



Head office: Beauparc Business Park, Navan, Co. Meath

Waste Licence Number W0140-03

Annual Environmental Report

01st January 2009 – 31st December 2009

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1.0 Introduction

Panda were granted their third EPA Waste Licence W0140-03 on the 26th March 2009. This precedes the old Licence W0140-02. Under this licence, Panda will be able to process 250,000 tonnes per annum (upon completion of necessary infrastructure). Appendix A illustrates the current site layout.

1.1 Company details

Licence No:	W0140-03
Name:	Nurendale Limited t/a Panda
Address:	Rathdrinagh Beauparc Co. Meath
Telephone Number:	1850 65 65 65
Fax Number:	046 9024189
Website:	www.panda.ie

1.2 Management Structure

Eamon Waters is the Managing Director of Panda and Brian McCabe is the General Manager. David Naughton is the Environmental Manager. There are 150 employees either working directly or indirectly at the facility. Appendix B illustrates the organisational structure of the facility.

1.3 Financial Provision

A statement from our accountants is provided in Appendix C. At the present time the annual turnover and company assets are sufficient to offset environmental liabilities incurred during the course of operations and in the event that the company is closed.

1.4 Environmental Policy

In carrying out our function, Panda acknowledge that our activities impact upon the environment both through routine internal operations and the actions of our staff.

It is Panda's policy to protect the environment during all activities, both on and off-site.

This is achieved by:

- Strategic preparation and implementation of operating procedures (including an emergency response procedure).
- Utilizing BAT (Best Available Technology).
- Actively promoting environmental awareness amongst staff and clients through appropriate training and communication programs.
- Reduce energy use through effective education and awareness and the installation of energy efficient technology where appropriate.
- Implementing a policy of continuous improvement, by means of targeted objectives. All objectives and targets are monitored and up-dated accordingly.

Panda are committed to complying with all relevant environmental regulations and aim to supply a safe competitive and sustainable service with specific regards to the surrounding environment.

1.5 Activities

Under the waste licence W0140-03, Panda conducts the following activities:

Licensed Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Acts, 1996 to 2003

Class 11.

Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.

Class 12.

Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.

Class 13.

Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.

Licensed Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Acts, 1996 to 2003

Class 2.

Recycling or reclamation of organic substances, which are not used as solvents (including composting and other biological transformation processes).

Class 3.

Recycling or reclamation of metals and metal compounds.

Class 4.

Recycling or reclamation of other inorganic materials.

Class 11.

Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.

Class 13.

Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.

Panda provide a waste collection service for the domestic, commercial and industrial sectors throughout Ireland and was awarded the Repak “Large Operator of the Year award 2007” and “Runner up” in 2008 and 2009. The facility operates 8am-6.30pm (Monday-Friday) & 9am-2pm (Saturdays). The facility is licensed to accept non-hazardous wastes only and to operate a civic amenity facility.

1.6 Waste Activities carried out at the Facility

Panda operate two different sheds for processing the different waste streams. Shed 2 is used to segregate the C&D waste entering the site using a shredder, trommel, wind blower, magnet, ballistic separator and a picking line to recover ferrous and non ferrous metals, rubble, timber and inorganic fines. The residuals are sent to landfill. Shovels are used to load the shredder, and a grab is used to pick out large pieces of steel etc and load the waste sent to Landfill.

In the top Shed 1 all domestic, commercial and industrial collections of mixed municipal waste and dry recyclables are tipped in their respective sections. Cardboard and plastic are recovered which is already segregated at source, whilst the mixed municipal waste is processed by using a shredder, magnet and trommel for separating the organic fraction. The Residual fraction was sent to Landfill and the organic fraction is treated in the in-vessel composting system. Shovels are used to load the articulated trailers going to landfill and load the in-vessel composting system.

Panda invested in a rock crusher to further process the C&D rubble to suitable size material for use as builders fill.

Panda invested in a flip-flop unit to further process the C&D trommelled fines. This system removes stones, wood, metal and residual material from the fines. This material is then sent as landfill cover. Panda are actively researching methods to further clean the stone and separating the wood from the residual material.

Panda process wood on-site using a wood shredder. A grab is used to load the material. The shredded timber is then sent to various outlets for different uses such as the manufacturing of chipboard. The Timber shredder has been relocated to inside shed 2.

The dual weighbridge was fully completed and operational in October 2006. The second weighbridge was retained as back up for the dual weighbridge and is fully operational.

1.7 Water Usage:

Water is extracted from 2 wells on site and stored in a water storage tank. Water for office and amenities use is taken from public supply and is metered by the council. All other water used on site is taken from the water storage tank.

Water from the storage tank used on site consists of:

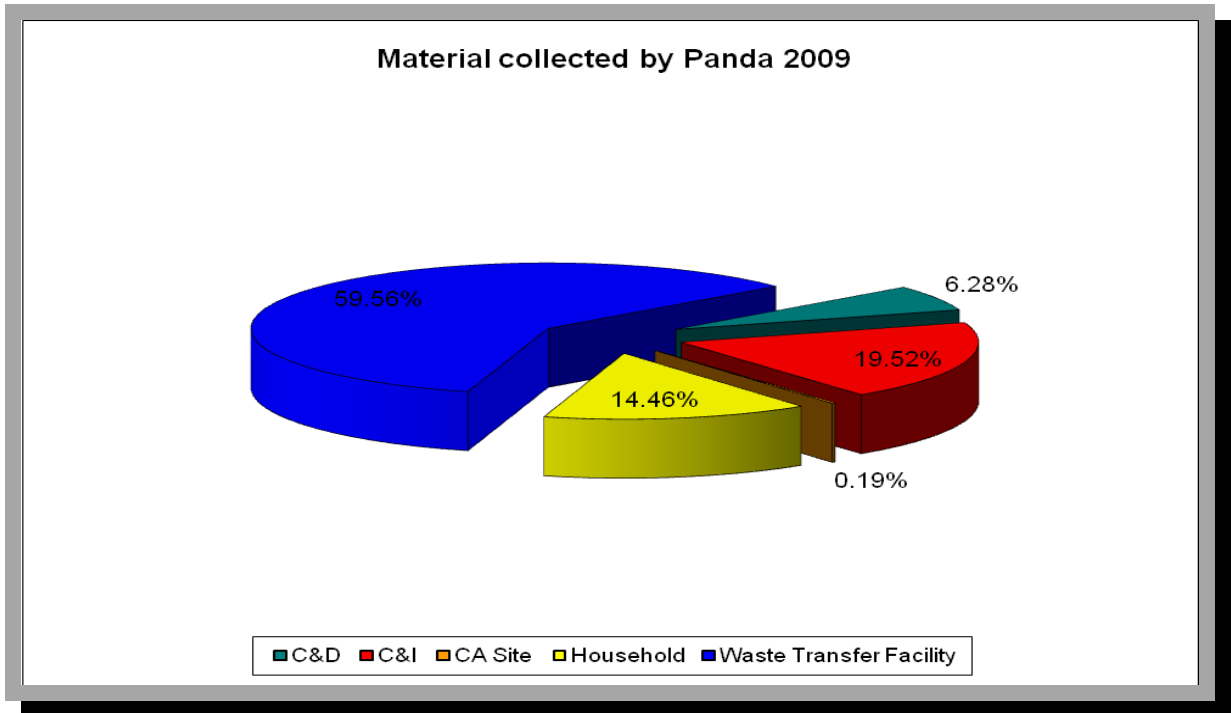
- In-house road sweeper.
- Dust suppression sprayers at doorways into shed one and on the eastern boundary fence between the back-up weighbridge and the retail outlet to the north.
- One atomiser unit (Shed 1).
- Dust suppression sprayers (Shed 2).
- Dust suppression sprayers at C&D fines extraction point from trommel.
- Hoses on site for dust suppression.
- Sprinkler system on biofilter and in-vessel compost tunnels.
- Truck wash.

2.0 Summary Information

2.1 Waste Received

The waste received at the facility for 2009 was 182,165.93 tonnes. From the pie chart (Fig 1) it is evident that waste from a Waste Transfer Station is the largest source of Panda’s waste collection.

Fig. 1: Waste Collected by Panda by Customer profile



2.2 Waste Transferred Off-Site for Disposal or Recovery

See Appendix D for the breakdown of the different destinations used for the waste accepted at the facility and of waste removed off site by EWC Code. The installation of the in-vessel composting tunnels reduces the weight of the organic material by c25% therefore decreasing the weight of the organic material sent to landfill as is required under the Landfill Directive.

2.3 Waste Recovery Reports

To contribute to the Landfill Directive, Panda have invested in a shredder, trommel, magnet and an in-vessel composting system. All municipal waste will be put through the shredder and trommel and the organic fraction of the waste will then be put through the dynamic in-vessel composting system. The material taken from the tunnels is then sent as sub-cover to landfill.

Other materials recovered from these processes are ferrous metals collected by the magnet. The residuals are sent to landfill.

Panda have applied to the Agency for a review to our current licence (W0140-03). This review was submitted to the Agency so that Panda can produce an RDF product from the residual waste previously sent to Landfill. Panda also reviewed the licence for the purpose of constructing an Anaerobic Digestion/Composting plant. Panda are preparing to roll out a source segregated collection service for biodegradable waste for both household and commercial customers.

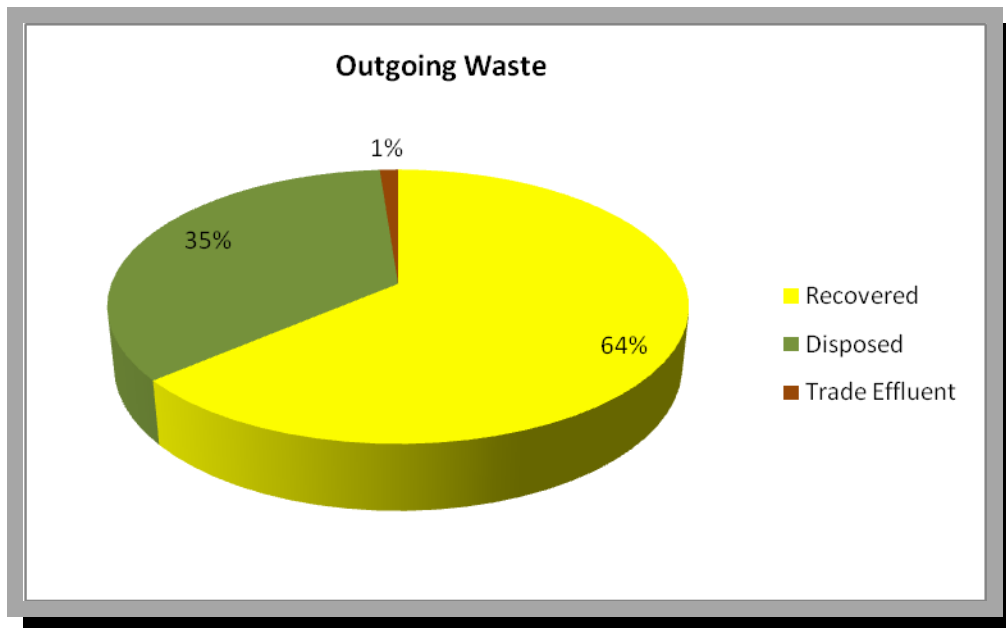
Panda invested in a C&D shed in 2005. A shredder, trommel, magnet, wind shifter and a picking line were purchased so as to divert as much C&D waste away from landfill as possible to reach the “Changing Our Ways 1998” target of diverting 85% away from Landfill by 2013. To date the processing of C&D Waste has been extremely successful. Panda are using the rubble segregated at the facility as a raw material in the use of landfill road construction and as back fill on construction works. The timber that is segregated in the shed is then shredded and reused.

Table 1 and Fig. 2 details the recovery rates of waste leaving Panda’s facility.

Table 1. Outgoing destination and recovery rate.

Destination	Tonnes	%
Recovered	117,952.61	63.78
Disposed	64,769.94	35.03
Trade Effluent	2,201.92	1.19

Fig 2. Outgoing destination recovery rate.



2.4 Summary report on emissions and interpretation of environmental monitoring

Under Schedule C of the licence W0140-3, Panda monitor compost, trade effluent, noise and ambient air monitoring. The following sub-headings detail the results from independent laboratories of the different parameters and the emission limit values ELV’s set by the EPA and any complaints and incident that may have occurred during the year.

2.4.1 Surface Water

Surface water passes through a silt trap and oil interceptor prior to being discharged into holding tanks, which run beside the southern boundary of the facility. The surface water monitoring point was relocated to co-ordinates X/E 297456.080 Y/N 269143.030 as the stream running along the southern boundary was piped as notified to the agency.

Panda propose to install a wetland system for surface water drainage as set out in the Environmental Targets and Objectives and received planning permission for its construction. A review of our waste licence was submitted to the Agency.

2.4.2 Dust Emissions

As per schedule B4 for dust deposition limits, there are currently four sampling locations. There is a fifth sampling site, D5, as required by Condition 6.15.2. This station will be monitored when building 3 is operationally.

As per condition 6.13.1, all waste for disposal, stored overnight at the facility was placed in suitably covered and enclosed containers within the waste transfer buildings and were removed within 48 hours or 72 hours on a bank holiday weekend. In dry weather, the site roads and any other areas used by vehicles were sprayed with water. A dust suppression unit was installed in Shed (2) to ensure dust emissions from the bottom shed are kept to a minimum. Figs 3-6 illustrate dust recordings for 2009.

Fig 3: Dust emission results for DS1

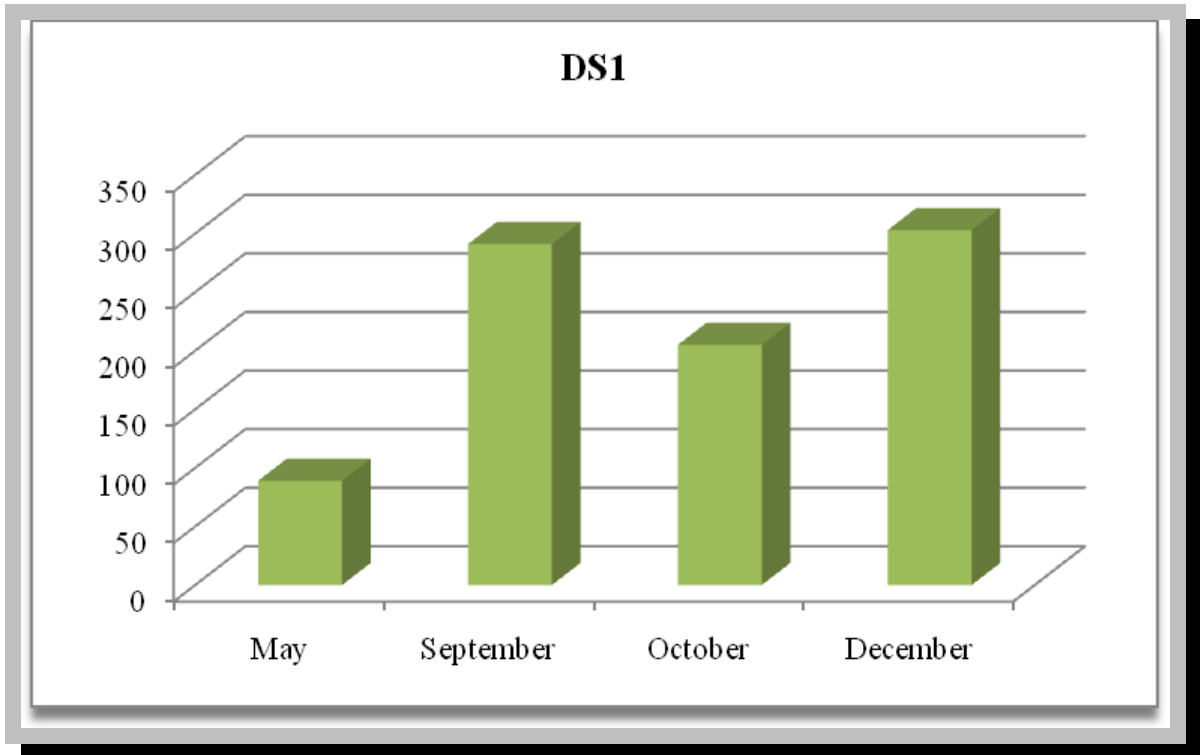


Fig 4: Dust emission results for DS2

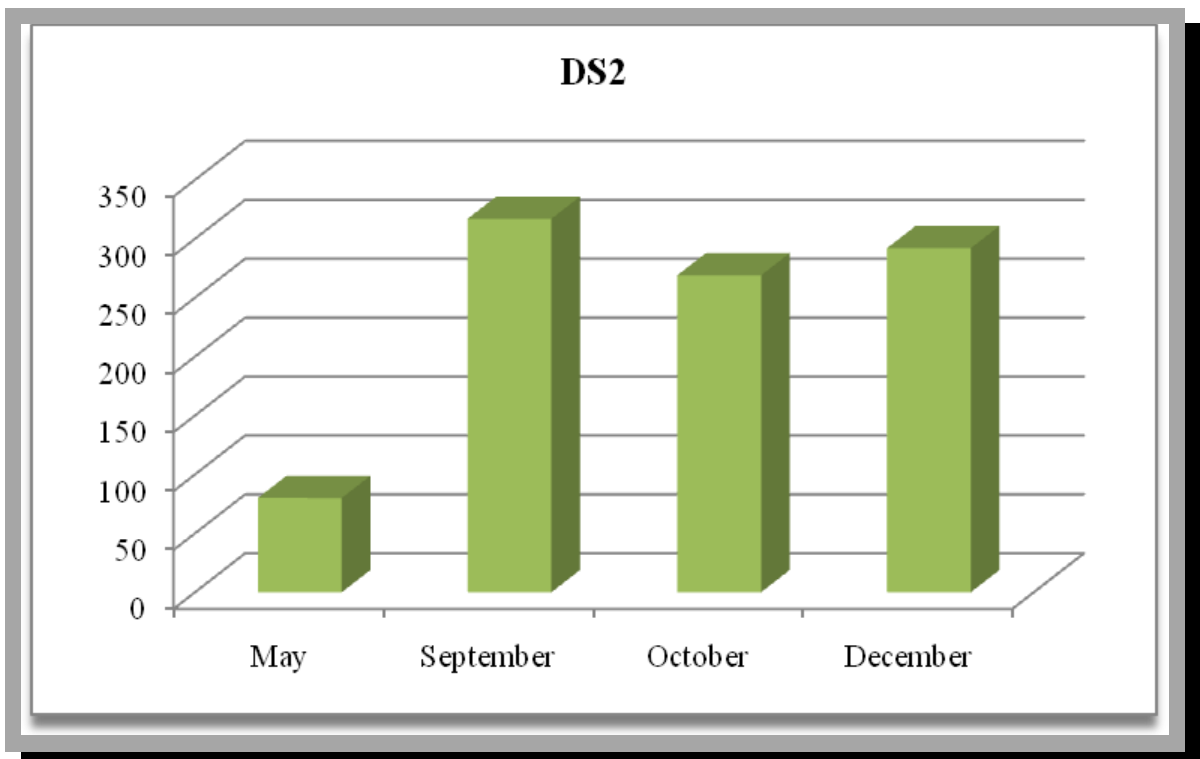
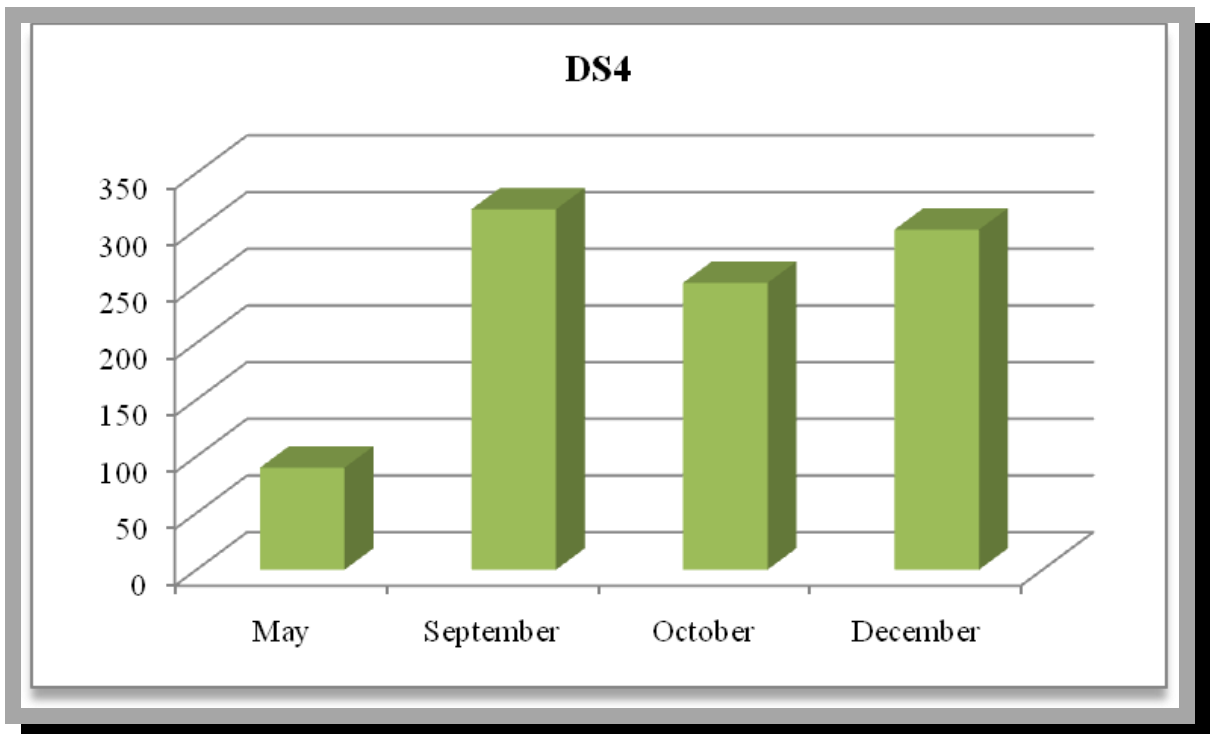


Fig 5: Dust emission results for DS3



Fig 6: Dust emission results for DS4



As per Schedule B.4, the dust deposition limit for the site is $350 \text{ mg m}^{-2} \text{ d}^{-1}$. In 2009, dust deposition limits were not exceeded.

2.4.3 Noise Emissions

Noise emissions are monitored according to Schedule B.3 and the emission limit values (ELV) set out in Schedule C5 of the licence. An independent competent person was used to conduct the noise sampling throughout the year. A summary of the recorded noise levels for this reporting period is provided in Tables 2-5.

Table 2: Recorded Noise Levels dB(A) on 19th March 2009– Intervals 30 minutes

Location	Time	Leq	L10	L90	Comments
N1	15.30	52.3	53.5	49.4	N2 road traffic and traffic entering Panda site – non Panda noise source
N2	15.35	50.9	51.6	49.1	N2 & slip road traffic. Panda inaudible at background of 49 dBA
N3	15.40	53.7	55.9	52.7	Slip road, N2 traffic and site activity
N4	16.15	62.6	62.9	59.9	Portable motor outside transfer house and trucks
N2 (B)	16.20	54.8	55.9	52.7	Operation inaudible, road traffic dominant from N2 and slip road
N3 (B) ⁺	16.25	53.4	54.6	52.4	N2 road traffic and emission from Panda audible at background level of 52.4 dBA

Table 3: Recorded Noise Levels dB(A) on 17th July 2009– Intervals 30 minutes

Location	Time	Leq	L10	L90	Comments
N1	11.30	53.8	54.2	50.6	N2 road traffic and traffic entering Panda site – non Panda noise source
N2	11.40	53.2	54.1	52.1	N2 & slip road traffic. Panda inaudible at background of 52.1 dBA
N3	11.50	54.6	56.8	53.2	Slip road, N2 traffic and site activity
N4	12.10	62.2	62.7	59.6	Portable motor outside transfer house and trucks
N2 (B)	12.20	53.7	54.6	51.9	Operation inaudible, road traffic dominant from N2 and slip road
N3 (B) ⁺	12.30	53.0	54.3	52.2	N2 road traffic and emission from Panda audible at background level of 52.2 dBA

Table 4: Recorded Noise Levels dB(A) on 28th October 2009– Intervals 30 minutes

Location	Time	Leq	L10	L90	Comments
N1	15.50	54.2	56.2	50.8	N2 road traffic and traffic entering Panda site – non Panda noise source
N2	15.45	53.7	55.7	50.7	N2 & slip road traffic. Panda inaudible at background of 50.7 dBA
N3	15.50	54.2	56.6	51.0	Slip road, N2 traffic and site activity
N4	16.15	60.5	60.3	57.7	Portable motor outside transfer house and trucks
N2 (B)	16.40	55.1	56.6	52.9	Operation inaudible, road traffic dominant from N2 and slip road
N3 (B) ⁺	16.45	52.1	53.4	51.0	N2 road traffic and emission from Panda audible at background level of 51.0 dBA

Table 5: Recorded Noise Levels dB(A) on 4th December 2009– Intervals 30 minutes

Location	Time	Leq	L10	L90	Comments
N1	16.00	53.0	55.8	50.2	N2 road traffic and traffic entering Panda site – non Panda noise source
N2	16.10	52.9	54.4	50.3	N2 & slip road traffic. Panda inaudible at background of 50.3 dBA
N3	16.20	53.6	55.9	50.9	Slip Road N2 traffic and site activity
N4	16.45	61.1	60.9	58.2	Portable motor outside transfer house and trucks
N2 (B)	16.55	56.2	57.2	52.4	Operation inaudible, road traffic dominant from N2 and slip road
N3 (B) ⁺	17.15	53.2	53.8	51.6	N2 road traffic and emission from Panda just audible at background level of 51.6 dBA

The noise emissions at all NSL's from Panda are well within the terms of their noise emissions levels. There were no tonal or impulsive noise emissions from the works audible at any of the nearest residences.

2.4.4 Trade Effluent

As part of the monitoring programme Panda must test the trade effluent sent off site for disposal. Table 6 shows the results for the trade effluent tested for 2009. The parameters are well within acceptable levels for waste water treatment plants to be able to treat.

Table 6: Results for Trade effluent sent off site for disposal

Parameter	Units	Result 08/07/2009	Result 22/12/09
Ammonia	mg/L as N		32.70
BOD	mg/L	12500	1250
Cadmium	ug/L	1.9	0.9
Calcium	mg/L	1026	363.60
Chloride	mg/L		267
Cobalt	ug/L	19.9	25.4
COD	mg/L	48600	2070
Copper	ug/L	248.8	46.2
Iron (Total)	ug/L	140900	75020
Lead	ug/L	325.9	99.6
Magnesium	mg/L	35.95	20.19
Manganese	ug/L	3690	7139
Mineral Oil by Calculation	ug/L		2259.9
Nickel	ug/L	90.5	46.1
pH	pH units		6.6
Solids (Total Suspended)	mg/L		386
Sulphate	mg/L as SO ₄		<1.39
Tin	ug/L	23.6	8.4
Volatile Organic Carbon	ug/L	2372.77	

2.4.5 Compost Analysis

As part of the monitoring programme Panda must test Compost. Table 7 shows the results for the Compost tested for 2009.

Table 7 Results for Compost tested in 2009

Test Parameter	Units	Result	
		08/07/2009	18/12/2008
Moisture Content	%	45.7	46.8
Organic Matter	%	81.81	87.2
Arsenic (solid)	ug/Kg	934	
Boron (solid)	ug/Kg	12169	
Cadmium (solid)	ug/Kg	253	119.04
Calcium	mg/Kg		21554
Chloride	mg/Kg	2300.05	2450.42
Chromium	ug/Kg	3356	
Cobalt	ug/Kg		594
Copper	ug/Kg	29311	21053
Faecal Coliforms	No/100ml	0	170
Foreign matter	%	58.2	51.8
Iron (solid)	ug/Kg		926908
Lead (solid)	ug/Kg	86225	37084
Magnesium (solid)	mg/Kg		1200
Manganese (solids)	ug/Kg		42984
Mercury	ug/Kg	33.8	
Nickel (solid)	ug/Kg	7084	3695
Selenium (solid)	ug/Kg	<10	
Semi VOC (Solid)	mg/Kg		<0.05
Sulphate (solid)	mg/Kg as SO4	2700.25	3621.57
Tin (solid)	ug/Kg		1129
Total Coliforms	No/100ml		400
VOC (solid)	ug/Kg		<1
Zinc	ug/Kg	116438	
Semi VOC (Solid)	mg/Kg		<0.05

2.4.6 Biofilter Monitoring

Panda commissioned a consultant to conduct ambient air monitoring on site to test for Bacteria, Hydrogen Sulphide and *Aspergillus fumigatus*. The bed media of the biofilter and the air handling system were also tested as required under Condition C.1 of the licence.

Round 1 Monitoring Results (Sept 2009).

Table 8. Airflow rate, temperature and differential pressure measurement results from the biofiltration system.

Measurement Location	Air Velocity (m s ⁻¹)	Volumetric airflow rate (m ³ s ⁻¹)	Differential Pressure (Pa)	Temperature (Kelvin)
Duct 1	13.60	1.70	928	304
Duct 2	14.10	1.76	1,100	297
Total	-	3.46	-	-

Table 9. Exhaust Ammonia, Mercaptans and Hydrogen sulphide analysis results on emission point A1.

Compound Identity	Emission point A1- Exhaust conc. (mg m ⁻³)	Emissions Limit Value Schedule B1	Compliance
Mercaptans	0.14	50 mg/Nm ³	Yes
Ammonia	3.26	5.0 mg/Nm ³	Yes
Hydrogen sulphide	0.15	5.0 mg/Nm ³	Yes

Table 10. pH and % Moisture Content.

Parameter	June 2008
Moisture Content (%)	51
pH	5.9

Round 2 Monitoring Results (December 2009).

Table 11. Airflow rate, temperature and differential pressure measurement results from the biofiltration system.

Measurement Location	Air Velocity (m s ⁻¹)	Volumetric airflow rate (m ³ s ⁻¹)	Differential Pressure (Pa)	Temperature (Kelvin)
Duct 1	14.20	1.78	1,012	306
Duct 2	15.30	1.91	1,208	304
Total	-	3.69	-	-

Table 12. Exhaust Ammonia, Mercaptans and Hydrogen sulphide analysis results on emission point A1.

Compound Identity	Emission point A1 – Inlet conc. (mg/m ³)	Emission point A1- Exhaust conc. (mg/m ³)	Emissions Limit Value Schedule B1	Compliance
Mercaptans	6.83	3.26	50 mg/Nm3	Yes
Ammonia	1.21	0.14	5.0 mg/Nm3	Yes
Hydrogen sulphide	0.30	0.15	5.0 mg/Nm3	Yes

Table 13. pH and % Moisture Content.

Parameter	November 2008
Moisture Content (%)	58
pH	6.1

Bioaerosol Impact Assessment (December 2009).

Table 14. Ambient bioaerosol concentrations at monitoring locations DS1 and DS3.

Location ID.	Average Mesophillic Bacteria conc. (CFU/m ³)	Average Aspergillus <i>fumigatus</i> conc. (CFU/m ³)	Sample Count
DS1	74	<4	3
DS2	113	28	3
DS3	85	47	3

The average TVC plate counts content of the media was 4.20 x 10⁵ CFU/kg.

2.4.7 Bund Integrity

The integrity and water tightness of all underground pipes, all tanks, bunding structures and containers and their resistance to penetration by water and other materials is required to be carried out every three years and thereafter and reported to the Agency. This will be schedules in the near future.

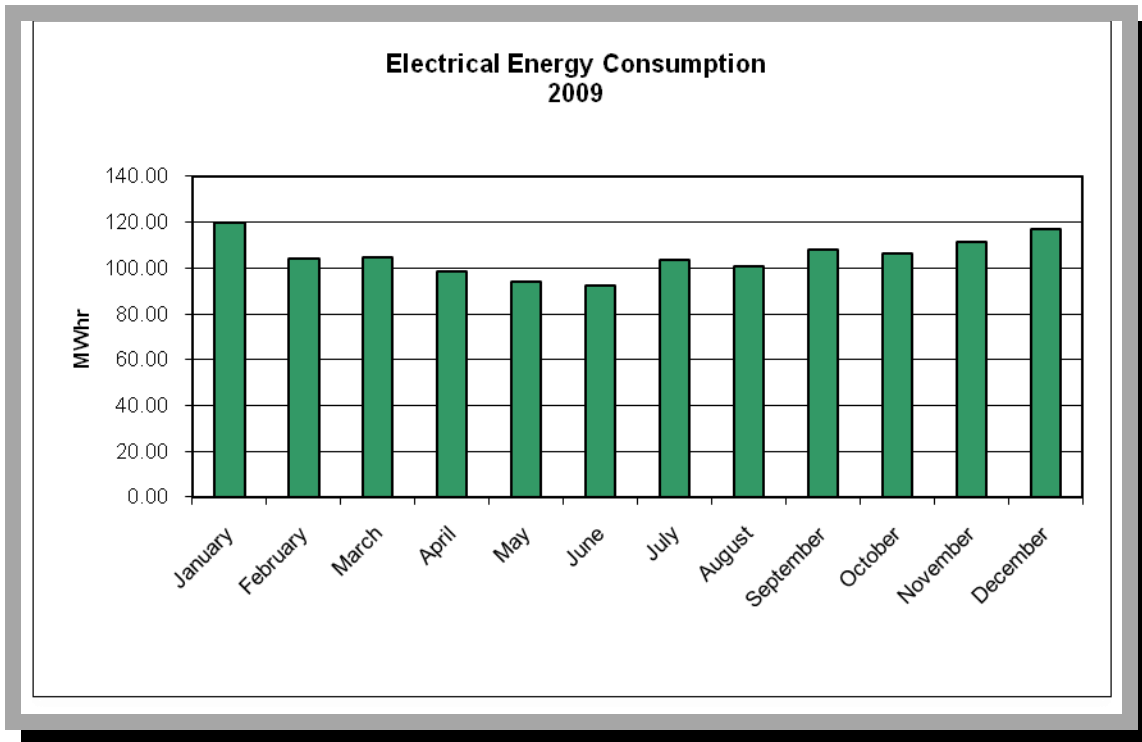
2.4.8 Summary of resource and energy consumption

The following discusses resources used in 2009 i.e. Fuel, Electricity and Water.

2.4.8.1 Electricity

Fig. 7. Shows the electrical energy consumption for the period January 2009 – December 2009. It is clear to see that the energy consumption is higher in the winter months than the summer months.

Fig. 7 Bar chart of electrical energy consumption for the year 2009



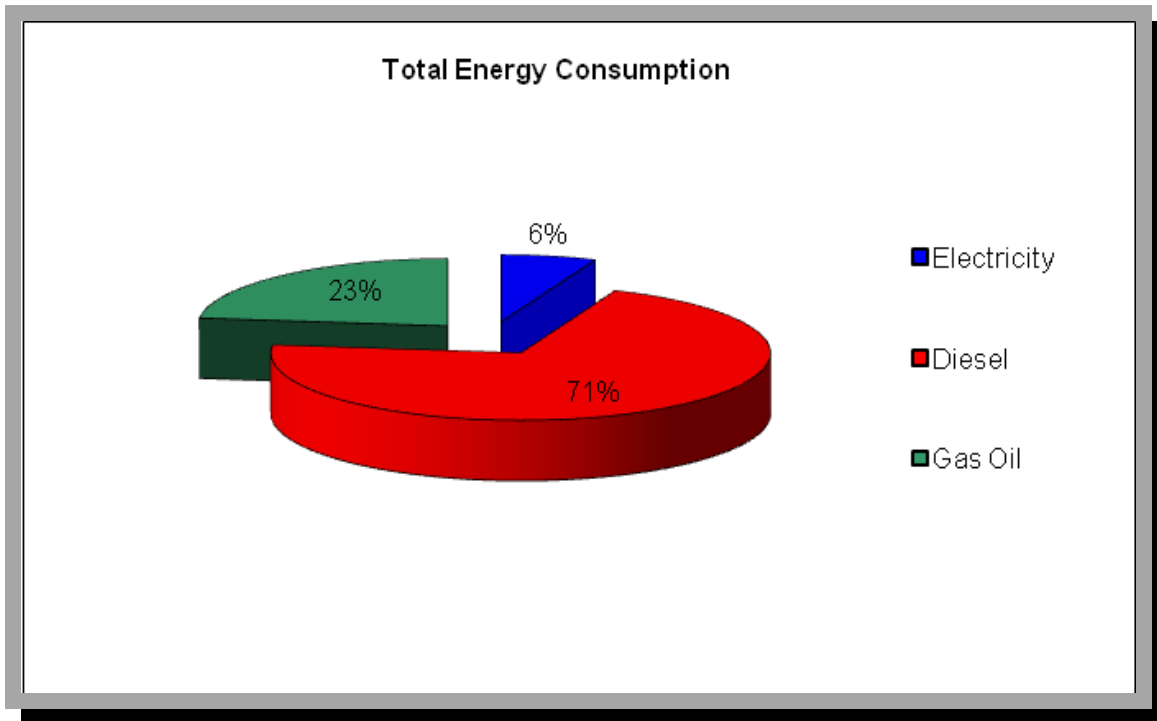
2.4.8.2 Fuel

The Table 15 and Fig. 8. below shows a summary of the energy consumption, and tonnes of carbon dioxide produced.

Table 15. Summary of Energy Consumption 2009.

Resource	Litres	%	Consumption (MWh)
Derv -Road Diesel-	1,237,028.44	70.73	14,460.86
Gas Oil -Plant Diesel-	365,678.67	23.11	4724.78
Electricity		0.08	1259.89
Total	1,602,707.11	93.92	20,445.53

Fig 8. Total Energy Consumption.



2.4.8.3 Water

Panda extract water from two wells for use on site. Unfortunately these wells are not metered to determine water usage.

2.5 Site infrastructure

Panda acquired land at the southern and Eastern boundary of the site so as to complete the surface water run off drainage on site and to add building three at the southern end of the facility. Building three is nearing completion. Panda have been granted planning permission to construct an anaerobic digestion/composting plant to the East of the facility. Panda have applied to the Agency to review our current Waste Licence W0140-03.

2.5.1 *In-place*

The current site infrastructure is outlined below (List 1). Table 16 details the waste processing equipment used on site, together with the associated duty capacities

List 1: Current site infrastructure

1. Office block
2. Truck wash
3. Two x Weighbridge and associated office.
4. One x Waste processing building (2800 m²)
5. One x Waste processing building (2600 m²)
6. One x Waste processing building (4,248 m²)
7. Two x Dust suppression system
8. Two x In-vessel Composting Tunnels
9. Ancillary ESB building
10. Canteen & toilets and associated waste water treatment system.
11. Water reservoir (660 m³) capacity
11. Fencing around the site
12. Tyre Bay

Table 16: Waste processing equipment

Description	Duty Capacity
Shed 1	
1 x M&J 2000 Shredder	50 Tonnes per hour
1 x Trommel	50 Tonnes per hour
1 x Magnet	20 Tonnes per hour
2 x Composting Tunnels	130 Tonnes per hour
Shed 2	
1 x M&J 4000 Shredder	100 Tonnes per hour
1 x Trommel	100 Tonnes per hour
1 x Magnet	20 Tonnes per hour
1 x Nihot	50 tonnes per hour
1 x Ballistic Separator	15 Tonnes per hour
Outside	
1 x Flip Flop	70 tonnes per hour
2 x Magnet	20 Tonnes per hour
1 x Wind Shifter	20 Tonnes per hour
1 x Rubble Crusher	50 Tonnes per day
1 x Flip Flop (Not in use)	50 tonnes per hour
1 x Single Drum Separator	40 tonnes per hour
1 x Baler (Not in use)	20 Tonnes per hour
Mobile	
3 x Volvo L120	1 x Kobelco Track
1 x Teleporter	2 x Hoists
1 x Volvo L60	2 x Forklift
1 x Fuchs Grab	1 x Shunter
1 x JCB Grab	1 x Scarab Roadsweeper
1 x Doppstadt Shredder	30 tonnes per hour

There is sufficient back up if the shredder; a loading shovel or an excavator breaks down. The stone crusher is only used intermittently and therefore back up is not required. In the

event that there is a major problem with the trommel or composting tunnels (i.e. if it can't be fixed within 48 hrs), unprocessed waste will be transferred to other approved waste processing facilities.

2.5.2 Planned Infra-structure

Proposed infrastructure is outlined in List 2. It is anticipated that the majority of the proposed infrastructure will be in-place by late 2009 or early 2010, with the bring centre being built at a later date.

List 2: Proposed infrastructure:

1. Wetland for surface water run off
2. Waste processing Shed 4, 12,183 m².

2.6 Progress Report on Proposals Developed to Minimise Water Demand & Trade Effluent Discharge

To minimise the water demand on site, Panda are investigating collecting the rainwater from the roof and using this in the road sweeper to clean the yard. This would constitute a significant reduction in usage on site as the road sweeper is running ten hours per day.

2.7 PRTR Emission.

Panda's PRTR emission return is provided in Appendix E.

3.0 Environmental objectives and targets – 2009

Objective: Improve Surface Water Quality on site

Target: To recycle surface water run off and improve the quality of the discharge.

Panda are proposing two large- scale development/ infrastructural projects for the current year. Both involve the development of the new land purchased in 2005 and 2009. The first project is to construct the wetland to complete the surface drainage works on site as specified in an audit carried out by the Agency in September 2005. The wetland will also

eliminate any heavy metals entering the stream. The installation of this technology will improve the surface water samples coming from the main yard.

Responsibilities: The project manager for this will be David Jervis who will be advised by specialists in the area of wetland systems. The Environmental Dept will measure the success of the project by sampling the parameters as set in Condition C.2.2

Objective: Complete construction of shed three for RDF production

Target: To divert material from Landfill and increase the recycling rate of the Facility.

Panda received planning permission in 2007 to construct a third shed on the land at the southern part of the site. The shed will be used to produce a RDF material from household and commercial mixed municipal waste. It would be hoped to have the shed in working order by the end of the year, however it will depend on the licence review process and the approval of the Agency. The architects and engineers will work closely with the Managing Director on this project.

Responsibilities: Eamon Waters will manage the construction issues along with the engineers contracted for the project. Eamon Waters, David Naughton and David Jervis will research the different technologies available to recycle the different waste streams. David Naughton will keep the EPA up to date with the developments.

Objective: Office Recycling.

Target: To minimise the recyclable fraction of general office waste being disposed of, with particular emphasis being placed on office paper and kitchen waste.

Responsibilities: Mr Gerard Dineen (Office Manager) will be responsible for the implementation of the recycling programme. Mr. David Naughton (Environmental Manager) will assist Mr. Gerard Dineen in training and enforcement of recycling practices in the office.

3.1 Completion of Environmental Targets & Objectives 2009

Panda will endeavour to complete the targets not already completed in 2009. The targets not met in 2009, were due to the continued expansion of Panda's waste recovery activities, such as reviewing the license and planning permission for shed 4. These were

delayed so that Panda could best plan to incorporate these new projects into the current facility.

3.2 Summary of reported incidents and complaints

3.2.1. Reported Incidents Summary

9th March 2009

There was a non-compliance noted following an inspection conducted by the Agency on 27th January 2009 (EPA reference no. W0140-02/nc15NH.doc). A full non -compliance schedule was returned to the Agency.

10th September 2009

There were non-compliances noted following an audit conducted by the Agency on 24th July 2009 (EPA reference no. W0140-03 /NC01MM.doc). A full non -compliance schedule was returned to the Agency.

3.2.2 Complaints:

13th July 2009

The Agency informed Panda that there was an odour emanating from the facility at 5pm on Saturday 11th July 2009, on Sunday 12th July 2009 and on the morning of the 13th July 2009. The complaint was made anonymously.

Actions taken: When Panda were informed of the complaint, David Naughton immediately conducted an investigation, wind direction recorded that day on the “Daily Odour & Biofilter Assessment” was noted and also the “Daily Inspections of Boundaries & Site” sheets were reviewed. The wind direction on the dates in question was verified with Met Eireann. Following numerous interviews conducted and from looking at the nature of the waste held over that weekend, it was found that no odour nuisance was caused especially outside of licensed acceptance and operational hours.

27th August 2009

The Agency informed Panda that there were frequent odour's emanating from the facility and that the complainant had concerns of the regarding the safety of the odour neutraliser used on site. The complainant also complained about litter blown from trucks. The complaint was made by Ms Helen Kierans of Boyne Waste.

Actions Taken: Panda investigated the complaint. Panda refuted the complaint that there was an odour emanating from the facility all day. As no specific times or dates were given with the complaint, it made it difficult to accurately investigate the complaint. Panda's in-house nuisance monitoring records from the 17th August 2009 to the 28th August 2009 were reviewed. On the dates the wind was blowing in the direction of Mrs Keirans residence and business, the odour was recorded on the northern boundary of the facility, to be between a scale 1 and scale 2 as per the Agency document "*Assessment of Odour Impact Field Record Sheet*". The biofilter monitoring sheets were also referred to for the preceding two weeks. Again it was recorded that the odour was on a scale of 1 and 2, indicating that the biofilter was operating within parameters.

Mrs Kierans also complained about the odour of the odour neutraliser currently being used on the site and its safety. The odour neutraliser being used is compliant with all necessary regulations. The manufacturers of the odour neutraliser commissioned an independent Toxicologist to carry out a report on its toxicity.

Mrs Kierans had also complained about litter being blown from trucks at the entrance to her residence. All loads entering or before leaving the facility are monitored by the weighbridge staff by CCTV footage. The weighbridge staff were questioned whether any loads were not covered appropriately in the two weeks leading up to the complaint and CCTV footage was reviewed. No loads were deemed to be unsatisfactorily covered to result in litter being blown from the trucks. It must be noted that Panda's facility is located on one of the main thoroughfares in the country (the N2) and have and will continue to collect litter within the vicinity of the facility deposited by passing traffic.

27th October 2009

Ms Helen Kierans informed the Environmental Manager that there was odour emanating from the facility on the morning of the 27th October 2009.

Actions Taken: The Yard Supervisor immediately sprayed odour neutraliser around the facility. The complaint was investigated and it was found that no excessive malodorous waste was on site.

3.3 Review of nuisance controls

3.3.1 Odour

There is a rotary atomiser-fogging unit on the external of building one. A sprinkling system is on each doorway into Shed 1 and between the back-up weighbridge and commercial premise on the western boundary of the facility. The atomiser and sprinkling system are connected to the odour suppression liquid.

The yard foreman is responsible for controlling the odour-suppressing units. This involves controlling the concentration of odour suppressant in order to provide adequate odour control. There is a power washer available to wash odorous bins. All drivers are responsible for washing their own compactors or skips. Each day, the environmental officer conducts an inspection of the site. A daily odour assessment of the biofilter is carried out and a record of this is filed in the environmental office.

3.3.2 Noise

There were four noise survey's done 2009. Noise levels from operations at Panda were inaudible as background noise from the N2 and the slip road to the north of the facility was the dominant source of noise. In general, the noise emissions were in the main steady, with no tonal or impulsive noise from the works audible at any of the nearest locations.

3.3.3. Dust

A water tanker is available for controlling dust outside the waste transfer station. Dust analysis was carried out four times this year. The results indicate that dust emissions are not above permitted levels. A dust suppression system was installed in Shed 2 in 2005 and along the western boundary between the back-up weighbridge and the commercial premise in 2008.

3.3.4. Vermin

A file on vermin control is maintained in the environmental office. A sub-contractor is used to control any vermin on site.

3.3.5. Flies

Good housekeeping practices are used to prevent fly infestations. The yard is kept clean using a road sweeper 10 hours a day and all waste for disposal is removed from the facility within 48 hours, or 72 hours in the case of a bank holiday weekends.

3.3.6. Birds

In order to avoid having birds as a nuisance, litter control is practised at all times and no waste is stored outside.

3.3.7. Litter

A designated member of staff carries out litter inspections of the facility three times a day.

4.0 Development of Procedures on Site

The Emergency Response Procedure (ERP) has been implemented to reflect the changes of the company and update useful contact telephone numbers.

There was a revision of the odour-monitoring sheet to include a map of the facility to make it easier to position possible nuisances on the facility. General weather conditions and wind direction are obtained through Met Eireann on a daily basis.

Recycling certificates are issued to customers, on request, so that they can determine their recycling on a monthly basis. There is one for C&D Recycling and one for Packaging Waste.

5.0 Pollution Emission Register

After consulting the PERL list Panda are not using any substance that is listed at present.

6.0 Report on Programme for Public Information

Panda has designed a website; one of the features is an Environmental page where the following can be downloaded,

- Facility licence (W0140-03)
- Facility permits (WPT 95 and WPR 021/2),
- Waste collection permits,
- Environmental Policy
- Health and Safety Statement.

Domestic wheelie bin customers can also download their relevant collection calendar's, pay bills. Over the Christmas period 2009 Panda put advertisements in all the local newspapers to inform customers of the schedule of bin collections over the Christmas Period. Panda also issued all domestic customers with a Christmas calendar showing collection days over that period. If there were any change to a domestic run or route, this would also be advertised in the local media.

In March 2009, Panda commenced SMS messaging to domestic customers regarding their collections. This was beneficial especially during December 2009 in the inclement

weather conditions; this enables Panda to contact customers to inform them that collection days may have to changes to alternative day's, from this Panda received positive feedback.

Advertisements are taken out regularly in the local newspapers informing customers of the services that Panda offer. There is also a large advertisement in the golden pages, which is available to the general public. Regular tours of the facility are given to schools and to members of the public on request.

During the reporting period there were no requests from members of the public to inspect any Environmental Records.

The information in the Annual Environmental Report is true and accurate representation of the activities conducted by Panda in 2009

Signed: _____

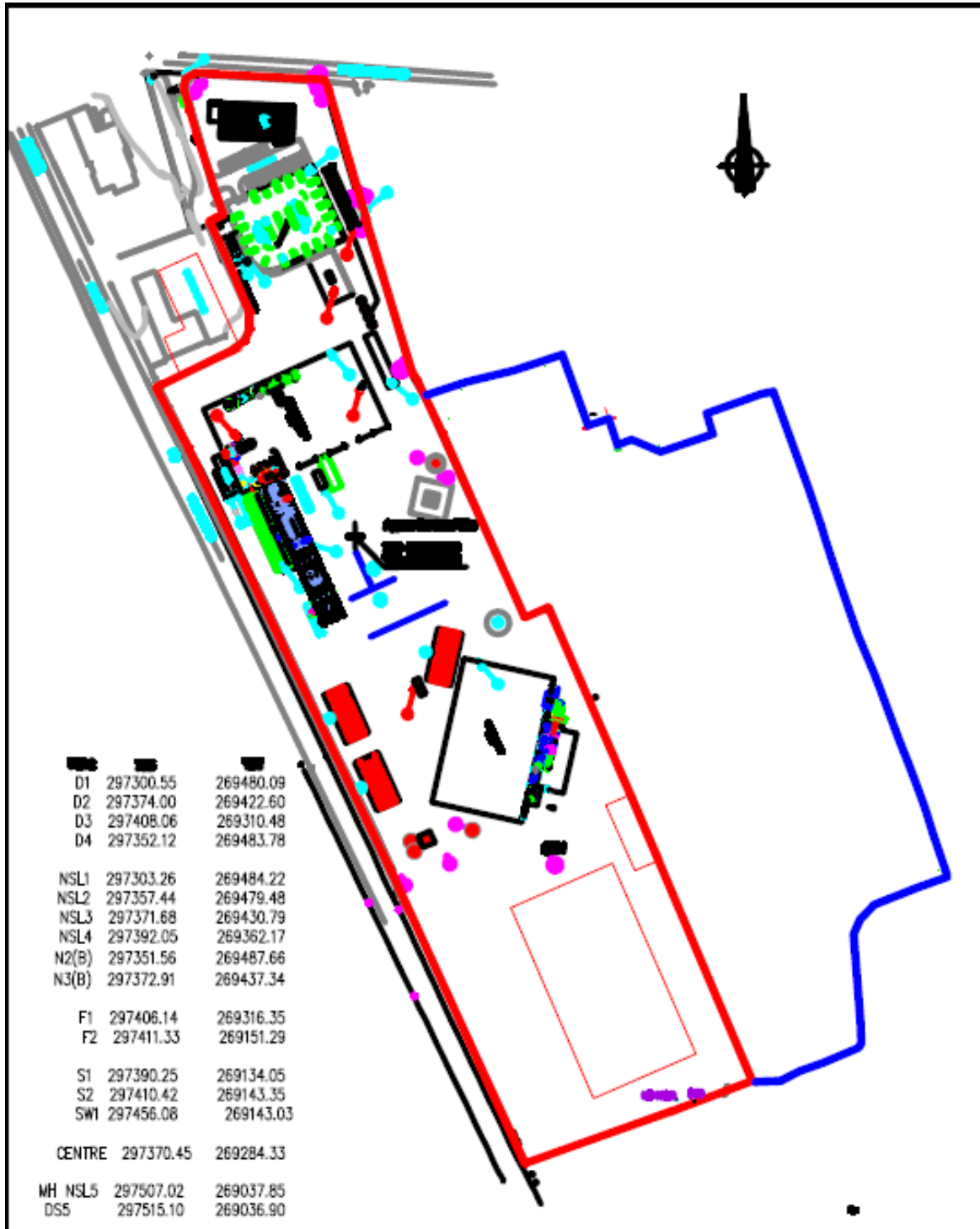
Date: _____

David Naughton

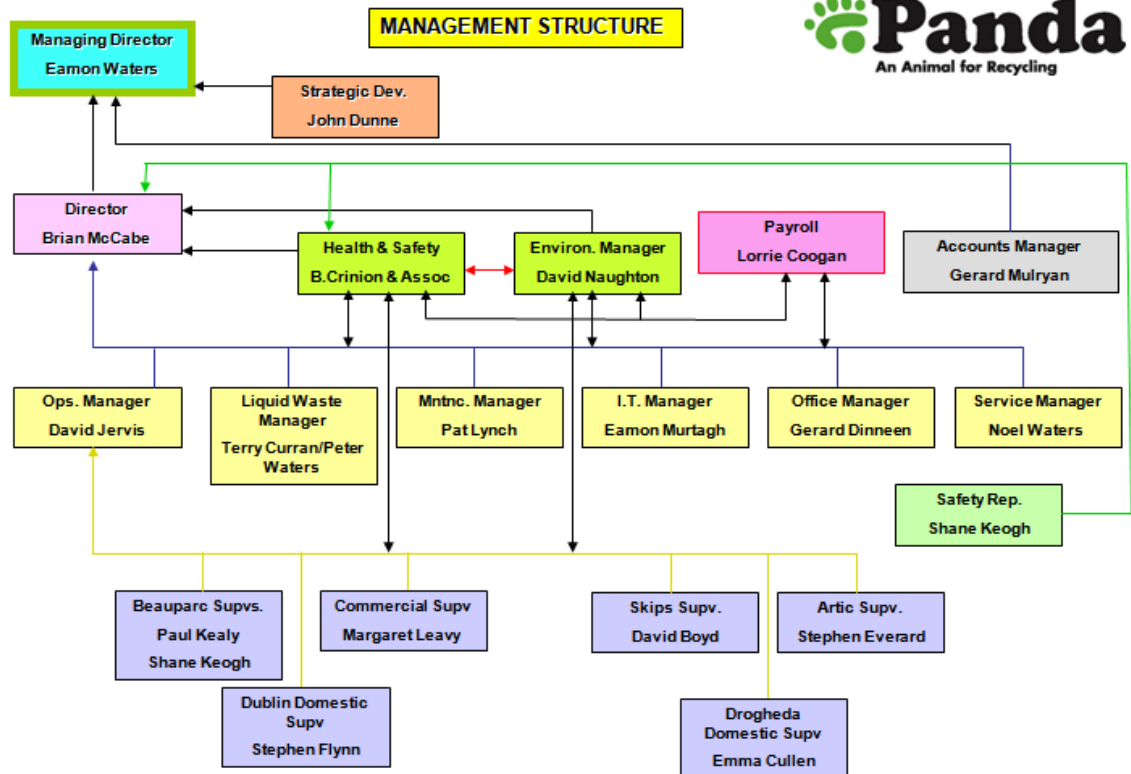
Environmental Manager

Appendix A

Site Layout




Appendix B



Appendix C

Financial Statement


Fagan Lynch Donnellan
Chartered Accountants & Registered Auditors

Our Ref: VL/SS

3rd March 2010.

Environmental Protection Agency,
McCumiskey House,
Richview,
Clonskeagh Road,
Dublin 14.

Re: Nurendale Ltd – T/A Panda Waste.

Dear Sir,


We act as Auditors and Taxation Agents for the above and have acted in this capacity in excess of 10 years.

We wish to confirm as follows:


1. Statutory Accounts have been filed for all years up to 31.12.2008 with Companies Office.
Accounts and Tax Returns have also been filed with Inspector of Taxes for all years to 31st December 2008.
2. The company trades profitably and is on a very sound financial footing.

If you have any queries, please do not hesitate to contact us.

Yours faithfully,

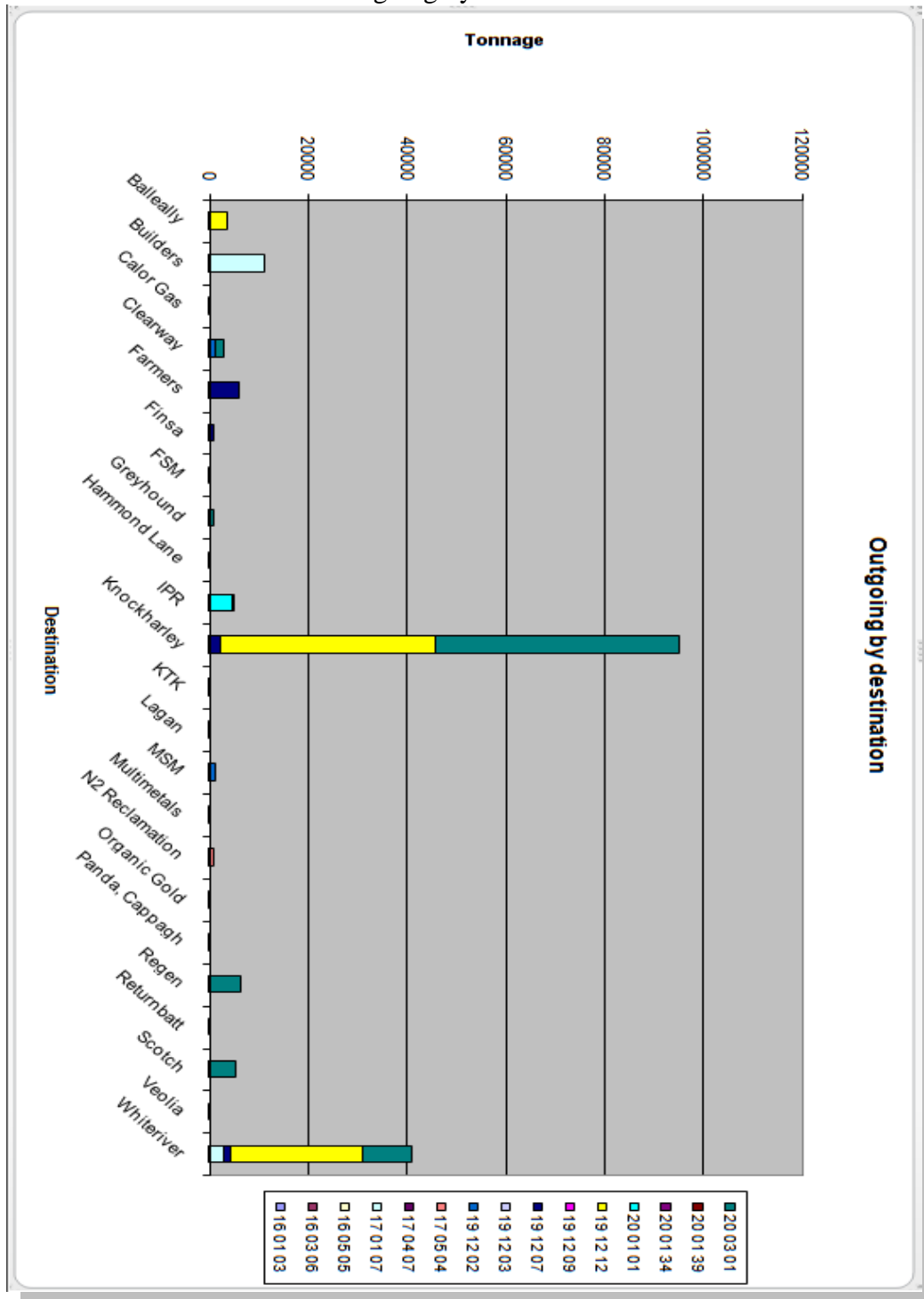

FAGAN LYNCH DONNELLAN

Newbridge House, Athlumney, Navan, Co. Meath
Tel: (046) 9023021 Fax: (046) 9029341 e-mail: info@fld.ie www.fld.ie
John Fagan FCA Vincent Lynch FCA Mark McCartney FCCA
Authorised by the Institute of Chartered Accountants in Ireland to carry out Investment Business



Appendix D

Outgoing by Destination



Destination	16/01/03	16/03/06	16/05/05	17/01/07	17/04/07	17/05/04	19/12/02	19/12/03	19/12/07	19/12/09	19/12/12	20/01/01	20/01/34	20/01/39	20/03/01	Grand Total
Balleally											3457.4					3457.4
Builders				11237.77												11237.77
Calor Gas			1.32													1.32
Clearway					3.95		1323.77	55.18							1457.52	2850.42
Farmers	12.48								6027.42							6039.9
Finsa									1016.58							1016.58
FSM		114														114
Greylhound														939.88		939.88
Hammond Lane							38.88									38.88
IPR											17.14	4614.4		408.66		5040.2
Knockharley				311.48					1968.18	125.86	43321.76				49535.92	95263.2
KTK									57		360.44					417.44
Lagan									659.92							659.92
MSM							1239.88									1239.88
Multimetals							193.42									193.42
N2 Reclamation						899.36										899.36
Organic Gold									19.9							19.9
Panda, Cappagh				613.34											6458.64	6458.64
Regen													2.86			2.86
Returnbat																
Scotch														5262.8		5262.8
Veolia												60.46				60.46
Whiteriver				2927.42					1345.96		26754.24				9971.22	40998.84
Grand Total	12.48	114	1.32	15090.01	3.95	899.36	2795.95	55.18	11093.96	125.86	73920.98	4574.86	2.86	408.66	73659.98	182722.55

Appendix E

PRTR Emissions



IPTRR: W01401 Facility Name: Nurendale Limited trading as Panda Waste Services Limited Release Year: 2009
PRTR: 2003, 2004 Release Year: 2009

24/03/2010 10:12

AER Returns Worksheet

Version 4.1.10

REFERENCE YEAR	2009
-----------------------	------

1. FACILITY IDENTIFICATION

Parent Company Name	Nurendale Ltd trading as Panda Waste Services Ltd.
Facility Name	Nurendale Limited trading as Panda Waste Services Limited
PRTR Identification Number	W0140
License Number	W0140-02

Waste or IPPC Class or Activity

Waste or IPPC Class or Activity	Waste or IPPC Class or Activity
4.4	Recycling or reclamation of other inorganic materials. Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.11	Recycling or reclamation of other inorganic materials. Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.12	Recycling or reclamation of other inorganic materials. Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.13	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.
4.11	Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.
4.13	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.
4.2	Recycling or reclamation of organic substances which are not used as solvents (including compaction and other biological transformation processes).
4.3	Recycling or reclamation of metals and metal compounds.

Address 1	Rathdringagh
Address 2	Booyparc
Address 3	Navan
Address 4	County Meath

Country	Ireland
Coordinator of Location	-6.5277453,6647
River Basin District	IEEA
NACE Code	3832
Main Economic Activity	Recovery of waste materials

AER Return Contact Name	David Naughton
AER Return Contact Email Address	david.naughton@panda.ie
AER Return Contact Position	Environmental Manager
AER Return Contact Telephone Number	1850 65 65 65
AER Return Contact Mobile Phone Number	
AER Return Contact Fax Number	046 9024189

Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	0
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
50.1	General
5(c)	Installations for the disposal of non-hazardous waste
50.1	General

3. SOLVENTS REGULATIONS (S.I. No. 543 of 2002)

Is it applicable?	Yes
Have you been granted an exemption?	
If applicable which activity class applies (as per Schedule 2 of the regulations)?	
Is the reduction scheme compliance route being used?	

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CREATE AER XML RETURN & UPLOAD

4.1 RELEASES TO AIR | PRTB (V9148) Facility Name: Murrumbidgee Limited trading as Panda Waste Services Limited | PRTB 2023 and Release Year: 2023 | 24/03/2024 10:12

SECTION A: SECTOR SPECIFIC PRTB POLLUTANTS

POLLUTANT		METHOD		ADDEMISSION POINT	QUANTITY		
No. Annex II	Name	M/C/E	Method Used Method Code Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental)	F (Fugitive)
06	Ammonia (NH3)	M	Alt chromatography		331.04	331.04	0.0
ADD NEW ROW DELETE ROW * * Select rows by double-clicking on the Pollutant Name (Column B) then click the delete button.							

SECTION B: REMAINING PRTB POLLUTANTS

POLLUTANT		METHOD		ADDEMISSION POINT	QUANTITY		
No. Annex II	Name	M/C/E	Method Used Method Code Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental)	F (Fugitive)
ADD NEW ROW DELETE ROW * * Select rows by double-clicking on the Pollutant Name (Column B) then click the delete button.							

SECTION C: REMAINING POLLUTANT EMISSIONS (As required in your Licence)

POLLUTANT		METHOD		ADDEMISSION POINT	QUANTITY		
Pollutant No.	Name	M/C/E	Method Used Method Code Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental)	F (Fugitive)
237	Volatile organic compounds (as TOC)	M	Alt chromatography		0.0	0.0	0.0
220	Mercaptans	M	Alt chromatography		14.22	14.22	0.0
218	Hydrogen sulfide	M	Alt Jarman Analyser		15.23	15.23	0.0
ADD NEW ROW DELETE ROW * * Select rows by double-clicking on the Pollutant Name (Column B) then click the delete button.							

from Landfill operators

For the purposes of the National Reporting on Greenhouse Gases, landfill operators are required to provide summary data on landfill gas (LFG) used as fuel in their facilities to accompany the figures for total methane generated. Operators should only report their fuel methane (FBM) emissions in the environment under 'Total' KG/yr for Section B: Sector specific PRTB pollutants above. Please complete the table below:

Landfill: Murrumbidgee Limited trading as Panda Waste Services Limited

Please enter summary data on the quantity of methane flared and / or utilized

T (Total) kg/Year	Method Used			Facility Total Capacity m ³ per
	M/C/E	Method Code	Designation or Description	
Total estimated methane generation (as per site model)	0.0		GOMSIran	N/A
Methane flared	0.0			0.0 (Total Flaring Capacity)
Methane utilized in energy	0.0			0.0 (Total Utilising Capacity)
Net methane emission (as reported in Section A above)	0.0			N/A

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4.2 RELEASES TO WATERS | PRTB (V9148) Facility Name: Murrumbidgee Limited trading as Panda Waste Services Limited | PRTB 2023 and Release Year: 2023 | 24/03/2024 10:12

SECTION A: SECTOR SPECIFIC PRTB POLLUTANTS | Note on initial monitoring of chlorofluorocarbon compounds, conducted as part of your licence requirements, should NOT be included under this section.

POLLUTANT		METHOD		ADDEMISSION POINT	QUANTITY		
No. Annex II	Name	M/C/E	Method Used Method Code Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental)	F (Fugitive)
ADD NEW ROW DELETE ROW * * Select rows by double-clicking on the Pollutant Name (Column B) then click the delete button.							

SECTION B: REMAINING PRTB POLLUTANTS

POLLUTANT		METHOD		ADDEMISSION POINT	QUANTITY		
No. Annex II	Name	M/C/E	Method Used Method Code Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental)	F (Fugitive)
ADD NEW ROW DELETE ROW * * Select rows by double-clicking on the Pollutant Name (Column B) then click the delete button.							

SECTION C: REMAINING POLLUTANT EMISSIONS (as required in your Licence)

POLLUTANT		METHOD		ADDEMISSION POINT	QUANTITY		
Pollutant No.	Name	M/C/E	Method Used Method Code Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental)	F (Fugitive)
ADD NEW ROW DELETE ROW * * Select rows by double-clicking on the Pollutant Name (Column B) then click the delete button.							

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4.3 RELEASES TO WASTEWATER OR SEWER

PRTR01:VH001 Facility Name: Horendale Limited trading as Panda Waste Services Limited | File name: P1 24/03/2010 10:12

SECTION A : PRTR POLLUTANTS

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT		ADD EMISSION POINT		QUANTITY	
No. Annex II	Name	Emission Point 1	T (Total) KG/Year		
			T (Total) KG/Year	A (Accidental)	F (Fugitive)
06	Ammonia (NH3)	72.0	72.0	0.0	0.0
18	Cadmium and compounds (as Cd)	0.003	0.003	0.0	0.0
73	Chlorides (as Cl)	0.588	0.588	0.0	0.0
20	Copper and compounds (as Cu)	0.325	0.325	0.0	0.0
23	Lead and compounds (as Pb)	0.466	0.466	0.0	0.0
22	Nickel and compounds (as Ni)	0.15	0.15	0.0	0.0

SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT		ADD EMISSION POINT		QUANTITY	
Pollutant No.	Name	Emission Point 1	T (Total) KG/Year		
			T (Total) KG/Year	A (Accidental)	F (Fugitive)
303	BOD	1518.213	1518.213	0.0	0.0
305	Calcium	1523.835	1523.835	0.0	0.0
356	Cobalt	0.44	0.44	0.0	0.0
306	COD	55785.633	55785.633	0.0	0.0
357	Iron	237.719	237.719	0.0	0.0
320	Magnesium	61.808	61.808	0.0	0.0
321	Manganese (as Mn)	1.192	1.192	0.0	0.0
324	Mineral oils	4.376	4.376	0.0	0.0
240	Suspended Solids	0.85	0.85	0.0	0.0
343	Sulphate	0.0	0.0	0.0	0.0
358	Tin	0.035	0.035	0.0	0.0
237	Volatile organic compounds (as TOC)	5.225	5.225	0.0	0.0

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4.4 RELEASES TO LAND

Copy contents of the currently selected cells.

Facility Name: Horendale Limited trading as Panda Waste Services Limited | File name: PRTR2009.xls | Report Year: 2009 | 24/03/2010 10:12

SECTION A : PRTR POLLUTANTS

RELEASES TO LAND		METHOD		ADD EMISSION POINT		QUANTITY	
No. Annex II	Name	MIC/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	
						T (Total) KG/Year	A (Accidental) KG/Year
					0.0	0.0	0.0

SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

RELEASES TO LAND		METHOD		ADD EMISSION POINT		QUANTITY	
Pollutant No.	Name	MIC/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	
						T (Total) KG/Year	A (Accidental) KG/Year
					0.0	0.0	0.0

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Waste Origin	European Waste Code	Quantity (Tonne per Year)	Description of Waste	Waste Treatment	MPC/E	Method Used	Location of Treatment	Recovery / Recycle	Recovery / Recycle	Recovery / Recycle	Recovery / Recycle
								Facility Name	Facility Address	Facility Address	Facility Address
Within the Country	17 01 07	11237.77	Rubble	R1D	M	Weighted	Offsite in Ireland	Buildzer,Ireland			
Within the Country	20 01 01	60.46	Paper and Cardboard	R1D	M	Weighted	Offsite in Ireland	Veolia Env, W0039-02 Ballymount, Dublin 12,Ireland			
Within the Country	20 01 01	4614.4	Paper and Cardboard	R1D	M	Weighted	Offsite in Ireland	Irish Packaging and Recycling Ltd, WPR 021/2 RD, Walkinstown, Dublin 12,Ireland			
Within the Country	16 01 03	12.48	Tyres	R1D	M	Weighted	Offsite in Ireland	Farmers,Ireland			
Within the Country	16 03 04	1.14	Food Waste	R1D	M	Weighted	Offsite in Ireland	Food Surplus Management, WMP Park, Trim, Co. Meath,Ireland			
Within the Country	17 01 07	613.34	Rubble	R1D	M	Weighted	Offsite in Ireland	Panda, WPT 95 T4, Finlagan, Dublin 15,Ireland			
Within the Country	17 01 07	311.48	Rubble	R1D	M	Weighted	Offsite in Ireland	Knockharley,Ireland			
Within the Country	17 01 07	2927.42	Rubble	R1D	M	Weighted	Offsite in Ireland	Knockharley,Ireland			
Within the Country	17 04 07	3.95	Mixed Metals	R1D	M	Weighted	Offsite in Ireland	Clearway, 984510 Armagh,Ireland			
Within the Country	17 05 04	999.36	Sail and Stener	R1D	M	Weighted	Offsite in Ireland	RD, Foclomation, WMP 2004/95,Ireland			
Within the Country	19 12 03	55.18	Non Ferrous Metal	R1D	M	Weighted	Offsite in Ireland	Clearway, 984510 Armagh,Ireland			
Within the Country	19 12 02	1223.77	Farrow Metal	R1D	M	Weighted	Offsite in Ireland	Clearway, 984510 Armagh,Ireland			
Within the Country	19 12 02	38.88	Farrow Metal	R1D	M	Weighted	Offsite in Ireland	Hammond Lane Metal Co, WY 99107,Ireland			
Within the Country	19 12 02	1239.88	Farrow Metal	R1D	M	Weighted	Offsite in Ireland	MSM, W0079-02 Erato, Talisight, Dublin 24,Ireland			
Within the Country	19 12 02	193.42	Farrow Metal	R1D	M	Weighted	Offsite in Ireland	Multimet Recycling Limited, WFP-WW-09-0014-01,Ireland			
Within the Country	19 12 07	6027.42	Wood	R1D	M	Weighted	Offsite in Ireland	Farmers,Ireland			
Within the Country	19 12 07	1915.59	Wood	R1D	M	Weighted	Offsite in Ireland	Producers, P0022-02 Erato, Ballinacoy, Murrough, Wicklow, Ireland			
Within the Country	19 12 07	1963.18	Wood	R1D	M	Weighted	Offsite in Ireland	Knockharley,Ireland			
Within the Country	19 12 07	57.0	Wood	R1D	M	Weighted	Offsite in Ireland	Knockharley,Ireland			
Within the Country	19 12 07	659.92	Wood	R1D	M	Weighted	Offsite in Ireland	KTK Landfill, W0060-02 Kill, Co. Kildare,Ireland			
Within the Country	19 12 07	19.9	Wood	R1D	M	Weighted	Offsite in Ireland	Lagan Common, P0487-05 Organic Gold, WMP Erato,Ireland			
Within the Country	19 12 07	1345.96	Wood	R1D	M	Weighted	Offsite in Ireland	2002/26,Ireland			
Within the Country	19 12 09	125.86	Minerals	R1D	M	Weighted	Offsite in Ireland	Whitriver,Ireland			
Within the Country	19 12 12	17.14	Dry Recyclable	R1D	M	Weighted	Offsite in Ireland	Knockharley,Ireland			
Within the Country	19 12 12	3467.4	Mechanically Separated Waste	R1D	M	Weighted	Offsite in Ireland	Knockharley,Ireland			
Within the Country	19 12 12	3924.24	Mechanically Separated Waste	R1D	M	Weighted	Offsite in Ireland	Knockharley,Ireland			
Within the Country	19 12 12	26359.6	Mechanically Separated Waste	R1D	M	Weighted	Offsite in Ireland	Knockharley,Ireland			
Within the Country	19 12 12	29295.52	Mechanically Treated Waste	R1D	M	Weighted	Offsite in Ireland	Knockharley,Ireland			
Within the Country	19 12 12	360.44	Mechanically Treated Waste	R1D	M	Weighted	Offsite in Ireland	Knockharley,Ireland			
Within the Country	19 12 12	394.64	Mechanically Treated Waste	R1D	M	Weighted	Offsite in Ireland	Knockharley,Ireland			
Within the Country	20 03 01	939.88	Mixed Municipal Waste	R1D	M	Weighted	Offsite in Ireland	Knockharley,Ireland			
Within the Country	20 03 01	49535.92	Mixed Municipal Waste	R1D	M	Weighted	Offsite in Ireland	Knockharley,Ireland			
Within the Country	20 01 34	2.86	Batteries	R1D	M	Weighted	Offsite in Ireland	Knockharley,Ireland			
Within the Country	20 01 39	408.66	Plastic	R1D	M	Weighted	Offsite in Ireland	Knockharley,Ireland			
Within the Country	20 03 01	1467.52	Dry Recyclable	R1D	M	Weighted	Offsite in Ireland	Knockharley,Ireland			
Within the Country	20 03 01	6450.64	Dry Recyclable	R1D	M	Weighted	Offsite in Ireland	Knockharley,Ireland			
Within the Country	20 03 01	5262.8	Mixed Municipal Waste	R1D	M	Weighted	Offsite in Ireland	Knockharley,Ireland			
Within the Country	20 03 01	9971.22	Mixed Municipal Waste	R1D	M	Weighted	Offsite in Ireland	Knockharley,Ireland			
Within the Country	16 05 05	1.32	Gas Cylinders	R1D	M	Weighted	Offsite in Ireland	Knockharley,Ireland			