sampling regime. A representative sample must be obtained by taking a core sample to the base of the container. Operators should ensure that lids, bungs and valves are replaced immediately after sampling.	Not applicable for this activity.
Drum Labelling 27. For drummed waste, controls should ensure each drum is given a unique label to facilitate a record of: • the location of each drum • the duration of storage • the chemical identity of the drums contents	Not applicable for this activity.

• the hazard classification for each drum	
28. Drums should be handled and stored so that the label is readily visible.	Not applicable for this activity.
Acceptance of laboratory smalls 29. The procedure for accepting laboratory smalls on-site should be essentially identical to that for drummed waste. They differ from the "normal" waste inputs to site in that they are in a pure concentrated form. 30. In situations where the Operator has undertaken the identification and packaging on behalf of the customer, then the on-site verification can be restricted to opening the drums to check that the containers remain undamaged. In such cases the load must be accompanied by documentation confirming the checking and packing. In situations where the drum has been packed by the customer, then full checking and verification should be undertaken. Checking packaging and segregation adequately should include emptying of the drum as soon as possible and in any event at facilities that are operated 24 hours a day, within 24 hours. At sites not operated around the clock, checking must be undertaken before the end of the working day. Repackaging the waste must be undertaken as soon as the necessary checks have been undertaken.	Not applicable for this activity.
Waste Rejection procedures 31. Lab smalls must not be accepted at a facility where there are insufficient suitably qualified personnel to process these wastes within the above timescales.	Not applicable to this activity.
32. If on opening a drum it is found that it contains incompatible substances, or that the substances have not been packaged adequately, then the drum should be sorted and repacked immediately and the non-conformance procedure followed.	Not applicable to this activity.
33. Sorting and repackaging of laboratory smalls should take place in a dedicated area/store. Once the wastes have been sorted according to hazard classification, with due consideration for any potential incompatibility problems, and repacked, then these drums should not be stored within the dedicated laboratory smalls area but should be removed to the appropriate storage area.	Not applicable to this activity.
34. The operator should have clear and unambiguous criteria for the rejection of wastes, together with a written procedure for tracking and reporting such non-conformance. This should include notification to the customer/waste producer and the Environment Agency. Written/computerised records should form part of the waste tracking system information. The operator should also have a clear and unambiguous policy for the subsequent storage and disposal of such rejected wastes. This policy should achieve the following: • identifies the hazards posed by the rejected wastes • labels rejected wastes with all information necessary to	ANSA have a waste rejection procedure for the site as detailed in the Operating Techniques. There will be a designated quarantine area at the site to store rejected wastes until they are removed from the site. There will be a system in place for keeping records of all waste that

allow proper storage and segregation arrangements to be put in place • segregates and stores rejected wastes safely pending removal	arrives at the site, including rejected waste.
Records 35. The waste tracking system should hold all the information generated during pre-acceptance, acceptance, storage, treatment and/or removal off-site. Records should be made and kept up to date on an ongoing basis to reflect deliveries, on-site treatment and despatches. The tracking system should operate as a waste inventory/stock control system and include as a minimum: • date of arrival on-site • producers details • all previous holders • a unique reference number • pre acceptance and acceptance analysis results • package type and size • intended treatment/disposal route • record accurately the nature and quantity of wastes held on site, including all hazards and identification of primary hazards • where the waste is physically located in relation to a site plan • where the waste is in the designated disposal route • identification of operators staff who have taken any decisions re acceptance or rejection of waste streams and decided upon recovery / disposal options	ANSA will establish a sample tracking system which includes the necessary details and is auditable. This will be incorporated into the Environmental Management System and will be monitored and audited.
36. All records relating to pre-acceptance should be maintained and kept readily available at the installation for cross-reference and verification at the waste acceptance stage. Records should be held for a minimum of two years after the waste has been treated or removed off-site. Records should be held in an area well removed from hazardous activities to ensure their accessibility during any emergency.	ANSA will retain records relating to pre-acceptance for a minimum of 3 years. ANSA will retain records relating to waste acceptance for a minimum of two years after the waste has been treated or removed offsite. The records will be kept in the site office which is well-removed from hazardous activities.
37. The system adopted should be capable of reporting on all of the following: • total quantity of waste present on-site at any one time, in appropriate units, for example, 205 litre drum equivalents • breakdown of waste quantities being stored pending on-site treatment, classified by treatment route	ANSA will implement an electronic record system which will monitor the total quantity of waste on site at any one time and their proposed treatment and recovery route. This electronic system will enable ANSA to quickly identify whether storage capacities are reaching the prescribed

• breakdown of waste quantities on-site for storage only, that is, awaiting onward transfer • breakdown of waste quantities by hazard classification • indication of where the waste is located on site relative to a site plan • comparison of the quantity on site against total permitted • comparison of time the waste has been on-site against permitted limit These records should be held in an designated area, as agreed with the Agency, well removed from hazardous activities to ensure their accessibility during any emergency	permitted limits and how long waste has been on site.
38. Back-up copies of computer records should be maintained off-site.	ANSA will keep back-up copies of the computer records for the site at an off site location.
General 39. Wastes should not be accepted at the installation without a clear defined method of recovery or disposal being determined and costed and ensuring there is sufficient capacity being available. These checks should be performed before the waste acceptance stage is reached.	The Environmental Permit will include separate permitted waste lists for each separate activity that is undertaken at the site. Only wastes that are compliant with the Permit will be accepted at the site. This will ensure that all wastes accepted have a clear, defined treatment or disposal route.
40. The Operator should ensure that the installation personnel who may be involved in the sampling, checking and analysis procedures are suitably qualified (HNC qualified chemist or higher) and adequately trained, and that the training is updated on a regular basis.	All undertaking sampling, checking or analysis procedures will be undertaken by a competent individual. . The site activities will be supervised by a Technically Competent Manager who holds the appropriate level of COTC.
41. Analysis should be carried out by a laboratory with suitably accredited test methods.	Not applicable.
42. Samples should be retained on-site for a minimum of two days after the waste has been treated or removed off-site including all residues from its treatment.	Not applicable.
43. Once analysis has confirmed that the waste is acceptable, the Operator should only then create a batch for treatment or a load for off-site removal. Once a batch has been assembled for treatment, the operator should create a composite sample for analysis prior to treatment. Scope of analysis depends upon intended treatment but should be specified.	Not applicable.
44. There must be a clear distinction between sales and technical staff roles and responsibilities. If non-technical sales staff are involved in waste enquiries then a final technical assessment prior to approval should be made. It is this final technical checking that should be used to avoid build-up of accumulations of wastes and to ensure that sufficient capacity	ANSA will ensure that staff only undertake activities for which they are appropriately trained. The roles of technical and sales staff will be clearly defined.

exists.	

2.6 Waste Storage

2.6.1 Reference has been made to section 2.1.3 of guidance note SGN 5.06.

2.6.2 All offloading and quarantine areas will be located on appropriate surfacing and benefit from a suitable drainage system.

2.6.3 Storage areas will be located within the building and allow for loading of waste into process equipment by grab and shovel.

2.6.4 The storage capacities of the site are as shown in Table 4 below. The site management staff will monitor the site's capacity on a daily basis and waste will only be accepted if there is sufficient capacity.

Table 4: Waste Storage Capacities

Site Location	Approximate Capacity (tonnes)
Waste Reception Area (waste pending processing)	1,500
RDF Storage (baled)	2,000
Rejected Materials (metals and fines)	500

2.6.5 All waste materials are to be stored inside the building as a function of this Environmental Permit.

2.6.6 Frequent (weekly or other frequency depending on site specific circumstances) inspections of storage area site surfaces will be undertaken by operational staff to ensure appropriate condition is maintained, inspections will be recorded in accordance with sites EMS procedures. Storage areas will be periodically cleared of wastes in a phased manner to allow for inspection, maintenance and cleaning, appropriate remedial actions will be undertaken and recorded in accordance with the site specific EMS.

2.6.7 Storage within the waste reception area will be a maximum of three working days (indicative BAT guidance SGN 5.06 2.1.3 point 18).

2.6.8 Once treated all wastes (including the treated RDF and any rejected materials) as soon as practical. No wastes will be stored for longer than the maximum recommended period (3 working days) identified in indicative BAT guidance SGN 5.06 2.1.3 point 18.

2.6.9 It is considered that these storage procedures accord with indicative BAT and will be undertaken in accordance with the Operator's EMS.

2.6.10 Table 5 below sets out how ANSA will meet the indicative BAT requirements set out in SGN5.06:

Table 5: Indicative BAT assessment for storage procedures

Indicative BAT Requirement	How the requirement will be met
Offloading/discharge of waste 1. The Operator should have in place a system to ensure that the correct discharge point or storage area is used. The options for this include: • ticket systems • supervision by site staff and if relevant CCTV • keys • colour-coded points/hoses or fittings of a specific size	There will be a designated area at the site for the unloading of waste and there are designated storage areas. Site operations are overseen by the Site Manager.
2. Offloading and quarantine points should have an impervious surface with self-contained drainage, to prevent any spillage entering the storage systems or escaping off-site.	All waste storage areas benefit from impermeable surfacing with an engineered drainage system.
3. Damaged hoses and connections must not be used.	Not applicable to this activity.
4. Only couplings of the correct size for the connection should be used and the coupling should be able to withstand the maximum shut valve pressure of the transfer pump.	Not applicable to this activity.
Record keeping 5. The Operator should have an internal tracking system which should satisfy the objectives and minimum standards given at Section 2.1.2 on page 25 for all wastes.	ANSA will establish a tracking system to enable effective record-keeping.
General storage requirements 6. Storage areas are often the most visible aspects of the installation. Storage areas should be located away from watercourses and sensitive perimeters, for example, those which may be adjacent to public rights of way, housing or schools, and within the security-protected area of the installation to prevent vandalism.	There are designated storage areas at the site. The locations of these have been determined with due consideration of nearby sensitive perimeters.
7. Storage areas should be located to eliminate or minimise the double handling of wastes within the installation.	The designated storage areas are located as to avoid the double-handling of wastes.
8. Storage areas should be clearly marked and signed with regard to the quantity and hazardous characteristics of the wastes stored therein.	The designated storage areas will be clearly marked and signed to indicate the quantity of the wastes therein. The wastes accepted will not have

	hazardous characteristics.
9. The total maximum storage capacity of the site should be clearly and unambiguously stated in writing, accompanied with details of the method used to calculate the volumes held against this maximum and set out in the site plan. The stated maximum capacity of storage areas should not be exceeded and the site plan updated to reflect any changes before they are implemented.	The maximum storage capacity of the RDF facility is 2,000 tonnes post production. Volumetric calculations and weighbridge certificates (weight) will be used to calculate the amount of material on site.
10. All containers should be clearly labelled with the date of arrival, relevant hazard code(s), chemical identity and composition of the waste and a unique reference number or code enabling identification through stock control and cross-reference to pre-acceptance and acceptance records. All labelling should be resilient enough to stay attached and legible throughout the whole time of storage at the installation.	Not applicable to this activity.
11. Storage area drainage infrastructure should ensure that all contaminated run-off is contained, that drainage from incompatible wastes cannot come into contact with each other and that fire cannot spread between storage / treatment areas via the drainage system.	The storage area drainage infrastructure will prevent the release of potentially contaminated run-off into the environment. As the facility will be accepting non-hazardous wastes only and will be enclosed within a building, it is considered that the risk of contaminated surface water runoff is low.
12. Procedures must be in place for the regular inspection and maintenance of storage areas, including drums, vessels, pavements and bunds. Inspections should pay particular attention to signs of damage, deterioration and leakage. Records should be kept detailing action taken. Faults must be repaired as soon as practicable. If containment capacity or capability of bund, sump or pavement is compromised, (unless effecting a repair is more expedient and working with wastes in close proximity does not compromise safety), then waste must be immediately removed until the repair is completed.	The Site Manager will inspect the storage and treatment area on a regular basis. Records will be kept of inspections, remedial works and routine maintenance.
13. There should be daily inspection of the condition of containers and pallets and written records should be kept of these inspections. If a container is found to be damaged, leaking or in a state of deterioration, it should immediately be over-drummed or the contents transferred to another container or processed.	Not applicable to this activity.
14. Over-drumming should be seen as an emergency measure and take place, if appropriate, in a designated location equipped with Local Exhaust Ventilation (LEV) as necessary. All appropriate information should be transferred onto the label of the new container. Large quantities of wastes in over-drums should be avoided by re-drumming once the incident	Not applicable to this activity.

leading to over drumming has been dealt with. Pallets damaged to the extent that the stability of the containers is or may become compromised should be replaced. "Plastic shrink wrap" should only be used to provide secondary stability to drum/container storage in addition to the use of sound pallets.	
15. There should be vehicular, for example, forklift, and pedestrian access at all times to the whole of the storage area such that the transfer of containers is not reliant on the removal of others that may be blocking access, other than drums in the same row. Drums should not be stored on other drums more than two high and allow access for inspection on all sides. That is, four x 205 litre drums on a pallet, stacked no more than two x 205 litre drums high in rows.	There will be vehicular access at all times to the entire storage/treatment area.
16. All spillages of hazardous wastes should be logged, where spillages >200 litre then additionally the Regulator should be informed.	There are no hazardous wastes proposed to be accepted at the facility. ANSA will record any spillages in accordance with the procedures in their Management System.
17. Activities that create a clear fire risk should not be carried out within the storage area, even if it is not formally classified as hazardous. Examples include grinding, welding or brazing of metalwork, smoking, and parking of normal road vehicles except while unloading, charging of the batteries of fork lift trucks.	Grinding, welding or brazing of metalwork, smoking, parking of normal road vehicles and charging of the batteries of fork lift trucks will not be undertaken in the vicinity of waste storage areas.
Turnover 18. Storage within the reception area should be for a maximum of five working days. Following receipt, wastes should be treated or removed off-site as soon as possible. The total storage time will depend upon the characteristics of a particular site and the waste types being stored. For example, on a site in a sensitive location handling hazardous wastes, it may be appropriate to limit storage times to one month. Other non-hazardous wastes, however, may be held on-site for longer periods. However, all waste should be treated or removed off site within a maximum of six months from the date of receipt.	The waste will be stored within the reception area for no longer than 3working days.
Storage of drummed waste and other containerised wastes such as IBCs 19. Storage under cover for drummed waste has the advantage of reducing the amount of potentially contaminated water that may be produced in the event of any spillage and extending the useful life of the container. It is preferable that wastes are stored under cover. This should also apply to any container that is held in storage pending sampling and emptied containers. Covered areas must have adequate provision for ventilation by means of wall or roof vents or construction of the area, for example, open barn. Any such	Not applicable to this activity.

warehousing should meet the requirements of HSG71 (see Ref 4). 20. Containers should be stored in such a manner that leaks and spillages could not escape over bunds/edge of the sealed drainage area. 21. Containers should be stored with well-fitting lids, caps and valves, secured and in place. 22. Storage areas for containers holding substances that are known to be sensitive to heat and light or reactive with water or moisture should be under cover and protected from water, heat and direct sunlight. 23. Storage areas for containers holding flammable or highly flammable wastes should meet the requirements of HSG 51, HSG71 and HSG76 (see Ref 4).	
Aged stock 24. It is important to avoid accumulations of waste, which may in turn lead to deterioration in the container resulting in spillage or, in extreme cases, the deformation of the container to such an extent that it cannot be moved.	Not applicable to this activity.
Segregation 25. In addition to the requirements of this document, the segregation of wastes should meet the requirements of HSG71 and be justified by risk assessment.	Not applicable – HSG71 relates to storage of chemicals which will not be undertaken at this site.
26. HSG 71 provides no guidance on the use of fire walls to achieve separation or segregation of different types of waste in outdoor storage. Fire walls which are impervious to liquid, at least 2m high, and capable of withstanding an intense fire on one side without collapse, can be used to reduce the 3m separation required for some combinations of materials marked as 'keep apart'. No more than two sides of a storage area should be provided with fire walls, because it would prevent good ventilation.	Not applicable – HSG71 relates to storage of chemicals which will not be undertaken at this site. A Fire Management Plan has been completed in accordance with the current EA guidance, and this details the fire prevention measures that will be in place.
Storage of aerosols 27. Storage of aerosols should take place under cover in closed containers or cages. Aerosols should not be stored in open containers.	Not applicable to this activity.
Storage of laboratory smalls 28. Written procedures for the segregation and packing of laboratory smalls should be produced identifying; • How the hazards associated with each package are identified. • How the risks of adverse reactions occurring between individual packages are assessed, and by whom. • The level of competence, qualification and training	Not applicable to this activity.

required by those undertaking this assessment. • How incompatible substances (i.e. those that could react to generate heat, fire or hazardous reaction products) are prevented from being stored within the same drum. • How the wastes are to be packed and stored. • How the wastes are to be recovered or disposed. 29. Incompatible substances should not be stored within the same drum. 30. Sorting and repackaging of laboratory smalls should take place in a dedicated area/store. Once the wastes have been sorted according to hazard classification, with due consideration for any potential incompatibility problems, and repacked, then these drums should not be stored within the dedicated laboratory smalls area but should be removed to the appropriate storage area.	
Compatibility testing 31. In order to prevent any adverse or unexpected reactions and releases before transfer involving the following activities, testing should take place prior to the transfer: • tanker discharge to bulk storage • tank-to-tank transfer • transfer from container to bulk tank • bulking into drums/IBCs • bulking of solid waste into drums or skips 32. Any evolved gases and cause of odour should be identified. If any adverse reaction is observed, an alternative discharge or disposal route should be found.	Not applicable to this activity.
Transfer from tanker, drums and other containers in bulk storage 33. Due consideration should be taken of the implications of scale-up from laboratory compatibility testing to bulk transfer and the Guidance is given in HSG143 (see Ref 4). 34. Wastes in containers should be transferred into storage vessels by dip pipe to minimise splash, fume and odour. 35. Transfer/discharge should only take place after compatibility testing has been completed and then only with the sanction of an appropriate manager. Approval should specify which batch/load of material is to be transferred, the receiving storage vessel, equipment required, including spillage control and recovery equipment, and any special provisions relevant to that batch/load. 36. During bulking to tankers, vapour balance lines connected to appropriate abatement equipment should be used. 37. Tankers must not be used as reaction vessels. Blending by	Not applicable to this activity.

bulking into tankers should only take place following a risk assessment and once suitable verification and compatibility testing has been carried out. 38. If flammable chemicals are being transferred, particular caution has to be taken to avoid the generation of static electricity, with the subsequent risk of ignition. Guidance on the safe use and handling of flammable liquids is provided by the Health and Safety Executive and is contained within HSG140, including Guidance on the issue of static electricity build-up. There may be other regulatory requirements to consider such as the Dangerous Substances and Explosive Atmospheres Regulations. 39. A representative sample of the receiving tank/vessel/container should be mixed in a proportional ratio with a sample of incoming waste stream that it is proposed to add to the tank/ vessel/container. The two samples should take account of the "worst-case" scenario of likely constituents. The particular test parameters will be driven by the wastes being bulked. As a minimum, records of testing should be kept including any reaction giving rise to: • increase in temperature • viscosity change • separation or precipitation of solids • evolution of gases • evolution of odours	
Bulking up into drums (includes drum, tank, tanker or small container transfers into drums) 40. Bulking/mixing should only take place under instruction from and under direct supervision of a suitable manager/chemist and should be under Local Exhaust Ventilation (LEV) in appropriate cases. Odorous materials should not be bulked up. If bulking different batches, then a composite sample must be compatibility tested prior to bulking. Containers should be kept lidded/sealed as much as possible. 41. HSG 140 advises that gravity dispensing is avoided, unless physical protective devices are provided to prevent loss of the whole tanker contents. 42. Where tankers are discharged to drums, it must be possible to close the valve at the tanker end quickly and safely in case of spillage. The valve at the dispensing end must close automatically if it is released. A minimum of two people will be needed for this operation or the operation of the tanker valve if access to the tanker valve is difficult.	Not applicable to this activity.
Bulking of solid waste 43. Bulking of different batches must not take place without	Not applicable to this activity.

compatibility testing. In appropriate cases, LEV should be used to control odour and dust. Drums should be manipulated using mechanical means, for example, forklift with rotating drum handling fitting. Liquid waste must not be added to solid wastes other than in 'purpose-designed and built' reaction vessel, that is, decanting of liquids into a skip containing bulked solids must not take place.	
Bulk storage vessels 44. Bulk storage vessels should be located on an impervious surface that is resistant to material being stored, with sealed construction joints within a bunded area with a capacity at least 110% of the largest vessel or 25% of the total tankage volume, whichever is the greater.	Not applicable to this activity.
45. Vessels supporting structures, pipes, hoses and connections should be resistant to the substances (and mix of substances) being stored. There should be a routine programmed inspection of tanks, mixing and reaction vessels including periodic thickness testing. In the event of damage or significant deterioration being detected, the contents should be transferred to appropriate storage. These inspections should preferably be carried out by independent expert staff, and written records should be maintained of the inspection and any remedial action taken.	Not applicable to this activity.
46. Vessels should not be used beyond the specified design life or used in a manner or for substances that they were not designed, Vessels should be inspected at regular intervals, with written records kept to prove that they remain fit for purpose. See HSE Guidance Note PM75.	Not applicable to this activity.
47. **As a general rule, no open-topped tanks, vessels or pits should be used** for storage or treatment of hazardous or liquid wastes. Exceptions would require justification in the permit application.	Not applicable to this activity.
48. No uncontrolled venting to atmosphere should be allowed, and all vents should be linked to suitable scrubbing and abatement systems. Vapour balance lines should be connected to suitable abatement systems.	Not applicable to this activity.
49. Tank and vessel optimum design should be considered in each case, taking into account waste type, storage time, and overall tank design and mixing system to prevent sludge accumulation and to ease desludging. Storage and treatment vessels should be regularly desludged.	Not applicable to this activity.
50. Tanks and vessels should be equipped with suitable abatement systems and level meters with both audible and visual high-level alarms. These systems should be sufficiently robust and regularly maintained to prevent foaming and sludge build-up affecting the reliability of the gauges.	Not applicable to this activity.
51. Storage vessels holding flammable or highly flammable wastes should meet the requirements of HSG51, HSG140,	Not applicable to this activity.

HSG716 and HSG176 (see Ref 4).	
52. All connections between vessels must be capable of being closed via suitable valves. Overflow pipes should be directed to a contained drainage system, which may be the relevant bunded area, or to another vessel provided suitable control measures are in place.	Not applicable to this activity.
53. Underground or partially underground vessels without secondary containment should be scheduled for replacement with above-ground structures, for example, double-skinned vessels with leakage detection.	Not applicable to this activity.
54. Plant and equipment taken out of use should be decontaminated and removed.	Not applicable to this activity.
55. Pipework should preferably be routed above ground; if below ground it should be contained within suitable inspection channels.	Not applicable to this activity.
56. Silos should be equipped with dust abatement systems, level monitors and high-level alarms.	Not applicable to this activity.
57. Storage bunkers should have extraction systems for particulate abatement or spray damping.	Not applicable to this activity.
Tank & process pipework labelling 58. All vessels should be clearly signed as to their contents and capacity and should have a unique identifier. Tanks should be appropriately labelled. 59. Labelling should differentiate between wastewater and raw process water, combustible liquid and combustible vapour and direction of flow. 60. Written records of all tanks should be kept detailing: • unique identifier • capacity • construction including materials • maintenance schedules and inspection results • fittings (including joints and gaskets etc.) •waste types that may be stored/treated in the vessel including flashpoint limit. 61. A suitable pipework coding system should be used, for example, RAL European standard colour coding. 62. All valves should be tagged with a unique identifier shown on the process and instrumentation diagram. All connections should be correctly sized and maintained in an undamaged state.	Not applicable to this activity.
Other storage requirements 63. Waste or raw materials in non-waterproof packaging should be kept under cover.	The RDF facility will be accommodated within a building (as described in the Operating Techniques).
Container movement 64. Drums and other mobile containers should only be moved between different locations (or loaded for removal off-site) in accordance with written procedures. The waste tracking system should then be amended to record these changes.	Not applicable to this activity.

2.7 Treatment – General Principles

2.7.1 Reference has been made to section 2.1.4 of guidance note SGN 5.06.

2.7.2 A summary process description is provided in section 2.2 above and a detailed description is provided in the Operating Techniques.

2.7.3 The objectives of the treatment process are the processing of black bag waste to produce RDF to a specified standard and the recovery of recyclable materials from the waste stream. Process equipment will be selected to achieve these objectives based on a number of factors including efficiency (e.g. ability to achieve the desired objectives compared to operating cost) reliability and energy usage. The waste types to be accepted are listed in full in the Operating Techniques.

2.7.4 The maximum predicted annual waste input rate to the facility is 100,000 tonnes with an expected maximum production of RDF to be approximately 800 tonnes per day (approximately 80 tonnes per hour).

2.7.5 Plant will be maintained in accordance with manufacturers' instructions, minimising the likelihood of failure. Critical plant performance will be monitored and appropriate plant spares will be held on site minimising downtime.

2.7.6 It is considered that these general principles of treatment accord with indicative BAT and will be undertaken in accordance with the Operators' EMS.

2.7.7 Table 6 below sets out how ANSA will meet the indicative BAT requirements for treatment as set out in SGN 5.06:

Table 6: Indicative BAT assessment for treatment procedures

Indicative BAT Requirement	How the requirement will be met
General principles 1. Provide adequate process descriptions of the activities and the abatement and control equipment for all of the activities such that the Regulator can understand the process in sufficient detail to assess the operator's proposals and in particular to be able to assess opportunities for further improvements. This should include:	Detailed description of the RDF production process is provided in the Operating Techniques report and summarised in Section 2.2 of this report.

	• diagrams of the main plant items where they have environmental relevance, for example, storage, tanks, treatment and abatement plant design, etc. • details of chemical reactions and their reaction kinetics/energy balance • equipment inventory, detailing plant type and design parameters, for example, flashpoints • waste types to be subjected to the process • control system philosophy and how the control system incorporates environmental monitoring information • process flow diagrams (schematics) • venting and emergency relief provisions • summary of operating and maintenance procedures • a description of how protection is provided during abnormal operating conditions such as, runaway reactions, unexpected releases, start-up, momentary stoppages and shut-down for as long as is necessary to ensure compliance with release limits in Permits • additionally, for some applications, it may be appropriate to supply process instrumentation diagrams for systems containing potentially polluting substances.	
2.	Provide an assessment of the **efficiency of the treatment process** in relation to Schedule 5 (of the PPC Regulations) pollutants in terms of the removal or partition of substances within the process, for example: • the precipitation of metals from solution for removal in the filter cake • the degree of transfer between the incoming waste and the emissions (to air, solid waste to land and liquid effluent to sewer of, for example, pesticides or solvents)	The Environmental Risk Assessment that accompanies this application provides details of fugitive emission monitoring.
3.	The Operator should analyse these parameters using the following steps: • *process mapping* - identify the pathways within the process for the specific substance or substances • *mass balance* • *action plan* - if the study indicates that losses from a process are contributing to: – the breach of an Environmental Quality Standard – the breach of benchmark – a significant environmental impact	It is considered that the process will not contribute towards a breach of an Environmental Quality Standard (EQS) or benchmark, or a significant environmental impact and therefore an action plan is not required.
4.	Then an action plan should be prepared and implemented.	See above.
	For each treatment process, the objectives and	The objective of the process is to produce a waste

5.	reaction chemistry should be clearly defined. There must be a defined end-point to the process so that the reaction can be monitored and controlled. The suitable inputs to the process must be defined, and the design must take into account the likely variables expected within the waste stream.	derived fuel product from household and commercial waste streams. This will involve bag-splitting, shredding, sorting the waste to remove non-suitable items, compacting and baling.
6.	For each new reaction, proposed mixes of wastes and reagents should be assessed prior to treatment in a scale laboratory test mix of the wastes and reagents to be used. This should lead to all reactions and mixing of wastes being to a predetermined batch "recipe". It should also take into account the potential scale-up effects, for example, increased heat of reaction with increased reaction mass relative to the reactor volume, increased residence time within the reactor and modified reaction properties. See HSG143 for further Guidance.	Not applicable.
7.	The reactor vessel and plant should be specifically designed, commissioned and operated to be fit for purpose. Such designs should include consideration of chemical process hazards and a hazard assessment of the chemical reactions, prevention and protective measures together with consideration of process management i.e. working instructions, staff training, plant maintenance, checks, audits and emergency procedures.	Not applicable.
8.	In order to track and control the process of change, there should be a written procedure for proposal, consideration and approval of changes to technical developments, procedural or quality changes.	Not applicable.
9.	All treatment/reaction vessels should be enclosed and should be vented to atmosphere via an appropriate scrubbing and abatement system (subject to explosion relief).	Not applicable.
10.	Where appropriate, reactor vessels (or mixing vessels where the treatment is carried out) should be charged with pre-mixed wastes and reagents. For example, reactor vessels should be "pre-limed" or charged first with the reacting alkali to control the reaction using, for example, calcium hydroxide solution made up prior to charging the reactor vessel. The decanting of sacks or drums to the vessel should be avoided. Failure to charge the vessel can lead to: • concentration "hot spots" at the surface of the reaction liquor • loss of reaction control • emission of fume from the instantaneous reaction at the interface • the open hatch venting any fume and by-passing	Not applicable as these are solid phase reactions.

	appropriate abatement	
11.	The reaction should be monitored to ensure that the reaction is under control and proceeding towards the anticipated result. For this purpose, vessels used for treatment should be equipped appropriately e.g. high-level, pH and temperature monitors. These should be automatic and continuous and linked to a clear display in the control room or laboratory together with an audible alarm. Risk assessment may require process monitors to be linked to cut-off devices.	Not applicable.
12.	**Specific substances** **Volatile organic compounds (VOC)** Chemical process waters will contain VOCs (another specific example is contaminated groundwater), resulting in a high COD which may mean that the waste is unsuitable for direct discharge to sewer. Techniques such as drying are not an option and attention should focus on displacement methods of treating.	Not applicable.
13.	For example, the waste stream could be treated by air stripping using counter-current flow across a packed column. Stripped VOC in air flow can be removed by carbon absorption or similar technique. For other techniques to control VOC emissions, see Section 2.2.4 on page 69.	See above.
14.	**Cyanides** It is important that the pH of the system remains greater than 10. If the pH is too low, then cyanogen chloride and hydrogen cyanide can be formed. Hence caustic is generally added in excess to prevent the pH from falling too low. The reaction is very rapid and the resulting cyanate cannot readily be reduced back to cyanide. Any discharge of cyanate to a watercourse will not enable free cyanide to be generated.	Not applicable.
15.	Since the treatment of cyanide is by oxidation, the destruction can be checked by the measurement of redox potential (electropotentials). Addition of sodium hypochlorite to an effluent sump can therefore be controlled. If there is excess hypochlorite present, then chlorine gas can be released; and if there is a lack of hypochlorite, then residual cyanide is present. Discharges of aqueous effluent to watercourses should therefore be monitored continuously for cyanide content, free chlorine and pH.	Not applicable.
16.	**Chromium (VI) compounds** Chromium (VI) is the highest oxidation state of the metal. An example of it is chromic acid or chromium	Not applicable.

	oxide (CrO3) which is acidic, toxic, water-soluble and an oxidising agent. Treatment by straightforward neutralisation would be ineffective and the initial step is the reduction to Chromium (III) to the trivalent state. The conversion of Cr 6+ to less hazardous Cr 3+ can be achieved by the addition of a reducing agent, for example, sodium metabisulphite or waste pickling acid, which is rich in ferrous ion. The trivalent metal can then be precipitated in the normal way.	
17.	**Strong acids** For concentrated acids (>70% w/w) there is a market for blended or re concentrated acids. It has become viable to use 50% (w/w) acids, although this requires a greater energy input. It is anticipated that the growth area for this market may be in the 20-30% acids range. This may be seen as a preferred option for some acid wastes, but is dependent on the volume and contamination of the waste.	Not applicable.
18.	**Phenolic solutions** A process has been developed treating aqueous wastes containing phenol (3 - 5% w/w) by catalytic oxidation, using an oxidising agent and a metal catalyst, on a 3 tonne batch basis in a stainless-steel, double-skinned vessel. The treatment procedure must take account of the exothermic nature of the reaction. Feedstock can be diluted before treatment. The process temperature, pH and redox potential are continually monitored.	Not applicable.

2.8 Emission control

Point Source Emissions to Air

2.8.1 Reference has been made to section 2.2.1 of guidance note SGN5.06.

2.8.2 All waste storage and treatment is to occur within a building.

2.8.3 There will be one point source emission to air from the RDF production facility. However, this emission point will be for the dispersion of odour only. An odour dispersion model has been prepared in support of the application and is included within the H1 Environmental Risk Assessment.

Point Source Emissions to Surface Water

2.8.4 All waste treatment is to occur within the building upon an impermeable surface with a sealed drainage system. Drainage details are provided on drawing A091680/DR-501. Clean surface waters will be directed to the storage tank prior to discharge to the existing drainage system within the overflow sewer running across the northern part of the site and into Sanderson's Brook. The flow off site will be restricted to 90% of the overflow pipe capacity.

2.8.5 Runoff from the external areas of the facility will pass through a suitably sized oil interceptor before being discharged into the site's surface water drainage system (to a sewer that drains through the northern part of the application site and eventually discharges into Sanderson's Brook to the east of the application site).

Point Source Emissions to Groundwater

2.8.6 There are no proposed point source emissions to groundwater from the installation.

Fugitive Emissions to Air

2.8.7 The nature of the wastes proposed to be treated on site is such that they are unlikely to release significant quantities of particulates. Incoming wastes will be stored and treated within a building thereby further reducing the potential for the fugitive releases of particulates.

2.8.8 An assessment of the risks associated with particulates is contained in the supporting H1 Environmental Risk Assessment.

2.8.9 Odour may be generated by wastes on site either during storage and/or treatment. This is addressed further in the relevant section below.

2.8.10 Due to the enclosed nature of the waste activities, the overall risk presented by the escape of litter from the facility has been assessed to be extremely low by the H1 Environmental Risk Assessment. The site will be monitored daily for signs of escaping materials. An inspection around the site will be undertaken every day and litter on the fences, haul road and operational areas will be collected and placed in the untreated waste storage area. This will be recorded within the site's EMS.

2.8.11 In the event that there is an escape of litter from the site, arrangements will be made for its collection as soon as is practicable. Spillage of materials on the site will be cleaned as soon as is practicable. Monitoring and actions will be recorded within the site's EMS.

2.8.12 It is considered that the management of fugitive emission accords with indicative BAT and will be undertaken in accordance with the Operator's EMS.

Fugitive Emissions to Surface Water, Sewer and Groundwater

2.8.13 Reference has been made to section 2.2.5 of guidance note SGN 5.06.

2.8.14 The site surfaces and drainage system will accord to current construction standards and will be regularly maintained. There are no proposed sub-surface storage structures for fuel or liquids as such it is considered unlikely that there will be any fugitive liquid emissions.

2.8.15 There are no proposed vessels used for storage of fuel or lubricants located within the Environmental Permit boundary.

2.8.16 In the unlikely event of a leak or spillage from on-site plant, storage tanks or wastes received, the following procedure will be undertaken:

- The cause of the spillage will be identified and recorded so that further leaks or spillages may be prevented;
- Remedial actions may include one or more of following:
  - Bunding of the spilled material with sand or spill kit;
  - The application of absorbent granules;
  - Suction to remove spilled material to secure container; and
  - Sweeping to allow collection of the materials and their placement in a secure container.
- Absorbent granules will be kept on site at all times for the purpose of dealing with liquid spills. Contaminated granules will be loaded into an appropriate container for removal to an appropriate permitted waste management facility as soon as practicable following containment of the spill;

- Details of the spilled material and estimated quantity involved and remedial actions taken will be recorded; and
- Appropriate action will be taken to isolate site drainage by closing surface water drainage valves where appropriate.

2.8.17 It is considered that the management of fugitive emissions to water accords with indicative BAT and will be undertaken in accordance with the Operator's EMS.

Odour

2.8.18 Reference has been made to section 2.2.6 of guidance note SGN 5.06.

2.8.19 All of the waste treatment activities relating to the RDF production facility will be contained within a building, and there will be management techniques in place which will prevent the emission of odour beyond the site boundary. The only waste that will be stored externally is segregated metals which are not considered odorous.

2.8.20 A detailed Odour Assessment and Odour Management Plan has been prepared which details the measures in place. The techniques that will be utilised include:-

- Proposed activities, including waste unloading and loading of waste will take place internally, within the waste transfer station buildings, which are fitted with roller shutter doors. The buildings are also fitted with air extraction systems.
- Physical control measures such as making sure the pedestrian doors and the roller shutter doors are kept closed will be implemented.
- Other housekeeping measures will be implemented, such as the use of water to dampen stockpiles to suppress odour emissions, if necessary.
- Waste will be accepted at manageable volumes to avoid a backlog of wastes pending treatment. In the event of odorous materials being received at the site, or materials becoming odorous during storage, these will be treated before other materials already stockpiled at the site.
- Use of biofilter to reduce the level of odour emitted from the site.

2.8.21 It is considered that the management of odour accords with indicative BAT and will be undertaken in accordance with the Operators' EMS.

2.9 Management

2.9.1 Reference has been made to section 2.3 of guidance note SGN 5.06.

2.9.2 The Environment Agency recommends that the management systems are accredited. ANSA are formally pursuing accreditation for the Environmental Management System.

2.9.3 A summary of CEC's Environmental Management System is provided in Appendix H of the EPA. It is considered that the EMS will meet the requirements of BAT; however CEC will consult with the Environment Agency to ensure that the EMS is fit for purpose.

2.10 Raw Materials / Waste Minimisation & Water Use

2.10.1 Reference has been made to section 2.4 of guidance note SGN 5.06.

2.10.2 Raw material usage is limited to quantities of fuels and oils for site plant and process equipment. A list of raw materials will be maintained and regularly reviewed as part of the EMS for the site.

2.10.3 Purchasing procedures for ensuring appropriate product specification will be in accordance with the EMS.

2.10.4 The available options for waste minimisation are limited given the nature of the activities, although CEC will continue to actively pursue waste minimisation wherever possible and will explore the most sustainable options for any rejected materials from the process.

2.10.5 Water use is limited to wash water, fine mist sprays, fire water and water for welfare facilities. In all cases consideration will be given to harvesting roof water to be used as a substitute for mains potable water.

2.10.6 Water usage will be monitored and recorded and water usage will be reviewed every 4 years.

2.10.7 Water usage for cleaning and washing down will be minimised by vacuuming, scraping or mopping in preference to hosing down; by reusing wash water where practicable; and by using trigger controls on hoses and wash equipment.

2.10.8 It is considered that the above actions are compliant with indicative BAT.

2.11 Waste Recovery or Disposal

2.11.1 Reference has been made to section 2.6 of guidance note SGN5.06.

2.11.2 As previously stated, CEC will actively pursue alternative outlets for the rejected materials with preference being given to recovery activities.

2.11.3 Given the fact that it is the intention of the operator that the majority of received wastes will be either recovered or recycled it is considered that the proposed activities are compliant with indicative BAT as detailed in section 2.6.

2.12 Energy / Climate Change

2.12.1 Reference has been made to section 2.7 of guidance note SGN5.06.

2.12.2 Energy usage will form a significant part of the final plant selection, in the first instance generic energy usage figures have been used.

2.12.3 Energy usage at the facility will primarily be from electricity.

2.12.4 Standard energy efficiency measures will be adopted and will include:

- maintenance and inspection of plant to ensure efficient operation;
- selection of energy efficient equipment;
- use of energy efficient lighting; and
- appropriate use of insulation and lagging.

2.12.5 An energy management plan will be developed for the site which will include provision for monitoring energy usage and will include periodic review of energy usage and identification of efficiency measures. This will be part of the site's EMS.

2.12.6 It is considered that the management of above actions are compliant with indicative BAT.

2.13 Accidents / Incidents

2.13.1 A detailed accident management plan has been prepared in accordance with the H1 Environmental Risk Assessment documentation.

2.13.2 It is considered that the actions below, in conjunction with the activities identified in supporting documentation H1 Environmental Risk Assessment (Appendix E of EPA), are compliant with indicative BAT.

Fire

2.13.3 Reference has been made to section 2.8 of guidance note SGN5.06. In addition, a Fire Action Plan has been prepared in accordance with the Environment Agency's Fire Prevention Plan Guidance.

2.13.4 In the unlikely event that an ignited load arrives at the site, the waste will be stored temporarily in a designated fire quarantine zone which is located at the front of the site. The waste will be visually monitored from a safe distance and the Fire Brigade and Environment Agency will be immediately informed.

2.13.5 Appropriate fire fighting equipment will be available at the site. Fire anywhere on site will be treated as an emergency and site staff will be instructed to take the following action in such an event:

- Notify the Fire Brigade immediately.
- Notify the Environment Agency as soon as practicable.
- Evacuate the site if necessary with staff proceeding to the designated muster point.
- Any water used in fire fighting will be contained within the building by the internal bunds. Retained liquids will be disposed of appropriately.

2.13.6 Management and control of spills and leaks are addressed in earlier sections of this report.

Vandalism

2.13.7 The facility is to benefit from 24 hour security. Site entrances will be manned 24 hours a day to ensure no unauthorised access to the facility. Responsibility for identifying damage to fences and

gates that could prejudice site security will be with the security contractor and any such breaches will be reported directly to the site manager.

2.13.8 Site staff will be briefed that, in the event of evidence suggesting unauthorised access or vandalism being found, the matter must be reported to the police. If the incident involved unauthorised tipping or spillage of any waste, the Environment Agency will also be informed.

Pests

2.13.9 It is considered that the enclosed nature of the activities and the minimal residence time for untreated waste results in the risk of pest infestation being low. Stored wastes which are likely to attract scavengers will be monitored daily for the presence of scavenging animals or birds. However, an on-going watching brief for the identification of any pest infestations will be part of the daily routine for site operatives.

2.13.10 On detection or notification of scavenging animals or birds that are causing a nuisance, immediate action will be taken to; remove or deter them from site; and to isolate and secure the wastes attracting the scavengers against further scavenging where possible. On detection of pests, insects or vermin an appropriate professional pest/vermin control contractor will be employed. In addition any waste subject to infestation or that has attracted vermin will be considered for removal from the site.

2.14 Noise

2.14.1 Reference has been made to section 2.9 of guidance note SGN 5.06.

2.14.2 A detailed noise assessment has been undertaken in accordance with the requirements of BS4142:2014. The noise assessments have considered the change in noise level as a result of the proposed development and with comparison to background noise levels. Noise levels from on-site activities including noise from HGVs, plant and the sorting of materials are predicted to fall below the Significant Observed Adverse Effect Level (SOAEL) and are not expected to have an adverse impact on health or quality of life during either daytime or night time periods. However, mitigation measures will be implemented which would further reduce the level of noise being emitted from within the site.

2.14.3 The management of noise is described in the Environmental Risk Assessment which details the good practice to be employed at the facility. This includes:-

- Plant maintenance; and
- Appropriate location of potentially noisy activities.

2.14.4 It is considered that the above actions, in conjunction with the activities identified in supporting documentation H1 Environmental Risk Assessment, are compliant with indicative BAT.

2.15 Monitoring

2.15.1 Reference has been made to section 2.10 of guidance note SGN 5.06.

Emission Monitoring

2.15.2 A detailed description of the proposed monitoring of odour emissions is given in the Odour Management Plan.

2.15.3 The monitoring proposed is in accordance with that detailed in section 2.10.1 point 6 of SGN 5.06.

Process Monitoring

2.15.4 Continuous process quality monitoring is proposed to be undertaken; there will be an RDF monitoring unit within the process system. This will measure key variables to ensure that the RDF continues to meet the required specifications of the intended end use. Results of the monitoring will be continually assessed and used to adjust the production processes, if necessary.

2.15.5 It is considered that the above actions, in conjunction with those identified in supporting documentation H1 Environmental Risk Assessment, are compliant with indicative BAT.

2.16 Closure

2.16.1 Reference has been made to section 2.11 of guidance note SGN 5.06.

2.16.2 It is a requirement that, during the lifetime of the permit, operations do not lead to any deterioration of the site. A Baseline Site Condition Report has been prepared in support of this application to provide an assessment of ground conditions at the site. This will be updated throughout the lifetime of the permit to provide a clear record of the activities and their potential effect on the underlying ground upon closure and subsequent permit surrender.

2.16.3 The buildings and infrastructure will be designed in such a way as to ensure that during decommissioning of the facility there will be an inherently low risk of pollution to the site and its' immediate environs. The design will also ensure that all construction works can be decommissioned upon closure of the site.

2.16.4 During the lifetime of the site, all storage and processing of waste will be undertaken on an impervious surface to ensure that any spillages or leaks can be contained and will not affect the underlying ground. This surface will be subject to regular inspection with any repairs recorded and remediated as soon as practicable.

2.16.5 A Site Closure Plan will be maintained through the lifetime of the site as part of the site's EMS. This will contain, but is not limited to, the following information:-

- Site layout plan showing waste storage and processing area;
- Site drainage plan;
- Plans of all buried services;

- Plans to remove or flush out pipelines and vessels;
- A method for clearing interceptors; and
- Methods for dismantling buildings and processing equipment.

2.16.6 It is considered that the above actions, in conjunction with the Site Condition Report and H1 Environmental Risk Assessment, are compliant with indicative BAT.

3.0 Summary

3.1.1 The applicant seeks authorisation for the operation of an RDF manufacturing facility which will be regulated as an installation activity.

3.1.2 As the RDF activity will be an installation, it must be operated in accordance with the relevant Best Available Techniques (BAT). This report has demonstrated how the operator will meet these requirements.

Cheshire East Council

Environmental Services Hub, Cledford Lane, Middlewich

Operating Techniques

January 2016

Quay West at MediaCityUK, Trafford Wharf Road, Trafford Park, Manchester, M17 1HH

Tel: 0161 872 3223

Email: andrew.bowker@wyg.com

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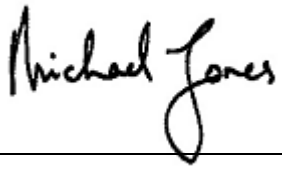
Checked by:	Michael Jones	Signed:	
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Drawing

Appendix Contents

1.0 Introduction

1.1 Report Context

1.1.1 This section of the Environmental Permit application corresponds to Parts B3 and B4 of the Environmental Permit application form, and specifically details the operating, monitoring and management procedures for the activities undertaken on site.

1.1.2 This application has been prepared on behalf of the ANSA Environmental Services (ANSA). The waste operation is located within ANSA's wider Environmental Services Hub for which planning permission is currently being sought from Cheshire East Council. The waste treatment and transfer operation will have a maximum throughput of 200,000tpa and will constitute either of the following activities:

- Maximum 200,000 tpa for Residual, Green Waste and Recyclable Waste Transfer; or
- Maximum 100,000 tpa for Refused Derived Fuel Processing and maximum 100,000 tpa for Waste Transfer.

1.1.3 The facility will operate with strict waste acceptance procedures, as provided in Section 4 of this report. ANSA Environmental Services is a wholly owned subsidiary of Cheshire East Council (Company Registration Number 08714767) which operates in accordance with a written Management System, a summary of which is included in Appendix A. The proposed activity will be overseen by a Site Supervisor who holds the appropriate level of COTC, a copy of which is provided in Appendix B.

2.0 Site Setting

2.1 Site Location

2.1.1 The proposed development site is located off Cledford Lane, Middlewich, Cheshire. The site is located in between The Trent and Mersey Canal and Faulkner Drive, approximately 5.5km from the M6 motorway (Junction 18) on the south eastern edge of Middlewich The site is centred on approximate National Grid Reference (NGR) SJ 712 648.

2.1.2 The site is bounded to the north east by Faulkner Drive. The land immediately east of Faulkner Drive at its northern end is occupied by a biomass plant and a logistics company. At the southern end of Faulkner Drive is the British Salt Works (owned by Tata Chemicals). Beyond Faulkner Drive to the north east is a railway line and agricultural land. There are a number of isolated properties located to the north east of the site as well as two large industrial units occupied by Kuehne + Nagel and Wincanton (which are accessed off E.R.F. Way on the MidPoint 18 Development).

2.1.3 Beyond the southern/south eastern boundary are a small area of industrial land and a wooded area. The Trent and Mersey Canal (which is part of the Cheshire Ring Canal Walk) forms the south western boundary beyond which is the A533 (Booth Lane) which runs in a generally south east to north west direction. Further to the south and south west of the site, beyond Booth Lane, is residential housing.

2.1.4 Cledford Lane forms the northern/north western site boundary. At the western end of Cledford Lane close to the junction with Booth Lane, there is a small group of terraced houses. On the northern side of Cledford Lane there is an embankment of trees and grassland which runs from the terraced houses to the junction with Faulkner Drive. The embankment borders the Cledford Lane Lime Beds Site of Biological Importance (SBI). Beyond Cledford Lane and the embankment there is a substantial salt lagoon.

2.1.5 A search of the Multi-Agency Geographic Information for the Countryside (MAGIC) website shows that within 2km of the site there is only one statutory environmentally designated site which is the Sandbach Flashes Site of Special Scientific Interest (SSSI). This 152ha site is located approximately 1,150m south of the site and is designated for its physiographical and biological importance. The site comprises a series of pools formed from local subsidence and provides both freshwater and

highly saline habitats for a range of flora and fauna. The SSSI is however separated from a direct connection to the site by the Trent and Mersey Canal.

3.0 Proposed Activity

3.1 Overview

3.1.1 A Waste Transfer Station (WTS) facility would be developed which would have a maximum throughput of 200,000 tonnes per annum (tpa). The WTS would comprise two industrial type buildings as shown on Drawing Number 20004.

3.2 Waste Transfer Station – Recycling (WTS – Recycling)

3.2.1 The smaller WTS-Recycling building would accommodate the green waste and co-mingled dry recyclable waste from household waste collections.

3.2.2 The design of the building, particularly the height, would ensure that Refuse Collection Vehicles (RCVs) can safely deposit waste within the building and that bulk haulage vehicles can be loaded with mobile plant without damaging the WTS roof or doors. Internally the WTS-Recycling building would include a number of waste bays for the storage of different streams of source segregated recyclable and green household waste. The bays would be constructed using concrete push walls to protect the structural integrity and fabric of the WTS-Recycling building. Fast closing doors would be installed on the north western, western and eastern elevations.

3.2.3 The proposed odour abatement equipment would require a vent stack to be included in the building design. The stack would exit the eastern elevation of the building and would rise to approximately 1.5m above the roof ridge height.

3.2.4 The WTS-Recycling building would facilitate the temporary storage and bulking up of Council collected household waste prior to off-site transport. The WTS-Recycling building would accept comingled recyclable waste (i.e. silver bin waste), organic garden waste (i.e. green bin waste) as well as waste from the Council's street cleansing operations.

3.3 Waste Transfer Station – RDF (WTS-RDF)/Recyclate and Green Waste Transfer

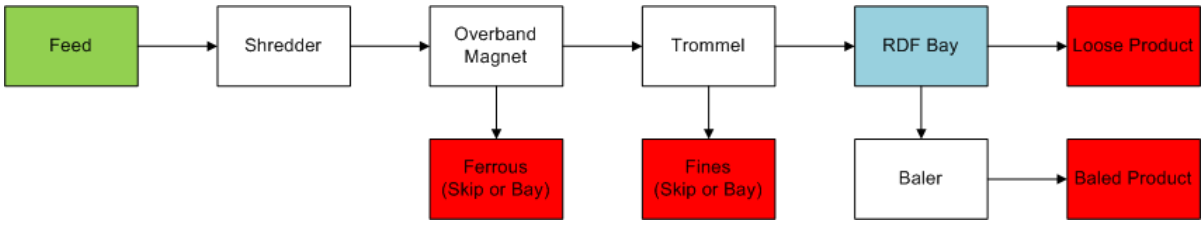
3.3.1 Occupation of the larger building will be dependent upon contracts for the recovery of the residual waste streams that Cheshire East Will have in place. Residual waste will be processed within an R1 rated Energy from Waste Facility however the requirements for pre-treatment of these waste

streams will be dependent upon the final destination. As such, there are two possible options which are detailed below.

Option 1 Waste Transfer Station – RDF (WTS-RDF)

3.3.2 Option 1 would comprise a refused derived fuel processes. Waste deposited within this building would comprise the residual/non-recyclable black bin waste from the household collections. This material would be processed to produce a refuse derived fuel. The RDF process would necessitate a basic level of treatment of the residual waste to remove recyclates and non-combustible materials such as ferrous and non-ferrous metals and inert waste. Waste would undergo shredding (or bag splitting) to a size of ~300 mm. It would then be passed under a magnet to remove any ferrous metal and then through a trommel screen (hole size ~20-30 mm) to remove organic material. The oversize from the trommel can then be classified as RDF and suitable to label with European Waste Catalogue code 19 12 10 'combustible waste – refuse derived fuel'. A process flow diagram is provided as Figure 1 below.

Figure 1 – Process Flow Diagram



3.3.3 The RDF material would be baled prior to off-site transport. Two process lines would be included within the WTS-RDF building, which would each have a process capacity of approximately 40 tonnes per hour.

3.3.4 The proposed odour abatement equipment would require a vent stack to be included in the building design. The stack would exit the eastern elevation of the building and would rise to approximately 1.5m above the roof ridge height. In addition, a biofilter is proposed within each of the buildings to further reduce the level of odour from the process.

Option 2 – Waste Transfer Station – Recycling (WTS – Recycling)

3.3.5 Option 2 comprises an additional waste transfer station for residual black bin waste and further capacity for green waste and co-mingled recyclables. This process would follow the same processes as the WTS station that would occupy the smaller building.

3.4 Permitted Activities

3.4.1 This application seeks to allow ANSA undertake the following Schedule 1 Activities:

- Section 5.4 A (1) b) ii)

3.4.2 In addition, the following Directly Associated Activities of the above Schedule 1 activity will be undertaken

- Receipt and storage of non-hazardous waste pending pre-treatment of waste for incineration or co-incineration;
- Bulking of recyclable wastes recovered as an incidental part of the production of Refuse Derived Fuel.

3.4.3 In addition to the above Schedule 1 activities, the transfer of non-hazardous residual, green and recyclable waste for the purpose of recovery will require a separate OPRA Waste Facility score and will be a separate activity within the permit. With regards to the Disposal and Recovery operations, provided for in Annex II to Directive 2008/98/EC of the European Parliament and of The Council of 19th November 2008 Waste, it is the operators intention to carry out the following activities within both the installation and waste facility aspects of the operation in Table 1 below:

Table 1

R/D Code	Activity
R3	Recycling/reclamation of organic substances which are not used as solvents.
R4	Recycling/reclamation of metals and metal compounds.
R5	Recycling/reclamation of other inorganic materials.

R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced).

3.5 Site Layout

3.5.1 An indicative site layout is shown in detail on Drawing No. A092093/PER/01.

3.5.2 There will be a designated waste reception area and storage areas, including a weighbridge and a quarantine area for non-conforming incoming wastes.

3.6 Plant and Equipment

3.6.1 The following items and machinery may be available for use on site:

- Wheeled loading shovel(s);
- 360^{o} excavator;
- Bag splitter;
- Magnetic Separation Unit;
- Trommel;
- Incline conveyors;
- Balers.

3.6.2 All plant and equipment will be maintained in accordance with the manufacturer's guidance. A planned preventative maintenance programme for all machinery on site will be implemented to ensure that equipment is repaired prior to failure. Details of the preventative maintenance programme are provided under the Environmental Management System (EMS). Staff will only be permitted to operate machinery and undertake activities for which they have received appropriate training, as detailed in Section 6.

3.7 Permitted Waste Types and Quantities

3.7.1 The proposed permitted waste types for each activity are provided in Appendix C.

3.7.2 It is proposed that there will be a maximum annual throughput at the site of 200,000 tonnes per annum split which may be split as follows:

- Maximum 200,000 tonnes per annum Residual, Green Waste and Recyclable Waste Transfer or.
- Maximum 100,000 tonnes per annum within the RDF Processing and a maximum of 100,000 tonnes per annum within the Waste Transfer Station.

3.8 Site Surfacing/Infrastructure

3.8.1 All areas of impermeable concrete surface, covered buildings, roofed areas, fixed/temporary bays and containers will be visually inspected at least weekly to ensure their continuing integrity and fitness for purpose. The inspection and any necessary maintenance will be recorded. In the event that any damage breaches the integrity of the engineered containment so that it no longer meets the required standards, necessary remedial work will be completed as soon as practicable.

3.8.2 Site drainage will be provided in all areas of hardstanding as detailed in drawing A091680/Dr-501. The site drainage system will be subject to weekly visual inspection to ensure effective operation and integrity of the system. Maintenance will be undertaken to ensure the effective operation and defects will be rectified as soon as possible.

3.8.3 The site lighting system will be visually inspected weekly during the site operation. Any defects will be recorded and rectified as soon as practicable.

3.8.4 Provision for the parking of staff and visitor vehicles will be made adjacent to the facility outside the Environmental Permit boundary.

3.8.5 Fuels and lubricants associated with the mobile plant on site will not be stored within the permitted area.

4.0 Waste Acceptance Procedures

4.1 Pre-Acceptance Procedure

4.1.1 The waste pre-acceptance recommendations in S5.06 include for the chemical analysis of incoming wastes, although it is recognised that S5.06 covers a wide range of waste activities with a particular focus on hazardous waste treatment processes where chemical composition information is significant to ensure safe storage and handling. In this type of facility, the analysis of detailed chemical composition of kerbside collected MSW, comingled recyclates and green waste is not considered BAT.

4.1.2 Wastes will only be accepted at the facility when a clear method of defined treatment has been determined in advance. Any records relating to pre-acceptance will be maintained for a minimum of 3 years.

4.2 Acceptance Procedure

4.2.1 Waste will only be accepted if there is sufficient capacity and will only be accepted from licensed waste carriers whether they be ANSA's own vehicles or other commercial collections.

4.2.2 Upon arrival at the site, all waste delivery vehicles will be directed to the site's weighbridge. The weighbridge will be calibrated and the site will always be manned during operational hours. Wastes that will be delivered by ANSA will be visually inspected at kerbside during household collections to ensure compliance with the permit and that no odourous or contaminated wastes are received. Waste that is considered compliant will predominantly be delivered within one of ANSA's fleet of RCVs. ANSA's vehicles will be weighed upon arrival a the site, however, it is not proposed that any further Duty of Care documentation is provided at this point.

Commercial wastes that will be delivered by third parties will however need to provide documents detailing the source and description of the waste. This will be provided by the driver who will report to the weighbridge office upon arrival.

4.2.3 The documentation is checked on arrival and if it is incorrect or the waste does not match the written description then the waste will be rejected.

4.2.4 Where possible, loads will be visually inspected prior to unloading to ensure compliance with the permit.

4.2.5 The following details will be recorded by the member of staff receiving the waste from third party collections:

- The date and time of delivery of the load;
- The origin of the waste;
- The quantity and characteristics of the waste;
- The producer; and
- Details and description of the vehicle delivering the waste,

The driver's signature and the operator of the vehicle

4.2.6 Non-hazardous wastes that are provided by a third party must be accompanied by a waste transfer note.

4.2.7 No waste will be accepted at the site which does not comply with the conditions of the Environmental Permit. Any loads that are found not to comply with the conditions of the Permit, or do not conform to the description provided by the third party waste carrier, will not be accepted at the site. A note will be made in the site diary of any incidents involving unauthorised waste and a record of the rejected waste maintained.

4.2.8 In the event that unpermitted wastes are inadvertently delivered to the site, the unauthorised waste will be loaded back on to the vehicle that discharged it, if possible and safe to do so. If this is not possible, then the unpermitted waste will be stored on the site in the designated quarantine area located within the permitted area. Such wastes would then be removed from the site no later than 48 hours after receipt, unless chemical analysis sampling has been requested in which case the unpermitted waste would then be removed as soon as soon as practicable upon confirmation of the composition of the waste.

4.2.9 From the weighbridge, vehicles will be directed to the relevant area of the site to deposit their load in accordance with the waste types detailed in Appendix C.

4.3 Waste Storage

4.3.1 There will be a maximum storage capacity of 3,000 tonnes of untreated material on site at any one time. This will be split between each of the proposed buildings with 1,500 tonnes of untreated material within each building. This will allow storage capacity for 3 days of received material in the event of plant failure or unavailability of off takers.

4.3.2 Furthermore, there will be sufficient capacity to store 2,000 tonnes of processed RDF materials, recovered metals and fines within the WS-RDF building whether they be baled and wrapped or stored loosely within designated storage areas.

4.3.3 There will be clearly defined areas for waste storage and treatment at the site as indicated on Drawing No. A092093/PER/01.

4.3.4 Imported wastes will be stored on an impermeable concrete surface with sealed drainage system. Drainage details are provided on drawing A091680/Dr-501. Clean surface waters will be directed to the storage tank prior to discharge to the existing drainage system within the overflow sewer running across the northern part of the site and into Sanderson's Brook. The flow off site will be restricted to 90% of the overflow pipe capacity.

4.3.5 Vehicles will be directed to discharge their loads by the designated waste transfer station operative. The site manager and site foreman will have a clearly defined role to ensure that vehicles are directed to the correct area of the site.

4.3.6 Within the RDF processing building, all received wastes will be stored within the waste storage area at the south of the building. Within the WTS – Recycling building, there will be segregated bays provided for separate storage of co-mingled recyclates and green waste. Each of these storage areas is identified on the site layout drawing reference A092093/PER/01.

4.3.7 There will be external areas designated for the storage of the waste streams identified in the table below. The storage arrangements are consistent with the Environment Agency' guidance Waste Exemption: S2 Storing Waste in a Secure Place however ANSA would seek to regularise this storage arrangement through the conditions of this Environmental Permit. All of the listed waste codes below must be stored in compliance to the following key conditions:

- Each type of waste must be stored separately
- The storage must take place at a secure place

- The storage of the waste is pending its recovery elsewhere
- Each waste shall not be stored for longer than the specified time period

4.3.8 The guidance also provides additional conditions that only apply to specific types of waste. These conditions are outlined in Table 2.

Waste Code	Type of Waste	Maximum Storage Limit	Restrictions
101112, 150107, 160120, 170202, 191205, 200102	Glass	5,000 tonnes	The storage place has sealed drainage.
020110, 160117, 160118, 170401, 170402, 170403, 170404, 170405, 170406, 170407, 170411, 191202, 191203	Scrap Metal	15,000 tonnes	The storage place has sealed drainage.
160211 *, 160213 *, 160214, 160216, 200121 *, 200123 *, 200135 *, 200136	WEEE	cubic meters	The storage area will be on an impermeable surface and with weatherproof covering where WEEE will be stored including whole appliances that are to be reused.

4.3.9 The impermeable concrete surface meets the following intended design objectives:

- Impermeable to incidental rain fall;
- Sufficient strength to accommodate plant and equipment;
- Designed with kerbing or edge bunds so as to retain all incidental rainfall; and
- Designed with sealed joints where applicable and with sufficient falls so that collected surface water can only discharge to engineered sump/s.

4.3.10 Furthermore, ANSA will store street sweepings in the external bay as detailed on the Site Layout Plan. This arrangement will be consistent with Regulatory Position Statement 65 Version 3 which will have the following operational restrictions:

- The local authority, the Highways Agency or the contractor has control over the waste and the storage place.
- The waste does not contain or consist of unbonded asbestos or any substance with a flash point of less than 21 degrees Celsius.
- The operation is not carried on in the course of providing a waste management service to another person.
- The waste is stored in a secure place on an impermeable surface with sealed drainage system.
- The street sweepings are not stored or mixed with other wastes.
- No waste is stored for longer than 3 months.
- For non-liquid waste, the total quantity stored at any one time does not exceed 50 cubic metres.
- For liquid waste, the total quantity stored at any one time does not exceed 1,000 litres and the waste is stored in a container with secondary containment.

5.0 Process Description

5.1.1 The maximum throughout for the facility will be 200,000pa. However, the pre-treatment of residual municipal solid waste streams is dependent upon the requirements of the receiving EfW facility. As such, the northernmost building may be used for either direct transfer for recovery purposes (waste facility) or pre-treatment of waste for incineration (Installation).

5.1.2 Each specific option for the operation of the facility is detailed below

5.2 Option 1

RDF Processing (Installation)

Waste preparation

5.2.1 Vehicles will proceed to the weighbridge to confirm the weight, the nature, and origin of the waste; and for completion of the relevant any documentation in accordance with the Duty of Care.

5.2.2 From the weighbridge, vehicles carrying material for RDF processing will be directed to one of the four fast acting roller shutter doors along the southern elevation of the WTS-RDF building. Storage bays will allow for the efficient loading of materials into the process either by a loading shovel or a 360^{o} grab crane. Materials will be selected for loading into the process so that they provide for a suitable blended feedstock for the process. Waste materials will be selected with regard to the date of receipt in order to limit the residence time of the material within the building. All received waste would be processed within 3 days of receipt.

5.2.3 On unloading, the material will be inspected for compliance by the site loading shovel operator and then deposited either in the main stockpile area or to the grab feeding area of the reception area. The joint operations of the loading shovel and the grab will ensure appropriate mixing for the feedstock to aid consistency within the process outputs as well as a quality check to remove bulky items and non-shreddable materials from the waste feed.

Pre-shredder

5.2.4 The material will be loaded into the process via a pre-shredder, with a hopper sized to accommodate charge loading. The pre-shredder will not only act as a bag splitter and coarse shredder, but also as a metering device to ensure a constant feed to the remainder of the plant.

Overband Magnet

5.2.5 The waste will pass under an overband magnet for recovery of ferrous metal prior to discharge to a storage bay for further treatment / processing (off site).

Trommel

5.2.6 The waste will pass over a trommel which will act to remove the unwanted organic fines materials from the waste stream to increase the Calorific Value of the RDF product.

Baling and Wrapping / Loose Bay

5.2.7 It is intended that the majority of the RDF product is baled for onward transport, though material can be diverted to a storage bay for loose shipment if required. The baling of materials is dependent upon the requirements of the RDF offtaker which will be determined prior to shipment off site.

5.2.8 The baler will be able to compress and tie the bales into large rectangular bales, typically measuring 1100mm high x 1100mm wide x variable length.

Process Outputs

5.2.9 Once baled and wrapped, RDF and SRF materials will be stored within the building prior to transport off site to be used as an alternative fuel. Baled and wrapped RDF will be stored in accordance with the piles and separation distances detailed within Environment Agency guidance document "Fire Prevention Plans – Version 2".

5.2.10 Baled RDF will be marked to show the date that it was baled and will be stored no longer than 3 months prior to being transferred off site in accordance with the Fire Action Plan. A study has been undertaken on behalf of the operator to determine the required process output for a variety of offsite recovery options. These are identified below in Table 2:-

Table 2

Parameter	Viridor	Ferry Bridge	Andusia
Size (mm)	<300	150-300	300-500
Calorific Value (kJ/kg)	9-15	13.5-16.5	8-12
Baled?	Set up for loose	Yes/No	Yes/No

Cl (%)	-	<1%	<0.1%
Sulphur (%)	-	<0.7%	-
Ash (%)	-	<25%	-
Moisture (%)	-	<25%	<30%
Other	Want all metals removed	-	Organics can stay in but probably better to remove

5.2.11 Segregated recyclable materials will be stored within the building, although small quantities of non-putrescible material, such as metals, may be stored outside in accordance with storage arrangements provided above prior to transport off site. Materials will be loaded into Ro-Ro containers prior to transport off site to for recovery elsewhere.

5.2.12 Organic fines materials will be stored in containers within the building and removed from site by road to suitable recovery or disposal facilities.

5.2.13

5.2.14 Removal of all waste materials from the site will be documented in accordance with the Duty of Care requirements and by passage over the weighbridge prior to departure from the site. Prior to leaving the site all vehicles will be appropriately covered to prevent materials being deposited on the highway.

Non Hazardous Waste Storage (Directly Associated Activity)

5.2.15 Mixed municipal waste streams received at the site from household and commercial premises will be stored within the WTS-RDF on an impermeable surface with sealed drainage. Only those wastes detailed within Appendix C which are identified for treatment within the WTS-RDF building will benefit from this directly associated activity.

Bulking of recyclable wastes received as an incidental part of the RDF production (Directly Associated Activity)

5.2.16 Ferrous and non-ferrous metals in addition to organic fines materials will be removed as a result of the treatment process. In order to facilitate their recovery off site, they will be bulked within the WTS-RDF building prior to transport off site.

Recyclate and Green Waste Transfer (Waste Facility)

5.2.17 RCVs would drive into the building and deposit waste onto the WTS floor within a waste storage bay that has been dedicated for the specific waste stream. Mobile plant would assist with manoeuvring waste within the WTS-Recycling building. When a sufficient quantity of material has been collected, mobile plant would load the waste into a bulk haulage vehicle which will enter the WTS building via dedicated fast acting roller shutter doors at the south of the building. Bulk haulage vehicles would transport waste off site to an appropriate waste management facility for further processing.

5.2.18 Whilst the majority of waste accepted at the site would be managed and stored within the WTS building, certain non-putrescible waste streams and raw materials as detailed in section 4 above would be stored outside in appropriately designed waste bays or compounds. This waste, which would be collected from households or recovered from fly-tipping, such as waste electrical and electronic equipment (WEEE) and bulky goods (e.g. furniture and white goods), would be stored externally prior to off-site transport. Any waste classified as hazardous waste (e.g. monitors, fluorescent tubes etc) would be stored within a covered, secure compound in accordance with the Hazardous Waste Regulations.

5.2.19 All waste storage areas would be located on an impermeable surface incorporating sealed drainage.

5.2.20 Removal of all waste materials from the site will be documented in accordance with the Duty of Care requirements and by passage over the weighbridge prior to departure from the site. Prior to leaving the site all vehicles will be appropriately covered to prevent materials being deposited on the highway.

5.3 Option 2

Household, Commercial, Recyclate and Green Waste Transfer (Waste Facility)

5.3.1 RCVs would drive into the building and deposit waste onto the WTS floor within a waste storage bay that has been dedicated for the specific waste stream. Mobile plant would assist with manoeuvring waste within the WTS building. When a sufficient quantity of material has been collected, mobile plant would load the waste into a bulk haulage vehicle which will enter the WTS building via dedicated fast acting roller shutter doors at the south of the building. Bulk haulage vehicles would transport waste off site to an appropriate waste management facility for further processing.

5.3.2 Whilst the majority of waste accepted at the site would be managed and stored within the WTS building, certain non-putrescible waste streams and raw materials would be stored outside in appropriately designed waste bays or compounds as detailed in section 4 above. This waste, which would be collected from households or recovered from fly-tipping, such as waste electrical and electronic equipment (WEEE) and bulky goods (e.g. furniture and white goods), would be stored externally prior to off-site transport. Any waste classified as hazardous waste (e.g. monitors, fluorescent tubes etc) would be stored within a covered, secure compound in accordance with the Hazardous Waste Regulations.

5.3.3 All waste storage areas would be located on an impermeable surface incorporating sealed drainage.

5.3.4 Removal of all waste materials from the site will be documented in accordance with the Duty of Care requirements and by passage over the weighbridge prior to departure from the site. Prior to leaving the site all vehicles will be appropriately covered to prevent materials being deposited on the highway.

6.0 Site Security

6.1 Gates & Fencing

6.1.1 The wider Cledford Lane Environmental Hub site benefits from security fencing and CCTV around the perimeter. In addition, the area within the Environmental Permit boundary will be provided with secondary fencing and lockable access gates to segregate this area from the other activities which are operated by ANSA.

6.2 Maintenance

6.2.1 Site staff will be briefed that in the event of evidence suggesting unauthorised access or vandalism being found, the matter must be reported to the police. If the incident involved unauthorised tipping or spillage of any waste, the Environment Agency will be informed.

6.2.2 Site gates and perimeter fencing will be inspected on a daily basis. Any identified damage to the fence or gates that could prejudice the site security will be recorded and temporarily repaired as necessary before the end of that working day. Permanent repair or replacement will be undertaken as soon as practicable.

7.0 Emissions Control & Monitoring

7.1 Point Source Emissions to Air

7.1.1 Each building will benefit from an air extraction system that will discharge air collected from within the building via a vent. It is proposed that each building will benefit from a minimum of 3 air changes per hour. A detailed odour dispersion model has been prepared which identified that this level of treatment will be sufficient to ensure that there is an insignificant impact on sensitive receptors from the facility.

7.1.2 In addition, each of the buildings will benefit from a biofilter to reduce the odours from the facility. Details of the operation and maintenance regime of the biofilters is provided within the Odour Management Plan.

7.1.3 In accordance with Environment Agency guidance a detailed Odour Management Plan is included within the H1 Environmental Risk Assessment. This document details the proposed mitigation measures to ensure that odours are not detected beyond the site boundary and remedial actions in the event of any complaints.

7.2 Point Source Emissions to Surface Water and Foul Drainage

7.2.1 There will be no point source emissions to sewer or surface water as a result of this application.

7.3 Point Source Emissions to Groundwater

7.3.1 There will be no point source emissions to groundwater as a result of this application.

7.4 Fugitive Emissions to Air

7.4.1 An Environmental Risk Assessment has been undertaken in accordance with Environment Agency guidance, this is provided with the application as a separate document.

7.5 Noise

7.5.1 A detailed noise assessment has been prepared as part of the planning application documentation, which concluded that the noise associated with the operations will be minimal. The main noise

associated with the operation will be associated with vehicle movements from the adjacent Environmental Hub.

7.5.2 Waste treatment processes will be undertaken within buildings and building doors will be shut at all times.

7.5.3 Good general site management will ensure that the operations are conducted in a manner to minimise noise emissions. Such measures will include:

- Regular maintenance of plant and machinery;
- Plant and machinery will be switched off when not in use;
- Use of low tonal reversing alarms;
- Implementing speed restrictions on site; and
- Maintenance of operational area (for example, repair any potholes).

7.6 Vermin & Pests

7.6.1 It is considered that the enclosed nature of the activities and the minimal residence time for untreated waste results in the risk of pest infestation being low. Stored wastes which are likely to attract scavengers will be monitored daily for the presence of scavenging animals or birds. However, an ongoing watching brief for the identification of any pest infestations will be part of the daily routine for site operatives.

7.6.2 On detection or notification of scavenging animals or birds that are causing a nuisance, immediate action will be taken to; remove or deter them from site; and to isolate and secure the wastes attracting the scavengers against further scavenging where possible. On detection of pests, insects or vermin an appropriate professional pest/vermin control contractor will be employed. In addition any waste subject to infestation or that has attracted vermin will be considered for removal from the site.

7.7 Flies

7.7.1 There is the potential for wastes brought onto the site to attract flies and provide a potential breeding ground for flies. As such, measures will be implemented through the EMS to ensure that the site is operated in accordance with section 5.1.5 of the Environment Agency's document 'Fly Management: How to Comply with your Environmental Permit' dated April 2013.

7.7.2 In short, the operator will undertake the following in order to assess and control fly numbers at the site:

- Monitor fly numbers twice weekly between April and October using an appropriate technique such as resting counts;
- Carry out waste acceptance checks and reject any loads which are deemed infested at kerbside;
- Implementation of a waste handling and rotation scheme to ensure that waste is not stored for lengthy periods of time;
- Ensure site is kept tidy and waste is not trapped in difficult to reach corners;
- Minimising the time that external doors are open; and
- Training staff in the use of fly sprays and to ensure that there is an understanding regarding the importance of monitoring incoming loads.

7.7.3 It is important that proper fly control is used at the site and with the capability to carry out additional treatments at peak times should the need arise.

7.7.4 Investigation of fly complaints will be in accordance with the EMS for the site taking account of the procedures identified in section 4 of the Environment Agency's document 'Fly Management; How to Comply with your Environmental Permit.'

7.8 Control & Monitoring of Litter

7.8.1 Due to the enclosed nature of the waste activities, the overall risk presented by the escape of litter from the facility has been assessed to be low by the H1 Environmental Risk Assessment (Document Referenced 1948/R/005/1). The site will be monitored daily for signs of escaping materials. An

inspection around the site will be undertaken every day and any litter noted will be collected and placed in the untreated waste storage area.

7.8.2 In the event that there is an escape of litter from the site, arrangements will be made for its collection as soon as is practicable. Spillage of materials on the site will be cleaned as soon as is practicable. Monitoring and actions will be recorded.

7.9 Emissions Monitoring

7.9.1 Due to the proposed treatment activities, and in accordance with Environment Agency Guidance "How to Comply with your Environmental Permit", odour will be monitored in accordance with the Odour Management Plan as provided.

7.10 Environmental Monitoring (beyond Installation)

7.10.1 Odour will be monitored beyond the installation boundary in accordance with the Odour Management Plan.

7.10.2 There is no further monitoring proposed for the facility.

8.0 Management

8.1 Technical Competence

8.1.1 Technical competence will be provided by Emma Owen, who holds the appropriate level of Certificate of Technical Competence (COTC) (a copy of which is provided in Appendix B of the application).

8.1.2 This will include overseeing pre-acceptance procedures, waste acceptance procedures, storage and transfer.

8.1.3 All personnel involved in the waste operation will have full training by the Technically Competent Manager.

8.2 Management System

8.2.1 ANSA has an externally audited Environmental Management System. A summary of the EMS is provided in Appendix A.

8.2.2 The management system identifies and minimises the risk of pollution from the activities associated with the operation, particularly operations, maintenance, accidents, incidents and non-conformance. Relevant sections of the Management System are described below.

Operations

8.2.3 Documented procedures are in place to control operations that may have an adverse impact on the environment. An Environmental Risk Assessment has been prepared and includes management control procedures. This is provided as a separate document.

Maintenance

8.2.4 All plant and equipment will be operated and maintained in accordance with the manufacturers specifications. All plant and equipment will be supported by a maintenance log.

8.2.5 An inventory of the plant will be kept on site together with details on routine maintenance. Each item of plant will have a dedicated Maintenance log. These measures will reduce the likelihood of plant failure.

8.2.6 The main risk associated with plant and machinery will be leaks and spillages caused by ruptures (through wear and tear) and accidents. All site staff will be trained in the use of spillage kits and their obligations to report such incidents to the Site Manager.

Competence Training

8.2.7 The Managing Director of ANSA is responsible for ensuring that an adequate level of training in environmental awareness is carried out at all levels and records of training are maintained.

8.2.8 The Site Manager is responsible for staff induction training and to identify training needs for further development.

8.2.9 All staff are required to undertake induction training, which covers their responsibilities in relation to the Permit requirements.

8.2.10 Training records are maintained for each employee.

Accidents/Incidents/Non-Conformance

8.2.11 It is essential that all necessary measures are taken to prevent accidents, which may have environmental consequences, and to have procedures in place to limit those consequences should they occur. To fulfil this requirement it will be necessary to follow these basic principles:

- Identification of hazard;
- Likelihood of occurrence;
- Consequence of occurrence; and
- Mitigation measures.

8.2.12 The risk of accidents will be minimised by appropriate staff training together with staff awareness of the safety and environmental risks.

8.2.13 All operatives involved in the waste handling and treatment operations shall wear appropriate PPE, such as hard hats, high visibility jackets, ear defenders and gloves as stated in the risk assessment. Dust masks shall be available at all times in the facility.

8.2.14 Incidents and Non Conformances may include:

- The rejection of waste;
- Complaints made relating to odour, noise, air quality; and
- The breach of conditions of the Environmental Permit.

8.2.15 All non conformances will be recorded on a Non Compliance Report (NCR).

8.2.16 The NCR will describe the non conformance and action taken. All non conformances will be discussed at Senior Management meetings in order to prevent a recurrence.

8.2.17 With incidents and non conformance there may be complaints raised. If this should occur there is a Complaints Procedure that will be implemented to investigate the source of the complaint, provide appropriate corrective action and report the findings.

8.3 Records

8.3.1 A record of all waste delivered to the site and recyclate/unrecoverable materials leaving the site will be maintained (including transfer notes and weighbridge tickets) will be kept on site for a minimum of 6 years.

8.3.2 A Site Diary will be kept in the site office and updated on a daily basis. This diary will be used to record all incidents on site involving accidents, spillages, vandalism, complaints etc. This will provide an ongoing record and allow for investigative and corrective action to take place in line with the requirements of the ANSA Management System.

8.3.3 The Site Diary will include the following:

- The name of the Certificate of Technical Competence holder attending the site on any particular date;
- Details of all visitors, including status and times of arrival and departure;
- Details of maintenance, modification, repair, replacement, delivery and return, and breakdown of any plant and machinery in line with the principles of planned preventative maintenance;
- Weather conditions;
- Non-conforming wastes and actions taken; and
- Damage to vehicles, fences, gates, etc and incidents of trespass.

8.3.4 In addition to this, a daily environmental monitoring checklist will be completed.

8.3.5 A copy of the site's Environmental Permit will be displayed in a convenient location in the site office, allowing suitable access for all persons working on or visiting the site.

9.0 Energy and Resources

9.1 Energy Use

9.1.1 The energy requirements of the WTS-RDF building have been assessed by Axion Consulting. It is estimated that the power demand for the processing equipment will be between 664kW and 1049kW depending upon the specific equipment chosen.

9.1.2 The energy requirements of WTS-Recycling building are considered low and will be limited to the air extraction unit and lighting associated with the building and the operation of mobile plant.

9.1.3 Consideration will be given to the installation of renewable energy solutions at the site in the form of solar panels. These solar panels will be used to generate electricity for the site in order to reduce the energy requirements at the site. Further renewable energy solutions will also be explored in consultation with the Council's Mechanical and Electrical Engineering Consultants.

9.1.4 In line with the Environmental Management System, basic energy saving measures are adopted and continually reviewed. This includes measures such as:

- Efficient use of plant and machinery to avoid unnecessary ignition;
- Plant and machinery to be switched off when not in use; and
- Regular maintenance of all plant and machinery.

9.2 Resource Use

9.2.1 The activities on site require low amounts of resources.

9.2.2 Fuel and lubricating oils for the plant and machinery will be stored outside the permitted area. All fuels will be stored with regard to Environment Agency Guidance PPG2: Above ground oil storage tanks, where capacity exceeds 200 litres.

9.2.3 Water may be used at the site during dry conditions to control the generation of dust. The water will be used only when necessary, and the minimum amount will be used in order to reduce fugitive emissions of dust. As the majority of waste materials will be stored within the building, the use of

water to control dust will be restricted to site access roads and any stockpiles of street sweepings which may have the potential to generate dust.

10.0 Incidents and Non-Conformances

10.1 Mud-Debris

10.1.1 Maintenance of site surfaces and cleaning of vehicles will be undertaken in accordance with the current EMS.

10.1.2 All areas of hard standing and the public highway adjacent to the site entrance are visually checked daily for mud and/or debris and will be cleared as required by the extant planning permission. Collected materials are taken to the waste storage area if suitable or appropriately disposed of off-site.

10.1.3 Should it become apparent that debris and/or mud has been tracked onto the public highway, sweeping of the relevant areas, including the public highway, will be undertaken as soon as practicable as required by the extant planning permission. A road going sweeper will be utilised if required.

10.2 Spills & Leaks

10.2.1 In the unlikely event of a leak or spillage from on-site plant or wastes received, the procedures identified in the current IMS will be followed.

10.3 Fires

10.3.1 In the highly unlikely event that an ignited load arrives at the site, the waste will be placed at least 10m away from wastes currently on site. This waste will be visually monitored from a safe distance and the Fire Brigade and Environment Agency will be immediately notified. A designated zone has been included within the site as detailed on the site layout plan. A fire hydrant will be located within this quarantine area to ensure access to water supplies for the suppression of the fire.

10.3.2 Appropriate fire fighting equipment is available at the site. Fire on the site will be treated as an emergency and site staff will be instructed to take the following actions in such an event.

- Notify the Fire Brigade immediately;
- Notify the Environment Agency as soon as practicable; and

- Evacuate the area if necessary with staff proceeding to the designated muster point.

10.3.3 Any waste used in fire fighting will be contained where possible by placement of booms and closing surface water discharge outlet valves. Retained liquids will be disposed of appropriately.

10.3.4 Further detail is provided within the Fire Management Plan which has been prepared in accordance with Environment Agency guidance document "Fire Prevention Plans – Version 2" and is contained within the H1 Environmental Risk Assessment.

10.4 Information & Records

10.4.1 All complaints received and subsequent action undertaken will be recorded in accordance with the Environmental Management System for the site.

10.4.2 A copy of the approved Environmental Permit, this Operating Techniques document and all other relevant supporting documentation will be held on-site for immediate reference when required by all site staff conducting work under the requirements of the Permit.

10.4.3 Records will also be made of: Emergencies (such as fire or major infrastructure problems); problems with waste received and rejected loads; site inspections; damage to site security provision; weather conditions; monitoring; and actions instigated; maintenance of site pollution prevention equipment; and complaints.

10.5 Accident Management Plan

10.5.1 Incidents and non-conformities are addressed above and in the EMS. A detailed accident management plan has been prepared in accordance with the H1 Environmental Risk Assessment documentation and is provided within the Environmental Risk Assessment.

11.0 Monitoring

11.1 Emissions Monitoring

11.1.1 Due to the proposed treatment activities, and in accordance with Environment Agency Guidance "How to Comply with your Environmental Permit", odour will be monitored in accordance with the Odour Management Plan as provided.

11.2 Environmental Monitoring (beyond Installation)

11.2.1 There is no current need or requirement for environmental monitoring beyond the boundary of the facility.

Drawings

Appendices

Appendix A – Management System Summary

Appendix B – Certificate of Technical Competence

Appendix C – Waste Types

WASTE TYPES AND QUANTITIES – WTS - RDF

Maximum Quantities

The total quantity of waste accepted for RDF production will be less than 100,000 tonnes per year.

Waste Code	Description
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 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 02	Wastes from preserving agents
02 03 03	Wastes from solvent extraction
02 03 04	materials unsuitable for consumption or processing
02 05	wastes from the dairy products industry
02 05 01	materials unsuitable for consumption or processing
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	wastes from spirits distillation
02 07 04	materials unsuitable for consumption or processing
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 02	wastes from the textile industry
04 02 09	Waste from composite materials (impregnated textile, elastomer, plastomer)
04 02 15	Waste from finishing other than those mentioned in 04 02 14
04 02 21	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres
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
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 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 19	Plastic
16 01 22	Discarded components not otherwise specified
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 02	wood, glass and plastic
17 02 01	wood
17 02 03	plastic
18	HEALTHCARE WASTE
18 01	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)
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 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 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 10	Wastes from shredding of metal-containing wastes
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 04	plastic and rubber
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 10	combustible waste (refuse derived fuel)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11 – residues from treatment of non-hazardous municipal/commercial waste e.g. from MRF's and production of SRF/RDF
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 10	clothes
20 01 11	textiles
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 02	garden and park wastes (including cemetery waste)
20 02 03	Other non-biodegradeable wastes
20 03	other municipal wastes
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 07	bulky waste

WASTE TYPES AND QUANTITIES – WTS - Recycling	
Maximum Quantities The total quantity of waste accepted for transfer will be less than 200,000 tonnes per year.	
Waste Code	Description
01	WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS
01 01	Wastes from mineral extraction
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 09	Red mud from alumina production other than the wastes 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 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 02	Wastes from the preparation and processing of meat, fish and other foods of animal origin
02 02 03	Materials unsuitable for consumption or processing
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 processing
02 04	Wastes from sugar processing

02 04 01	Soil from cleaning and washing beet
02 04 02	Off-specification calcium cabronate
02 05	wastes from the dairy products industry
02 05 01	materials unsuitable for consumption or processing
02 06	Wastes from the baking and confectionary industry
02 06 01	Materials unsuitable for consumption or processing
02 06 02	Wastes from preserving agents
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 01	Wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	Wastes from spirits distillation
02 07 04	Materials unsuitable for consumption or processing
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 INDUSTRY
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 21	Wastes from unprocessed textile fibres
04 02 22	Wastes from processed textile fibres
06	WASTES FROM INORGANIC CHEMICAL PROCESSES
06 09	Wastes from the MSFU 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 opacificiers
06 11 01	Calcium-based reaction wastes from titanium dioxide production
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
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 05	Calcium-based reaction wastes from flue-gas desulphurisation in solid form
10 01 07	Calcium-based reaction wastes from flue-gas desulphurisation in sludge form
10 01 15	Bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14
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 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 02 14	Filter cakes from gas treatment other than those mentioned in 10 02 13
10 02 15	Other filter cakes
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 24	Solid wastes from gas treatment other than those mentioned in 10 03 23
10 03 26	Filter cakes from gas treatment other than those mentioned in 10 03 25
10 03 28	Wastes from cooling-water treatment other than those mentioned in 10 03 27
10 03 30	Wastes from treatment of salt slags and black drosses other than those mentioned in 10 03 29
10 04	Wastes from lead thermal metallurgy
10 04 10	Wastes from cooling-water treatment other than those mentioned in 10 04 09
10 05	Wastes from zinc thermal metallurgy
10 05 01	Slags from primary and secondary production
10 05 09	Wastes from cooling-water treatment other than those mentioned in 10 05 08
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 10	Wastes from cooling-water treatment other than those mentioned in 10 06 09
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 05	Filter cakes from gas treatment
10 07 08	Wastes from cooling-water treatment other than those mentioned in 10 07 07
10 08	Wastes from other non-ferrous thermal metallurgy
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 18	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 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 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 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	Filter cakes from flue-gas treatment other than those mentioned in 10 11 17
10 12	Wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 01	Waste preparation mixture before thermal processing
10 12 05	Filter cakes from gas treatment
10 12 06	Discarded moulds
10 12 08	Waste ceramics, bricks, tiles and construction products (after thermal processing)
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 07	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
11	WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO METALLURGY
11 01	Wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising)
11 01 10	Filter cakes other than those mentioned in 11 01 09
11 01 14	Degreasing wastes other than those mentioned in 11 01 13
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 03	Non-ferrous metal filings and turnings
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 02	Wastes from electrical and electronic equipment
16 02 11*	discarded equipment containing chlorofluorocarbons, HCFC, HFC
16 02 13*	discarded equipment containing hazardous components other than those mentioned in 16 02 09 to 16 02 12
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 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
16 11 06	Linings and refractories from non-metallurgical processes others than those mentioned in 16 11 05
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 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
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION/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 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 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 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 10	combustible waste (refuse derived fuel)
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 21*	Fluorescent tubes and other mercury-containing waste
20 01 23*	Discarded equipment containing chlorofluorocarbons
20 01 34	batteries and accumulators other than those mentioned in 20 01 33
20 01 35*	Discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components
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
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 02 02	soil and stones
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

Howcutt, Carly

From: andrew . bowker [andrew.bowker@wyg.com]
Sent: 26 January 2016 08:58
To: Ashley, Julia
Subject: Cledford Lane
Attachments: HM-4804-20004_Proposed Site Plan.pdf; Baled RDF Layout.pdf

Julia,

Following our discussion last night, please find attached drawing 20004 as requested. Furthermore, I have copied an extract from the Basis of Design Document which informed the layout of the facility. This demonstrates how the bales could be configured within the bale storage area identified on the RDF Plant – Extended Conveyor drawing presented with the application.

We trust this is satisfactory. If you have any queries, please do not hesitate to get in touch.

Kind regards,

Andrew Bowker
Principal Consultant

WYG
Quay West at MediaCityUK, Trafford Wharf Road, Trafford Park, Manchester, M17 1HH
Tel: +44 161 874 8714
Fax: +44 161 872 3193
Mob: +44 7979 400 555

www.wyg.com

ACCESS
CLEDFORD LANE
2.0x43m vision splay
drop kerb and tactile paving
2430 High Fence
3030 High Fence
Elec. substation
drop kerb and tactile paving
2.0x43m vision splay
New fence and gate
Close wire security fence 2430 High
residents parking layby
pedestrian/ cycle path
OUT
IN
Sprinkler tank
3030 High
3030 High double sliding cantilever gate
RCV Emergency drop off area (near fire hydrant)
Existing galvanised palisade fence
Incoming Gas G7
A533
BOOTH LANE
grass trees extg
Office G1 2140m² (Est.)
ZONE 2
swing gate with automated barrier
temporary drop-off
Close wire security fence 2430 High
ZONE 3.
Close wire security fence 3030 High
waiting
ZONE 1.
disabled parking no. 5
parking no. 151
Artic In
shelter structure
canopy
ZONE 6.
Close wire security fence 2430 High
car park no.69
canopy
Elec. Charge x3
60 No cycle park
sliding cantilever gate
Close wire security fence 2430 High
gas bottle store
MOT Parking no.5
Fleet parking x11
Close wire security fence 2430 High
RCV out
RCV in
automated sliding cantilever gate
Viewing gallery
WASTE TRANSFER STATION - RDF 3952m² gifa
Artic In
Waiting Area
Waiting Area
Access Road
Close wire security fence 3030 High
VACANT HARDSTANDING
existing maintenance path
G21 2529m²
Vehicle Workshop
Vehicle Parking x34
Vehicle Parking x16
Close wire security fence 3030 High
waiting
Weighbridge
vent stack
RCV In
Office
Weighbridge
Existing Elec. substation
Storage
car park no.22
ZONE 5.
oil/water/air
sliding cantilever gate
Road
RCV In
Green waste
WASTE TRANSFER STATION - RECYCLING 1812m² gifa
Recyclate co-mingle
vent stack
Close wire security fence 3030 High
9 no.Material Bays
Artic In
Existing galvanised palisade fence
Close wire security fence 3030 High
FAULKNER DRIVE
Enviro' workshop
Fuel Store x3
pump
pump
2 no. covered jet wash
vehicle wash
pedestrian gate with access control
maintenance gate
wheelie bins
euro bins
Close wire security fence 2430 High
3no. Material bays
Plant Propagation
ZONE 4.
Close wire security fence 3030 High
Covered Store
Covered road sweep jet wash bay
10 no. Waste Bays
EA storage compound
Recycle skips WEEE
roll on/ off skips
roof mounted solar panels
G37 569m²
Tyre Store
Gas bottle store
Storage G38 360m²
Vehicle Parking x14
45 parking spaces
Existing fence to remain
Close wire security fence 2430 High
Existing galvanised palisade fence
Existing fence to remain
Existing galvanised palisade fence
Close wire security fence 3030 High

RED LINE
SITE APPLICATION
63,262m² - 6.32ha

BLUE LINE
SITE OWNERSHIP
63,112m² - 6.31ha

Please note: the contents of this drawing are based on (survey/existing) information supplied by a third party. Halliday Meecham Architects can accept no responsibility or liability for the accuracy of this information and/or works based upon it. The contractor must check the accuracy of these drawings on site and notify Halliday Meecham Architects of any discrepancies.

Revision	Description	Date	Drawn	Checked
-	First Issue. Issued for Comment/Approval.	-	-	-
	PLANNING			
F	Planning Line drawn in red, ownership boundary line show in blue. Area omitted from planning application.Walkways added in zone 5. Oil/water/air station added. Electrical charging relocated. Barrier added to zone 1.	30.04.15	CM	PEH
E	G21 and WTS entrance layout updated, elec charge added	24.4.15	SK	PEH
D	DTracking updated, Gas store added, markings added, labels revised	23.4.15	SK	PEH
C	WTS, G21 layout revised incl. bays. trees omitted.	22.04.15	SK	PEH
B	Section lines added	21.4.15	SK	PEH
A	WTS split, Odour control moved, road layout revised	16.04.15	SK	PEH
-	First Issue. Issued for Comment/Approval.	14.04.15	SK	PEH
	PRELIMINARY			

Halliday Meecham Architects Limited

111 Piccadilly Manchester M1 2HY
+44 (0)161 661 5566

4 Devonshire Street London W1W 5DT
+44 (0)203 440 5175

hma@hallidaymeecham.com
www.hallidaymeecham.com

HALLIDAY MEECHAM ARCHITECTS

Client:	Cheshire East Council
Project:	CEC Environmental Hub
Phase/ Location:	Cledford Lane CW10 0JS
Drawing:	Proposed Site Plan - Option 4

Scale @ A1	Scale @ A3	Date:	Drawn:	Checked:	Job No.	Drawing No.	Revision
1:500	1:1000	01.04.15	CM	PEH	4804	20004	F

4.2.1. Baled RDF

The Environment agency publishes guidelines covering the safe storage of RDF bales. These include:

- Maximum bale stack height of 5m (typically this equates to around 4 bales);
- Maximum single bale block volume of 450 m^3;
- The maximum length or width of a bale block should not exceed 20 m;
- The maximum footprint of a bale block should not exceed 235 m^2;
- Minimum separation between bale blocks of 6 m or the inclusion of a full height fire wall.

For the storage space available at the proposed site the limiting factor will be the maximum block volume of 450 m^3. Firstly ideally the maximum allowable stack height of 5 m should be used. Assuming square bale blocks this gives a block width and length of around 9.5 meters.

Given these constraints the potential stack layout could be as shown in Figure 5. In this case the storage capacity would be around 1,950 m^3 or 1,660 tonnes. Given the OEE of 60% this represents 4 days storage for the required MSW input rate of 140,000 tpa.

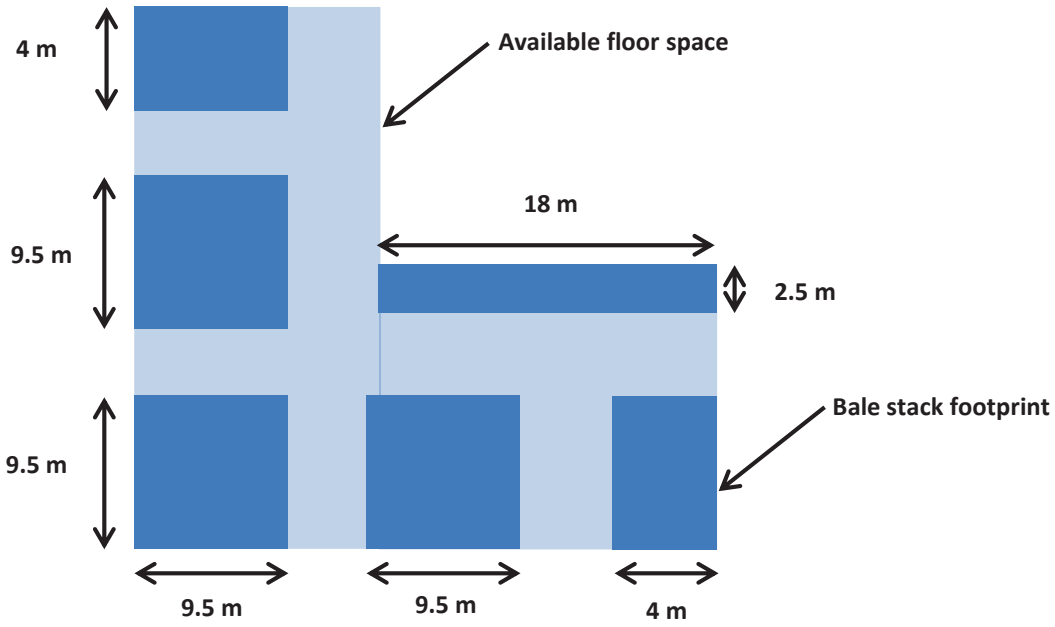


Figure 5 showing potential bale stacking configuration

The separation between blocks of bales can be reduced below 6m if they are separated by full height fire walls. If it is desired to increase the storage capacity through the use of firewalls it is important to consider this early so that the civil costs can be amended accordingly.

Howcutt, Carly

From: andrew . bowker [andrew.bowker@wyg.com]
Sent: 18 February 2016 14:42
To: Ashley, Julia
Subject: RE: ANSA application EPR/DP3435RJ/A001 Schedule 5 follow up
Attachments: PER_01 1.500 @ A3 V4.pdf; CEC EP - Fire Action Plan Final v2.pdf

Julia,

I trust you have had a good holiday.

Please find below our response to request for further information to support the above application.

Fire Prevention Plan (FPP)

1. **Provide a detailed site plan (or plans) to scale showing;**

   - **Layout of all piles of combustible materials;**
   - **Prevailing wind direction; and**
   - **Location of the quarantine area (a dedicated quarantine area big enough to cope with a major incident)**

Please find attached a revised site layout plan (Drawing No. A092093/PER/01) which addresses each of the comments listed above. Section 3.1.1 of the FPP has also been amended (see attachment) to clarify the composition of the combustible materials in association to those specified on the site layout plan.

2. **Confirm the maximum sizes of all waste piles;**
3. **Please provide the separation distances for the combustible waste that is not RDF, to support Table 4 of your Fire Action Plan; and**
4. **Please confirm the separation distance between the gas bottle storage area, the tyre store and the WEEE storage area.**

   Table 4 of the revised FPP now details the maximum dimensions in relation to green waste and co-mingled recyclates. An additional section (4.2.5) has also been inserted to address how the operator will ensure compliance with the waste stockpile sizes provided in Table 4.

5. **Demonstrate that you have considered measures to prevent self combustion of combustible materials stored on your site**

Section 4.2.8 of the FPP has been amended to provide further details regarding waste pile monitoring and visual daily checks.

6. **Provide more details of the suppression system to be installed**

An additional section (5.2) has been inserted in to the FPP which provides details of the fire suppression system to be installed in the proposed buildings.

7. **Provide further details for your waste acceptance procedure to identify hot loads of waste**

An additional section, 4.1.9, has been inserted in to the FPP to detail the waste acceptance procedures in relation to the identification of hot waste loads.

The drainage design is currently undergoing design development and as such we will provide a response to the queries in relation to drainage in due course.

We trust the above is satisfactory and allows the further determination of the permit. Should you have any further queries, please do not hesitate to contact me.

Kind regards,

Andrew Bowker
Principal Consultant

WYG
Quay West at MediaCityUK, Trafford Wharf Road, Trafford Park, Manchester, M17 1HH
Tel: +44 161 874 8714
Fax: +44 161 872 3193
Mob: +44 7979 400 555

www.wyg.com

From: Ashley, Julia [mailto:Julia.Ashley@environment-agency.gov.uk]
Sent: 12 February 2016 13:22
To: andrew.bowker
Subject: ANSA application EPR/DP3435RJ/A001 Schedule 5 follow up

Good afternoon Andy

Further to earlier conversations please find attached follow up questions regarding the Fire Prevention Plan, and the drainage system.

I'm going into a meeting now, but will be available in about an hour if you have any questions on the points raised. After today I will be back in the office on Thursday 18th.

Regards
Julia

Julia Ashley
Senior Permitting Officer - Installations

National Permitting Service
(Part of National Services E&B)

Richard Fairclough House, Knutsford Road, Warrington, Cheshire, WA4 1HT.
Telephone: 01925 542284 / 02030 250708

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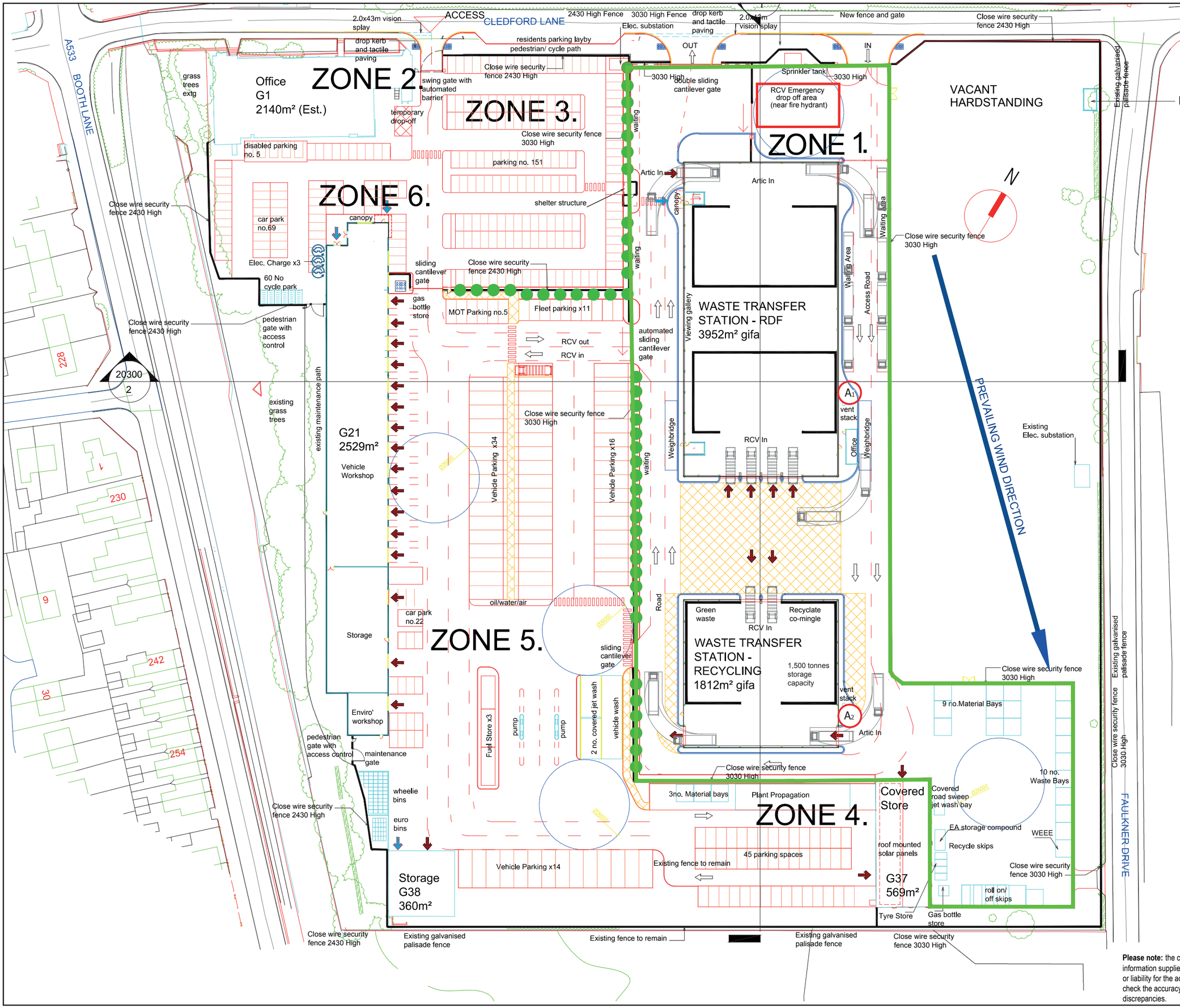
I'm a friend of the Environment Agency LGBT network because everyone should be free to be themselves.



KEY:

- ENVIRONMENTAL PERMIT BOUNDARY
- A_1 EMISSION POINT TO AIR
- QUARANTINE AREA

PROJECT Nº:	A092093
DRAWING Nº:	PER/01
DRAWING:	ENVIRONMENTAL PERMIT BOUNDARY AND SITE LAYOUT
DRAWN:	TB
CHECKED:	AB
APPROVED:	AB
SCALE:	1:1000 @ A3
DATE:	17.02.2016

NOTES:

The contents of this drawing have been derived from Halliday Meecham Architects drawing number 4804/20004/Rev F. WYG accept no responsibility or liability for any design details presented within the drawing.

The Pavilion
1st Floor
Botleigh Grange Office Campus
Hedge End
Southampton
Hampshire
SO30 2AF

Tel: +44 2382 022800
Fax: +44 2382 022889

www.wyg.com

Please note: the contents of this drawing are based on (survey/existing) information supplied by a third party. Halliday Meecham Architects can accept no responsibility or liability for the accuracy of this information and/or works based upon it. The contractor must check the accuracy of these drawings on site and notify Halliday Meecham Architects of any discrepancies.

Cheshire East Council

Environmental Services Hub, Cledford Lane, Middlewich

Fire Action Plan

February 2016

Quay West at MediaCityUK, Trafford Wharf Road, Trafford Park, Manchester, M17 1HH

Tel: 0161 872 3223

Email: andrew.bowker@wyg.com

Document Control

Project:	Environmental Services Hub at Cledford Lane, Middlewich, Cheshire
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Prepared by:	Andrew Bowker	Signed: 
Checked by:	Michael Jones	Signed: 
Verified by:	Michael Jones	Signed: 

Issue	Date	Status
1	January 2016	Final
2	February 2016	V2

Contents Page

Drawing

A092093/PER/01 – Environmental Permit Boundary and Site Layout

A092093/RCP/01 – Receptor Plan

20004 – Proposed Site Plan – Materials

DR-501 – Drainage Strategy

1.0 Review

1.1 Document Review Procedures

1.1.1 This Fire Action Plan is to be reviewed every four years or when required by a change in operations.

Table 1: Document Review

Date of Review	Comments	Name and signature of Reviewer	Date of Next Review
June 2015	Plan prepared		February 2019

2.0 Document Overview

2.1 Document Requirements

2.1.1 This document has been prepared by WYG on behalf of the operator, ANSA Environmental Services, in support of an Environmental Permit Application for a waste transfer and treatment operation which will have a maximum throughput of 200,000tpa and will constitute the following activities:

- Maximum 200,000 tpa for Residual, Green Waste and Recyclable Waste Transfer; or
- Maximum 100,000 tpa for Refused Derived Fuel Processing and maximum 100,000 tpa for the above Waste Transfer.

2.1.2 The Fire Action Plan has been produced in accordance with Environment Agency guidance entitled 'Fire Prevention Plans' published in March 2015. The report identifies the potential causes and effects of a fire, and describes the measures that will be in place to prevent the occurrence of a fire at the site. In addition, the report would provide details of the planned response to a fire incident and explain how fire water would be contained.

2.1.3 This document forms part of the site's Environmental Management System (EMS) and will be reviewed on an annual basis and in the event of any fire-related incidents.

2.2 Site Context and Permitted Activities

2.2.1 The proposed development site is located off Cledford Lane, Middlewich, Cheshire. The site is located in between The Trent and Mersey Canal and Faulkner Drive, approximately 5.5km from the M6 motorway (Junction 18) on the south eastern edge of Middlewich The site is centred on approximate National Grid Reference (NGR) SJ 712 648.

2.2.2 A Waste Transfer Station (WTS) facility would be developed which would have a maximum throughput of 200,000 tonnes per annum (tpa). The WTS would comprise two industrial type buildings as shown on Drawing Number 20004.

2.2.3 The smaller WTS-Recycling building would accommodate the green waste and co-mingled dry recyclable waste from household waste collections and would have a maximum throughput of 100,000tpa.

2.2.4 The design of the building, particularly the height, would ensure that Refuse Collection Vehicles (RCVs) can safely deposit waste within the building and that bulk haulage vehicles can be loaded with mobile plant without damaging the WTS roof or doors. Internally the smaller WTS-Recycling building would include a number of waste bays for the storage of different streams of source segregated recyclable and green household waste. The bays would be constructed using concrete push walls to protect the structural integrity and fabric of the WTS-Recycling building. Fast closing doors would be installed on the north western, western and eastern elevations.

2.2.5 The larger building would potentially accommodate one of the following activities. Option 1 would comprise a Refuse Derived Fuel (WTS-RDF) processes with a throughput of not greater than 100,000tpa. The building would incorporate fast closing industrial doors on the north eastern and north western elevations as well as the southern elevation.

2.2.6 Waste deposited within this building would comprise the residual/non-recyclable black bin waste from the household collections. This material would be processed to produce a refuse derived fuel. The RDF process would necessitate a basic level of treatment of the residual waste to remove recyclates and non-combustible materials such as ferrous and non-ferrous metals and inert waste. Waste would undergo shredding (or bag splitting) to a size of ~300 mm. It would then be passed under a magnet to remove any ferrous metal and then through a trommel screen (hole size ~20-30 mm) to remove organic material. The oversize from the trommel can then be classified as RDF and suitable to label with European Waste Catalogue code 19 12 10 'combustible waste – refuse derived fuel'.

2.2.7 The RDF material would be baled prior to off-site transport. Two process lines would be included within the WTS-RDF building, which would each have a process capacity of approximately 40 tonnes per hour.

2.2.8 Option 2 would comprise an additional waste transfer station for residual black bin waste and further capacity for green and co-mingled recyclates. This facility would follow the same processes as the WTS in the smaller building and would provide a maximum throughput of 100,000tpa.

2.2.9 There will be a maximum storage capacity of 3,000 tonnes of untreated material on site at any one time. This will be split between each of the proposed buildings with 1,500 tonnes of untreated material within each building. This will allow storage capacity for 3 days of received material in the event of plant failure or unavailability of off takers.

2.2.10 Furthermore, there will be sufficient capacity to store 2,000 tonnes of processed RDF materials, recovered metals and fines within the WS-RDF building whether they be baled and wrapped or stored loosely within designated storage areas.

2.3 Permitted Activities

2.3.1 This application seeks to allow ANSA undertake the following Schedule 1 Activities:

- Section 5.4 A (1) b) ii)

2.3.2 In addition the following Directly Associated Activities will be undertaken

- Receipt and storage of non-hazardous waste pending pre-treatment of waste for incineration or co-incineration;
- Bulking of recyclable wastes recovered as an incidental part of the production of Refuse Derived Fuel.

2.3.3 In addition to the above Schedule 1 activities, the transfer of non-hazardous green and recyclable waste for the purpose of recovery will require a separate OPRA Waste Facility score and will be a separate activity within the permit. With regards to the Disposal and Recovery operations, provided for in Annex II to Directive 2008/98/EC of the European Parliament and of The Council of 19th November 2008 Waste, it is the operators intention to carry out the following activities within both the installation and waste facility aspects of the operation in Table 1 below:

Table 1

R/D Code	Activity
R3	Recycling/reclamation of organic substances which are not used as solvents.
R4	Recycling/reclamation of metals and metal compounds.
R5	Recycling/reclamation of other inorganic materials.
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced).

3.0 Assessing Fire Risk

3.1 Risk of Fire

Types of Combustible Materials on Site

3.1.1 The types of combustible wastes received at the site are likely to consist of the following materials:

- Green waste
- Residual waste from black bins comprising
  - Paper and card;
  - Plastics;
  - Mixed packaging;
  - Wood;
  - Putrescible Waste.
- Refused derived fuel (RDF) comprising:
  - Paper and card;
  - Plastics;
  - Mixed packaging;
  - Textiles.
- Mixed recyclables comprising:
  - Paper and card;
  - Plastics;
  - Cans and glass;
  - Mixed packaging.

3.1.2 The composition of the waste stream will vary and is likely to contain various proportions of the materials identified above depending on the source of the waste. The list above is not an extensive list of all permitted wastes as it just details those which are combustible and therefore relevant to this report.

Storage Capacity

3.1.3 Storage areas for received and treated waste materials are as shown on the site layout drawing. The total storage capacity for the site is 3,000 tonnes of untreated material on site at any one time. This will be split between each of the proposed buildings with 1,500 tonnes of untreated material within each building. It is unlikely that there will be this volume of waste on site at any time as the operator will have in place effective stock management procedures, as described further in this document. The anticipated quantities of combustible materials are listed in Table 2 below.

3.1.4 Received and recovered materials will be stored within the building which benefits from impermeable surfacing and sealed drainage.

Table 2: Anticipated Quantities of Combustible Materials

Material	Storage Location and Storage Method	Anticipated Quantity of Combustible Waste Stored On Site at one time (Approx. tonnes) *
Mixed recyclables from Silver Bins and commercial collections	Within building as loose stockpile.	750
Green waste from green bins and commercial collections	Within building as stacks or stockpile.	750
Residual Waste from black bins	Within building as loose stockpile.	1,500
Refuse Derived Fuel	Within the building – baled and wrapped.	2,000
		Total = 4,000 (approximately)

**Estimates for the purpose of assessing fire risk only*

Amounts of Waste Received Daily

3.1.5 At present, it is anticipated that there would be approximately 800 tonnes of material received at the site per day. This would be around 25% co-mingled recyclates, 25% green waste and 50% residual black bag waste.

3.1.6 These quantities are not specified within the site's permit and may be subject to review throughout the site's operation.

Causes of a Fire

3.1.7 With reference to EA guidance, it is considered that the potential causes of fire at the site are as follows:

- arson or vandalism;
- self-combustion of received and processed waste materials (e.g. chemical oxidation, microbial decomposition);
- plant or equipment failure;
- electrical faults;
- naked lights;
- discarded smoking materials;
- hot works, e.g. welding, cutting;
- industrial heaters;
- hot exhausts;
- damaged/exposed electrical cables;
- neighbouring sites activities;
- sparks from loading buckets; and
- ignited materials received at the site.

3.1.8 Any of the causes detailed above has the potential to ignite waste materials upon the site although the separated fractions consisting of RDF, paper and cardboard, wood and plastics are recognised as having the highest potential combustibility.

3.1.9 The likelihood of fire on the site is directly proportionate to the suitability of control systems in place through ANSA's Environmental Management System. The procedures for the reduction of fire risk are discussed in detail in Section 4 of this report and it is considered that through the implementation of the control measures discussed within this document that the likelihood of fire on site is considered low.

3.1.10 The consequences of a fire are discussed below with mitigation measures detailed in a further section.

3.2 Effect of a Fire

Source/Pathway

3.2.1 The effects of a fire may be both immediate and long term, presenting a significant burden for the operator and regulatory agencies. The potential causes of a fire have been discussed within Section 3 above and are reviewed below with reference to EA guidance and provide an assessment of the source and potential pathway for pollution:

- firewater run-off transporting pollutants to surface water and groundwater;
- thermal radiation harming nearby properties and residents leading to fire spread;
- creation of hazardous waste by the fire and impacts of fire-fighting;
- explosions and projectiles harming sensitive receptors and spreading the fire to unaffected areas;
- transport disruption resulting from road and rail closures;
- nuisance from smoke, odour and particulates through the air; and
- threat to life and property.

Receptors

3.2.2 Sensitive receptors within 500m of the facility have been identified in Table 3 below as they are seen as those which could be most impacted by a fire incident.

Table 3: Potentially sensitive receptors within 500m

Receptor	Direction from Operational Area	Minimum Distance from Permit Boundary (approx.) (m)
Designated ecological habitats e.g. Ramsar, SAC, SPA, SSSI, LNR		
Sandbach Flashes SSSI	S	1100
Other designations e.g. National Park, AONB, World	N/A	N/A

Heritage Sites		
Cledford Lane Lime Beds - Local Wildlife Site	N	50
Other Habitats		
Deciduous Woodland Priority Habitat	SE	<10
Deciduous Woodland Priority Habitat	N NW	730
Domestic Dwellings		
Properties on Booth Lane	W	160
Properties on Cledford Lane	N	<50
Cledford Villa	NE	80
Schools/Hospitals/Shops		
Cledford Primary and Infant School	NW	650
Middlewich Methodist Church	NW	145
Commercial and Industrial Premises		
Brooks Lane Industrial Estate	N	675
Industrial premises on E.r.f Way	NE	445
Industrial premises on Pochin Way	NE	830
Salt Works (British Salt)	S	300
Public Rights of Way		
Middlewich FP21	NE	<50
Middlewich FP20	E	180
Recreation Areas		
Sports Pitches	W	830
Highways/Minor Roads/Railways		
Cledford Lane	N	<5
Faulkner Drive	E	<5
Booth Lane (A533)	W	<20
A54	N	1500
Ancient Woodland	N/A	N/A
Historic buildings / Listed buildings / Archaeological sites		
Grade II Listed Buildings;		
Trent and Mersey Canal, Canal Milepost	S	235
Trent and Mersey Canal, Rumps Lock	S	280
Outbuildings to Cledford Hall	NE	395
Sensitive land uses e.g. farmland, allotments, commercial fish farms	N/A	N/A
Surface Water e.g. rivers and streams		
Trent and Mersey Canal	W	<10
Sanderson's Brook	E NE	200
Lagoon	SE	415
Groundwater (sensitivity)		
According to the Environment Agency the site is not located over a specified aquifer and is not situated within a GSPZ.		
Coastal / Estuarine areas	N/A	N/A

4.0 Fire Risk Reduction

4.1 General Site Procedures

4.1.1 The operator will enforce a "No Smoking Policy" on the whole site and there will be a designated smoking area located at the site of the office building which is positioned in the middle of the yard, by the inert processing area. Sources of ignition, such as heating pipes, naked flames, light bulbs, space heaters etc. will be kept at least 6m away from combustible or flammable materials.

4.1.2 Staff or contractors will follow approved safe working practices when undertaking hot working (e.g. cutting and welding).

4.1.3 No waste will be burnt within the curtilage of the site.

4.1.4 All building electrics will be installed by a fully certified electrician. A documented regular maintenance and inspection programme will be operated for all site areas including site machinery. Good housekeeping practices will be in place to minimise the accumulation of dust, litter, fibre or paper on the site, which could pose a fire risk.

4.1.5 Site security will be in operation both during the working day and outside of normal working hours, to ensure that unauthorised access to the site is not allowed. CCTV will be in operation at all times during the day.

4.1.6 All site vehicles shall be fitted with fire extinguishers and operatives/drivers will be trained in their use.

4.1.7 Vehicles will not be left idling immediately adjacent to stockpiles of combustible materials to reduce the risk of auto ignition from hot exhaust gases.

4.1.8 All on site electrics will be installed and tested by qualified electricians in accordance with the building control process.

4.1.9 A visual inspection for signs of hot loads will be made at the weighbridge. A system is in place whereby if there is a suspected hot load due to arrive at the site, the weighbridge will be notified to ensure that the site is ready to receive the load within the quarantine area. Any hot loads received on site will be directed to the quarantine area, located at the site entrance as detailed on the site plan (Drawing No. A092093/PER/01).

4.1.10 Gas canisters and other flammable materials will be stored in a secure location away from other combustible material, located to the south east of the site as detailed on the site layout plan. The containment of these materials will comprise a fire retardant sheet to ensure sufficient shading from direct sunlight.

4.1.11 At the end of the working day, mobile plant and vehicles will be parked away from stockpiles of waste, in order to minimise the potential for fires from hot or overheated plant/vehicles. All processing machinery will be brushed clean to ensure that no loose waste falls onto hot exposed metalwork. All mobile plant and vehicles will be also be maintained every 6 weeks in accordance with the maintenance schedule.

4.1.12 A dedicated quarantine area shall be retained at all times to allow burning material to be moved to so as to extinguish and control fire spread. It will also be used to move piles of unburnt material, adjacent to a fire, to prevent spread. Details of the location of the quarantine area are provided in the Site Layout Plan (Drawing No. A092093/PER/01)

4.1.13 As set out in the EA guidance, the size of the quarantine area is sufficient to accommodate the largest external waste pile and provide a minimum separation distance of 10m on all sides to the nearest pile, building or site boundary.

4.1.14 With reference to the Operating Techniques and the pile size dimensions in Table 4, it is considered that WEEE will comprise the largest potentially flammable external waste pile and therefore the size of the quarantine area is in line with these requirements.

4.1.15 During any replacement of plant and infrastructure during the operation of the site, consideration will be given to the procurement of plant which benefits from fire and spark detection systems.

4.2 Waste Storage and Stock Management

4.2.1 An inventory of potentially flammable waste materials, and their storage locations, will be kept up to date on site. Staff involved in hot working will be notified of the location of all potentially flammable materials prior to the commencement of works.

4.2.2 In order to prevent spontaneous combustion of materials, care will be given to storage arrangements for all combustible waste types as detailed in the Environment Agency's Fire Prevention Plan guidance. These materials will not be stored in large stockpiles and will not be stored no longer than the 3 days prior to processing in accordance with the storage capacity limit. Waste types that will be stored in secure external compounds will not be stored longer than 14 days. Following processing, the maximum storage

periods identified in Table 4, which are detailed within the Environment Agency Fire Prevention Plan Guidance, will be strictly adhered to. Stockpiles will be identified within the site diary with a date of completion to aid stock management and ensure compliance with the periods identified below.

4.2.3 It is a condition of the permit that wastes shall be stored for no longer than 1 year prior to disposal and no longer than 3 years prior to recovery.

4.2.4 Where relevant, waste will be stored in accordance with Table 1 of the EA guidance whereby the following will be strictly adhered to:

Table 4

Material	Max height (m)	Length/ width (m)	Max volume (m^3)	Max area (m^2)	Min separation (m)	Max storage period
Paper, cardboard and rags	5	20	750	235	6	3 months
Plastic, rubber and other materials	5	20	450	235	6	3 months
Fridges, computers, and electrical equipment	5	20	300	235	15	3 months
Processed wood, including sawdust, shavings and chips	3	10	150	100	6	3 months
RDF and fragmentiser fluff	5	20	450	235	6	3 months
Unprocessed wood	5	20	750	235	6	3 months
Green waste	5	20	750	235	6	3 months
Co-mingled recyclates	5	20	750	235	6	3 months

4.2.5 Storage bays will be marked to identify the maximum permissible stockpile dimensions as detailed in Table 4. These dimensions will also indicate the separation distances which should be maintained between stockpiles. The stockpiles will be continually monitored in accordance with these guidelines by site operatives. Compliance checks to ensure that the maximum dimensions detailed above will be incorporated into the daily checks by the site manager.

4.2.6 Adherence with the maximum dimensions in Table 4 will be the responsibility of the Site Manager. Daily checks of stockpiles will be incorporated into the Environmental Management System. Any non-compliant stockpiles will be addressed immediately under the supervision of the Site Manager.

4.2.7 Baled RDF will be marked to show the date that it was baled and will be stored no longer than 3 days prior to being transferred off site.

4.2.8 In the event of an unforeseen event it is possible that we would consider stockpiling RDF. If this were to occur stacks. Stacks of baled RDF may be turned weekly to ensure that heat is dissipated through the stockpile. This will be undertaken under strict supervision to ensure that no flaring of the waste occurs due to the sudden presence of oxygen within the waste.

4.2.9 Consideration will be given to the utilisation of a temperature probe to ensure that stockpiled RDF and other materials are not overheating. Visual inspections of the stockpiles will also be incorporated in the daily checks and will be undertaken before operation and at the end of the day. Continual visual monitoring of the stockpiles will also be undertaken by all staff for signs of overheating or fire.

4.2.10 Waste piles will be turned regularly to ensure that any localised heating is dissipated quickly.

4.2.11 Loosely tipped, potentially combustible materials as identified above are stored within separate bays within the WTS building. These bays will be separated by concrete push walls which will be constructed in accordance with the product specification provided in the Loss Prevention Certification Board (LCPB) List of Approved Fire & Security Products and Services (The Red Book). It is considered that the concrete push walls will be sufficient in acting as a thermal barrier in the event of ignition and will ensure that the spread of fire does not affect other stockpiles. The push walls will act as fire breaks in the event of ignition of one of the sources of segregated wastes. This will ensure that the spread of the fire does not affect other stockpiles.

4.2.12 Storage arrangements for all materials will be undertaken with due consideration given to access of fire fighting vehicles. The layout of the site will ensure that access is available to all areas of the site to fire appliances in the event of a fire. The site manager will be responsible for maintaining manageable stockpiles on site and ensuring that access is available to all areas of the site for emergency vehicles.

5.0 Containing and Mitigating the Effect of the Fire

5.1 Fire Response

5.1.1 Any fire on site will be treated as an emergency and will be extinguished at the earliest opportunity. If necessary the Fire Brigade will be summoned. The local Fire Service has been contacted to ensure that the proposed fire prevention and response measures in place are adequate.

5.1.2 Fire fighting equipment will be located in the site office, in accordance with Fire Regulations. All fire extinguishers shall be clearly marked and tested at appropriate intervals to confirm their integrity. Site operatives will be made aware of their location and trained in their correct use.

5.2 Fire Suppression System

5.2.1 A dry pipe sprinkler system will be installed within both buildings in order to control any fires. The system will provide a discharge density of 10mm per minute over an area of approximately 325m^2. Water will only be directed to the area where fires are detected. The pipework will be charged with compressed air to minimise the risk of frost damage to the system under severe weather conditions.

5.2.2 The LPC regulation restricts the size of dry pipe sprinkler systems by the volume of air contained within the pipe work. In order to afford the sprinkler protection to both buildings the protection will be divided into three separate installations each being served by a set of dry pipe controlling valves complete with top up air compressor.

5.2.3 Operation of the sprinkler system will be provided by an electrically driven fire pump and a diesel driven standby fire pump together with a pressure maintenance pump (jockey pump) all drawing water from a galvanised steel cylindrical water storage tank.

5.2.4 The fire pumps together with all ancillary equipment would be housed within a purpose made GRP housing which would be located adjacent to the sprinkler water storage tank.

5.2.5 An underground connection will be installed into the plant room on the large waste transfer building and into the corner of the smaller waste transfer building, both terminating with a flanged connections at approximately 300mm above ground from which we will extend to serve the new controlling valves.

5.3 Water Supplies

5.3.1 Water will be stored within the water tanks identified on the Drainage Strategy (Drawing No. DR-501) and potentially within the surface water attenuation tank in the event that the sprinkler system is employed.

5.3.2 In accordance with the Environment Agency's Fire Prevention Plan guidance, the operator must demonstrate that their facilities have sufficient water supplies to manage a worst case scenario incident. The guidance provides the following estimate to calculate the required volume of water:

5.3.3 A 300m^3 pile of combustible material will normally require a water supply of at least 2,000 litres a minute for a minimum of 3 hours'

5.3.4 The worst case scenario is considered to be when all of the waste piles are on fire within the Waste Transfer Station – RDF building. The maximum total volume of waste which may be stored within the building at any one time will be 2850m^3.

5.3.5 From the estimation above, the volume of water that would be required to manage the worst case scenario on site would be 3,420,000 litres/3,420m^3 based upon the storage volumes and water required as detailed above.

5.3.6 A canal runs along the western boundary of the site which may be used for the supply of water if required by the Fire Service. A water storage tanker with a capacity of 1406m^3 is also provided within the permit boundary for use by either the fire service or the sprinkler system. The potential for the use of the canal will be investigated in conjunction with the relevant stakeholders, following discussion with the local Fire Service.

5.4 Site Procedures

5.4.1 In the event of a fire at the site, the following procedure will be implemented:

i) Raise the alarm;

ii) Cordon off the area, clearing employees to a safe area and prevent any further access to the site. Conduct a check to ensure that all persons present on the site are safe and accounted for using clock cards, staff and visitor signing in sheets.

iii) Attempt to control the fire using the appropriate appliances on site. If the fire is small use mobile plant and attempt to separate the burning material from other waste. Contact the Fire Brigade on 999;

iv) When practicable and safe to do so, inform the Environment Agency of the incident in accordance with the conditions of the Environmental Permit;

v) Report the situation to the Fire Brigade on their arrival;

vi) Close all surface water drainage outlets from the site;

vii) Collected fire water to be retained within the site boundary via the internal water retention bunds and other appropriate bunds as necessary. Any retained firewater will be removed from site by tanker.

viii) Once the fire has been extinguished, seek the advice of the Fire Brigade on future precautionary action; and

ix) Record all details in the site diary.

x) Site, operations will be temporarily suspended and no further waste will be accepted on site until the Local Fire Service have advise it is safe to do so. If necessary, waste will be transferred off site to an appropriately permitted facility.

5.4.2 The site manager will act upon the advice issued by the Local Fire Service in the event of a fire. The decision as to whether a controlled burn is suitable in any instance of an outbreak of a fire will be at the discretion of the Local Fire Service.

5.4.3 Following a fire, unburned material will separated from burnt material using on site plant. Any incidents of fire will result in the accumulation of fire residues. It will be the responsibility of the Site Manager to arrange for the disposal of the fire residues. A shovel will be used to collect the residues for placement in a plastic sack. This will then be treated as 'non-compliant waste' for disposal at an appropriately permitted facility.

5.4.4 The following table provides relevant contact details for individuals and relevant authorities in the event of a fire at the facility.

Table 5: Emergency Contact Details

Company	Position	Name	Telephone Number	Email
ANSA Environmental Services	Site Operator	Kevin Melling		

ANSA Environmental Services	Site Manager/ Technically Competent Manager	Emma Owen		Emma.Owen@ansa.co.uk
Environment Agency	Local Area Officer	John Sweeney	0800 80 70 60 (24 hour line)	j.sweeney@environment-agency.gov.uk
Local fire service	Cheshire East Fire Service	Emergency	999	

5.5 Fire Water

5.5.1 Fire water will be contained on site or within its sealed drainage system with shut off valves closed to ensure that water does not leave the site via the surface water drainage system. All areas where waste will be stored and treated will benefit from impermeable surfacing and an engineered drainage system.

5.5.2 The site drainage system benefits from a storage attenuation tank with a capacity of 1400m3. In the event of a fire, and following the closure of the shut off valve, the storage tank will be used to collect firewaters. Once the storage tank is at capacity, the permit area will be allowed to flood. The site will benefit from perimeter kerbing to contain the firewaters. From the estimated volumes provided in section 5.1 above, it has been calculated that the permit area will be required to contain 120mm of water across the whole area of the site.

5.5.3 Fire water will be retained within the permit boundary using a temporary bund at the site entrances. This bund would ensure that any fire water is contained on site and any fire water within the bunds will be removed from the site by tanker to a suitable licensed facility.

5.5.4 Advice will be sought from the Local Fire Service as to the suitability of the use of inflatable bunds and booms to prevent the run off of potentially hazardous firewater.

5.5.5 Drain mats will be used where possible to block drains to prevent the ingress of fire water.

5.6 Site Access and Neighbouring Properties

5.6.1 ANSA will ensure that the site is accessible even when it is not operational. The site entrance will be kept clear, and machinery and plant will be parked in a secure parking area, not blocking the access to the site or areas around where waste is stored. The contact details for out of hours are provided in Table 2 to ensure that the site management staff are contactable at all times.

5.6.2 In the event of a fire, it is understood that the fire service can access any property as required to control and extinguish the fire.

5.6.3 The site is located within a semi-urban location with domestic properties to the north and west and industrial uses to the south and east. The neighbouring saltworks is open 24 hours per day. There is proposed to be 24 hour security at the site to ensure that the site is accessible at all times. It is not considered that there would be any issues with accessing the site or the neighbouring sites in the event of a fire.

5.7 Reporting and Communication

5.7.1 In the event of a fire, communication with local businesses and residents identified in the sensitive receptor table above will be undertaken in the event of a fire to reduce any environmental damage and risks to human health associated with smoke and dust.

5.7.2 The local Fire Service and Environment Agency will be informed of the incident using the contact details provided in Table 5 above.

5.8 Recording

5.8.1 The incident would be recorded in the relevant section of the company's EMS and in the Site Diary.

5.9 Actions following a fire

5.9.1 Further to a fire on site, and upon safe re-commissioning of all plant and equipment, an investigation will be undertaken internally as to the cause of the fire and any future preventative measures to ensure that there is no re-occurrence.

5.9.2 This Fire Action Plan will be reviewed following this investigation to ensure that lessons learnt are documented and implemented in the future. Any new policies and procedures will be documented within this plan and the Environmental Management System.

5.9.3 Any new training requirements for site personnel will be implemented following this investigation however this is not intended to negate the requirement for ongoing training in how to reduce the risk of fire on site.

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