

## Annual Environmental Report

**Name:** McGill Environmental Systems (Ireland) Limited

**Address:** Coom, Glenville, Co. Cork

**Waste Licence:** W0180-01

**Reporting Period:** January 1<sup>st</sup> 2012 – December 31<sup>st</sup> 2012

**Signed:** 

Fiona O'Sullivan

## **Summary:**

McGill Environmental Systems (Ireland) Limited operate a composting facility at Coom, Glenville, Co Cork, Waste licence W0180-01.

McGill Environmental Systems (Ireland) Ltd. (McGill) was founded by Jim McGill in Ireland in 1996. McGill specializes in the composting of non-hazardous industrial and sewage sludges, and other non-hazardous biodegradable materials. McGill will compost any biodegradable material provided it meets stringent regulatory requirements as well as McGill's own waste acceptance criteria.

The company operates three indoor composting facilities in Castletownroche and Glenville, Co. Cork, and Cappoquin, Co. Waterford.

McGill specialises in the recovery of biodegradable materials through the process of industrial composting. McGill operate the industrial composting facilities using a controlled static pile, forced aeration system. The process takes place completely indoors. The incoming wastes are mixed with dry finished compost and other dry amendments. The McGill method is based on a scientific enhancement of the natural composting process that creates and maintains an environment conducive to the proliferation of specific microbial populations. These microbes are responsible for biodegradation and, when provided with the right balance of moisture, temperature, and oxygen are able to affect the rapid decay of organic material.

McGill received Animal By Products approval in March 2011 following a six month validation period with the Department of Agriculture, Fisheries and Food. McGill's feedstocks moved significantly towards Animal By Products material during the past two years as a lot of Local Authorities and Industries have reverted to landspreading of their sludges which would have accounted for a significant portion of McGill's incoming waste to date.

McGill have implemented an Environmental Policy in the company which covers all three of composting facilities.

The attached Environmental Report covers the period 1<sup>st</sup> January 2012 to 31<sup>st</sup> December 2012.

**1.0 Waste activities carried out at the facility and quantity/composition of waste received, disposed of and recovered during the reporting period:**

Attached are summary sheets with details of:

All wastes accepted during the year – details of Animal By Products Material Accepted on site is kept separate to other waste.

All amendments accepted during the year

All material moved of site during the reporting period

A weighbridge log is available with details of all loads

*See Attachment 1*

## **2.0 Emissions and results of environmental monitoring**

A monitoring plan is attached.

- Compost Analysis summary reports for metals and pathogens are attached
- Sludge Analysis Report is attached. All sludges were analysed on a quarterly basis
- McGill conducted dust monitoring on site for four different 28 day periods during 2012.
- Odour Monitoring Ireland were on site on 22<sup>nd</sup> June 2012 and again on 20<sup>th</sup> November 2012 to conduct PM10 and Bioaerosol monitoring. The results of both these visits showed that there are no significant bioaerosol impacts in the vicinity of the facility and the ambient air concentration levels of PM10 were below the statutory 24-hour average ambient air concentration level of 50ug m3.
- Biofilter sampling was conducted as per the licence requirement and a summary sheet and full methodology is attached. There were no environmental concerns with the results.
- Groundwater sampling was conducted as per the licence requirement and a summary sheet is attached. There were no environmental concerns with the results.
- Surfacewater sampling was conducted as per the licence requirement and a summary sheet is attached. There were no environmental concerns with the results.

*See Attachment 2*

### **3.0 Resource and energy consumption summary**

**Water usage:** 310m<sup>3</sup> for the reporting period.

**Diesel Usage:** 31963 litres of diesel was used during the reporting period to operate equipment in the facility.

**Electricity Usage:** McGill have used 791441 Kwh of electricity at the facility during the reporting year

### **4.0 Report on development works undertaken during the reporting period, and a timescale for any proposed for the coming year.**

There were no development works on site during 2012 and there are no proposed developments for 2013.

### **5.0 Environmental Management Programme**

The Environmental Management Programme is attached. This programme was updated in January 2012 as part of the annual EMS update

*See Attachment 3*

## **6.0 Reported Incidents and Complaints summaries**

McGill received six complaints during the reporting period. All six were made by the one neighbour who contacted Niall Carroll or Fiona O’Sullivan of McGill. Each of these complaints was followed up and responded to immediately.

There were no reportable incidents during the reporting period.

## **7.0 Financial provisions made under this licence**

McGill have put financial provisions of €91875 in place to cover any Environmental Risk or Closure costs associated with the site. This was looked at during the year and it was determined that there was no additional risks. As per the decommissioning and aftercare plan McGill have a provision of €50,625 and as per the Environmental Liability Risk Assessment McGill have a provision of €41,250. These provisions are in the form of a guarantee from McGill Compost, USA, parent company of McGill Environmental Systems (Ireland) Limited

## **8.0 Management Structure**

The Management and Staffing Structure for the facility are attached

*See Attachment 4*

## **9.0 Information Programme**

The Programme for Public information is attached

*See Attachment 5*

## **10.0 Foul Water Movement**

McGill transported 346.72 tonnes of water from the Biofilter to Mallow WWTP and 374.22 tonnes of water from the Biofilter to Fermoy WWTP during the reporting year.

## **Attachment 1**



**Waste Licence W0180-01**

**Reporting Period 1st January 2012 - 31st December 2012**

**Incoming Waste Material (Non Animal By Products)**

<b>EWC Code</b>	<b>Description</b>	<b>Tonnage</b>
020204	SLUDGES FROM ON SITE EFFLUNT TREATMENT	229.3
020502	DAIRY INDUSTRY	519
020704	DRINKS INDUSTRY	188.96
020705	DRINKS INDUSTRY	56.38
030305	PAPER INDUSTRY	12.08
070599	WASTE LEAVES	653
070599	WASTES NOT OTHERWSIE SPECIFIED	396.94
070699	COSMETICS INDUSTRY	148.62
190805	WASTE WATER TREATMENT PLANT	69.36
200125	EDIBLE OILS AND FATS	281.6
200304	MUNICIPAL WASTE	46.6
		<b>2601.84</b>

**Incoming Waste Material (Animal By Products)**

<b>EWC Code</b>	<b>Description</b>	<b>Tonnage</b>
191212	ORGANIC FINES	12244.58
		<b>12244.58</b>

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**Material Removed from Site**

<b>Product</b>	<b>Destination</b>	<b>Quantity (tonnes)</b>
CLO- Stabilised MSW Fines 190599	Daily Landfill Cover	2200.56
CLOR- Oversize Inorganic Material 190599	Landfill Void	5857.84
<b>Total</b>		<b>8058.4</b>

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**Incoming Amendment**

<b>Amendment</b>	<b>Quantity (tonnes)</b>
SAWDUST	<b>564.56</b>
STRAW	<b>5.12</b>
WOODCHIP	<b>977.9</b>
<b>Total</b>	<b>1547.58</b>

## **Attachment 2**

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**Trace Element Results**

		<b>Cadmium</b>	<b>Chromium</b>	<b>Copper</b>	<b>Lead</b>	<b>Mercury</b>	<b>Nickel</b>	<b>Zinc</b>	<b>PAH</b>	<b>PCB's</b>
<b>Class I Standard</b>		<b>0.7</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>0.5</b>	<b>50</b>	<b>200</b>		
<b>Class II Standard</b>		<b>1.5</b>	<b>150</b>	<b>150</b>	<b>150</b>	<b>1</b>	<b>75</b>	<b>400</b>		
<b>Stabilised Biowaste</b>		<b>5</b>	<b>600</b>	<b>600</b>	<b>500</b>	<b>5</b>	<b>150</b>	<b>1500</b>		
<b>McGill Reference</b>	<b>Lab Reference</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>	<b>mg/kg</b>
GLV Q1-12	0360/272/01	<0.01	8.404	93.366	83.558	0.198	51.369	336.55	<0.05	<0.005
GLV Q2-12	0360/248/03	0.152	2.248	46.016	13.986	0.23	2.908	84.77	<0.05	<00005
GLV Q3-12	0360/285/12	<0.01	2.053	9.231	18.873	0.0057	7.226	243.71	<0.05	<0.005
GLV Q4-12	0360/290/01	0.329	9.625	67.387	67.737	0.226	94.746	454.73	<0.05	<0.05

All samples were tested by Euro Environmental Services, Drogheda

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**Stability Results**

	<b>Parameter</b>	AT4
	<b>Unit</b>	mg O2 g
	<b>Method Ref:</b>	Oxitop
	<b>Upper Limit</b>	10
<b>Lab Sample No.</b>	<b>McGill Reference</b>	
GW120106	Batch ABP25 Sample 2	1.91
GW120204	Batch ABP27 Sample 1	2.29
GW120306	Batch ABP28 Sample 1	1.8
GW120407	Batch ABP31 Sample 2	1.3
GW120524	Batch ABP34 Sample 2	9.52
GW120606	Batch ABP37 Sample 1	1.2
GW120608	Batch ABP36 Sample 1	4.9
GW120711	Batch ABP37 Sample 1	2.14
GW120712	Batch ABP38 Sample 1	6.35
GW120804	Batch ABP39 Sample 1	1.5
GW120910	Batch ABP40 Sample 1	2
GW121015	Sample 1 12/10/12	2.2
GW121105	Sample 01-11-12	1.3

All samples were tested by Bord Na Mona, Newbridge, Co. Kildare

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**Pathogen Testing**

McGill Ref:	Certificate No.	Lab Ref:	Result Salmonella per 25g	Result Ecoli CFU/g
Batch Jan 12 Sample 1	726586	54/22077	Not Detected	
Batch Jan 12 Sample 2	726586	54/22078	Not Detected	
Batch Jan 12 Sample 3	726586	54/22079	Not Detected	
Batch Jan 12 Sample 4	726586	54/22080	Not Detected	
Batch Jan 12 Sample 5	726586	54/22081	Not Detected	
Compost Sample 1 Batch ABP28	733115	54/46273		<10
Compost Sample 2 Batch ABP28	733115	54/46274		<10
Compost Sample 3 Batch ABP28	733115	54/46275		<10
Compost Sample 4 Batch ABP28	733115	54/46276		<10
Compost Sample 5 Batch ABP28	733115	54/46277		<10
Compost Batch ABP29 Sample 1	746886	54/96440		<10
Compost Batch ABP29 Sample 2	746886	54/96441		<10
Compost Batch ABP29 Sample 3	746886	54/96442		<10
Compost Batch ABP29 Sample 4	746886	54/96443		<10
Compost Batch ABP29 Sample 5	746886	54/96444		<10
Compost Feb 2012 Sample 1	755687	55/26550	Not Detected	
Compost Feb 2012 Sample 2	755687	55/26551	Not Detected	
Compost Feb 2012 Sample 3	755687	55/26552	Not Detected	
Compost Feb 2012 Sample 4	755687	55/26553	Not Detected	
Compost Feb 2012 Sample 5	755687	55/26554	Not Detected	
Compost Batch ABP30 Sample 1	762074	55/64329		<10
Compost Batch ABP30 Sample 2	762074	55/64330		<10
Compost Batch ABP30 Sample 3	762074	55/64331		<10
Compost Batch ABP30 Sample 4	762074	55/64332		<10
Compost Batch ABP30 Sample 5	762074	55/64333		<10
Compost Batch Mar-12 Sample 1	764103	55/64324	Not Detected	
Compost Batch Mar-12 Sample 2	764103	55/64325	Not Detected	
Compost Batch Mar-12 Sample 3	764103	55/64326	Not Detected	
Compost Batch Mar-12 Sample 4	764103	55/64327	Not Detected	
Compost Batch Mar-12 Sample 5	764103	55/64328	Not Detected	
Compost Batch ABP31 Sample 1	771287	56/3135		<10
Compost Batch ABP31 Sample 2	771287	56/3136		<10
Compost Batch ABP31 Sample 3	771287	56/3137		<10
Compost Batch ABP31 Sample 4	771287	56/3138		<10
Compost Batch ABP31 Sample 5	771287	56/3139		<10

McGill Ref:	Certificate No.	Lab Ref:	Result Salmonella per 25g	Result Ecoli CFU/g
Compost Batch Apr-12 Sample 1	783337	56/42691	Not Detected	
Compost Batch Apr-12 Sample 2	783337	56/42692	Not Detected	
Compost Batch Apr-12 Sample 3	783337	56/42693	Not Detected	
Compost Batch Apr-12 Sample 4	783337	56/42694	Not Detected	
Compost Batch Apr-12 Sample 5	783337	56/42695	Not Detected	
Compost Batch ABP32 Sample 1	783337	56/42696		<10
Compost Batch ABP32 Sample 2	783337	56/42697		<10
Compost Batch ABP32 Sample 3	783337	56/42698		<10
Compost Batch ABP32 Sample 4	783337	56/42699		<10
Compost Batch ABP32 Sample 5	783337	56/42700		<10
Compost Batch ABP33 Sample 1	787915	56/66558		<10
Compost Batch ABP33 Sample 2	787915	56/66559		<10
Compost Batch ABP33 Sample 3	787915	56/66560		<10
Compost Batch ABP33 Sample 4	787915	56/66561		<10
Compost Batch ABP33 Sample 5	787915	56/66562		<10
Compost Batch ABP34 Sample 1	794226	56/92546		<10
Compost Batch ABP34 Sample 2	794226	56/92547		<10
Compost Batch ABP34 Sample 3	794226	56/92548		<10
Compost Batch ABP34 Sample 4	794226	56/92549		<10
Compost Batch ABP34 Sample 5	794226	56/92550		<10
Compost Batch May-12 Sample 1	795020	56/92541	Not Detected	
Compost Batch May-12 Sample 2	795020	56/92542	Not Detected	
Compost Batch May-12 Sample 3	795020	56/92543	Not Detected	
Compost Batch May-12 Sample 4	795020	56/92544	Not Detected	
Compost Batch May-12 Sample 5	795020	56/92545	Not Detected	
Compost Batch ABP35 Sample 1	808426	57/52258		<10
Compost Batch ABP35 Sample 2	808426	57/52259		<10
Compost Batch ABP35 Sample 3	808426	57/52260		<10
Compost Batch ABP35 Sample 4	808426	57/52261		<10
Compost Batch ABP35 Sample 5	808426	57/52262		<10
Compost Batch ABP36 Sample 1	813663	57/72541		<10
Compost Batch ABP36 Sample 2	813663	57/72542		<10
Compost Batch ABP36 Sample 3	813663	57/72543		<10
Compost Batch ABP36 Sample 4	813663	57/72544		<10
Compost Batch ABP36 Sample 5	813663	57/72545		<10
Compost Sample 1 - June 2012		57/72546	Not Detected	
Compost Sample 2 - June 2012		57/72547	Not Detected	
Compost Sample 3 - June 2012		57/72548	Not Detected	
Compost Sample 4 - June 2012		57/72549	Not Detected	
Compost Sample 5 - June 2012		57/72550	Not Detected	
Compost Batch ABP37 Sample 1	818647	57/97289		<10

McGill Ref:	Certificate No.	Lab Ref:	Result Salmonella per 25g	Result Ecoli CFU/g
Compost Batch ABP37 Sample 3	818647	57/97291		<10
Compost Batch ABP37 Sample 4	818647	57/97292		<10
Compost Batch ABP37 Sample 5	818647	57/97293		<10
Compost Batch ABP38 Sample 1	832077	58/49343		<10
Compost Batch ABP38 Sample 2	832077	58/49344		<10
Compost Batch ABP38 Sample 3	832077	58/49345		<10
Compost Batch ABP38 Sample 4	832077	58/49346		<10
Compost Batch ABP38 Sample 5	832077	58/49347		<10
Compost Batch July 12 Sample 1	842468	58/77950	Not Detected	
Compost Batch July 12 Sample 2	842468	58/77951	Not Detected	
Compost Batch July 12 Sample 3	842468	58/77952	Not Detected	
Compost Batch July 12 Sample 4	842468	58/77953	Not Detected	
Compost Batch July 12 Sample 5	842468	58/77954	Not Detected	
Compost Batch ABP39 Sample 1	837933	58/77955		<10
Compost Batch ABP39 Sample 2	837933	58/77956		<10
Compost Batch ABP39 Sample 3	837933	58/77957		<10
Compost Batch ABP39 Sample 4	837933	58/77958		<10
Compost Batch ABP39 Sample 5	837933	58/77959		<10
Compost Batch 40 Sample 1	844256	59/5219		<10
Compost Batch 40 Sample 2	844256	59/5220		<10
Compost Batch 40 Sample 3	844256	59/5221		<10
Compost Batch 40 Sample 4	844256	59/5222		<10
Compost Batch 40 Sample 5	844256	59/5223		<10
Compost Batch 41 Sample 1	860385	56/67143		20
Compost Batch 41 Sample 2	860385	56/67144		<10
Compost Batch 41 Sample 3	860385	56/67145		30
Compost Batch 41 Sample 4	860385	56/67146		<10
Compost Batch 41 Sample 5	860385	56/67147		<10
Batch Aug12 Sample 1	858505	59/46315	Not Detected	
Batch Aug12 Sample 2	858505	59/46316	Not Detected	
Batch Aug12 Sample 3	858505	59/46317	Not Detected	
Batch Aug12 Sample 4	858505	59/46318	Not Detected	
Batch Aug12 Sample 5	858505	59/46319	Not Detected	
Compost Batch 42 Sample 1	871811	60/10468		<10
Compost Batch 42 Sample 2	871811	60/10469		<10
Compost Batch 42 Sample 3	871811	60/10470		<10
Compost Batch 42 Sample 4	871811	60/10471		<10
Compost Batch 42 Sample 5	871811	60/10472		<10
Compost Batch 43 Sample 1	875601	60/23437		<10
Compost Batch 43 Sample 2	875601	60/23438		<10
Compost Batch 43 Sample 3	875601	60/23439		<10



McGill Ref:	Certificate No.	Lab Ref:	Result Salmonella per 25g	Result Ecoli CFU/g
Compost Batch 43 Sample 5	875601	60/23441		<10
Compost Batch44 Bay ABP8 Sample1	881559	60/47071		<10
Compost Batch44 Bay ABP8 Sample2	881559	60/47072		<10
Compost Batch44 Bay ABP8 Sample3	881559	60/47073		<10
Compost Batch44 Bay ABP8 Sample4	881559	60/47074		<10
Compost Batch44 Bay ABP8 Sample5	881559	60/47075		<10
Compost Batch44 Bay ABP7 Sample1	881559	60/47066		<10
Compost Batch44 Bay ABP7 Sample2	881559	60/47067		<10
Compost Batch44 Bay ABP7 Sample3	881559	60/47068		<10
Compost Batch44 Bay ABP7 Sample4	881559	60/47069		<10
Compost Batch44 Bay ABP7 Sample5	881559	60/47070		<10
Compost Batch45 Bay ABP7 Sample1	886742	60/71517		<10
Compost Batch45 Bay ABP7 Sample2	886742	60/71518		<10
Compost Batch45 Bay ABP7 Sample3	886742	60/71519		<10
Compost Batch45 Bay ABP7 Sample4	886742	60/71520		<10
Compost Batch45 Bay ABP7 Sample5	886742	60/71521		<10
Compost Batch45 Bay ABP8 Sample1	886742	60/71522		<10
Compost Batch45 Bay ABP8 Sample2	886742	60/71523		<10
Compost Batch45 Bay ABP8 Sample3	886742	60/71524		<10
Compost Batch45 Bay ABP8 Sample4	886742	60/71525		<10
Compost Batch45 Bay ABP8 Sample5	886742	60/71526		<10
Compost Batch46 Bay ABP7 Sample1	891680	60/89973		<10
Compost Batch46 Bay ABP7 Sample2	891680	60/89974		<10
Compost Batch46 Bay ABP7 Sample3	891680	60/89975		<10
Compost Batch46 Bay ABP7 Sample4	891680	60/89976		<10
Compost Batch46 Bay ABP7 Sample5	891680	60/89977		<10
Compost Batch46 Bay ABP8 Sample1	891680	60/89978		<10
Compost Batch46 Bay ABP8 Sample2	891680	60/89979		<10
Compost Batch46 Bay ABP8 Sample3	891680	60/89980		<10
Compost Batch46 Bay ABP8 Sample4	891680	60/89981		<10
Compost Batch46 Bay ABP8 Sample5	891680	60/89982		<10
Compost Batch47 Bay ABP7 Sample1	897030	61/12896		<10
Compost Batch47 Bay ABP7 Sample2	897030	61/12897		<10
Compost Batch47 Bay ABP7 Sample3	897030	61/12898		<10
Compost Batch47 Bay ABP7 Sample4	897030	61/12899		<10
Compost Batch47 Bay ABP7 Sample5	897030	61/12900		<10
Compost Batch47 Bay ABP8 Sample1	897030	61/12901		<10
Compost Batch47 Bay ABP8 Sample2	897030	61/12902		<10
Compost Batch47 Bay ABP8 Sample3	897030	61/12903		<10
Compost Batch47 Bay ABP8 Sample4	897030	61/12904		<10
Compost Batch47 Bay ABP8 Sample5	897030	61/12905		<10

McGill Ref:	Certificate No.	Lab Ref:	Result Salmonella per 25g	Result Ecoli CFU/g
Compost Batch Sept 12 Sample 2	898245	61/12890	Not Detected	
Compost Batch Sept 12 Sample 3	898245	61/12891	Not Detected	
Compost Batch Sept 12 Sample 4	898245	61/12892	Not Detected	
Compost Batch Sept 12 Sample 5	898245	61/12893	Not Detected	
Compost Batch48 Bay ABP7 Sample1	902466	61/32493		<10
Compost Batch48 Bay ABP7 Sample2	902466	61/32494		<10
Compost Batch48 Bay ABP7 Sample3	902466	61/32495		690
Compost Batch48 Bay ABP7 Sample4	902466	61/32496		<10
Compost Batch48 Bay ABP7 Sample5	902466	61/32497		340
Compost Batch48 Bay ABP8 Sample1	902466	61/32498		<10
Compost Batch48 Bay ABP8 Sample2	902466	61/32499		<10
Compost Batch48 Bay ABP8 Sample3	902466	61/32500		<10
Compost Batch48 Bay ABP8 Sample4	902466	61/32501		<10
Compost Batch48 Bay ABP8 Sample5	902466	61/32502		10
Compost Batch 50 Bay ABP7 Sample 1	913438	61/79026		<10
Compost Batch 50 Bay ABP7 Sample 2	913438	61/79027		<10
Compost Batch 50 Bay ABP7 Sample 3	913438	61/79028		<10
Compost Batch 50 Bay ABP7 Sample 4	913438	61/79029		<10
Compost Batch 50 Bay ABP7 Sample 5	913438	61/79030		<10
Compost Batch 50 Bay ABP8 Sample 1	913438	61/79031		<10
Compost Batch 50 Bay ABP8 Sample 2	913438	61/79032		<10
Compost Batch 50 Bay ABP8 Sample 3	913438	61/79033		<10
Compost Batch 50 Bay ABP8 Sample 4	913438	61/79034		<10
Compost Batch 50 Bay ABP8 Sample 5	913438	61/79035		<10
Compost Batch 51 Bay ABP7 Sample 1	918009	61/94212		<10
Compost Batch 51 Bay ABP7 Sample 2	918009	61/94213		<10
Compost Batch 51 Bay ABP7 Sample 3	918009	61/94214		<10
Compost Batch 51 Bay ABP7 Sample 4	918009	61/94215		<10
Compost Batch 51 Bay ABP7 Sample 5	918009	61/94216		<10
Compost Batch 51 Bay ABP8 Sample 1	918009	61/94217		<10
Compost Batch 51 Bay ABP8 Sample 2	918009	61/94218		<10
Compost Batch 51 Bay ABP8 Sample 3	918009	61/94219		<10
Compost Batch 51 Bay ABP8 Sample 4	918009	61/94220		<10
Compost Batch 51 Bay ABP8 Sample 5	918009	61/94221		<10
Compost Batch 52 Bay ABP7 Sample 1	923927	62/16949		<10
Compost Batch 52 Bay ABP7 Sample 2	923927	62/16950		<10
Compost Batch 52 Bay ABP7 Sample 3	923927	62/16951		<10
Compost Batch 52 Bay ABP7 Sample 4	923927	62/16952		<10
Compost Batch 52 Bay ABP7 Sample 5	923927	62/16953		<10
Compost Batch 52 Bay ABP8 Sample 1	923927	62/16954		<10
Compost Batch 52 Bay ABP8 Sample 2	923927	62/16955		<10

McGill Ref:	Certificate No.	Lab Ref:	Result Salmonella per 25g	Result Ecoli CFU/g
Compost Batch 52 Bay ABP8 Sample 3	923927	62/16956		<10
Compost Batch 52 Bay ABP8 Sample 4	923927	62/16957		<10
Compost Batch 52 Bay ABP8 Sample 5	923927	62/16958		<10
Compost Batch Oct-12 Sample 1	918907	61/94207	Not Detected	
Compost Batch Oct-12 Sample 2	918907	61/94208	Not Detected	
Compost Batch Oct-12 Sample 3	918907	61/94209	Not Detected	
Compost Batch Oct-12 Sample 4	918907	61/94210	Not Detected	
Compost Batch Oct-12 Sample 5	918907	61/94211	Not Detected	
Compost Batch 31-10-12 Bay ABP7 Sample 1	929030	62/43495		<10
Compost Batch 31-10-12 Bay ABP7 Sample 2	929030	62/43496		<10
Compost Batch 31-10-12 Bay ABP7 Sample 3	929030	62/43497		<10
Compost Batch 31-10-12 Bay ABP7 Sample 4	929030	62/43498		<10
Compost Batch 31-10-12 Bay ABP7 Sample 5	929030	62/43499		<10
Compost Batch 31-10-12 Bay ABP8 Sample 1	929030	62/43500		<10
Compost Batch 31-10-12 Bay ABP8 Sample 2	929030	62/43501		10
Compost Batch 31-10-12 Bay ABP8 Sample 3	929030	62/43502		<10
Compost Batch 31-10-12 Bay ABP8 Sample 4	929030	62/43503		<10
Compost Batch 31-10-12 Bay ABP8 Sample 5	929030	62/43504		<10
Batch 06-11-12 Bay ABP7 Sample 1	937326	62/59763		<10
Batch 06-11-12 Bay ABP7 Sample 2	937326	62/59764		<10
Batch 06-11-12 Bay ABP7 Sample 3	937326	62/59765		<10
Batch 06-11-12 Bay ABP7 Sample 4	937326	62/59766		<10
Batch 06-11-12 Bay ABP7 Sample 5	937326	62/59767		<10
Batch 06-11-12 Bay ABP8 Sample 1	937326	62/59768		<10
Batch 06-11-12 Bay ABP8 Sample 2	937326	62/59769		<10
Batch 06-11-12 Bay ABP8 Sample 3	937326	62/59770		<10
Batch 06-11-12 Bay ABP8 Sample 4	937326	62/59771		<10
Batch 06-11-12 Bay ABP8 Sample 5	937326	62/59772		<10
Batch 13-11-12 Bay ABP7 Sample 1	939693	62/88329		<10
Batch 13-11-12 Bay ABP7 Sample 2	939693	62/88330		<10
Batch 13-11-12 Bay ABP7 Sample 3	939693	62/88331		<10
Batch 13-11-12 Bay ABP7 Sample 4	939693	62/88332		<10
Batch 13-11-12 Bay ABP7 Sample 5	939693	62/88333		<10
Batch 13-11-12 Bay ABP8 Sample 1	939693	62/88334		<10
Batch 13-11-12 Bay ABP8 Sample 2	939693	62/88335		<10
Batch 13-11-12 Bay ABP8 Sample 3	939693	62/88336		<10
Batch 13-11-12 Bay ABP8 Sample 4	939693	62/88337		<10
Batch 13-11-12 Bay ABP8 Sample 5	939693	62/88338		<10

McGill Ref:	Certificate No.	Lab Ref:	Result Salmonella per 25g	Result Ecoli CFU/g
Compost Batch Nov-12 Sample 2	940850	62/88322	Not Detected	
Compost Batch Nov-12 Sample 3	940850	62/88323	Not Detected	
Compost Batch Nov-12 Sample 4	940850	62/88324	Not Detected	
Compost Batch Nov-12 Sample 5	940850	62/88325	Not Detected	
Batch 7-12-12 Bay ABP7 Sample 1	949840	63/28306		<10
Batch 7-12-12 Bay ABP7 Sample 2	949840	63/28307		<10
Batch 7-12-12 Bay ABP7 Sample 3	949840	63/28308		<10
Batch 7-12-12 Bay ABP7 Sample 4	949840	63/28309		<10
Batch 7-12-12 Bay ABP7 Sample 5	949840	63/28310		<10
Batch 7-12-12 Bay ABP8 Sample 1	949840	63/28311		<10
Batch 7-12-12 Bay ABP8 Sample 2	949840	63/28312		<10
Batch 7-12-12 Bay ABP8 Sample 3	949840	63/28313		<10
Batch 7-12-12 Bay ABP8 Sample 4	949840	63/28314		<10
Batch 7-12-12 Bay ABP8 Sample 5	949840	63/28315		27
Batch 14-12-12 Bay ABP7 Sample 1	952874	63/44405		<10
Batch 14-12-12 Bay ABP7 Sample 2	952874	63/44406		<10
Batch 14-12-12 Bay ABP7 Sample 3	952874	63/44407		<10
Batch 14-12-12 Bay ABP7 Sample 4	952874	63/44408		<10
Batch 14-12-12 Bay ABP7 Sample 5	952874	63/44409		<10
Batch 14-12-12 Bay ABP8 Sample 1	952874	63/44410		<10
Batch 14-12-12 Bay ABP8 Sample 2	952874	63/44411		<10
Batch 14-12-12 Bay ABP8 Sample 3	952874	63/44412		<10
Batch 14-12-12 Bay ABP8 Sample 4	952874	63/44413		<10
Batch 14-12-12 Bay ABP8 Sample 5	952874	63/44414		<10
Batch 21-12-12 Bay ABP7 Sample 1	958603	63/67435		
Batch 21-12-12 Bay ABP7 Sample 2	958603	63/67436		
Batch 21-12-12 Bay ABP7 Sample 3	958603	63/67437		
Batch 21-12-12 Bay ABP7 Sample 4	958603	63/67438		
Batch 21-12-12 Bay ABP7 Sample 5	958603	63/67439		
Batch 21-12-12 Bay ABP8 Sample 1	958603	63/67440		
Batch 21-12-12 Bay ABP8 Sample 2	958603	63/67441		
Batch 21-12-12 Bay ABP8 Sample 3	958603	63/67442		
Batch 21-12-12 Bay ABP8 Sample 4	958603	63/67443		
Batch 21-12-12 Bay ABP8 Sample 5	958603	63/67444		
Batch 22-12-12 Bay ABP7 Sample 1	970848	64/5751		<10
Batch 22-12-12 Bay ABP7 Sample 2	970848	64/5752		<10
Batch 22-12-12 Bay ABP7 Sample 3	970848	64/5753		<10
Batch 22-12-12 Bay ABP7 Sample 4	970848	64/5754		<10
Batch 22-12-12 Bay ABP7 Sample 5	970848	64/5755		<10
Batch 22-12-12 Bay ABP8 Sample 1	970848	64/5756		<10
Batch 22-12-12 Bay ABP8 Sample 2	970848	64/5757		<10

McGill Ref:	Certificate No.	Lab Ref:	Result Salmonella per 25g	Result Ecoli CFU/g
Batch 22-12-12 Bay ABP8 Sample 3	970848	64/5758		<10
Batch 22-12-12 Bay ABP8 Sample 4	970848	64/5759		<10
Batch 22-12-12 Bay ABP8 Sample 5	970848	64/5760		<10
Batch Dec-12 Sample 1	958596	63/55568	Not Detected	
Batch Dec-12 Sample 2	958596	63/55569	Not Detected	
Batch Dec-12 Sample 3	958596	63/55570	Not Detected	
Batch Dec-12 Sample 4	958596	63/55571	Not Detected	
Batch Dec-12 Sample 5	958596	63/55572	Not Detected	

All compost was tested by Exova Laboratories Cork

All compost produced on site met the Pathogen requirements of Waste Licence W0180-01 and Animal By Products Regulations where required

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**SLUDGE ANALYSIS**

	<b>Cadmium</b>	<b>Chromium</b>	<b>Copper</b>	<b>Lead</b>	<b>Mercury</b>	<b>Molybdenum</b>	<b>Nickel</b>	<b>Selenium</b>	<b>Zinc</b>
<b>Lab Reference</b>	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		mg/kg
C12-Mar435	<0.25	70	86	16.4	0.3	7.48	46.5	0.774	196
C12-Mar436	<0.25	30.3	409	4.15	<0.025	1.31	11.6	0.518	216
C12-Mar437	0.3	2.52	322	17.5	0.14	2.2	207	4.2	1745
C12-Mar438	1.03	21.5	205	35.8	0.57	6.62	30.1	4.06	637
C12-Mar439	<0.25	7.55	13	4.24	0.11	1.28	6.23	0.375	169
C12-Mar440	0.67	11.3	216	11.6	0.184	3.1	14.7	3.26	584
C12-Mar441	1.18	48.1	566	248	0.835	2.47	23.3	2.24	893
C12-Mar442	<0.25	7.69	30	3.46	0.028	6.53	8.62	1.35	179
C12-Mar443	<0.25	12.8	38.5	8.78	0.091	3.02	7.65	1.47	239
C12-Mar444	<0.25	5.92	63.5	2.7	0.182	0.837	4.84	0.318	122
C12-Mar445	0.377	43.2	109	10.1	2.58	3.72	24.4	1.51	229
C12-Mar446	<0.25	11.3	52.6	3.69	0.24	1.51	7.63	0.299	102
C12-Mar447	0.518	19.7	328	32.2	0.52	3.55	16.8	2.8	415
C12-Mar448	<0.25	13.3	18.1	17.1	33.7	6.02	31.2	6.6	182
C12-Mar449	1.37	28.7	318	38.4	1.29	3.12	23	3.71	816
C12-Jul153	<0.25	36.7	41.9	196	0.49	4.44	20	0.81	207
C12-Jul154	<0.25	24.2	83.3	11.6	0.37	4.22	40	0.5	164
C12-Jul155	<0.25	0.57	106	5.53	0.04	0.33	18.3	1.9	96.6
C12-Jul158	<0.25	8.57	37.6	9.78	0.15	3.86	4.11	<0.25	205
C12-Jul159	<0.25	5.67	33.8	5.79	0.04	5.38	7.82	2.57	125
C12-Jul162	0.68	19.6	189	35	1.48	15.3	471	1.91	1.68
C12-Jul163	<0.25	6.17	14.8	714	0.94	5.76	4.89	0.31	361
C12-Jul164	0.72	17	293	33.5	0.52	2.83	13.4	2.99	840
C12-Jul166	<0.25	14.4	153	7.77	0.05	1.34	7.47	<0.25	130
C12-Sep452	<0.25	0.76	6.9	3.89	<0.025	0.92	5.3	0.36	123
C12-Sep453	<0.25	0.3	9.32	0.62	<0.025	<0.25	0.77	<0.25	10.4
C12-Sep454	<0.25	2.46	4.58	0.25	<0.025	<0.25	0.91	<0.25	23.3
C12-Sep455	<0.25	14.7	46.2	10.9	<0.025	2.37	10.5	46.8	208
C12-Sep456	<0.25	11.2	31	68.6	<0.025	1.59	8.05	28	258
C12-Sep457	<0.25	25.5	108	73.1	0.098	12.7	23.4	1.21	227
C12-Sep458	<0.25	5.62	5.94	5.52	<0.025	<0.25	3.01	<0.25	736
0360/296/01	0.059	3.228	3.169	2.37	3.713	0.041	3.883	0.179	27.56
0360/296/02	<0.01	1.076	8.719	2.352	0.0007	0.372	1.157	4.499	193.43
0360/296/03	<0.01	0.206	1443	107.77	0.0015	0.369	1.396	<0.01	269.62
0360/296/04	0.051	0.238	204.584	9.067	0.056	1.029	3.075	<0.01	231.89

0360/296/05	<0.01	<0.01	5.233	2.13	0.0017	0.232	1.089	<0.01	152.206
0360/296/06	<0.01	0.023	112.55	0.451	0.0019	0.385	2.957	<0.01	56.44
0360/296/07	<0.01	<0.1	6.184	0.194	0.004	0.259	0.273	<0.01	7.262
0360/296/08	0.00164	0.0298	0.742	0.122	0.00203	<0.005	0.0507	0.00212	2.178
0360/296/09	<0.01	1.7	23.316	17.49	0.008	1.04	9.355	<0.01	61.59

All sludge samples was tested by Euro Environmental Services, Drogheda and Southern Scientific Services, Killarney

## Biofilter Monitoring

### Colorimetric Indicator Tube Testing

Sample	Jun-12			Nov-12		
	Ammonia NH3 (ppm)	Hydrogen Sulfide H <sub>2</sub> S (ppm)	Total Mercaptans R•SH	Ammonia NH3 (ppm)	Hydrogen Sulfide H <sub>2</sub> S (ppm)	Total Mercaptans R•SH
<b>S1</b>	Not detected	Not detected	Not detected	<5	Not detected	Not detected
<b>S2</b>	Not detected	Not detected	Not detected	<5	Not detected	Not detected
<b>S3</b>	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
<b>S4</b>	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
<b>S5</b>	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
<b>S6</b>	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
<b>S7</b>	<5	Not detected	Not detected	Not detected	Not detected	Not detected
<b>S8</b>	<5	Not detected	Not detected	Not detected	Not detected	Not detected
<b>S9</b>	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
<b>S10</b>	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
<b>S11</b>	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
<b>S12</b>	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected

Lab Analysis	<i>McGill Ref</i>	GLV - Biofilter 1 -2012	GLV - Bio 2 -2012
	<i>Lab Ref</i>	C12-Jul171	C12-Nov239
	Units		
% Moisture Content	%	27	74.7
Ammonia (Solid)	mg/kg fw as NH3	76.3	37.1
pH	ph Units	4.6	4.7
Total Viable Counts	cfu/g	6636363	12363636

All lab analysis was conducted by Southern Scientific Services, Drogheda



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**Dust Analysis**

<i>McGill Reference</i>	<i>Lab Reference</i>	<i>Units</i>	<i>Result</i>
GLV DM1 2012 (1)	0360/279/01	<b>mg/m<sup>2</sup>/day</b>	57.14
GLV DM2 2012 (1)	0360/279/02	<b>mg/m<sup>2</sup>/day</b>	104.85
GLV DM3 2012 (1)	0360/279/03	<b>mg/m<sup>2</sup>/day</b>	121.1
GLV DM1 - Q2 2012	C12-Jul167	<b>mg/m<sup>2</sup>/day</b>	128
GLV DM2 - Q2 2012	C12-Jul168	<b>mg/m<sup>2</sup>/day</b>	181
GLV DM3 - Q2 2012	C12-Jul169	<b>mg/m<sup>2</sup>/day</b>	334
GLVDM1-Q3 2012	C12-Sep 459	<b>mg/m<sup>2</sup>/day</b>	110
GLVDM2-Q3 2012	C12-Sep 460	<b>mg/m<sup>2</sup>/day</b>	236
GLVDM3-Q3 2012	C12-Sep 461	<b>mg/m<sup>2</sup>/day</b>	256
GLVDM1-Q4 2012	0360/294/01	<b>mg/m<sup>2</sup>/day</b>	10.48
GLVDM2-Q4 2012	0360/294/02	<b>mg/m<sup>2</sup>/day</b>	68.15
GLVDM3-Q4 2012	0360/294/03	<b>mg/m<sup>2</sup>/day</b>	15.2

All results are below the limits specified in Waste Licence W0180-01

All analysis was conducted by Euro Environmental Services, Drogheda and Southern Scientific Services, Killarney

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Biofilter Water Monitoring

		<i>McGill Reference</i>	GLV - Biofilter Water
		<i>Lab Reference</i>	0360/206/01
		Units	
BOD	Electrometry	mg/L	26
pH	Electrometry	ph Units	8.3
Solids (Total Suspended)	Filtration / Drying @104c	mg/L	414

All analysis was conducted by Euro Environmental Services, Drogheda

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Surfacewater Monitoring

		<i>McGill Reference</i>	63/83668 & 83676
		<i>Lab Reference</i>	GLV-SW1
Parameter	Analytical Technique	Units	
Ammonia	Colorimetry	mg/L as N	<0.06
BOD	Electrometry	mg/L	<4
Coliforms (Faecal)	Filtration/Incubation @ 44c/24H	no/100ml	8
Coliforms (Total)	Filtration/Incubation @ 37c/24H	no/100ml	326
Conductivity	Electrometry	uscM-1@25C	205
pH	Electrometry	pH units	7.2
Solids (Total Suspended)	Filtration/Drying @104C	mg/L	5

Surfacewater sample was taken on 20th December by Fiona O'Sullivan, McGill Environmental Systems.

The surface water was clean and there was a lot of water in the stream at the time of sampling.

All analysis was conducted by Euro Environmental Services, Drogheda

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Groundwater Monitoring

Parameter	Analytical Technique	Units	McGill Reference	GLV-MW1-12	GLV-MW2-12	GLV-MW3-12	GLV-MW4-12	Indicator Parameter Value
			Lab Reference	63/83608	63/83609	63/83610	63/83611	
			63/83636	63/83637	63/83638	63/83639		
Depth				3.2	2.8	1.5	Tap	
Ammonical N	Colorimetry	mg/L as N		<0.06	<0.06	<0.06	<0.06	0.3 mg/l
Chloride				13	13	14	11	250 mg/l
Electrical Conductivity	Electrometry	pH units		278	280	229	176	2500 uS cm-1
pH	Filtration/Drying @104C	mg/L		6.5	6.7	6.6	6	
Coliforms (Faecal)	Filtration/Incubation @ 37c/24H	no/100ml		1	<1	<1	<1	0
Coliforms (Total)	Electrometry	uscm-1@25C		38	49	228	<1	0

Groundwater samples were taken on 20th December 2012 by Niall Carroll, McGill Environmental Systems.

Samples were extracted using a Waterra Inertial Pump.

Each monitoring well has its own baler to prevent cross-contamination. Wells were purged prior to collecting the sample.

All analysis was conducted by Exova, Cork

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**Particulate Monitoring**

	Reference Concentration Range	22nd June 2012	20th Nov 2012
<b>PM10</b>	50 ug/m <sup>3</sup> PM10	12	8

**Bioaerosol Monitoring 22nd June 2012**

	Reference Concentration Range	Glen 1	Glen 2	Glen 3
<b>Aspergillus fumigatus</b>	1000- 5000 CFU m <sup>3</sup>	<12	<35	<33
<b>Mesophilic Bacteria</b>	5000 - 10000 CFU m <sup>3</sup>	19	23	79

**Bioaerosol Monitoring 20th November 2012**

	Reference Concentration Range	Glen 1	Glen 2	Glen 3
<b>Aspergillus fumigatus</b>	1000- 5000 CFU m <sup>3</sup>	<5	<11	<15
<b>Mesophilic Bacteria</b>	5000 - 10000 CFU m <sup>3</sup>	15	38	51

All monitoring was carried out by Odour Monitoring Ireland.  
 Full reports are available

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**Noise Monitoring**

Monitoring Point	Start Time	Sampling Interval Minutes	L(A)eq	L(A)10	L(A)90	Audible Noise Sources
N1	14.36	30	52.3	37.3	29.9	Very little daytime on site noise audible. 2 x HGV entered site during readings 1 and 3.
	15.06	30	42	39.1	29.6	
	15.37	30	55.3	36.9	30.1	
	19.39	30	38.8	36	28.6	No night time noise from site activities audible at location
N2	12.52	30	42	42.1	39.7	Sources of low audible day time noise from ventilation from the main compost plant, mobile plant operating on site and the odour abatement unit at approx 40m away
	13.22	30	42.1	41.6	39.8	
	13.54	30	41.1	42.4	38.9	
	18.33	30	40.2	40.1	39.2	Sources of low audible day time noise from ventilation from the main compost plant and the odour abatement unit at approx 40m away
N3	12.47	30	42.6	42.8	40.4	Sources of low audible day time noise from ventilation from the main compost plant, mobile plant operating on site and the odour abatement unit at approx 90m away
	13.18	30	42.3	43	40.7	
	14.25	30	42.9	43.6	41.7	
	18.00	30	41.9	42.3	40.4	Sources of low audible day time noise from ventilation from the main compost plant and the odour abatement unit at approx 40m away

Monitoring Point	Start Time	Tonal or Impulsive Noise from Site Activity	Comments and Interference
N1	14.36	No	No tonal or impulsive noise from site activity
	19.39	No	No tonal or impulsive noise from site activity
N2	13.22	No	No tonal or impulsive noise from site activity
	18.33	No	No tonal or impulsive noise from site activity
N3	13.55	No	No tonal or impulsive noise from site activity
	18.00	No	No tonal or impulsive noise from site activity

**Interferences**

Noise levels at N1 are prone to road and farm traffic on the local road that runs adjacent to the site entrance. Birdsong is also a source of interference noise during daytime readings at all three locations.

There may have been some interference caused by the technician negotiating rough terrain in the vicinity of the meter at N2 and N3

**Conclusion**

Daytime noise levels were within the permitted day time noise level of 55dB(A) at all three noise measurement locations – N1, N2 and N3.

Evening time noise levels were within the permitted day time noise level of 50dB(A) at all three noise measurement locations – N1, N2 and N3.

There was no significant tonal or impulsive noise from activities during daytime and night noise monitoring.

**Noise monitoring was conducted on site by KD Environmental on 15th November 2012.**

**Full reports are available**

## **Attachment 3**

**W0180-01/8 Environmental Management Programme**

The responsibility of implementing the Environmental Management System lies with the appointed Environmental Team:

Fiona O’Sullivan Environmental Manager

Lucinda Blyth Administration Manager

Noel Lyons General Manager

Niall Carroll Factory Manager

The Environmental Management Programme (EMP) for McGill Environmental Systems (Irl.) Ltd. will be updated on an annual basis.

The EMP for McGill Environmental Systems (Irl.) Ltd. is as follows:

<b>Environmental Management Plan</b>	<b>Responsibility</b>	<b>Target Date</b>
Implement conditions of Waste Licence	F O’Sullivan	Ongoing
Inhouse training of Staff	N Carroll	Ongoing
Continuous Training of Operators in EWC Codes and Acceptance of Same	F O’Sullivan	Ongoing
Update HACCP	F O’Sullivan	December 2012
Reduce Amendment Usage	F O’Sullivan	December 2012
Update EMP and EMS	F O’Sullivan	Ongoing



## **Attachment 4**

## **W0180-01/5 Structure & Responsibility**

### **Roles and Qualifications**

**James H. McGill, Chief Scientific Advisor.** Mr. McGill is an environmental engineer with over 30 years in the field. He qualified with a primary arts degree from Trinity College, Dublin, and went on to study science at Rutgers University, where he earned a masters degree in environmental science. He taught same and undertook environmental research at Rutgers. Mr. McGill was a founder of the McGill group of companies and has worked on major waste management and bioremediation projects in the U.S., Europe, and Asia. Jim has 25 years international experience in Environmental Engineering. He has worked on major environmental projects in the US and for the US Government overseas. He has designed industrial composting plants in North Carolina, The Philippines and Thailand. He has also worked on Bioremediation projects in Sweden. Jim is a director of McGill Environmental Systems (Irl.) Ltd.

**M. Noel Lyons, Managing Director.** Mr. Lyons is also a founder of the McGill group and president of McGill (U.S.), with 19 years in the field of waste management. He is a graduate of the Waterford Institute of Technology and holds a certificate of supervisory management (with distinction) from the Irish Management Institute, and a certificate of technical competency in composting from the University of Maine. Noel is responsible for overall guidance and management of the company. Noel has a unique combination of technical and sales knowledge in feedstocks, composting and transportation. He has accomplished significant business results in challenging enterprise environments over the past 15 years. Noel has pioneered product marketing of compost as a revenue-producing service in North Carolina. Noel is currently splitting his time between America and Ireland. Noel is a director of McGill Environmental Systems (Irl.) Ltd.

**Fiona O’Sullivan, Environmental Manager.** Fiona graduated from University College Dublin with a primary Degree in Agricultural Science and a Masters Degree in Environmental Science from Sligo Institute of Technology. Fiona has extensive knowledge of waste management and planning regulations and plays a key role in the company’s planning and waste permit/license applications. Fiona is responsible for ensuring environmental compliance with all regulations and permits, and monitoring incoming sludges, outgoing compost and all other site associated monitoring. Fiona looks after all Health and Safety requirements for the company, signage, PPE and reporting.

Duties:

- All environmental monitoring as per Planning Permissions and Waste Permit or Waste Licence
- Ensuring pre acceptance criteria are met for incoming waste
- Sampling
- Process control monitoring
- Product quality assurance
- Implementation of environmental management system
- Research and development
- Waste management
- Industrial and environmental compliance
- Planning Permission Applications
- Waste Permit Applications
- Health and Safety

**Niall Carroll, Factory Manager.** Mr. Carroll has been with McGill (Ireland) since its start-up, managing daily operations and serving as a technical specialist serving for Ireland and U.S. plants. His expertise is in factory management with particular knowledge in machine maintenance. Niall spent three months at the McGill Composting factory in North Carolina in early 2000 where he was trained in compost plant management. He has completed courses in the United States to qualify him for position of factory manager, and to enable him to train in others for this position, including qualifying as Compost Facility

Operator and Process Engineer at the University of Winthrop in Charlotte, South Carolina. This course would be of equal level to recommended Fás course. He has also completed an intensive course in Composting in North Carolina. Niall has been facilities manager of McGill Environmental Systems (Ireland) Ltd. overseeing the operation of all the McGill facilities and has taken on the role of Factory Manager of the Glenville facility.

**Lucinda Blyth, Administration Manager.** Lucinda has been with McGill since 2002. Among her responsibilities are office administration, human resources and record keeping. Lucinda's previous experience includes six years as Assistant to the Chairman of a Private Bank in London, several years as Administration Manager at a Strategy Consultancy based in London, Paris and Rome. Lucinda has also spent time working for a middle-eastern royal family organizing the logistics and staffing of several large palaces and houses throughout the world and a fleet of aeroplanes worldwide. Lucinda is secretary for the company.

## **Attachment 5**

## **W0180-01/10 Communications Procedure**

1. The purpose of this procedure is to describe the methods of communication at McGill Environmental Systems (Irl.) Ltd.
  
2. The procedure applies to all communications, internal and external.
  
3. The procedure refers to:
  - Waste Licence W0180-01
  
  - Planning Permission S/02/2853
  
4. Internal Communication
  - Management Review of EMS
  - Notice Board

The organization regards verbal communication to be an important aspect due to its size.

### 5 External Communication

- As per Licence Notification: In the event of any incident which may result in water, soil or air pollution, the Environmental Manager shall immediately report the incident to the Licensing Authority by phone or fax and shall confirm the communication in writing within 24 hours.
- Records of external communication are kept by the Administration Manager and the Environmental Manager. These records consist of letters, faxes and telephone conversations.

## 6 Complaints

- Complaints are handled by the Environmental Manager. Details of the complaint are recorded. Responses to complaints can be by phone or written.

## 7 Enquiries

- As per Waste Licence. Members of the public are welcome on site and can obtain information concerning the environmental performance of the licence holder at all reasonable times.

## 8 Emergency Response

- Local Fire Stations and Guards will be made aware of where the facility is situated
- Employees are made aware of emergency exits and location of emergency equipment
- In the event of an employee sustaining a work related injury and is absent for more than three working days, a report is to be sent to the Safety Authority detailing the incident.