Carbury Compost
(W0124-01)

Drummin
Carbury
Co. Kildare

Annual Environmental Report

2010

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BSc Hons Environmental Science

CONTENTS

1.0 Reporting Period

For the Year 2010.

2.0 Waste Activities

Carbury Compost is licensed by the Environmental Protection Agency in accordance with the Fourth Schedule of the Waste Management Act 1996 for

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

Carbury Compost use chicken manure, horse manure, gypsum, inorganic source of nitrogen, straw and water to produce Phase 3 mushroom substrate at its facility.

3.0 Environmental Policy

Carbury Compost manufactures mushroom substrate for the growing of mushrooms along with growing, packaging and distributing the mushrooms. In our pursuit of producing high quality products we recognise that our activities have an impact on the environment. Because of this we are committed to the continual improvement of our environmental performance.

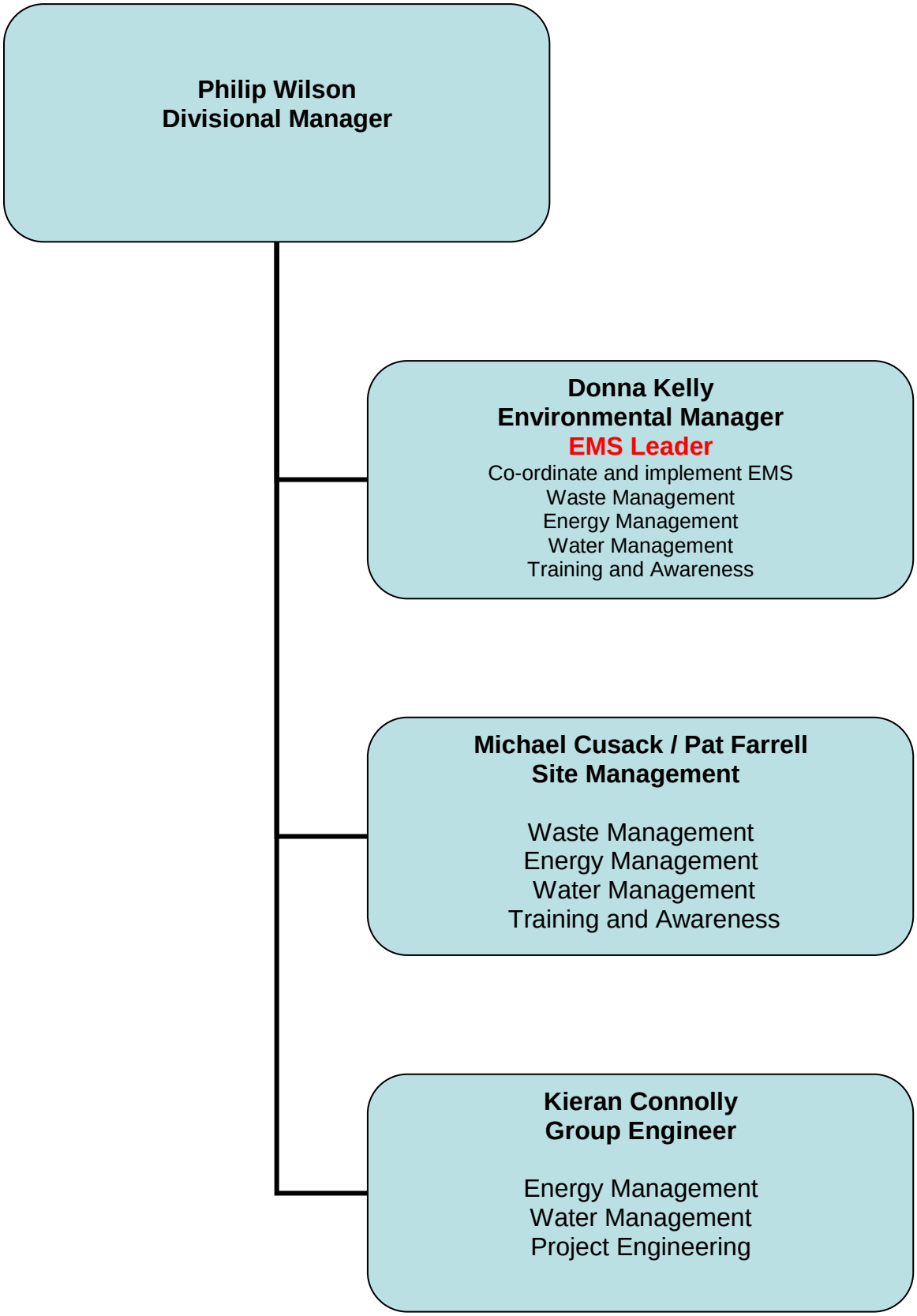
We are committed to complying with all relevant environmental legislation, regulations and other requirements. The company recognises that legislative requirements are a minimum level of performance and it is the intention of the company to exceed these requirements.

Our objectives are to: -

- Prevent pollution of land and waterways by ensuring integrity of all yard surfaces, drains and tanks and by maintaining a water monitoring programme.
- Use natural resources efficiently; monitoring all electricity, oil and water usage.
- Reduce odour generated from the site by housing the main odorous compost production operations and dispersing odorous emissions through the stack.
- Reduce waste and handle waste responsibly by monitoring volumes of waste to landfill and implementing procedures on the storage and removal of all waste.

- Manage on-site air emissions and noise generated, through regular maintenance of all boilers and noisy equipment such as electrical fans.
- Ensure that all employees are trained and continuously made aware of our environmental objectives and consistently encouraged to carry out all work practices in an environmentally friendly manner.

4.0 Management Structure



5.0 Decommissioning and Aftercare

Section *2.5* of Carbury Compost's Environmental Liabilities Risk Assessment, conducted by WYG Environmental in September 2007 outlines the *Provisions for Site Closure,* and is included below:

2.5 Provisions for Site Closure

Operations at the facility are ongoing with an open-ended lifespan. In the event of a decision to close the facility a closure plan will be developed. This plan will allow for removal of all raw materials, intermediate materials and compost from the site and cleaning of all surfaces where materials/compost had been handled or stored. A monitoring programme will be carried out on environmental media including air and water to ensure that all emissions from the facility have ceased.

It is assumed that upon closure of the site, the premises will be suitable for industrial or other use and will have a re-sale value, which will cover the costs of removal of materials/compost, site cleaning and monitoring.

When operations cease at the site it is expected that the bulk of the site infrastructure will be sold on to a prospective buyer as an asset. This will include the site buildings, offices, compost tunnels, fencing, gates, lighting, fire alarms and drainage/sewage infrastructure. The potential buyer may also require other plant equipment. However, if not, these will be sold off to other potential buyers separately or dismantled and disposed off site at a licensed facility. Other plant equipment includes generator, site machinery, oil storage tanks and bunds. All trucks will be removed off site and sold separately or disposed of appropriately.

When Operations cease at the site any residual compost/waste will be removed and disposed at relevant licensed recovery/disposal facilities. The entire site floors and walls will be power swept and washed to clear all debris and dust. Silt traps will be dislodged and interceptors cleaned out. The waste from the cleaning operations will be disposed to relevant licensed facilities. It is not anticipated that any specialist recovery or disposal will be required.

A monitoring programme of all potential emissions including surface water, foul waters and dust will be carried out after this process in order to ensure that emissions from the site have ceased. The monitoring programme will be designed to include at least two rounds of sampling carried out within two months of the decommissioning of the facility and at least two weeks apart.

Potential nuisances at the site are limited to operational emissions such as odour, dust and noise. After closure and cleaning of the site as described above and when operations have ceased and assuming confirmation from the monitoring programme that all emissions have ceased, it is expected that there will be no requirement for long term aftercare management at the site.

For more details please refer to the ELRA submitted to the EPA on 1st October 2007.

6.0 Capacity of the Facility

In 2010 Carbury Compost produced:

72,518 Tonnes – Mushroom Substrate (Phase 3).

7.0 Waste Management

7.1 Waste Received:

Table 7.1.1 Type of Waste received in Carbury Compost 2010

Waste Type	EWC Code
Poultry Manure	02 01 06
Horse Manure	02 01 06
Gypsum	17 08 02

7.2 Waste Recovered:

See **Table 7.1.1** above.

7.3 Waste Disposed:

See 'Onsite treatment & offsite transfers of waste' in Appendix A.

8.0 Water Usage

Water is provided by four groundwater wells. A total of 127,187 m^3 of water was used on the entire site in 2010. 37,716 m^3 of this was consumed in the Midlands mushroom growing farm. The remainder; 89,471 m^3 was consumed in the compost facility - an average of 7,456 m^3 of water per month, or 1,721 m^3 per week.

Mains water is supplied by Kildare County council. For the 12 month period from 30/09/2009 to 30/09/2010, 2,817 m^3 of water was used from the mains water supply.

9.0 Emissions

9.1 Water Monitoring:

Carbury Compost is required to monitor three types of water i.e. surface water, groundwater and effluent. Surface water sampling locations include SW1, RW1 and RW2. Four

groundwater monitoring locations exist; GW1, GW2, GW3 and GW4. One effluent monitoring point is situated on site; ETP-1.

Monitoring was carried out: - on surface waters in January, April, August and Nov of 2010.
- on effluent in January and September of 2010.
- on groundwaters in February and September of 2010.

9.2 Airborne Micro-Organism Monitoring:

Four Airborne Micro-Organism monitoring locations exist on the Carbury site; AB1, AB2, AB3 and AB4. During sampling, four locations are monitored: AB1 and AB2 located upwind of the facility, with AB3 and AB4 situated downwind of the facility.

Monitoring was carried out: - August 2010.

9.3 Dust Monitoring:

Four dust monitoring locations exist on the Carbury site, D1, D2, D3 and D4. Time period required to complete dust monitoring is 30 (+/- 2) days.

Monitoring was carried out: - April, May and August of 2010.

9.4 Noise Monitoring:

Monitoring was carried out: - May 2010.
- November 2010.

9.5 Boiler Emissions Monitoring:

Monitoring was carried out: - November 2010.

9.6 Biological Survey of the Cushaling River:

Monitoring is required every two years. As monitoring was completed in 2009, it was not required in 2010.

10.0 Results and Interpretation

10.1 Surface waters

Table 10.1.1 Surface Water Monitoring Results for Carbury Compost 2010

	SW1			
	25.01.10	**22.04.10**	**12.08.10**	**23.11.10**
pH	7.23	7.24	7.46	7.39
Conductivity	606	310	670	560
D.O (mg/l)	7.10	4.90	4.00	5.60
Temp (^oC)	14.5	14.2	15.8	13.0
Suspended Solids (mg/l)	12.8	4.8	13.0	21.6
BOD (mg/l)	2.0	2.6	7.0	3.2
COD (mg/l)	41.0	68.0	113.0	71.0
Nitrates (mg/l N)	12.50	1.38	0.85	3.20
Total P (mg/l P)	0.34	0.48	0.73	0.34
Ammonia (mg/l N)	0.760	0.830	1.600	1.281
Sulphate (mg/l SO4)	25	20	32	32

Table 10.1.2 River Water Monitoring Results for Carbury Compost 2010

	RW1				RW2			
	25.01.10	**22.04.10**	**12.08.10**	**23.11.10**	**25.01.10**	**22.04.10**	**12.08.10**	**23.11.10**
pH	7.37	7.33	7.55	7.52	7.35	7.38	7.56	7.51
Conductivity	486	258	466	447	476	251	455	432
D.O (mg/l)	8.10	8.30	7.10	8.30	8.20	8.50	7.20	8.50
Temp (^oC)	13.8	14.6	15.1	12.8	13.8	14.6	15.1	12.8
Suspended Solids (mg/l)	8.8	6.0	7.2	8.8	7.2	6.8	6.6	13.2
BOD (mg/l)	1.5	2.2	2.1	1.8	1.6	2.2	2.0	1.6
COD (mg/l)	28.0	56.0	41.0	67.0	31.0	58.0	43.0	53.0
Nitrates (mg/l N)	6.50	0.95	0.60	1.00	5.80	1.14	0.14	0.90
Total P (mg/l P)	0.12	0.22	0.27	0.06	0.07	0.29	0.21	0.07
Ammonia (mg/l N)	0.088	0.023	0.086	0.092	0.087	0.034	0.067	0.088
Sulphate (mg/l SO4)	13	12	8	16	10	10	10	15

As per Schedule ***E.5 Surface Water*** of the Waste Licence, surface water monitoring was conducted during 2010. Results are displayed in **Tables 10.1.1 and 10.1.2** above. Water leaving the effluent treatment plant (puroflo) is discharged into the piped stream and enters the Cushaling River at SW1. Sampling points RW1 and RW2 are located 30m downstream and 30m upstream of SW1 respectively.

All results for SW1 (**Table 10.1.1**) were within specified limits. Results downstream of SW1 were quite consistent with results upstream of SW1 (**Table 10.1.2**), indicating no adverse impact from the discharge point on the quality of the Cushaling River.

10.2 Effluent

Table 10.2.1 Effluent Monitoring Results for Carbury Compost 2010

	ETP1	
	25.01.10	**01.09.10**
pH	6.92	6.06
BOD	11.0	5.0
Suspended Solids	18.0	21.5
Total Ammonia (mg/l N)	3.90	4.30
Orthophosphate (as P)	0.92	0.41
Total P (mg/l P)	1.29	0.46
Oils, Fats, Grease	2.6	1.2

As per Schedule ***E.8 Effluent Treatment Monitoring*** of the Waste Licence, Effluent Treatment Plant discharge monitoring was conducted during 2010. Results of which are displayed in **Table 10.2.1** above. All results fell within licence limits.

For total discharge loadings for 2010 see 'Releases to Water' in Appendix A.

10.3 Ground water

Table 10.3.1 Groundwater Monitoring Results (GW1) for Carbury Compost 2010

	GW1	
	25.02.10	**01.09.10**
pH	7.3	7.92
TOC	<5	<5
Ammonia (mg/l N)	0.045	0.086
Nitrates (mg/l N)	2.4	0.5
Sulphate (mg/l SO4)	21	22
Conductivity	404	521
Total Coliforms (per 100ml)	Absent	Absent
Faecal Coliforms(per 100ml)	Absent	Absent

Table 10.3.2 Groundwater Monitoring Results (GW2) for Carbury Compost 2010

	GW2	
	25.02.10	**01.09.10**
pH	7.25	7.79
TOC	<5	<5
Ammonia (mg/l N)	0.041	0.089
Nitrates (mg/l N)	16.2	6.2
Sulphate (mg/l SO4)	398	37
Conductivity	820	724
Total Coliforms (per 100ml)	Absent	Absent
Faecal Coliforms(per 100ml)	Absent	Absent

Table 10.3.3 Groundwater Monitoring Results (GW3) for Carbury Compost Limited 2010

	GW3	
	25.02.10	**01.09.10**
pH	7.21	7.09
TOC	<5	<5
Ammonia (mg/l N)	0.530	0.523
Nitrates (mg/l N)	1.0	0.2
Sulphate (mg/l SO4)	271	35
Conductivity	650	631
Total Coliforms (per 100ml)	Absent	Absent
Faecal Coliforms(per 100ml)	Absent	Absent

Table 10.3.4 Groundwater Monitoring Results (GW4) for Carbury Compost 2010

	GW4	
	31.03.10	**01.09.10**
pH	7.33	7.53
TOC	<5	<5
Ammonia (mg/l N)	0.304	0.485
Nitrates (mg/l N)	0.8	0.3
Sulphate (mg/l SO4)	494	14
Conductivity	358	435
Total Coliforms (per 100ml)	Absent	Absent
Faecal Coliforms(per 100ml)	Absent	Absent

As per Schedule ***E7 Groundwater Monitoring*** of the Waste Licence groundwater monitoring was conducted on two occasions during 2010. Results are displayed in **Tables 10.2.1**, **10.3.2**, **10.3.3 and 10.3.4** above. It is planned to continue with the biannual monitoring of groundwater in 2011.

10.4 Airborne Micro-Organisms

Table 10.4.1 Airborne Micro-Organism Results for Carbury Compost 2010

Monitoring Location	Mesophillic Bacteria cfu/m^3		Aspergillus fumigatus cfu/m^3	
	Sample 1	Sample 2	Sample 1	Sample 2
AB1 Upwind	403	481	0	0
AB2 Nearest Sensitive Receptor Upwind	198	311	0	7
AB3 Downwind of straw bales and water storage tank	4276	1788	912	85
AB4 Downwind of new bunkers and bale breaking line	940	247	155	7
Control Sample	0	-	0	-
Typical Reported Concentrations at Compost Facilities	10,000 - 10,000,000		0 - 10,000	

As per Schedule ***E.3 Airborne Microbes*** of the Waste Licence, Airborne Micro-Organism monitoring was conducted on 09/08/10. Results of which are displayed in **Table 10.4.1** above.

A South Westerly wind was evident on the day and four sampling locations were chosen accordingly, two upwind of the facility (AB1 and AB2), and two downwind of the facility (AB3 and AB4). At each sample location two samples for Mesophillic Bacteria analysis and two samples for Aspergillus fumigatus analysis were taken. At location AB4, a control sample was also taken.

Concentrations of Mesophillic Bacteria at AB1, upwind of the facility was recorded in the range of 403 cfu/m^3 - 481 cfu/m^3. No Aspergillus fumigatus was recorded at this location. These results act as an indicator of the background levels of bio-aerosols present naturally in the environment. Slightly lower concentrations of Mesophillic Bacteria were recorded at AB2 (upwind at nearest sensitive receptor); in the range of 198cfu/m^3 - 311 cfu/m^3. 7 cfu/m^3 Aspergillus fumigatus was also recorded at this location. Highest concentrations of Mesophillic Bacteria (1788 cfu/m^3 - 4276 cfu/m^3) and Aspergillus fumigatus (85 cfu/m^3 - 912 cfu/m^3) were recorded at AB3, directly downwind of the straw bales. These levels reduced however at AB4, downwind of the bunkers; with recorded levels of 247 cfu/m^3 – 940 cfu/m^3

Mesophillic Bacteria and 7 cfu/m^3 – 155 cfu/m^3 Aspergillus fumigatus. These results are lower than the typical concentrations present at compost facilities. It can hence be concluded that Carbury Compost is not adversely impacting on the environment in relation to airborne micro-organisms. The enclosure of many of the phase 1 operations will also aid in reducing levels even further. For more details please refer to monitoring report submitted to the EPA on 28 October 2010.

10.5 Dust

Table 10.5.1 Dust Monitoring Results for Carbury Compost 2010

Monitoring Location	Survey Period 31/03/10 - 28/04/10	Dust Deposition (mg/m2/day)
D1	29 Days	17.2
D2		40.2
D3		86.1
D4		28.7

Table 10.5.2 Dust Monitoring Results for Carbury Compost 2010

Monitoring Location	Survey Period 13/05/10 - 11/06/10	Dust Deposition (mg/m2/day)
D1	29 Days	22.2
D2		33.3
D3		188.5
D4		138.6

Table 10.5.3 Dust Monitoring Results for Carbury Compost 2010

Monitoring Location	Survey Period 05/08/10 - 02/09/10	Dust Deposition (mg/m2/day)
D1	28 Days	155
D2		189.5
D3		120.6
D4		155

Tables 10.5.1, **10.5.2** and **10.5.3** above display dust deposition results from monitoring conducted at Carbury Compost in April 2010, May/June 2010 and August 2010. All results are below the limit of 350 mg/m^2/day. For more details please refer to the monitoring reports submitted to the EPA on 25 June 2010, 06 August 2010 and 15 October 2010.

10.6 Noise

Table 10.6.1 Noise Monitoring Results for Carbury Compost May 2010

Day-time Results - 17th May 2010

Monitoring Location	Survey Time	L_{Aeq} dB	L_{A10} dB	L_{A90} dB	Noise Environment
NSL 1	10.30 - 11.00	57.8	61.3	48.6	Dominant noise was from regular traffic along the R402 during the noise survey. Background noise consisted of noise from the fans from Carbury Compost facility, a rookery in trees behind mobile homes and birdsong was almost constant.

Night-time Results - 17th May 2010

Monitoring Location	Survey Time	L_{Aeq} dB	L_{A10} dB	L_{A90} dB	Noise Environment
NSL 1	22.30 - 22.45	55.7	58.8	44.5	Frequent traffic along R402 (in excess of 25-30 vehicles over the monitoring period). There was slight rattle from the fans at the Carbury Compost facility and a low hum noise from the plant.

Table 10.6.2 Noise Monitoring Results for Carbury Compost November 2010

Day-time Results - 16th Nov 2010

Monitoring Location	Survey Time	L_{Aeq} dB	L_{A10} dB	L_{A90} dB	Noise Environment
NML 1	11.35 - 12.05	70.1	72.4	66.2	Dominant noise was from regular traffic along the R402 during the noise survey. Approx. 2-3 cars a minute passed the survey point during the 30 min survey. Background noise consisted of low humming noise from the fans at Carbury.

Night-time Results - 25th Nov 2010

Monitoring Location	Survey Time	L_{Aeq} dB	L_{A10} dB	L_{A90} dB	Noise Environment
NML 1	22.30 - 22.35	58.6	61.5	46	Frequent traffic along R402 (in excess of 21-25 vehicles over the monitoring period). There was very low humming noise from the fans at the Carbury facility and a low hum noise from the plant. This was noted to be only faintly audible.

Noise monitoring was carried out in May and November 2010, results of which are displayed in **Tables 10.6.1 and 10.6.2** above respectively. The L_{Aeq} results indicate the influence of non site related traffic on noise levels at NSL1. The L_{A90} is a good measure of background noise levels. In May the day-time noise was measured at 48.6dB; below the limit of 55dB. The night-time noise was measured at 44.5dB; below the limit of 45dB. During the November monitoring, an extremely high number of passing cars were noted; during both the day time and night time monitoring periods. As a result, a noise level of 66.2dB was recorded during the day and 46dB during the night, both of which were above the licence limits. It was concluded that noise from the Carbury facility itself, was significantly less than the 55dB and 45dB limits. For more details please refer to monitoring reports submitted to the EPA on 25 June 2010 and 07 January 2011.

10.7 Boiler Emissions

Table 10.7.1 Boiler Emission Results for Carbury Compost, November 2010.

Efficiency	83.9%
Oxides of sulphur	183 mg/m^3
Nitrogen oxides	426 mg/m^3
CO	18 mg/m^3

Results in **Table 10.7.1** above shows that SO2 concentration was measured at 183 mg/m^3 (Limit: 1700 mg/m^3), with NOx measured at 426 mg/m^3 (Limit: 750 mg/m^3) and CO measured at 18 mg/m^3 (Limit: 200 mg/m^3). For total boiler emissions for 2010 see 'Releases to Air' in Appendix A.

11.0 Resource and Energy Consumption

Electricity consumption in 2010 was 7,406,221 kWh. There was an increase of 40,948 kWh in 2010 from the 2009 figure of 7,365,273 kWh (0.6 % increase).

Fuel consumption in 2010 was 3,570,398 kWh. There was a decrease of 457,114 kWh in 2010 from the 2009 figure of 4,027,512 kWh (11.4 % decrease).

12.0 Proposed Development of Carbury Compost

As a result of the new development, currently in place are:

- New enclosed bunkers for the production of phase 1 mushroom substrate
- A new building to facilitate the indoor storage of raw materials
- A new building to facilitate the indoor blending of raw materials
- A new comprehensive air collection system
- A new 40m stack for the dispersion of all air collected
- A telemetry system for the continuous monitoring required under Condition 3.16.1
- New hard surfaced phase 1 yard area
- New underground dunking tank
- New over ground tanks for separate storage of clean water and process water.

13.0 Environmental Objectives and Targets for 2010

Summary of targets completed during 2010 include:

- The new enclosed bunkers for indoor phase 1 production
- The new building for indoor storage of raw materials
- The new building for indoor blending of raw materials
- The new air collection system
- The new 40m dispersion stack
- The new continuous monitoring system of all phase 1 substrate
- The new phase 1 yard area including new dunking tank and drainage network
- The new process water storage tank

- All required monitoring of water, dust, noise, odour, airborne micro-organisms and boiler emissions.

14.0 Environmental Objectives and Targets for 2011

Objective: Prevent pollution of land and waterways

EMP No: 1	**Responsibility:** Site Manager- Michael Cusack	**Start Date:** March 2011
		Review Dates: March 2012

Target:
95% integrity of Phase I yard surface drainage by July 2010
Divert 100% of compost yard drainage to the storage tank by May 2010
Meet parameters set by EPA on Effluent Discharge and Surface Water
Monitor ammonia levels in groundwater, comparing with 2010 results

Indicator:
Phase I activities indoors.
Areas of yard newly concreted.
% of compost yard drains diverting drainage to the storage tank
Monitoring records

Task No	Details	Due Date	By Whom	Status
1	Resurface Phase 1 area of yard and make improvements in other areas if required	**July 10**	**SC**	**Complete**
2	Remove old drains and replace with new drains. Divert drains from Phase I area to the storage tank drainage system	**May 10**	**SC**	**Complete**
3	Conduct all monitoring; surface water, groundwater and treated effluent discharge	**Aug 07**	**DK**	**Continual**
4	Integrity test tanks and bunds	**Dec 09**	**DK**	**Complete**
5	Drill fourth ground water monitoring borehole	**Dec 09**	**SC**	**Complete**
6	Investigate and construct new storage tank	**May 10**	**SC/KC**	**Complete**
7	Resurface and re-organise old Phase 1 yard including old dunking tank	**Dec 11**	**SC/KC**	
8	Continue monitoring ammonia in groundwater, as recommended in WYG report.	**N/A**	**DK/MC**	

Reviewed by: D. Kelly Date: 15.03.11

Objective: Use natural resources efficiently

EMP No: 2	**Responsibility:** Environmental Manager - Donna Kelly	**Start Date:** March 2011
		Review Dates: March 2012

Target: Monitor all natural resource usage (water, electricity and oil consumption).

Indicator:
KwH of electricity used per unit of production
Oil usage
Volume of water used

Task No	**Details**	**Due Date**	**By Whom**	**Status**
1	Monitor electricity, oil and water usage	**N/A**	**DK**	**Continual**
2	Carry out efficiency test on small boiler	**N/A**	**DK**	**Continual**

Reviewed by: D. Kelly Date: 15.03.11

Objective: Reduce odour from the site

EMP No: 3	**Responsibility:** Site Manager - Michael Cusack	**Start Date:** March 2011
		Review Dates: March 2012

Target:
Cover all high odour sources – Phase I material and poultry manure by April 2010
Fully aerate the Phase I material and monitor oxygen levels by April 2010
Collect all air emissions and disperse through a stack by August 2010
Aerate, screen and cover process water storage tank
Monitor and analyse Hydrogen Sulphide and Dimethyl Sulphide levels

Indicator:
Phase I bunkers and raw material storage hall
Oxygen monitoring record
Air collection ducting system and stack
Tank aeration system, screen and cover
Sulphide monitoring record

Task No	**Details**	**Due Date**	**By Whom**	**Status**
1	Undertake demolition of existing buildings	**Sept 08**	**SC**	**Complete**
2	Construct building for poultry manure storage and bunkers for Phase I process	**Dec 09**	**SC**	**Complete**
3	Design and install air handling ducting for storage hall and Phase I bunkers	**Dec 09**	**SC**	**Complete**
4	Design and construct stack for dispersion of air	**August 10**	**SC**	**Complete**
5	Monitor Hydrogen Sulphide and Dimethyl Sulphide levels	**August 07**	**PF/MC**	**Continual**
6	Connect air collection system from storage hall, mixing hall and bunkers to the stack	**August 10**	**SC**	**Complete**
7	Install a screen and aeration system in new process water storage tank	**March 11**	**SC**	**Complete**
8	Design and install suitable cover for process water storage tank	**June 11**	**SC**	

Reviewed by: D. Kelly Date: 15.03.11

Objective: Reduce waste and handle waste responsibly

EMP No: 4	**Responsibility:** Environmental Manager - Donna Kelly	**Start Date:** March 2011
		Review Dates: March 2012

Target:
Reduce volume waste to landfill – compare 2007/2008/2009/2010 Waste Info
Adequate consignment notes for all hazardous waste leaving the site
100% of waste stored in labelled and leak-proof containers

Indicator:
Tonnage of waste to landfill in 2007, 2008, 2009 and 2010
Consignment notes for hazardous waste
Waste containers on site which are labelled and leakproof

Task No	**Details**	**Due Date**	**By Whom**	**Status**
1	Identify reputable contractor to collect hazardous wastes	**Sept 07**	**DK**	**Complete**
2	Request copies of all waste contractors WCP and Waste Licences	**Sept 07**	**DK**	**Complete**
3	Retain record of all waste collections for the site	**Sept 07**	**DK**	**Continual**
4	Provide leak proof, bunded and labelled tanks for collecting waste oil	**Sept 07**	**MC/DK**	**Complete**
5	Provide leakproof containment for oil filters in the garage area.	**Dec 07**	**MC/DK**	**Complete**
6	Develop waste disposal procedure for hazardous and non-hazardous wastes	**Sept 07**	**DK**	**Complete**
7	Provide recycling bins in office and canteen areas and erect recycling notices	**Mar 10**	**DK**	**Complete**

Reviewed by: D. Kelly Date: 15.03.11

15.0 Complaints and Incidents

35 complaints were received in 2010 regarding odour emissions from the facility.

Table 15.1 Complaint details for Carbury Compost 2010

Complainant	No. of complaints received
Marie Cassidy	11
Mary Griffin	10
Paul Kelly	6
Regina Dempsey	4
Angela Kinsella	2
Seamus Langan	1
Helen Brereton	1

No incidents as outlined in ***Condition 8 Contingency Arrangements*** occurred during 2010.

16.0 Nuisance Controls

A pest control system is in place in Carbury Compost, run by Ecolab. Ecolab conduct regular checks on the vermin controls on the site, and a maintenance record is updated accordingly.

All Vehicles entering and leaving the site are inspected to ensure that they are appropriately covered.

Other nuisances are assessed and recorded daily.

17.0 Costs

Costs for environmental reports and monitoring completed in 2010 was c. €30,000 +VAT. Costs of new development to date is c. €17.5 million +VAT; c. €10 million of which was spent on the new phase 1 facility.

18.0 Staff Training

Staff training is on-going. Training is conducted to maintain awareness with employees of our environmental objectives and targets and how they can be achieved. Posters and procedures have been erected in target areas.

Guidance to completing the PRTR workbook

AER Returns Workbook

Version 1.1.11

REFERENCE YEAR	2010

1. FACILITY IDENTIFICATION

Parent Company Name	Carbury Compost Limited
Facility Name	Carbury Compost Limited
PRTR Identification Number	W0124
Licence Number	W0124-01

Waste or IPPC Classes of Activity

No.	class_name
4.2	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).

Address 1	Drummin
Address 2	Carbury
Address 3	County Kildare
Address 4	
Country	Ireland
Coordinates of Location	-6.92445 53.32
River Basin District	IESE
NACE Code	3832
Main Economic Activity	Recovery of sorted materials
AER Returns Contact Name	Donna Kelly
AER Returns Contact Email Address	d.kelly@monaghan-mushrooms.com
AER Returns Contact Position	Environmental Manager
AER Returns Contact Telephone Number	046 955 3992
AER Returns Contact Mobile Phone Number	0876821395
AER Returns Contact Fax Number	046 955 2422
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

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

Is it applicable?	No
Have you been granted an exemption ?	No
If applicable which activity class applies (as per Schedule 2 of the regulations) ?	0
Is the reduction scheme compliance route being used ?	0

4.2 RELEASES TO WATERS

Link to previous years emissions data

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this only concerns Releases from your facility

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT					QUANTITY			
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING PRTR POLLUTANTS

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT					QUANTITY			
			Method Used		Effluent Treatment Plant			
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
13	Total phosphorus	M	PER	EPA 365.2	3.07	3.07	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

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

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT					QUANTITY			
			Method Used		Effluent Treatment Plant			
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
238	Ammonia (as N)	M	PER	EPA 350.1	14.37	14.37	0.0	0.0
303	BOD	M	PER	ISO 5815-1:2003	28.03	28.03	0.0	0.0
314	Fats, Oils and Greases	M	PER	EPA 1664A	6.66	6.66	0.0	0.0
332	**Ortho-phosphate (as PO4)**	M	PER	EPA 365.2	2.33	2.33	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

4.1 RELEASES TO AIR Link to previous years emissions data | PRTR# : W0124 | Facility Name : Carbury Compost Limited | Filename : W0124_2010(1).xlsx | Return Year : 2010 | 24/05/2011 11:10

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD				QUANTITY		
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING PRTR POLLUTANTS

RELEASES TO AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD				QUANTITY		
			Method Used		Small Boiler			
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
03	Carbon dioxide (CO2)	E	ESTIMATE	0	0.639	0.639	0.0	0.0
08	Nitrogen oxides (NOx/NO2)	E	ESTIMATE	0	27.914	27.914	0.0	0.0
11	**Sulphur oxides (SOx/SO2)**	E	ESTIMATE	0	8.038	8.038	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

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

RELEASES TO AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD				QUANTITY		
			Method Used					
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

Additional Data Requested from Landfill operators

For the purposes of the National Inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methane) flared or utilised on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under T(total) KG/yr for Section A: Sector specific PRTR pollutants above. Please complete the table below:

Landfill: Carbury Compost Limited

Please enter summary data on the quantities of methane flared and / or utilised			Method Used			
	T (Total) kg/Year	**M/C/E**	**Method Code**	**Designation or Description**	**Facility Total Capacity m3 per hour**	
Total estimated methane generation (as per site model)	0.0				N/A	
Methane flared	0.0				0.0	(Total Flaring Capacity)
Methane utilised in engine/s	0.0				0.0	(Total Utilising Capacity)
Net methane emission (as reported in Section A above)	0.0				N/A	

4.3 RELEASES TO WASTEWATER OR SEWER

Link to previous years emissions data

SECTION A : PRTR POLLUTANTS

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

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

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used					
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

| PRTR# : W0124 | Facility Name : Carbury Compost Limited | Filename : W0124_2010(1).xlsx | Return Year : 2010 | 24/05/2011 11:10

Please enter all quantities on this sheet in Tonnes 3

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	17 04 05	No	19.06	iron and steel	R4	M	Weighed	Offsite in Ireland	Hegarty Metal Processors Ltd,KE/24C05C	.,Ballysimon Road,Limerick,.,Ireland		
To Other Countries	16 01 07	Yes	0.2	oil filters	R4	M	Weighed	Abroad	Enva Ireland Ltd,KE/41C/05C	Clonminam Industrial Estate,Portlaoise,Co. Laois,.,Ireland	R.D. Recycling,.,.,.,.,.,Belgium	.,.,.,.,Belgium
Within the Country	13 02 08	Yes	5.16	other engine, gear and lubricating oils	R9	M	Volume Calculation	Offsite in Ireland	Enva Ireland Ltd,KE/41C/05C	Clonminam Industrial Estate,Portlaoise,Co. Laois,.,Ireland	Enva Ireland Ltd,KE/41C/05C,.,Clonminam Industrial Estate,Portlaoise,Co. Laois,Ireland	.,Clonminam Industrial Estate,Portlaoise,Co. Laois,Ireland
Within the Country	20 03 01	No	62.63	mixed municipal waste	D1	M	Weighed	Offsite in Ireland	Concrete Recycling Specialist Ltd,KE/441C/07B	.,Barnan Rhode,Co. Offaly,.,Ireland		
Within the Country	20 03 01	No	17.16	mixed municipal waste	D1	M	Weighed	Offsite in Ireland	Oxigen Environmental Ltd,KE/027C/02B	Ballymount Industrial Estate,Ballymount Road Lower,Clondalkin,Dublin 22,Ireland		
To Other Countries	17 06 05	Yes	129.96	construction materials containing asbestos (18)	D1	M	Weighed	Abroad	Oxigen Environmental Ltd,KE/027C/02B	Ballymount Industrial Estate,Ballymount Road Lower,Clondalkin,Dublin 22,Ireland	.,.,.,.,.,.,Germany	.,.,.,.,Germany

* Select a row by double-clicking the Description of Waste then click the delete button

Link to previous years waste data
Link to previous years waste summary data & percentage change