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Appendix 1

Copy of Electronic AER Returns Worksheet

1.0 INTRODUCTION

The purpose of the Annual Environmental Report (AER) is to summarise the interaction of the licensed facility with the local environment. It is also a strategic document, by way of its analysis of how the facility achieved the objectives and targets.

This document reports on the operation of Mr. Binman Ltd transfer station and recycling centre from **1st January 2009 to 31st December 2009**. The facility is located at Luddenmore, Grange, Kilmallock, Co. Limerick.

1.1 WASTE LICENCE

Mr. Binman Ltd. has conducted this Annual Environmental Report (AER) as per the condition 11.6 and includes the information specified in Schedule G of Waste Licence W0061-2.

1.2 SUMMARY

This document contains the following elements as required by Agency's Guidance on Annual Environmental Reports to the Agency.

- Environmental Policy
- Site Description
- Site Development Works
- Environmental Monitoring and Emissions Summary Report
- Environmental Incidents and Complaints
- Waste Received by and Consigned from the Facility
- Environmental Management Programme Report

1.3 ENVIRONMENTAL POLICY

Our Environmental Policy clearly communicates Mr. Binman's mission and core values with respect to the environment. It also acts as a company statement regarding our commitments to control and improve environmental performance with respect to significant environmental aspects of the organisation activities.

This commitment to control and improve our operations with respect to the environment has resulted in our investment in a range of infrastructure dedicated to enhancing our environmental performance, which will be demonstrated within this AER.

1.3.1 Mr. Binman Environmental Policy

The following statement is Mr. Binman Environmental Policy:

Mr Binman Ltd. is committed to maintaining the high standard of environmental performance it always has enjoyed. Our environmental performance is underpinned by a set of principles. We believe in conducting business in the right way. We owe our success to our customers, employees and the community in which we operate. We recognise that we have responsibilities to all of them. It is in this respect that Mr Binman shall endeavour to work towards the following objectives:

Promote environmentally sound waste management solutions by promoting recycling and the polluter-pays-principle. Our Pay-by -Weight system is both equitable to our customers and environmentally responsible as it encourages both recycling and waste minimisation.

Enhance the waste management practices within the South-West Region. Mr. Binman business plays an important role in assisting the local authorities to meet their waste management obligations under law and also the targets set out in the Regional Waste Management Plan.

Foster a wider understanding of environmental issues within the Community by sustaining a number of Community Awareness Programmes. These programmes target the younger generation by focusing its efforts on schools and universities through our Educational Program.

Manage our operations with diligence and awareness as to prevent any adverse environmental effects arising at the facility.

Provide self-monitoring to ensure compliance with relevant environmental legislation, our Environmental Policy and the requirements of the EPA.

Utilise the precautionary principle as a valuable tool in decision-making as a preventative measure towards pollution and nuisance control.

Identify and mitigate any environmental problem arising through the employment of strict regime of regular site inspections and audits. This is an important problem-solving tool as any nuisances detected are at early stage are immediately resolved.

Foster an enhanced communication system incorporating dialogue, and discussion with all stakeholders regarding our environmental performance and our environmental objectives and targets to create transparency and accountability.

To continually improve environmental performance through technological innovation accordingly our board of director's travels extensively throughout Europe and North America to source the most environmentally sound and technically advanced waste recovery system to ensure that the processes we employ are the most environmentally sound available."

2.0 SITE DESCRIPTION

The Mr. Binman facility is mainly comprised of a Waste Transfer Station and Recycling Centre. The infrastructure on-site is all directly or indirectly related to these activities. An inventory of the infrastructure will be given along with the engineering details of each item.

2.1 WEIGHBRIDGE

The weighbridge operates by means of an over-ground Avery scale. All vehicles carrying refuse in to the site are weighed before and after tipping at the transfer station. The weighbridge can weigh vehicles up to 60 tonnes. The Legal Metrology checks the weighbridge for accuracy once a year. Details of each load weighed are catalogued as per section 10.2 of our EPA Waste Licence, number 61-2 using 'BridgeMont' our up-dated customised computerised weigh recording system which has been be installed at the weighbridge.

2.2 TRANSFER STATION

Waste which enters the transfer shed is tipped and goes through a pre-sort process to remove wood, steel or other bulky items which may interfere with the mechanical separation plant.

2.3 MECHANICAL SEPARATION

In the normal day's events the transfer of MSW is tipped onto a walking floor and transferred via a conveyor into the mechanical recovery facility. See section 2.16.

2.4 PICKING STATION

A picking line is available to remove bulky and recyclable materials.

2.5 GLASS PROCESSING PLANT

The main components of the glass processing plant are as follows: hopper, manual removal of residual contamination, magnet for removal of loose metals, crusher, vibrating screen for removal of plastic, corks and rings, vertical conveyor, ceramic remover, cyclone, eddy current separator for removal of aluminium packaging, out feed belt, and storage bays.

2.6 OFFICES

There is an office on site in which the weighbridge readings are recorded. The administrative offices are located adjacent to the site. A block of offices and canteen located on site adjacent to the weighbridge. All records relating to the environmental management of the site are stored in the Environmental Office (located in offices adjacent to the weighbridge).

2.7 SECURITY

The front of the site is fenced with a high security fencing. The site is monitored 24 hours a day 7 days a week using security cameras placed strategically around the site and entrances. Security lighting has been suitability positioned with 250-watt LPS on 'dusk 'til dawn' setting.

2.8 WHEEL CLEANING

A vehicle washing area is located adjacent to the waste water treatment plant. All vehicle washing is carried out at this location. The vehicle washing area consists of a concreted area that slopes to a central slatted area where the washings drain. The slats are removable and can be removed when necessary to remove any build up of silt.

2.9 FUEL STORAGE

Fuel is stored in a bunded fuel tank that is located in a bunded concrete area. Access to the fuel tank can only be achieved through the use of a key and a code. The bunded tank comprises of a separate internal rectangular storage tank, suitably braced and raised above the bund floor by mild steel sections. The outer bund tank is manufactured in a rectangular configuration, suitably strengthened and large enough to incorporate 110% of the inner tank capacity. All bunds are manufactured with pressed sidewalls to prevent formation of water traps, and are supported from ground level using heavy-duty steel sections welded to the underside.

A convex removable roof achieves total enclosure and the enclosed pipe work and valves are accessible through a lockable hatch in the roof.

2.10 DUST MONITORING POINTS

There are three dust-monitoring points located on site. The monitoring points are fenced to protect them from livestock where necessary and are labelled C, E2 and G. Dust monitoring is carried out by BHP Laboratories as per licence requirements. The dust monitoring is currently being analysed using the Berger Hoff method.

2.11 NOISE MONITORING POINTS

Glenside Environmental assesses noise monitoring for the site. Noise measurements are recorded at the three nearest residences bordering the site; these include the Ryan residence, the Power residence and the Hennessy residence.

2.12 ODOUR CONTROL

An odour control system operates in the yard and around part of the site perimeter. This is only a precautionary measure as the manner in which we deal with waste and recyclables ensures that odour problem do not arise in the first place. The on-site odour control system which utilises several rotary atomisers which produce millions of microscopic droplets of very dilute 'Aironaut' solution. This 'Aironaut' solution consists of a combination of essential oils, odour neutralising reagent and antibacterial agent. The partnership of the 'Rotary Atomisers' and the 'AiroNaut' solution forms an extremely effective and pleasant way to neutralise odours, if they should occur. The perimeter odour control system works by pumping the liquid intermittently through nozzles which emit a fine spray this system has been strategically positioned along the South-Eastern border of the site.

2.13 ACCESS AND ROADS

The site is located adjacent to a third class road. This road joins the Kilmallock road at approximately one kilometre west of the site. The Kilmallock road is classed as a regional road. It is by the Kilmallock road that the refuse vehicles access Limerick city and its environs.

2.14 LANDSCAPING

An on-going program of suitable landscaping is been carried out around the site. Semi-mature trees have been planted to screen buildings and abate noise and dust emissions.

2.15 SURFACE WATER CONTROL

The surface of the yard and truck parking area is concreted. Surface water from open concreted areas away from municipal waste processing areas and next to maintenance and diesel filling areas is drained to the percolation area via a new Class 1 oil interceptor/silt trap. Clean roof run-off is directed to soak pits away from the oil interceptor and wwtp. The main entrance to the yard is concreted and surface water from this area is drained to soak pits at the side of the entrance.

2.16 MECHANICAL TREATMENT PLANT

2.16.1 PROCESS DESCRIPTION MATERIALS RECOVERY FACILITY

The site comprises of a number of recovery processes for specific waste streams. The primary facility is dedicated to recovering materials from mixed municipal waste through a system of mechanical treatments. The waste is pre-shredded to optiomise exposure of the waste to the process. The shredded material passes through an optional picking line and is trommelled to remove organic fines. The oversize material is passed through as series of air knives to remove RDF followed by a series of magnets and eddy current separators to remove ferrous and non-ferrous metals.

The material can then be reprocessed through the facility or the material can be subjected to a phase 2 recovery process where the material is passed through a second trommel to remove further organic fines followed by a manula picking line followed by an air knife to remove more RDF.

Glass is colour separated into the three different colours, blue/green, clear and brown. The glass is sent to the on-site glass processing plant for pre-processing. Glass cullet is conveyed to covered storage bays.

In addition other recovery operations are conducted at the facility incluing C&D recovery, timber recovery, bulky waste recovery.

The facility also has a waste transfer capability which is utilised when required.

2.16.2 Contingency Arrangements

In the event that a conveyor or the trommel breakdown a Hydraulic Bridge is lowered which by-passes the Mechanical Treatment Plant until the plant is operational.

To ensure that breakdowns are minimised there is a fully trained maintenance crew on-site and a full set of replacement parts for all components of the plant are stored on-site.

3.0 ENVIRONMENTAL MONITORING AND EMISSIONS SUMMARY REPORT

3.1 DUST MONITORING RESULTS

3.1.1 Introduction

BHP Laboratory, Thomondgate, Limerick conducts a dust monitoring programme on behalf of Mr. Binman Ltd. The period of sampling is from 1st January 2009 to 31st December 2009.

3.1.2 Site Description

The Mr. Binman Ltd. facility is elevated and is located on the southern slopes of a hill such that it is exposed to prevailing winds from the south west.

3.1.3 Sampling

The gauges were all placed at ground level. The locations of the sampling sites are described in the table.

Table 3.1 Dust Monitoring Location Points

Dust Monitor	Location
С	Near timber area
E2	Boundary
G	Boundary

3.1.3.1 Sampling Procedure

All sampling and analysis was conducted with German Standard VDI 2119 using Bergerhoff dust deposition gauges. This is a standard method specified to be used in EPA licence W0061-02.

Dust monitoring was carried out as per Schedule D of EPA Licence W0061-02. The dust limit for Mr Binman Ltd. as set out in EPA Licence W0061-02 is 350mg/m²/day.

3.1.4 Analysis & Results

The results of analysis for the year 2009 are presented in Table 3.1 and Figure 3.1 Below. The results of the analysis have been compared to the dust deposition limit set out in Table C.2. in EPA Waste License W0061-02.

Table 3.2Results from Analysis 2009

Period	С	E2	G
July	386.3	417.9	59.2
September	76.1	187.2	87.2
November	10	23.9	57.8

Note 1: Dust Deposition Limit set out in Table C.2 in EPA Waste License 61-2.

3.1.5 Interpretation

Dust deposition levels were under the limits as set out in Table C.2 in EPA license 61-2 except for elevated levels at point C and E2 during the month of July.

On examination of the Location Dust Monitoring Points it was recommended by BHP to relocate Dust Monitoring Point C as it is located at a waste processing area which contravenes German Standard VDI 2119 Part 2 as the monitoring does not provide a representative assessment of the potential dust emissions from the site as a whole.

"care shall be taken that the site is not affected by emission from immediately adjacent sources(for example, trees, building sites) which could limit the representative nature of the measurements required by the measurement task."

Mr. Binman Ltd. has made representations to the Agency requesting the relocation of dust monitoring point C on the basis of recommendations by BHP. In July 2008 a Licence review Application was submitted to the EPA which proposed a new site boundary and dust monitoring point C will be relocated to this new boundary to ensure there will be no impact offsite as a result of activities on-site.

In the mean time, a further control measure was introduced to reduce dust emissions further. A policy of wetting the timber prior to shredding was introduced and this appears to have helped to reduce the dust deposition levels at monitoring point C.

Based on examination of the content of the sampling pot, it was concluded that the elevated levels at point E2 were due primarily to foliage overgrowth which caused contamination of the sampling pot. This situation was rectified and as can be seen from table 3.2 had a beneficial effect on results obtained. The adjacent gravel car park may also be a contributory factor in relation to this dust monitoring point. Planning permission was received to construct a new hard-standing car park but this is subject to the Waste Licence Review Application submitted to the Agency in July 2008. Construction of the new car park will eliminate the need for the gravel car park and will eliminate the associated dust emissions

3.1.6 Mitigation Measures

 Table 3.3: Summary of Dust sources and mitigation measures.

Dust Sources	Mitigation Measures		
Timber shredding Area	 Move Monitoring Point C which is not representative of potential dust emissions from the site as a whole Wet timber prior to shredding 		
Traffic Movement	 New entrance roadway and carpark will eliminate dust from existing gravel carpark. Continue frequent on-site truck washing to minimise generation of dust from vehicles. 		

3.2 Noise Monitoring Results 2009

3.2.1 INTRODUCTION

Glenside Environmental was commissioned by Mr. Binman Ltd. to carry out an environmental noise survey at its plant in Ballyneety, Co. Limerick, in order to determine the influence, if any, it has on the surrounding environment and to measure compliance with Waste Licence requirements (Reg. No. W0061-02).

3.2.2 SAMPLING

3.2.2.1 Sampling Locations

Monitoring was performed at the same four noise sensitive locations where previous monitoring had occurred.

Noise sensitive locations:

- 1. Power's Residence (Directly opposite the site entrance).
- 2. Hennessy's Residence (Located to the west of the site entrance).
- 3. Ryan's Residence (Located to the east of the site entrance).
- 4. Maguire's Residence (Located to the south west of the site, approximately a half mile distant).

3.2.2.2 Procedure

Measurements were taken using the following equipment:

- Precision integrating sound level meter: Bruel & Kjaer, Type 2260, Serial No. 2217549
- Microphone: Bruel & Kjaer, Type 4189, Serial No. 2174750
 - Acoustical Calibrator: Bruel & Kjaer, Type 4231, Serial No. 1883708

Measurements were taken, to establish, as close as possible, the impact of noise produced by Mr. Binman Ltd. is having on the immediate environment.

A 1/3 octave band analysis was carried out at each location to determine if any tonal component was emanating from the plant. Measurement parameters reported include L_{Aeq} , L_{A10} and L_{A90} . Measurement duration was 30-minutes at each noise sensitive location in accordance with licence requirements.

Measurements were taken in accordance with ISO 1996 "Determination and Measurement of Environmental Noise" and EPA Guidance Notes for "Noise in relation to scheduled activities".

3.2.3 Noise Sensitive Location Results

Table 3.4

Monitoring for June 22 nd & 23 rd 2009			
	L Aeq, 30 min	L A90, 30 min	L A10, 30 mins
Daytime	dB(A)	dB(A)	dB(A)
NSL-1	69.4	42.7	65.5
NSL-2	70.3	44.4	68.6
NSL-3	64.7	39.9	57.8
NSL-4	63.8	41.5	62.2

Night time	L Aeq, 30 min dB(A)	L A90, 30 min dB(A)	L A10, 30 mins dB(A)
NSL-1	64.1	38.8	56.8
NSL-2	63.1	41.6	62
NSL-3	61.8	37.2	55.4
NSL-4	67.2	34.6	51.4

Table 3.5

Monitoring for Dec. 7 th and 8 th 2008			
Daytime	L Aeq, 30 min dB(A)	L A90, 30 min dB(A)	L A10, 30 mins dB(A)
NSL-1	63.3	41.8	59.9
NSL-2	65.8	43.3	66.9
NSL-3	60.7	39.7	56.9
NSL-4	62.8	41.2	64.4
Night time	L Aeq, 30 min dB(A)	L A90, 30 min dB(A)	L A10, 30 mins dB(A)
NSL-1	59.8	39.1	55.2
NSL-2	60.3	40.9	58.5

36.7

36.5

3.2.4 Interpretation

NSL-3

NSL-4

The EPA license limit value for L_{Aeq} (30 minutes) of 55 dB(A) for daytime hours was exceeded at all of the noise sensitive locations due primarily to passing traffic. It was noted however that the L_{90} parameter did not exceed the 55 dB(A) limit. Glenside Environmental report that "this would indicate that the specific noise from the facility was within the daytime limits". At all locations passing traffic was the main contributor to elevated noise levels.

58.5

61.0

The continuous operation of the plant and association activities indicates that its noise contribution is better characterised by the L $_{90}$ value than that of the L_{AEQ.} The low L_{A90} values however indicate the ambient noise climates at sensitive receptors are not adversely affected by any single, continuous noise source. This is supported

57.6

53.8

with reference to observations on the audibility of the site noise during the course of each monitoring interval.

In addition it is notable that all the night-time $L_{Aeq 30}$ measurements at the noise sensitive locations were elevated. These measurements were taken when the facility was not operational confirming the noise levels are not associated with Mr. Binman operations.

3.3 GROUNDWATER MONITORING RESULTS 2009

3.3.1 Introduction

Monitoring of the groundwater wells was conducted in June and October 2009.

As specified in the licence GW1 monitoring borehole is located up-gradient of the Mr. Binman Ltd. facility and GW2 monitoring borehole is located down-gradient of the Mr. Binman Facility.

3.3.2 Site Description

The Mr. Binman site comprises a fully EPA licensed waste recovery facility, located in Luddenmore, Grange, County Limerick. The site is located on the southern slopes of a hill forming part of the Limerick Volcanics, which sweeps down to a flat valley floor. Groundwater flows beneath the site in a generally South to South-East direction, as outlined in a hydrogeological report submitted to the Agency in February of 2004.

3.3.3 Groundwater Monitoring Results

The results of this analysis for the year 2009 are presented in Table 3.6 below, with the results from analysis carried out by the EPA presented in Table 3.7.

Table 3.6:GroundwaterMonitoringconductedbyTobinConsultingEngineers on behalf of Mr. Binman.

30/06/2009		GW1	GW2
PH	pH units	7.23	7.15
Electrical Conductivity	uS/cm	547	810
Total Organic Carbon	mg/l	<1	<1
Ammoniacal nitrogen	mg/l	<.01	<.01
Total Phosphorus	mg/l	0.18	.11
Total Nitrogen	mg/l	3.2	4.5

14/10/2009		GW1	GW2
PH	p H units	7.5	7.09
Electrical Conductivity	uS/cm	528	913
Total Organic Carbon	mg/l	1	<1
Ammoniacal nitrogen	mg/l	0.04	0.07
Total Phosphorus	mg/l	0.02	0.15
Total Nitrogen	mg/l	9.6	4.7

03/02/2009		GW1	GW2		
PH	p H units	7.35	7.19		
Electrical Conductivity	uS/cm	490	858		
Total Organic Carbon	mg/l	4.49	7.01		
Ammoniacal nitrogen	mg/l	.05	.05		
Total Phosphorus	mg/l	<.05	<.05		
Total Nitrogen	mg/l	2.64	<1.0		

Table 3.7: EPA Ground	dwater Monitoring Results

		-	
05/05/2009		GW1	GW2
PH	p H units	7.56	7.00
Electrical Conductivity	uS/cm	492	889
Total Organic Carbon	mg/l	3.93	5.09
Ammoniacal nitrogen	mg/l	<.02	<.02
Total Phosphorus	mg/l	.04	.03
Total Nitrogen	mg/l	3.63	2.34

17/09/2008		GW1	GW2
PH	p H units	7.62	7.16
Electrical Conductivity	uS/cm	528	911
Total Organic Carbon	mg/l	3.43	2.17
Ammoniacal nitrogen	mg/l	.03	.03
Total Phosphorus	mg/l	.01	.01
Total Nitrogen	mg/l	2.59	3.49

02/12/2008		GW1	GW2
PH	p H units	7.65	7.21
Electrical Conductivity	uS/cm	488	867
Total Organic Carbon	mg/l	.08	4.35
Ammoniacal nitrogen	mg/l	.08	.06
Total Phosphorus	mg/l	.02	.03
Total Nitrogen	mg/l	1.88	3.07

3.3.4 Interpretation

The following conclusions were drawn from the data:

All of the reported values for the Waste License No. 61-2 bi-annual monitoring programme are within the Parametric Values set out in the relevant Drinking Water Standards (S.I. 439 of 2000) and below the relevant Interim Guideline Values (EPA, 2003). There are no significant variation in the values from Mr. Binman and EPA samples taken during 2009 indicating that the Mr. Binman facility is not adversely impacting on ground water quality in the area.

3.4 SURFACE WATER MONITORING RESULTS 2009

3.4.1 Introduction

BHP Laboratories, Thomondgate, Limerick carryout analysis on surface water samples in accordance with Table C.3 of Schedule C of Waste Licence W0061-02.

3.4.2 Site Description

The Mr. Binman site is located on the southern slopes of a hill. The yard has a mild southward gradient with a much steeper gradient from the yard down to the road. The Wastewater Treatment Plant is located on the lowest point of the site.

3.4.3 Monitoring Location Points

Table 3.8: Surface water Monitoring Locations

Monitoring Location	Code
The emission point from the outlet of the waste water	FE1
treatment plant prior to entry to the percolation area	
The emission point from the Class 1 interceptor prior to	FE2
discharge to the percolation area	

3.4.4 Surface Water Monitoring FE1

3.4.4.1 Introduction

There were no discharges to emission point FE1 in 2009.

It was agreed with the Agency in 2007 that all wwtp effluent would be removed from site until compliant effluent discharges from the wwtp were achieved consistently.

A programme of additional control measures was proposed to the EPA in order to achieve compliance and significant progress was made in 2009 towards achieving compliance. Details of these controls are provided below.

In 2009, 3,424 cubic metres of wastewater was sent to Castletroy municipal WWTP and 2044 cubic metres of waste water was sent to limerick main drainage WWTP.

3.4.4.2 Results Tables

Table 3.10: Emission Limit Values for FE1

FE1 Parameter	Emission Limit Value
PH	6 to 9
BOD	20mg/l
Suspended solids	30mg/l
Oils, fats and grease	Not Visible

BHP Monitoring	Suspended solids mg/l	BOD mg/l	рН	Oils, fats and grease
08/01/2009	49	15	7.66	None visible
28/01/2009	38	27	6.96	None visible
04/02/2009	3.3	12	7.25	None visible
25/02/2009	20	20	7.71	None visible
18/03/2009	48.4	52	6.98	None visible
16/04/2009	158	28	7.58	None visible
01/05/2009	27	29	6.16	None visible
15/07/2009	98	26	7.22	None visible
24/09/2009	11	8	6.85	None visible
28/10/2009	80	24	7.1	None visible
03/11/2009	34	4	7.2	None visible
12/11/2009	56	18	7.68	None visible
19/11/2009	3	9	7.02	None visible
27/11/2009	29	30	7.88	None visible

Table 3.11: Mr. Binman Monitoring of wastewater effluent*

* Note that all wastewater discharges were collected and sent off-site for further treatment. There were no discharges to emission point FE1.

3.4.4.3 Interpretation

Projects were put in place to provide better WWTP control during 2006 and the end of 2009.

In 2007, a wastewater storage tank was modified and a pump chamber installed to ensure all waste water effluent could be removed from site for off-site treatment.

Additional modifications were completed to the WWTP in 2007 including addition of an aeration system in the storage tanks to provide better control and the organic fines storage area and the glass bays were all covered in order to minimise leachate from these areas and to reduce the impact on the WWTP.

In 2008, the optibag storage area and the cardboard storage areas were covered to minimise any leachate that may arise from these areas. A roof water diversion project was completed in order to minimise uncontaminated roofwater discharging to the WWTP/oil interceptor and preventing additional hydraulic loading, thereby providing better control. Diversion of uncontaminated run-off from other areas to reduce suspended solids entering the plant was also completed.

A full-time environmental analyst/wwtp operator was employed and a laboratory was established to ensure regular monitoring and maintenance of the WWTP was conducted in order to achieve better WWTP control and ELV compliance. As can be seen from the data above these control measures have ensured the wwtp has significantly improved.

A polymer dosing system was installed to flocculate suspended solids in the discharge to the clarifier in order to reduce the residual suspended solids and thereby further improve emission discharges. At present the polymer dosing system

is undergoing an optimisation stage as there are a number of variables associated with such a dosing system including:

-location of the dosing point to maximise mixing of the polymer with the effluent

- dosing frequency relative to flow/suspend solids concentration.
- dosing quantity relative to flow/suspended solids concentration.

Currently all waste water effluent is discharged to a storage tank for the purpose of pumping the water to a road tanker for off-site treatment. In the event that the effluent is discharged to FE1, it was proposed to discharge the effluent direct from the clarifier via FE1 to the percolation area as per the original set-up. A potential improvement currently being assessed is to continue discharging to the storage tank to allow further settlement before discharging to FE1. It is expected that this will further improve the quality of the final effluent discharge. Trials will be completed in 2010 to measure and compare the quality of the effluent direct from the clarifier and from the storage tank.

Polish filtration systems are being considered as an alternative mechanism to achieve compliance on a consistent basis if the process optimisation proves inadequate. Proposals for alternative technologies are currently being prepared by consultants engaged by Mr. Binman. The efficiency, scale and cost of the proposals will determine the viability of such a system. A number of options are under consideration as an alternative to the constructed wet-land system.

3.4.5 Surface Water Monitoring FE2

3.4.5.1 Introduction

In September, 2008 a new oil interceptor and certified percolation area was installed and separation of drainage systems was completed to ensure discharges to emission point FE2 were not of environmental significance. A new manhole was constructed at the discharge point to facilitate sampling. The results of sampling and analysis of subsequent discharges are summarised in the Table 3.13 below.

3.4.5.2 Results Table

Table 3.13

	Suspended				
Monitoring	solids	COD	mineral oils	Ammonia	рН
25/02/2009			<.0.1		
30/06/2009			<.0.1		
15/07/2009	10	1000	<.01	41	6.3
21/08/2009	96	31	<0.1	0.6	6.96
19/11/2009	34	91	.096	1.03	6.81

3.4.5.3 Interpretation

Although the suspended solids were low, elevated results were obtained for other parameters for the sample tested in July. Subsequent monitoring conducted in August did not support these values and subsequent groundwater monitoring also verified that there was no impact on groundwater downstream of the facility. However, as a precaution the filters were replaced in the oil interceptor. In 2008 & 2009 the following actions were taken to optimize discharges to emission point FE2:

- A new Klargester NS 200 Class 1 oil interceptor unit was installed in 2008 which includes a core tube with replaceable filter media. Separated Liquid passes through the filter to the outlet. A closure device is located within the core tube. The coalescer media requires maintenance and replacing at intervals.
- The original oil interceptor was modified to a solid settlement system to remove solids from water before entering the NS 200 oil interceptor.
- Uncontaminated water from roofs was diverted from the oil interceptor to ensure the abatements systems are optimised.
- The yard has been separated into process & non process areas, with drains from and around the process areas diverted to the waste water treatment plant. Sources of all waters that will be treated via the settlement system and the oil interceptor was reduced to open areas away from municipal waste processing areas, maintenance areas and diesel filling areas.
- A standard operating procedure for the operation and maintenance of the solids settlement system and hydrocarbon interceptor is in place. Following a recent review the maintenance frequency of the solid settlement system will be increased.
- An on-site laboratory is in place to allow regular monitoring of the operation of the oil interceptor.
- Filters on the oil interceptor were replaced on the 15th of August 2009. Following the recent investigation, it was confirmed that the filter seals were not replaced at this time and it was concluded that this was a contributory factor to the recent results obtained. Monitoring data confirmed this.
- Upstream analysis was carried out to develop a better understanding of discharges to the solids settlement system/hydrocarbon interceptor prior to treatment. While there are no drains from process areas discharging directly to the oil interceptor, it was concluded that there is some potential carry-over from the process yard area into the non-process yard areas which may be contributing to indirect discharges to the oil interceptor. Further improvement measures will be implemented in 2010 to minimise these discharges to the oil interceptor.

3.5 LITTER

3.5.1 Introduction

Litter is monitored for the yard and the perimeter of the facility on a weekly basis and recorded and filed as required by **Condition 8.9.1** of the waste licence. It is the responsibility of the Environmental Officer to record the level of litter control and to take action if necessary. It is the responsibility of the Yard Manager to ensure that litter control measures are enforced on a daily basis. A litter report is compiled on a weekly basis and action is taken based on recommendations outlined in the report.

3.5.2 Litter Control Measures in Operation for the Facility:

- All waste carrying vehicles entering and leaving the yard must be fully enclosed or netted to ensure that rubbish does not fall from them.
- The yard is swept on a regular basis during the day using a dedicated road sweeper truck and manual means.
- The transfer building and all processing areas is cleaned of all waste by the end of each working day.
- The plant and buildings are enclosed to minimise the possibility of litter arising.
- The yard, surrounding area and approach roads are checked for litter on a daily basis and any litter that arises at the facility is removed.

3.6 VERMIN

3.6.1 Vermin Control Mitigation Measures

As per **Condition 8.9.1** evidence of the presence of vermin such as rats, mice, birds, flies and wild animals is recorded for the yard and the perimeter of the facility on a weekly basis. Action is taken based on recommendations outlined in the report. It is the responsibility of the Environmental Officer to maintain these records and to organise prevention of vermin problems if necessary.

Vermin traps are set up in designated areas by an external pest control contractor around the facility. The number of traps set in a certain area depends on the degree of activity in that area. Extra traps may be placed in particular areas depending on activity there.

The vermin traps are inspected regularly by the pest control contractor and reports are provided after each inspection.

3.7 ODOUR

As per **Condition 8.9.1** odour is monitored on a weekly basis and results are recorded in the Nuisance. Monitoring is carried out manually and records of odour are taken for the yard and the perimeter of the facility.

3.7.1 Mitigation Measures

- Waste is collected from households weekly which ensures the waste is "fresh" and does not cause an odour nuisance at the facility.
- A "clean as you go" policy operates at the facility during the day and all areas are thoroughly cleaned at the end of each day.
- No waste is stored on site long-term.
- Wastes with a high odour risk are not accepted onsite such as sludge.
- An odour abatement system is installed at designated areas around the facility as a precautionary measure

4.0 ENVIRONMENTAL INCIDENTS AND COMPLAINTS SUMMARY

Date & Time of Incident	Location	Summary of Incident	Corrective Actions Taken
10/11/2009	Diesel refilling area	T-joint on diesel refuelling line broke during refilling operation, causing a spill of diesel. Some diesel was contained within the bund, and some was discharged to ground outside the bund, Emergency response team responded immediately to contain the spill and the pump was isolated. It was estimated that 300 litres of diesel was discharged in total.	Fuel pump stopped and isolated. Emergency response procedure activated to minimise discharge to drain, including the use of absorbent material. Any discharges to drain contained by class 1 oil interceptor, discharge was checked to confirm no discharge off-site. A more robust t-joint and a second support frame installed to prevent incident happening again.

Table 4.1: Environmental Incidents and Complaints 2009.

5.0 WASTE RECEIVED BY AND CONSIGNED FROM THE FACILITY

5.1 Introduction

Only non-hazardous wastes are collected and/or accepted by Mr. Binman Ltd. at our Waste transfer Station. The following are the European Waste Catalogue (EWC) Codes of the waste types accepted by Mr. Binman Ltd.

Code	Description
02 01 03	Plant-tissue waste.
02 01 04	Waste plastics (except packaging)
02 01 10	Waste metal.
02 06 01	Materials unsuitable for consumption or processing.
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 08	Waste from sorting of paper and cardboard destined for recycling.
10 11 03	waste glass-based fibrous materials
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 03	Absorbents, filter materials, wiping clothes and protective clothing
	other than those mentioned in 15 02 01.
16 01 17	Ferrous metal.
16 01 18	Non-ferrous metal.
16 01 19	Plastic.
16 01 20	Glass.
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 04	Inorganic wastes other than those mentioned in 16 03 03.
16 03 06	Organic wastes other than those mentioned in 16 03 05.
17 01 01	Concrete.
17 01 02	Bricks.
17 01 03	Tiles and ceramics.
17 01 07	mixture of concrete, bricks, tiles and ceramics other than those
	mentioned in 17 01 06
17 02 01	Wood.
17 02 02	Glass.
17 02 03	Plastic.
17 04 01	Copper, bronze, brass.
17 04 02	Aluminium.
17 04 03	Lead.

Code	Description
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 04	Soil and stones other than those mentioned in 17 05 03.
17 06 04	Insulation materials other than those mentioned in 17 06 01 and 17
	06 03.
17 08 02	gypsum-based construction materials other than those mentioned
	in 17 08 01
17 09 04	Mixed construction and demolition wastes other than those
	mentioned in 17 09 01, 17 09 02 and 17 09 03.
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 05	Wastes from aerobic treatment of solid wastes.
19 10 01	Iron and steel waste.
19 10 02	Non-ferrous waste.
19 10 04	Fluff-light fraction and dust other than those mentioned in 19 10 03.
19 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 refuse (refuse derived fuel).
19 12 12	Other wastes (including mixtures of wastes) from mechanical
	treatment of wastes other than those mentioned in 19 12 11.
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 25	Edible oil and fat.
20 01 28	Paints, inks, adhesives and resins other than those mentioned in 20 01 27.
20 01 30	Detergents other than those mentioned in 20 01 29.
20 01 36	Discarded electrical equipment other than those mentioned in 20 01
20 0 1 00	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 03 01	Mixed municipal waste.
20 03 02	Waste from markets.
20 03 02	Street-cleaning residues.
20 03 03 07	Bulky waste.
20 00 01	Duity Waste.

5.2 QUANTITIES OF WASTE ACCEPTED/CONSIGNED

All waste details consigned from the facility in 2008 are included in the electronic report (Appendix 1 attached). In 2009, a total of 116,069 tonnes was accepted onsite. This is a significant decrease from the total waste accepted in 2008. This was achieved through a managing our waste facilities in a more efficient manner.

5.3 PROPOSAL TO INCREASE THE ANNUAL THROUGHPUT OF THE FACILITY

It was agreed with the Agency that a Waste Licence Review is required to increase the total amount of waste accepted by the facility.

In July 2008 a Licence Review Application was submitted to revise the site boundary and specify facility changes required for an increase in waste acceptance tonnage up to 200,000 tonnes/annum. The Application specified a number of improvement projects with planning permission, where required, to ensure there was no significant impact on the environment from the facility.

An Environmental Impact Statement was prepared in Quarter 4, 2008 and it was submitted to the EPA in January 2009. The Licence Review Application is currently under consideration by the EPA It is understood that the application is being actively reviewed and a decision is pending.

6.0 EMP REPORT SUMMARY

The remainder of this document contains the following elements as required by Agency's 'Draft Guidance on Environmental Management Systems and Reporting to the Agency.

- Schedule Of Objectives And Targets 2009
- Proposed Schedule Of Objectives And Targets 2010
- Resource And Energy Consumption
- Site Management
- Financial Provision

6.1 PROGRESS REVIEW OF SCHEDULE OF OBJECTIVES AND TARGETS 2009

Introduction

Environmental Objectives are specific and defined goals that need to be achieved in order to meet the requirements of the Environmental Policy. The purpose of establishing objective and targets is to ensure that the process of continual improvement is formalised and clearly set out.

Objective	Target
1. Diversion of biodegradable Waste from landfill	 Improve efficiency of Mechanical Treatment Plant
	 Receive planning for Biogas/Composting facility
2. Increase Recycling Rates	 Improve efficiency of Mechanical Treatment Plant
	 Initiate source separated collection of organic waste to reduce quantity of organic fines to landfill
	 Waste Recycling Educational Campaign
	 Expand Fleet of Dual Compartment Trucks and Composting trucks
3. Improve On-Site Drainage and Waste Water Treatment Facilities	 Complete diversion of roof drains from wwtp
	 Measure influent/effluent in wwtp to identify further control measures
4. Assure Compliance with Waste Licence	 Complete Waste Licence Review

Table 6.1: Summary of the Schedule of Objectives and Targets 2009

6.1.1. Objective 1: Diversion of biodegradable Waste from landfill

Target 1: Improve efficiency of Mechanical Treatment Plant

It was identified that the efficiency of the MBT facility could be improved if the feed material to the facility was pre shredded. The potential benefits of pre-shredding are:

- Uniform controlled feed will improve process control
- Bulky combination wastes will be suitable for processing through MBT(eg mattresses- metal textile separation)
- bulky materials reduced in size and would prevent blockages
- more biodegradable waste will be separated in trommel thereby reducing discharges to landfill when partially stabilised biowaste is sent for composting
- Materials suitable for RDF will be more readily extracted as they will not be hindered by bulky waste.
- improved metal extraction as metals will not be hidden by "bulky wastes" as they pass under magnets/eddy current separators
- residual wastes to landfill reduced significantly

Action Plan:

- Install and commission "Terminator" pre-shredder in Q1 2009
- Complete optimisation trials by Q2 2009
- Measure % diversion of oversize residual waste to landfill
- Modify plant to allow second run of residual waste stream through second trommel and picking line to optimise diversion of waste from landfill by Q2 2009

Progress:

The "terminator" pre-shredder was installed and commissioned during the first quarter and optimisation trials were completed during the second quarter. The plant was also modified during the second quarter to allow a second run of residual waste stream through a second trommel picking line and air knife to optimise diversion of waste from landfill the trials confirmed that a reduced quantity of residual waste sent to landfill can be achieved.

Target 2: Receive planning for Biogas/Composting facility

A site for the development of a biogas/composting facility was acquired and change of us e planning application was submitted in 2008. The purpose of the facility will be to treat and compost organic fines and brown bin materials generated through Mr. Binman. This system will significantly reduce the amount of untreated biodegradable waste currently sent to landfill.

Action Plan:

- Complete detailed design of facility in Q1 2009
- Submit full planning application for expanded facility subject to change of use planning approval by Q2 2009
- Submit Stage 1 Application to Department of Agriculture & Food by Q2 2009
- Submit EIS and Waste Licence Application to EPA in Q2/Q3 2009
- Commence brown bin collection of commercial waste in Q1 2009
- Commence brown bin collection of household waste in Q3 2009.

Progress:

A detailed design of the proposed Biogas/composting facility was submitted for full planning, a stage 1 application was submitted to the department of Agriculture & Food and an EIS and a Waste Licence Application was submitted to the EPA during 2009. The full planning application was appealed to An Bord Pleanala and is currently under review. The EPA were provided with further information in quarter 1 of 2010 after a further information request regarding the EIS and Waste Licence Application.

Brown bin roll out began in quarter 1 of 2009 to commercial customers in Limerick city, Ennis, Shannon, Adare and Newcastlewest. Domestic customers in the Castletroy/Monaleen area of limerick received the brown bin in quarter 3, with further roll of the brown bin in quarter 4 to domestic customers in Listowel and Shannon.

6.1.2. Objective 2: Increase Recycling Rates

Target 1: Improve efficiency of Mechanical Treatment Plant

See Target 1 of Objective 1 above for progress made.

Target 2: Initiate source separated collection of organic waste to reduce quantity of organic fines to landfill

Action Plan:

- Initiate collection of source separated organic waste from commercial outlets in Q1 2009
- Initiate collection of source separated organic collection from households by Q3 2009
- Dispose of all suitable source separated organic waste to a composting facility, subject to capacity availability.

Progress:

Brown bin roll out began in quarter 1 of 2009 to commercial customers in Limerick city, Ennis, Shannon, Adare and Newcastlewest. Domestic customers in the Castletroy/Monaleen area of limerick received the brown bin in quarter 3, with further roll of the brown bin in quarter 4 to domestic customers in Listowel and Shannon. All Source separated organic material collected was sent to an appropriate composting facility.

Target 3: Waste Recycling Educational Campaign

Action Plan:

- Mail shots to all customers with invoices which will include recycling information, and incentives to recycle(discounts) by Q4 2009
- Complete awareness campaign with commercial outlets to optimise organic collection by Q1 2009
- Complete awareness campaign with domestic customers to optimise organic collection by Q3 2009
- Continue school tours of our Recycling facility to encourage children to recycle at home and at school by Q1-Q4 2009

Progress:

Recycling information was included on each invoice payment run, awareness campaigns with commercial and domestic customers to optimise organic collection was complete and 13 school tours of the recycling facility were given during 2009 to encourage children to recycle at home and at school.

Target 4: Upgrade of Fleet

Mr. Binman will continue upgrading its fleet of bin trucks to dual compartment trucks which will allow for simultaneous segregated collection of dry recyclables and municipal waste. Mr Binman will further expand its fleet in 2009 to include a dedicated Rotapress composting truck which will be designed specifically for compostable waste and leachate containment.

Action Plan:

Purchase new dual compartment trucks and one composting truck by Q4 2009.

Progress:

A dual compartment vehicle was purchased during 2009, along with 2 Glass collection vehicles. The Composting vehicle was not purchased during 2009 due to financial restraints. The Rotopress was received in Q1 2010.

6.1.3. Objective 3: Improve On-Site Drainage and Waste Water Treatment Facilities

Target 1: Complete diversion of roof drains from wwtp

During heavy or persistent precipitation periods, significant volumes of uncontaminated water were discharged to the wwtp or oil interceptor causing hydraulic overloading of the plant. Significant works were completed in 2008 to divert the majority of this uncontaminated roofwater. Two additional lines were identifed and will be diverted in 2009

Action Plan:

- Install roof drain diversion line to soakaway for optibag storage extension by Q1 2009.
- Cover RDF baler/can area by Q4 2009 and modify remaining roof drains to divert all remaining uncontaminated roofwater from wwtp to soakaway.

Progress:

Roof drain from optibag storage extension was diverted to soakaway. Due to illness, the steel fabricator responsible for the job was unable to complete the work as per the proposed schedule. It is anticipated that this work will be started in Q1 2010.

Target 2: Measure influent/effluent in wwtp to determine compliance with limits and identify further control measures

In 2008 control measures were identified and put in place to optimise operation of the wwtp to assure compliance with the ELVs for wwtp discharges following extensive

measurement of influent and effluent information over an extended period. These measures included installation of an on-site laboratory, diversion of clean area surface water from wwtp and implementation of a wwtp control and maintenance procedure. The wwtp is now operating in steady state and one further modification is proposed to ensure compliance with emission limit values on a consistent basis.

Action Plan:

- Continue regular monitoring and maintenance of wwtp.
- Install polymer dosing pump to optimise suspended solids discharge and assure compliance with elvs by Q1 2009
- Generate at least six weeks of continuous data to demonstrate compliance by Q2 2009
- Apply to EPA to revert to discharging to FE1 by Q2 2009

Progress:

Regular monitoring and maintenance of the WWTP continued throughout 2009. A polymer dosing pump was installed to optimise suspended solids levels during Q2 of 2009. The emission levels were within the limits as per schedule C.3 of W0061-02 on a regular basis, but not for 6 continuous weeks. Further measures to optimise the operation of the plant are scheduled for completion in 2010.

6.1.4 Objective 4: Assure Compliance with Waste Licence

Target 1: Complete Waste Licence Review

A Waste Licence Application was submitted in July 2008 in order to resolve a number of potential compliance issues. Additional information was requested including an Environmental impact statement which was prepared in 2008 and submitted in January 2009. The application is currently being reviewed by the EPA.

There are a number of compliance issues that will be resolved through a Waste Licence Review:

- Compliance with waste tonnage accepted at the facility
- Definition of new site boundary to allow movement of dust monitoring points to more appropriate locations
- Definition of new site boundary to allow new roadway and carpark which will ensure safer access egress and parking for the facility and will reduce dust emissions from the facility.
- Permission to apply for alternative opening hours in exceptional circumstances, subject to agreement with the Agency.

Action Plan:

- Submit EIS by Q1 2009
- Liaise with EPA regarding progress of Licence Application Review
- Review new Licence when received to ensure compliance with all conditions of Licence

Progress:

An EIS of the facility was completed and submitted, the EPA requested further information as part of the licence review which Mr. Binman replied to in quarter 4 of 2009. The application review process is still ongoing.

6.2 Proposed Objectives and Targets 2010

Objective	Target
1. Diversion of biodegradable Waste from landfill	 Receive planning and commence construction of a Biogas/Composting facility
	 Further roll out of brown bin to commercial and domestic customers
2. Increase Recycling Rates	 Expand source separated collection of organic waste to reduce quantity of organic fines to landfill
	 Waste Recycling Educational Campaign
	 Expand Fleet of Dual Compartment Trucks and Composting trucks
3. Improve On-Site Drainage and Waste Water Treatment Facilities	 Extend drains for waste processing area to ensure all potential carryover from relevant areas enter WWTP.Optimise discharge and assure compliance with elvs by generating at least six weeks of continuous data
	 Apply to EPA to revert to discharging to FE1
	 Replace filters/seals in oil interceptor
	 Improve yard cleaning/maintenance to minimise carryover from process yard to non-process yard
	 Enclose can bays adjacent to BOA plant
	•
4. Assure Compliance with Waste Licence	 Complete Waste Licence Review

6.2.1. Objective 1: Diversion of biodegradable Waste from landfill

Target 1 :Receive planning for Biogas/Composting facility

A site for the development of a biogas/composting facility was acquired and change of us e planning application was submitted in 2008. The purpose of the facility will be to treat and

compost organic fines and brown bin materials generated through Mr. Binman. This system will significantly reduce the amount of untreated biodegradable waste currently sent to landfill.

Action Plan:

- Submit Stage 2 Application to Department of Agriculture & Food by Q4 2010
- Initiate facility construction and commissioning Q4 2010

Target 2:Further roll out of brown bin to commercial customers and domestic customers

- Expand brown bin collection of commercial waste in Q1-Q4 2010
- Expand brown bin collection of household waste in Q1-Q4 2010.

6.2.2 Increase Recycling Rates

See target 2 of objective 1

Target 2: Waste Recycling Educational Campaign

Action Plan:

- Mail shots to all customers with invoices which will include recycling information, and incentives to recycle(discounts) by Q4 2010
- Complete awareness campaign with domestic customers in brown bin roll out areas to optimise organic collection in Q1 Q4 2010
- Continue school tours of our Recycling facility to encourage children to recycle at home and at school by Q1-Q4 2010

Target 3: Upgrade of Fleet

Mr. Binman will continue upgrading its fleet of bin trucks to dual compartment trucks which will allow for simultaneous segregated collection of dry recyclables and municipal waste

Action Plan:

Purchase new dual compartment trucks and one composting truck by Q4 2010. This will be subject to securing finance for fleet upgrade.

6.2.3. Objective 3: Improve On-Site Drainage and Waste Water Treatment Facilities

Target 1: Extend drains to ensure all runoff from waste processing areas enters WWTP

Action Plan:

 Initiate enclosure of RDF baler/can area by Q14 2009 a Extend WWTP drainage to ensure carry over from relevant process yard areas is diverted to WWTP. Target 2: Measure influent/effluent in wwtp to determine compliance with limits and identify further control measures

The waste water treatment plant is now operating in a steady state but further modifications will be required to ensure compliance on a cosistent basis Action Plan:

- Continue regular monitoring and maintenance of wwtp
- Optimise use of polymer dosing system
- Complete full trial on effluent from final storage tank to verify initial trial improvement on meeting discharge limits
- Optimise discharge and assure compliance with elvs by generating at least six weeks of continuous data
- Apply to EPA to revert to discharging to FE1
- Generate at least six weeks of continuous data to demonstrate compliance by Q3 2010.
- Apply to EPA to revert to discharging to FE1 by Q4 2010

6.2.4 Objective 4: Assure Compliance with Waste Licence

Target 1: Complete Waste Licence Review

A Waste Licence Application was submitted in July 2008 in order to resolve a number of potential compliance issues. Additional information was requested including an Environmental impact statement which was prepared in 2008 and submitted in January 2009. The application is currently being reviewed by the EPA.

There are a number of compliance issues that will be resolved through a Waste Licence Review:

- Compliance with waste tonnage accepted at the facility
- Definition of new site boundary to allow movement of dust monitoring points to more appropriate locations
- Definition of new site boundary to allow new roadway and carpark which will ensure safer access egress and parking for the facility and will reduce dust emissions from the facility.
- Permission to apply for alternative opening hours in exceptional circumstances, subject to agreement with the Agency.

Action Plan:

- Liaise with EPA regarding progress of Licence Application Review
- Review new Licence when received to ensure compliance with all conditions of Licence

6.3 Resource and Energy Consumption

6.3.1 WATER CONSUMPTION

Table 6.3: Water Consumption for the reporting period Jan. - Dec. 2009

Source	Total m ³
Truck Wash	1050
Onsite water usage	589

*Estimate based on 2007 volumes

6.3.2 Electricity Consumption

Table 0.4 Mr. Binman Ltd. Electricity Consumption January– December 2009

Month	Electricity Consumed(KWH)
January/February	3813
March/April	4209
May/June	2327
July/August	2525
September/October	2804
November/December	4201
Total	19879

6.3.3 Fuel Consumption

Table 6.5: Fuel Consumption for the reporting period

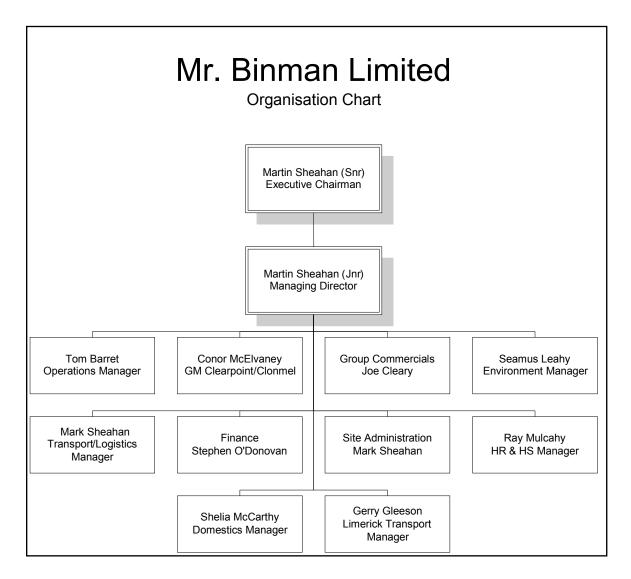
Diesel off-site consumption	1,584,946 litres
Diesel on-site consumption	148,258 litres

7.0 SITE MANAGEMENT

7.1 FORMAL MANAGEMENT STRUCTURE

This management structure hierarchy sets out the chain of command within Mr. Binman Ltd.





7.1.2 SITE PERSONNEL WITH MANAGERIAL RESPONSIBILITY

Mr. Binman Ltd. has an expert Management Team that is responsible for the Management and Supervision of all Waste Activities at the Mr. Binman facility. The Management Team was extended significantly during 2007 and the Team is committed to ensuring current operations and future growth occurs in an environmentally sustainable manner.

Details of new Management Personnel with Environmental responsibilities were submitted to the EPA in January 2008 in line with the conditions of the Waste Management Licence.

8.0 FINANCIAL PROVISION

8.1 REVIEW OF ENVIRONMENTAL LIABILITIES RISK ASSESSMENT & RESIDUALS MANAGEMENT PLAN

The existing ELRA for the facility was originally prepared in 2001 and was reviewed annually for submission to the EPA as part of the AER. A comprehensive review of the ELRA and the financial provisions in place was conducted in 2008 with the cooperation of our insurance company and bank and it was identified that a significant elements of the ELRA are no longer relevant or appropriate. Along with the existing insurance in place for the facility, it was also confirmed that a limited financial provision was put in place in 2001 but this did not reflect the current status of the site.

A Licence Review Application was submitted to the EPA in July 2008 and a revised Waste Licence is anticipated in 2009. It is anticipated that the conditions relating to the ELRA/RMP and related financial provision will be revised as part of the Licence Review. Mr Binman is committed to completing a comprehensive review of the ELRA/RMP in line with the requirements of the new Licence conditions and following discussions with our insurance company and bank, it is committed to putting in place an appropriate and up to date financial provision which reflects the current status of the site.

8.2 CURRENT ELRA

The original costing for the potential site environmental liabilities was based on those considered to be restricted to the confines of the site. As such, this review of the original ELRA is restricted to the confines of the site and therefore, any costs incurred in addressing same will be based on the following: -

- The confines of the site.
- Costs were limited to removal and safe disposal of waste remaining on-site following an emergency event or decommissioning and closure of the site.
- A maximum of 500 tonnes of waste can be stored on site at any one time, environmental liabilities cover should account for the cost for the clean-up and removal of the maximum amount of waste that may be stored on-site at any given time, i.e. 500 tonnes.
- Costs associated with the dismantling of infrastructure are covered within the sites general insurance cover.
- Costs associated with undertaking Bund Integrity Assessments of all bunds at the site.
- Costs associated with paving the remaining gravel hardcore area of the site with concrete hardstanding (to render the site yard impervious).
- Costs associated with the implementation of the recommendations of the firewater retention risk assessment.
- The removal and safe disposal of firewater remaining on-site following an emergency event.
- Costs for the removal of all waste materials from the site, in the event of closure/decommissioning of the site.

A summary of the overall liabilities and costs, i.e. the findings of the audit and recommended actions along with estimated costs, where relevant, associated with the waste transfer facility are given in Table 9.1.

Where potential contamination issues have been identified, and no investigations have been undertaken to determine the presence and extent of any contamination, estimated site investigation/remedial costs have been provided. These figures are based on a 'worst case scenario' taking into account the nature of the potential contamination, the environmental sensitivity of the site and the size of the potentially contaminated area. These figures do not take into account costs, which could be incurred in relation to clean-up, off-site, or third party damages. The sums should not be considered as precise estimates as they may be subject to large variances.

Potential Contamination Issue	Site Sensitivity	Recommendation Action	Estimated Costs		
The surface water and truck wash drainage system at the site is quite old and the integrity of the system has not been tested.	In case of a leak from any part of the surface water or truck wash drainage system, potentially polluting substances may discharge to ground prior to treatment/containment in the wastewater treatment plant at the site, (thereby resulting in potential contamination of groundwater quality).	Implement an inspection/assessment of the surface water and truck wash collection/drainage system at the site to determine the integrity of the system. Following the inspection of the surface water and truck wash drainage network, carryout repairs on all sections of the surface water and/or foul sewerage drainage system at the site that is not fully watertight, sealed or intact.	€3K To be determined based on findings of the inspection of the surface water and foul sewerage drainage system.		
Any ground contamination on-site has the potential to impact upon groundwater quality, soils and surface water quality in the area.	Due to the nature of site activities, there is a potential to contaminate groundwater and/or soils underlying the site.	The groundwater sampling and analysis program should be continued, (extended over a longer period of time) to monitor the groundwater quality beneath the site during the winter and summer months, determine if there is any change in groundwater quality over time. The groundwater monitoring programme should also be continued upon closure of the site to ensure that any potential for residual contamination does not pose a risk to groundwater quality post-closure and determine the requirement or otherwise for implementation of measures for remediation of soil/groundwater, not withstanding additional remedial work that may be required, particularly if the site is to be redeveloped for non-industrial use. Cost of carrying out the groundwater monitoring programme for a period of 1 year is estimated at approx. €2,500. The cost for implementation has been detected to date. In the event that future monitoring results detect contamination, remedial costs will be determined at that time to account for the nature and level of contamination detected, if any.	€2.5K. Costs to be determined based on findings of ongoing monitoring conducted at the site.		

 Table 8.1: Overall Environmental Liabilities and Estimated Costs

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Potential Contamination Issue	Site Sensitivity	Recommendation Action	Estimated Costs
Materials handling and storage shortcomings were observed.	Inadequate secondary containment of potentially polluting substances within the site garage area. In case of a leak or spillage, potentially polluting substances	Implement bunding measures required to improve storage facilities within the site garage and provide adequate secondary containment throughout the site, and recommend proposals for the decommissioning of disused underground/over ground storage tanks.	
All used and disused underground storage tanks (slurry tank	may discharge to ground (thereby resulting in potential contamination of groundwater guality and/or soils) or enter	Undertake a bund integrity assessment of all bunds constructed at the site to establish that all other bunds constructed at the site provide	€5K
e c	the on-site surface water drainage system resulting in potential contamination of the	completely sealed containment.	To be determined
decommissioned. The integrity of fuel storage bund adjacent to the transfer building and	receiving environment: Potential liability with respect to Water Pollution Acts 1977 and 1990 and the Fisheries Consolidation Act 1959.	When completed, it is recommended that any defects be remedied, and the effectiveness of the remedial works be checked when completed.	based on findings of bunding assessment.
the oil storage bund to the rear of the site garage has not been tested.	Leakage from these storage areas may pose threat to the underlying ground water beneath the site.	The remaining hardcore surfaced area of the site should be paved with concrete hardstanding to render the site yard impervious.	€2K
	Small remaining truck parking area and plant storage area is surfaced with hardcore material.		

Table 8.2: Overall Environmental Liabilities and Estimated Costs (continued)

Mr. Binman Ltd.

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Potential Contamination Issue	Site Sensitivity	Recommendation Action	Estimated Costs
There is currently little provision for the containment of firewater that may be generated at		Provide for the costs associated with the implementation of the recommendations of the firewater retention risk assessment.	To be determined based on
the site in the event of an accident/emergency situation (fire event) at the site.	drainage system at the site resulting in pollution of the receiving environment.	Removal and safe disposal of firewater remaining on-site following an emergency event.	assessment of the Fire Water Retention Risk Assessment. €70K
			€40K
In the event of cessation of activities at the site, any residual waste would need to be removed and disposed of in an appropriate manner.	Removal and safe disposal of waste remaining on-site following an emergency event (e.g. fire or spillage event) or decommissioning and closure of the site.	Provide for the cost for the clean-up of the maximum amount of waste that may be stored on-site at any given time, i.e. removal, transportation and disposal for total quantity of waste of up 500 tonnes.	€110K

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Mr. Binman Ltd.

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8.3 DECOMMISSIONING/CLOSURE OF THE SITE

Environmental liabilities cover in the event of decommissioning/closure of the site should account for the cost for the clean-up and removal of the maximum amount of waste that may be stored on-site at any given time. The maximum amount of waste that can be stored on site at any one time is approximately 500 tonnes. The site remains low risk with respect to potential soil and groundwater contamination as, although there has been an increase in the tonnage of waste materials processed at the facility, there have been no significant changes in nature of on-site waste management practices.

Implementation of the recommendations specified within the Fire Water Retention Risk Assessment will ensure that inputs to, and subsequent contamination of groundwater, surface water, air and soil environments do not occur from accident or emergency conditions (fire event) at the facility. The costs associated with the implementation of the recommendations of the firewater retention risk assessment (i.e. installation of a static fire fighting water storage tank at the site and provision of hose reels throughout the facility) are not quantifiable at present. The costs associated with the installation of the fighting water storage tank and the firewater retention pond/storage tanks are estimated at approximately €70,000.

The costings associated with the dismantling of infrastructure arising from malicious damage or decommissioning and closure of the waste transfer and recycling facility is already covered within the existing site's general insurance cover. However, it is contended that the site infrastructure would not require dismantling on closure as the general buildings and offices could be converted to use for agricultural practices or sold as part of any future on-site industrial developments at the site.

The cost for the clean-up (removal/transport and disposal by Mr. Binman Ltd.) of the maximum amount of waste that may be stored on-site at any given time at the Mr. Binman Ltd., waste transfer facility (500 tonnes) is estimated at a maximum of \in 110,000; 500 tonnes of waste @ \in 220 per tonne. It is recommended that the groundwater monitoring programme should be continued for a period of at least 1 year after closure of the site, in the event of decommissioning/closure of the Mr. Binman Ltd. Facility, estimated cost of \in 2,500.

Cost

£182,500

8.4 EMERGENCY EVENT

Environmental liabilities cover in the event of an accident/emergency event at the site should account for the cost for the removal of contaminated fire-water, if generated (for fire event only). Implementation of the recommendations specified within the Fire Water Retention Risk Assessment will ensure that inputs to, and subsequent contamination of groundwater, surface water, air and soil environments do not occur from accident or emergency conditions (fire event) at the facility. The costs associated with the implementation of the recommendations of the firewater retention risk assessment (i.e. installation of a static fire fighting water storage tank at the site and provision of hose reels throughout the facility) are not quantifiable at present. The costs associated with the installation of the fighting water storage tank and the firewater retention pond/storage tanks are estimated at approximately €70,000.

The maximum volume of contaminated fire-water (should it be produced) that may be generated during a worst case scenario fire event at the Mr. Binman Ltd. waste transfer facility is 140.4 m³ (approximately 140 m³). Subsequent to the review of results of the water quality composition of the fire-water collected within the firewater retention facility, uncontaminated fire-water will be discharged to the surface water drainage network, while contaminated fire-water will be discharged to the foul sewer or transported off-site for treatment/disposal by an appropriate waste contractor. Given that a specific limit value for the COD parameter is not currently quantified for a domestic type fire or a fire in industrial offices/warehouses, etc., it is assumed that the COD associated with the fire-water generated from a typical domestic type fire could be in the range of >1000 mg/l. The cost for the removal/transport (estimated at €650 per 20 m³: €635 x 140 m³/20 m³ = €4,550) and disposal (estimated at €205 per m³: €205 x 140 m³ = €35,000) of this volume of contaminated firewater is estimated at €39,550 (€4,550 + €35,000), i.e., approximately €40,000. It is recommended that the groundwater monitoring programme should be continued for a period of at least 1 year after closure of the site, in the event of an accident/emergency event at the Mr. Binman Ltd. Facility, estimated cost of €2,500.

Cost

£112,500

8.5 SUMMARY

It is contended that the environmental liability aspects identified in Sections 6.2 - 6.3 should be considered for the following situations: -

Scenario 1: Company remains solvent and continues to operate.

Scenario 2: Company experiences financial difficulties and ceases to operate.

Scenario 1: In the event of a fire outbreak at the site, the site's existing general insurance policy will cover the costings associated with the reconstruction of on-site damaged buildings and infrastructure arising from a fire event. There will be no cost implications for the disposal of waste on-site as the customer will already have paid the company for this waste handling/disposal service. Therefore, it is likely that the company will remain solvent and continue to operate after the fire-event i.e., fire-outbreak and site closure unlikely to occur simultaneously. The cost of liabilities cover for Scenario 1 should provide for the containment, removal/transport and disposal of firewater in addition to undertaking the groundwater monitoring programme for a period of 1 year; and would amount to €112,500 (excluding VAT) (refer to Section 6.3).

Scenario 2: In the event that the company were to experience financial difficulties and cease to operate then a worst case scenario will be assumed i.e. that the costs for the cleanup and removal of the maximum amount of waste that may be stored on-site at any given time will not be covered by fees previously paid by the customer for the waste handling/disposal service. The cost of liabilities cover for Scenario 2 should provide for the implementation of the recommendations of the firewater retention risk assessment, and the removal and safe disposal of waste remaining on-site following closure of the site and the costs associated with undertaking the groundwater monitoring programme for a period of 1 year; and would amount to $\notin 182,500$ (excluding VAT) (refer to Section 6.1).

In calculating the value of financial provision for the site the sum required will be based on the greater of the costs for the two scenarios identified i.e. Scenario 2. In summary, it is considered that this reviewed environmental liabilities risk assessment requires the financial provision of a preliminary environmental liabilities pollution cover of €182,500 (excluding VAT) (in the form of bonding, financial allocation or an insurance premium) which, based on current information available, is expected to cover the environmental liabilities arising at the site in respect of the operational and decommissioning phases, i.e. will guarantee that the liabilities arising from:

Any environmental accident occurring during the operational phase of the site, and the decommissioning and closure of the waste transfer facility are financially provided for.

Appendix 1

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			Quantity (Tonnes						Hac Wasts : Name and Licence/Permit No of Next Destination Facility Non Haz Wasts Name and Licence/Permit No of	Haz Waste Address of Next Destination Facility Non Haz Waste	Name and Licerse / Fermit No. and Address of Final Recoverer / Disposer (HA2APDOL 15	Actual Address Final Destination Final Recovery Disposal Site
			per Year)			Met	nod Used		Licence/Permit No of Recover/Disposer	Address of Recover/Disposer	(HAZARDOUS WASTE ONLY)	(HAZARDOUS WASTE ONL)
	European			Description of	Waste Treatment	1105	Method	Location of				
Transfer Destination	Waste Code	Hazardous	-	Waste	Operation	M/C/E	Used	Treatment	termine and	Toneymore,		
									Quinn Glass Ltd.	Derrylin, Co. Fermanagh BT		
Within the Country	15 01 07	No	7720.19	Glass Aggregate	R5	м	Weighed	Offsite in Ireland	NR092005561	92 9AU		
									Irish Packaging & Recycling Ltd,			
Within the Country	15 01 01	No	3083.9	Paper & Cardboard	R3	М	Weighed	Offsite in Ireland	WPR 021/2	Dublin 12 Latchford Locks Works,		
				Aluminium					Novelis UK Ltd, BL6802	Warrington, Cheshire, UK		
o Other Countries	15 01 04	No	96,82	Packaging	R4	м	Weighed	Abroad	806802	WA4 1NN		
				Other waste (including mèdures of materials) from								
				mechanical treatment of								
				wastes other than those mentioned in						Ballaghveny Landfill,		
				191211 (oversize residual fraction					North Tipperary County Council,	Ballymackey, Nenagh, Co.		
Within the Country	19 12 12	No	7812.6	from MRF)	D1	м	Weighed	Offsite in Ireland	W0078-01	Tipperary		
									Highlander International	1 Teign Grove,		
o Other Countries	15 01 01	No	300.54	Paper & Cardboard	R3	M	Weighed	Abroad	Recycling Ltd. SCO/044794/CB	East Kilbride,		
				Other waste (including mixtures								
				of materials) from mechanical						Connaught		
				treatment of wastes other than						Regional Residual		
				those mentioned in 191211 (oversize					Greenstar Holdings	Landfill, Kilconnell,		
Athin the Country	19 12 12	No	8802.56	residual fraction from MRF)	D1	м	Weighed	Offsite in Ireland	Limited, W0178- 01	Ballinasioe, Co. Galway		
				Refuse Derived Fuel used as						Crowley Brothers Warehouse No.		
				alternative to coal in cement					Mr. Binman Ltd,	1, Durnish, Foynes, Co.		
Vithin the Country	19 12 10	No	10307.91	production	R13	м	Weighed	Offsite in Ireland	WP100A O'Toole	Limerick Ballintrane,		
Within the Country	20 01 08	No	336.97	Source seperated organic waste	R3	м	Weighed	Offsite in Ireland	Composting, WP01/07	Fenagh, Co. Carlow		
										Unit 2 Britannia Business Park,		
										Point Pleasant Ind. Est,		
				Physic Desiles size					AWS Eco Plastics Ltd,	Wallsend Tyne & Wear, NE28		
o Other Countries	15 01 04	No	76.62	Steel Packaging	R4	м	Weighed	Abroad	BLT/657629	6HA Floors street,		
				Deal Dealersing					WER constant	Johnstone PA58QS,		
o Other Countries	15 01 D4	No	173.14	Steel Packaging	R4	М	Weighed	Abroad	WRC recycling	Scotland		
									Seaforde Scrap	50 Farranfard Road, Seaforde,		
				Steel packaging	R4		144-5-6-4		Metals WML	downpatrick, Co. Down, N. Ireland		
o Other Countries	15 01 04	No	101.14	steel packaging	R(4	М	Weighed	Abroad	14/13 LN/07/26	N. Ireland		
				Other waste (including mixtures of materials) from mechanical								
				treatment of wastes other than those mentioned in								
				191211 (oversize residual fraction					Mr. Binman Clearpoint,	Ballylynch, Carrick-on-Suir,		
Within the Country	19 12 12	No			D1	м	Weighed	Offsite in Ireland	WP035-02 Mr. Binman	Co. Tipperary Ballylynch,		
Vithin the Country	20 03 01	No		Mixed dry recycables	RJ	м	Weighed	Offsite in Ireland	Clearpoint, WP035-02 Mr. Binman	Carrick-on-Suir, Co. Tipperary Ballylynch,		
Vithin the Country	15 01 01	No	165.34	Paper & Cardboard	R3	м	Weighed	Offsite in Ireland	Clearpoint, WP035-02	Carrick-on-Suir, Co. Tipperary		
Within the Country	15 01 00	No	174.68	Plastic	R5	м	Molekert	Officia in Index	Mr. Binman Clearpoint, WP035-02	Ballylynch, Carrick-on-Suir,		
num me country	15 01 02	No	1/4.08	0009	-10	ini.	AAGIRTUGO	Offsite in Ireland	Mr. Binman Clearpoint,	Co. Tipperary Bailylynch, Carrick-on-Suir,		
Athin the Country	15 01 03	No	608.02	Shredded Timber	D1	м	Weighed	Offsite in Ireland	WP035-02	Co. Tipperary		
				Other waste								
				(including mixtures of materials) from								
				mechanical treatment of								
				wastes other than those mentioned in 191211 (guarning					Limedat Occurs	Gortadroma		
				191211 (oversize residual fraction	201			1.20.0000.0000.000	Limerick County Council, W0017-	Ballyhahill, Co.		
fithin the Country	19 12 12	No	46626.54	from MRF)	D1	м	Weighed	Offsite in Ireland	03	Limerick		

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									Marwin Environmental	The Rubicon Centre, CIT Campus, Bishopstown,		
To Other Countries	15 01 04	No	379.84	Steel Packaging	R4	м	Weighed	Abroad	Trading Ltd, IRE/G027/08	Cork		
			0	Other waste including mixtures of materials) from mechanical								
			e t	reatment of vastes other than hose mentioned in 191211 (oversize						Kerdiffstown,		
Within the Country	19 12 12	No	7302.43 1	esidual fraction	D1	м	Weighed	Offsite in Ireland	Neiphin trading ltd.	Nass, County Kildare		
warm are county	10 12 12	NU	6	Colour seperated plass used as a aw product for	01		a rogines	Chate in relatio	Tullagower	Tullagower,		
Within the Country	15 01 07	No	1949.08	plass bottle production	R5	м	Weighed	Offsite in Ireland	Quarries Ltd, 015/05/WBP/CL	Kilrush, Co. Clare		
									Limerick County	Cestletroy WWTP, Cestletroy, Co.		
Within the Country	19 08 99	No	3424.1	Waste Water	R3	м	Weighed	Offsite in Ireland	Council	Limetick		
									-	Limerick Waste water treatment works, Doc		
Within the Country	19 08 09	No	2044.25 1	Waste Water	R3	м	Weighed	Offsite in Ireland	EPS Itd	Road, Limerick		
Within the Country	16 05 05	No	2.17 (Sas Cylinders	R4	м	Weighed	Offsite in Ireland	Calor Gas	Long Mile Road, Dublin 12 Mooretown,		
										Dromisikin Dundalk Co.		
Within the Country	16 01 03	No	26 F	Rubber	R4	м	Weighed	Offsite in Ireland	Crumb Rubber	louth Deepwater		
									Erin Recyclers	Quay, Sligo		
Within the Country	19 12 02	No	798.36	Scrap Metal	R4	м	Weighed	Offsite in Ireland	Ltd, WP-SO-03- 10	Harbour, Sligo, Co. Sligo		
									Erin Recyclers	Deepwater Quay, Sligo		
Within the Country	15 01 04	No	448.9 5	Steel Packaging	R4	м	Weighed	Offsite in Ireland	Ltd, WP-SO-03- 10	Harbour, Sligo, Co. Sligo		
the state of the s					000				10		ENVA, Clonminam	
										Clonminam Industrial Estate, Portlacise, Co.	Industrial	
Within the Country	20 01 33	Yes	22 8	Batteries	Rő	м	Weighed	Offsite in Ireland	Enva, W0184-01		Co. Laoise	W0184-01
			(Other waste including mixtures if materials) from								
			. b	nechanical reatment of vastes other than								
				hose mentioned in 91211 (oversize						Scotch Corner landfill annyalla		
Within the Country	19 12 12	No		esidual fraction	D1	м	Weighert	Offsite in Ireland	Monaghan County Council	castleblaney Co. Monaghan		
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,										Asia global trade ltd. swuite		
										5 30 lancaster gate london		
To Other Countries	15 01 01	No	51.64 F	Paper & Cardboard	R3	м	Weighed	Abroad	VOPC N.V. ERAS Eco Itd.	W23IP UK Foxhole, youghal Co.		
Within the Country	15 01 03	No	18.28 \$	Shredded timber	R3	м	Weighed	Offsite in Ireland	W0211-01	cork		
										Lackacross lackanastooka		
Within the Country	15 01 03	No	228.9 \$	Shredded Timber	R3	м	Weighed	Offsite in Ireland	Gairdini	county tipperary		