ANNUAL ENVIRONMENTAL REPORT

JANUARY 2012 TO DECEMBER 2012

Licence Number: W0270-01

Licensee: Miltown Composting Systems Ltd

Location of Activity: Milltownmore

Fethard

Co. Tipperary

Attention: Office of Environmental Enforcement

EPA Regional Inspectorate Kilkenny

Seville Lodge

Callan Road

Kilkenny

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SECTION 1

INTRODUCTION

1.1 <u>INTRODUCTION</u>

The following is the Annual Environmental Report (AER) for the period January 2012 to December 2012 at Miltown Composting Ltd.

The company was granted an EPA Waste Licence No. W0270-01 on the 9th September 2010. This is the 2012 Annual Environmental Report of Miltown Composting Ltd and detailed within is a summary of all activities on-site during this period that has had an influence on the environmental performance of the company. Current guidance from the Agency requires that the AER is referenced per calendar year.

This AER reflects company's commitment to achieving objectives of a documented ongoing improvement programme at the site.

1.2 SITE DESCRIPTION

Site Location

The site is located in the townland of Milltownmore, approximately 6 km to the east of Fethard and 10 km to the south west of Cashel. The site is accessed by a private road off the Rosegreen to Fethard third class public road.

Layout

The site encompasses approximately 5.9 hectares. It is at an elevation of approximately 139m Ordnance Datum (OD) and slopes gently to the east from a high point in the west.

It is occupied by the three main composting buildings-Sheds 1, 2 and 3- paved open yards; weighbridge, office; canteen/changing room; storage shed; wetlands, biofilter and former cattle sheds. The base for a proposed lined slurry storage lagoon is located to the west of the cattle sheds and is currently used to store building materials. The area to the north of the shed is undeveloped and formerly used for animal grazing. The re is a series of constructed wetlands in the south west of the site. (See Appendix 1 – Site Layout Drawing)

Site History

The site was originally used for agricultural purposes. The cattle sheds and Shed 1 were originally constructed to house pigs, cattle, meat and bone meal and animal feed. In 2004 South Tipperary County Council granted planning permission and a Waste Permit for composting (in-vessel and maturation) to be carried out in Shed 1.

In 2007 Miltown moved the maturation process to Sheds 2 and 3. In January 2008 there was a fire at the site, when the compost turner went on fire. The turner was destroyed and the fabric of Shed 3 was damaged. The Council issued a revised Waste Permit in May 2008 and this is valid until May 2012. In March 2009 the Council granted planning permission for the retention of the offices, canteen/changing room, underground leachate storage tanks, and weighbridge.

Operational & Waste Acceptance Hours

The normal operational hours are 06.00 to 18.00 Monday to Saturday. The facility will not normally open on Sundays. Materials are normally accepted between the hours of 08.00 and 18.00.

1.2.1 DESCRIPTION OF ACTIVITY

Overview

The facility is a composting plant that accepts a broad range of compostable materials including source segregated household kitchen waste; catering wastes; non-hazardous industrial and municipal waste water sludges and organic fines generated in the treatment of mixed municipal solid waste (MSW).

The treatment process, depending on the nature of the source material, can involve initial screening to remove contaminants, blending with bulking agents, composting in separate enclosed tunnels and open bays, maturation in windrows and post treatment to remove impurities.

Due to the modular lay-out, the tunnels/bays can be operated independently, which provides flexibility in treating the different organic waste streams. The finished product can, depending on quality, either be used for horticultural and agricultural purposes, or as landfill cover.

Site Layout/Buildings & Hardstanding

Waste reception, blending and in-vessel composting is carried out in Shed No 1, which occupies an area of 1,700 square meters (m2). Maturation is carried out in Sheds 2 and 3, which occupy 2,840 m₂.

The site office is a portacabin located at the north-west corner of Shed 1. A small canteen/changing room is located to the south west of Shed 1. There is an open fronted shed to the west of the canteen, which is used for the storage of green waste bulking materials. A Container located at the northern side of the canteen is used to store lubricating/hydraulic oil and the power washer.

The open yards to the east and west of Shed 1, south of Shed 2 and west of the cattle sheds are paved with concrete. The biofilter is located on the southern side of Shed 1 and is accessed by an unpaved road running along the southern side of Sheds 1 and 2.

Composting Process

Waste Reception Areas

In the reception area, the MSW fines may, depending on composition be shredded to enhance the composting process. The source segregated household and catering organic waste may be screened to remove contaminants. The wastewater treatment sludges are mixed with a bulking agent e.g. shredded green waste to improve porosity.

Thermophilic Stage

The materials are transferred from the reception area to the vessels using the telescopic loaders. The material placed in each of the vessels is assigned an individual batch number to allow performance monitoring during the treatment stages and ensure the maintenance of accurate records.

Three (3 No.) temperature probes are placed within the waste mass before the sheeting is placed over the top of the vessel. There is a computerised process control system, located in the site office, which records the temperature in each vessel to ensure that optimum composting conditions are maintained. In addition to the constant temperature monitoring, oxygen levels are monitored daily using a hand held probe. The moisture level is assessed either visually or using a hand held moisture meter. In order to comply with the Animal By-Products Regulations a 'two barrier' system is operated in the MSW/kitchen/catering waste processing area. The objective is to ensure a maximum particle size of 40mm and achieve a sustained temperature of 60°C over two separate 48 hour periods.

The MSW fines as delivered typically have a particle size less than 40mm. Large items are manually removed before the materials are composted. Maintaining the temperature at 60°C for the two separate time periods is done by composting the same batch in two different vessels.

In the first vessel, or Barrier 1, the process usually takes one week. When completed, the material is removed to a second vessel-Barrier 2-where it is thoroughly mixed and again composted until the temperature requirements are met. To avoid cross contamination different buckets are used on the front end loader to move the materials into and out of the vessels.

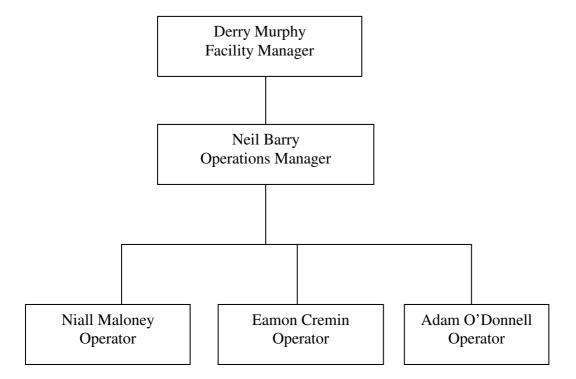
Mesophilic Stage

When the material has completed the thermophilic stage it is removed from the vessel and transferred to Sheds 2 and 3 where it is formed into windrows. Depending on the source of the materials it may be blended with shredded green waste to improve porosity. The windrows are formed using the telescopic loader and are turned daily using either the specialized turner or the loader.

Temperature, oxygen and moisture content are regularly monitored and moisture and the turning regime amended as required to ensure optimum conditions. The mesophilic stage can take up to 6 weeks.

When complete the compost may, depending on the nature of the source material, be screened to remove contaminants. These are stored on-site in a skip pending consignment to off-site disposal/treatment facilities.

1.2.2 Organisational Chart 2012



Section 2

DATA

WASTE MANAGEMENT 2.1

TABLE 2.1.1 – ANNUAL WASTE INTAKE 2012		
Waste Type	EWC Code	2012 Intake
Brown bin waste (kitchen/garden) separately collected from households	20 01 08	12251.2
Waste from the mechanical treatment of wood waste	19 12 07	1329.86
Garden and park waste from municipal sources	20 02 01	144.78
Septic Tank Sludge	20 03 04	0.88
Street Cleaning Residue	20 03 03	57.72
Sludges from treatment of urban waste water	19 08 05	29.1
Waste from anaerobic treatment of waste	19 06 99	38.96
Cattle manure	02 01 06	12
Prep of food of animal origin, washing and cleaning	02 02 01	4.16
Food processing - materials unsuitable for consumption or processing	02 05 01	16.26
Food processing -wastes from washing cleaning and mechanical reduction of raw materials	02 07 01	327.8
Waste from sewage cleaning	20 03 08	15.9

2.2 ENVIRONMENTAL MONITORING

2.2.1 Groundwater Results 2012

Table 2.2.1 / 2 – Groundwater Analysis Results 2012

2.2.1 GENERAL CHEMICAL ANALYSIS RESULTS			
Parameter	GW1	GW2	GW3
Chloride (mg/l)	75	152	27.9
Conductivity (uS/cm)	598	757	278
Nitrate (mg/l)	2.07	0.87	8.42
рН	7.1	6.8	6.9
Total Nitrogen (mg/l)	4.8	2.7	11.2
Ammonia (mg/l)	0.136	0.047	0.01

TABLE 2.2.2 - VOC ANALYSIS USEPA 524.2				
VOC's (μg/l)	GW1	GW2	GW3	
Dichlorodifluoromethane	<10	<10	<10	
Chloromethane	< 0.5	<0.5	< 0.5	
Vinyl chloride	< 0.5	<0.5	<0.5	
Bromomethane	< 0.5	<0.5	< 0.5	
Chloroethane	< 0.5	<0.5	< 0.5	
Trichlorofluoromethane	< 0.5	< 0.5	< 0.5	
1,1-Dichloroethene	< 0.5	<0.5	<0.5	
Dichloromethane	< 0.5	<0.5	< 0.5	
trans-1,2-Dichloroethene	< 0.5	<0.5	< 0.5	
1,1-Dichloroethane	< 0.5	<0.5	<0.5	
2,2-Dichloropropane	< 0.5	<0.5	< 0.5	
cis-1,2-Dichloroethene	< 0.5	<0.5	<0.5	
Bromochloromethane	< 0.5	<0.5	< 0.5	
Chloroform	<1	<1	<1	
1,1,1-Trichloroethane	< 0.5	<0.5	< 0.5	
Carbon Tetrachloride	< 0.5	<0.5	< 0.5	
1,1-Dichloropropene	<0.5	<0.5	<0.5	
Benzene	<0.1	<0.1	< 0.1	
1,2-Dichloroethane	<0.1	<0.1	< 0.1	
Trichloroethene	<0.1	<0.1	<0.1	
1,2-Dichloropropane	<0.5	<0.5	<0.5	
Dibromomethane	<0.5	<0.5	<0.5	
Bromodichloromethane	<2.0	<2.0	<2.0	
Toluene	<0.5	<0.5	<0.5	
1,1,2-Trichloroethane	<2.0	<2.0	<2.0	

TABLE 2.2.2 - VOC A	ANALYSIS USE	PA 524.2 (CONT	ΓINUED)
VOC's (μg/l)	GW1	GW2	GW3
1,1,1,2-Tetrachloroethane	<2.0	<2.0	<2.0
m,p-Xylene	<0.5	< 0.5	< 0.5
Styrene	<2.0	<2.0	<2.0
Isopropylbenzene	<0.5	< 0.5	<0.5
Propylbenzene	<0.5	< 0.5	< 0.5
2-Chlorotoluene	<0.5	< 0.5	<0.5
4-Chlorotoluene	<0.5	< 0.5	<0.5
1,2,4-Trimethylbenzene	<0.5	< 0.5	<0.5
P - Isopropyltoluene	<0.5	< 0.5	<0.5
1,4-Dichlorobenzene	<0.5	< 0.5	<0.5
1,2-Dichlorobenzene	<0.5	< 0.5	<0.5
Naphthalene	<2.0	<2.0	<2.0
1,3-Dichloropropane	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	<2.0	<2.0	<2.0
trans-1,3-Dichloropropene	<2.0	<2.0	<2.0
Dibromochloromethane	<1.0	<1.0	<1.0
Chlorobenzene	<0.5	<0.5	<0.5
Ethyl Benzene	<0.5	<0.5	<0.5
o-Xylene	<0.5	< 0.5	<0.5
Bromoform	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<2.0	<2.0	<2.0
Bromobenzene	<0.5	<0.5	<0.5
Tert-Butylbenzene	<0.5	<0.5	< 0.5
Sec-Butylbenzene	<0.5	< 0.5	<0.5
1,3,5-Trimethylbenzene	<0.5	< 0.5	<0.5
1,2- Dibromo-3-chloropropane	<2.0	<2.0	<2.0
Hexachlorobutadiene	<5.0	<5.0	<5.0
1,2,3-Trichlorobenzene	<0.5	< 0.5	<0.5
1,3-Dichlorobenzene	<0.5	< 0.5	<0.5
Tetrachloroethene	<0.1	<0.1	<0.1
n-butylbenzene	<0.5	< 0.5	<0.5
Acetone	<2	<2	<2
Methyl Iodide	<0.5	<0.5	<0.5
Carbon disulphide	<0.5	<0.5	<0.5
Allyl Chloride	<0.5	<0.5	<0.5
Nitrobenzene	<0.5	<0.5	<0.5
Propanenitrile	<10	<10	<10
MtBE	<0.5	<0.5	<0.5
2 Butanone	<5	<5	<5
2 Hexanone	<1	<1	<1
Hexacloroethane	<5	<5	<5
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5

2.2.2 Dust Monitoring 2012

TABLE 2.2.3 - DUST RESULTS 2012			
Month	$\mathbf{D1} \text{ (mg/m}^2/\text{day)}$	$\mathbf{D2} \text{ (mg/m}^2/\text{day)}$	D3 mg/m ² /day)
January	176	59	35
June	129	82	170
September	334	23	17

2.2.3 Biofilter Monitoring 2012

TABLE 2.2.4 MONITORING RESULTS FROM THE BIOFILTER 12/06/12		
Parameter	Result	
% Moisture	69.67	
рН	7.1	
Ammonia (mg/kg)	655	
Total Viable Counts @ 30°C (Solid) cfu/g	>3.00 x 106	

TABLE 2.2.5 MONITORING RESULTS FROM THE BIOFILTER 05/12/12		
Parameter	Result	
% Moisture	71.7	
рН	6.5	
Ammonia (mg/kg)	9.7	
Total Viable Counts @ 30°C (Solid) cfu/g	200000	

TABLE 2.2.6 BIOFILTER INLET EMISSION LEVELS 12/06/12			
Parameter	Inlet 1 Concentration (ppm)	Inlet 2 Concentration (ppm)	
Hydrogen Sulphide	de <0.2 <0.2		
Ammonia 15 15			
Mercaptans	0.5	<0.5	
Amines	Negative	Negative	

TABLE 2.2.7 BIOFILTER OUTLET EMISSION LEVELS 12/06/12		
Parameter	Inlet Concentration (ppm)	
Hydrogen Sulphide	<0.2	
Ammonia	<5	
Mercaptan	<0.5	
Amines	Negative	

TABLE 2.2.8 B	TABLE 2.2.8 BIOFILTER INLET EMISSION LEVELS 05/12/12		
Parameter	Inlet 1 Concentration (ppm)	Inlet 2 Concentration (ppm)	
Hydrogen Sulphide	<0.2	<0.2	
Ammonia	15	15	
Mercaptans	0.5	<0.5	
Amines	Negative	Negative	

TABLE 2.2.9 BIOFILTER OUTLET EMISSION LEVELS 05/12/12		
Parameter	Inlet Concentration (ppm)	
Hydrogen Sulphide	<0.2	
Ammonia	<5	
Mercaptan	<0.5	
Amines	Negative	

2.2.4 PM10 Monitoring 2012

TABLE 2.2.10 RESULTS OF PM ₁₀ MONITORING 2012						
Sampling Location	Date	Weight Gain (g)	Concentration (µg/m³)			
Location 1	11 th / 12 th June	<0.001	< 0.1			
Location 1	5 th /6 th December	< 0.001	< 0.1			

2.2.5 Odour Monitoring 2012

TABLE 2.2.11 METEOROLOGICAL CONDITIONS Q1 - Q4						
Parameter	Parameter Quarterly Result					
Wind speed (km/hr)	7-9	8	6	8		
Wind direction	Southerly	North north- Easterly	Westerly	South- Easterly		

TABLE 2.2.12 ODOUR SAMPLING RESULTS Q1 2012					
Locations	On site observations	Results			
OD 01	No distinct odour	144ou _F /m ³			
At Sensitive Receptor	No distinct odoui	1440uE/III			
OD 02					
250 meters downwind	No distinct odour	$81 \text{ ou}_{\text{E}}/\text{m}^3$			
of compost yard					

TABLE 2.2.13 CHEMICAL ANALYSIS Q1 2012						
Sample	Sample Hydrogen Ammonia Mercapten Amines					
OD 01	<0.2 <5 <0.5 Negat					
OD 02	<0.2	<5	<0.5	Negative		

TABLE 2.2.14 ODOUR SAMPLING RESULTS Q2 2012					
Locations	On site observations	Results			
OD 01					
400 meters downwind	No distinct odour	$64 \text{ ou}_{\text{E}}/\text{m}^3$			
of compost yard					
OD 02	No distinct odour	45 ou _F /m ³			
At Sensitive Receptor	No distilict ododi	45 Oug/III			

TABLE 2.2.15 CHEMICAL ANALYSIS Q2 2012					
Sample Hydrogen Ammonia Mercapten Amines					
OD 01	<0.2 <5 <0.5 Negat				
OD 02	<0.2	<5	<0.5	Negative	

TABLE 2.2.16 ODOUR SAMPLING RESULTS Q3 2012					
Locations	On site observations	Results			
OD 01	No distinct odour	75 ou _E /m ³			
At Sensitive Receptor	No distinct odoui				
OD 02					
350 meters downwind	No distinct odour	80 ou _E /m ³			
of compost yard					

TABLE 2.2.17 CHEMICAL ANALYSIS Q3 2012						
Sample	Sample Hydrogen Ammonia Mercapten Amines					
OD 01	<0.2 <5 <0.5 Nega					
OD 02	<0.2	<5	<0.5	Negative		

TABLE 2.2.18 ODOUR SAMPLING RESULTS Q4 2012					
Locations On site observations Results					
OD 01	No distinct odour	57ou _F /m ³			
At Sensitive Receptor	No district odoui 3/oug/iii				
OD 02					
300 meters downwind	No distinct odour 40 ou _E /m ³				
of compost yard					

TABLE 2.2.19 CHEMICAL ANALYSIS Q4 2012						
Sample	ple Hydrogen Ammonia Mercapten Amines					
OD 01	<0.2 <5 <0.5 Ne					
OD 02	<0.2	<5	<0.5	Negative		

2.2.6 Noise Monitoring 2012

	TABLE 2.2.20 DAY-TIME NOISE MEASUREMENT RESULTS						
Location	Measurement No.	Measurement Period (min)	$L_{eq} dB(A)$	L ₁₀ dB(A)	L ₉₀ dB(A)	L _{F Max} dB(A)	
NSL	1	30	47	44	32	71	
NSL	2	30	43	39	31	71	
NSL	3	30	60	55	34	84	
N2	1	30	52	54	47	68	
N2	2	30	56	55	49	77	
N2	3	30	60	64	49	81	

Note - NSL Leq of 60dB(A) was significantly influenced by a passing milk lorry and tractor.

2.2.7 Surface Water 2012

Table 2.2.21 - Surface water Results 2012 for SW1						
Sample ID	Sample ID BOD (mg/l) Suspended Solids (mg/l) Ammonia (mg/l)					
SW1 27/04/12	765	264	40			

2.2.8 Non-Compliances 2012

Table 2.2.23 Details of Reported Non-compliance 2012 – Water					
Date Non-compliance Cause Corrective Action					
No Non-compliances reported in 2012.					

Table 2.2.24 Details of Non-compliance 2012 – Air					
Date Non-Compliance Failure Details / Cause Corrective Action					
No Non-compliances reported in 2012.					

Table 2.2.	Table 2.2.25 Details of Non-compliance 2012 – General Audit				
Date	Non-Compliance	Corrective Action			
13/3/12	Surface water Discharge	Redirect to SW1			
13/3/12	Classification of Incoming Waste	Create system within EMS to check EWC codes for loads entering the site			
25/4/12	Waste stored outside red line boundary of site	Move all waste back within red line boundary			
25/4/12	Waste Records Incomplete	All above waste now removed off site as per condition 11.14			
25/4/12	Surface water emissions	Upgrade SW1 and cover top yard			

2.3 RESOURCE USAGE

The summary details of energy and water usage at the plant for the period January 2012 to December 2012 is detailed in Table 2.10 below.

Resources	Quantities
Diesel	57079
Electricity	149,000
Hydraulic, Transmission &	1840
Engine Oil	1840
Detergent	20
Anti Freeze	100

ENVIRONMENTAL INCIDENTS AND COMPLAINTS 2.4

2.4.1 There were no incidents to report for the period January 2012 to Dec 2012.

Incident	Date / Time	Location	Persons Contacted	Corrective Actions

There were no complaints to report for the period January 2012 to Dec 2012.

2.5 ENVIRONMENTAL SPENDING

The itemised spend on environmental issues at Miltown Composting Limited is listed below.

<u>January 2012 – December 2012</u>	€
EPA fees	7612
Waste Licence Management	28018
Total Spending	35630

2.6 ENVIRONMNETAL TRAINING

Staff Induction Environmental Training – with Tony Nugent for Derry Murphy and Eamon Cremin

Environmental Management Programme for 2012.

Review of Objectives and Targets for the period January to December 2012

Tables EMP 1.1 to 1.5 reviews the Objectives and Targets set for 2012. A number of the listed Objectives and their subsequent targets are cyclical as the company attempts to achieve continuous environmental improvement.

Tables EMP 2.1 to 2.5 set out the Objectives and Targets for 2012. A number of the listed Objectives and their subsequent targets are cyclical as the company attempts to achieve continuous environmental improvement.

MILTOWN COMPOSTING LTD ENVIRONMENTAL OBJECTIVES AND TARGETS 2012

Item No	OBJECTIVE	TARGET	RESPONSIBLE PERSON
1	Water Pollution Prevention	 Maintain checklist for alarms and daily records Assess SW1 following installation of cover. Upgrade SW1 sampling point and associated piping. 	D.Murphy
2	Energy Management	 Carry out Energy Audit. Investigate potential for Anaerobic Digestion (AD) Plant. Study possibility of installing a CHP plant in conjunction with AD plant. 	D.Murphy
3	E.M.S	 Maintain EMS documentation. Update procedures to reflect operational and control change. Maintain EMP by means of Bi-annual assessment. 	D.Murphy
4	Licence Management	 Prepare proposal for and finalise Hydrogeological Study. Assess nuisance control procedures and practices. Undertake all environmental monitoring as per licence. 	D.Murphy
5	Incoming waste / Finished product	 Investigate new waste types for inclusion in compost process Research new sustainable outlets for the finished products 	D.Murphy

Water Pollution Prevention EOT 1.1

Objective	Target	Target Date	2012 Review	Person Responsible
	Maintain checklist for alarms and daily records	Continuous 2012	Complete	Derry Murphy
Water Pollution Prevention	Cover open area between sheds 1,2 and 3.	Q2 2012	95% Complete	Derry Murphy
	Assess SW1 following installation of cover.	Q3 2012	Move to 2013 when all civil works completed	Derry Murphy

Energy management EOT 1.2

Objective	Target	Target Date	2012 Review	Person Responsible
	Carry out Energy Audit	June 2012	Not Complete Postponed until 2013	Derry Murphy - OCM
Energy Management	Investigate potential for Anaerobic Digestion (AD) Plant.	2014	Not due until 2014	Derry Murphy
	Study possibility of installing a CHP plant in conjunction with AD plant.	2016	Not due until 2016	Derry Murphy

Water Pollution Prevention EOT 1.3

Objective	Target	Target Date	2012 Review	Person Responsible
	Maintain EMS documentation.	2012	Complete	Derry Murphy
E.M.S	Update procedures to reflect operational and control change.	March 2012	No Environmental Procedure changes	Derry Murphy
	Maintain EMP by means of Bi-annual assessment.	June / Dec 2012	Complete	Derry Murphy

Licence Management EOT 1.4

Objective	Target	Target Date	2012 Review	Person Responsible
	Prepare proposal for and finalise Hydrogeological Study.	May 2012	New proposal due 2013	Derry Murphy
Licence Management	Assess nuisance control procedures and practices.	Continuous 2012	Pest control now undertaken every 6 weeks	Derry Murphy
	Undertake all environmental monitoring as per licence.	2012	Complete	Matrix Env

Incoming waste / Finished product

EOT 1.5

Objective	Target	Target Date	2012 Review	Person Responsible
Incoming waste / Finished	Investigate new waste types for inclusion in compost process	2012	Complete 4 new waste added 2012	Derry Murphy
product	Research new sustainable outlets for the finished products	2012	Complete	Derry Murphy

Water Pollution Prevention EOT 2.1

Objective	Target	Target Date	Method
	Maintain checklist for alarms and daily records	Continuous 2013	Fill in the daily checklist and site alarms
Water Pollution Prevention	Assess SW1 following installation of cover.	Q2 2013	Take a set of samples at SW1 upon completion of all site works relating to the covering of top yard.
	Upgrade SW1 sampling point and associated piping.	Q2 2013	Carry out sampling of SW1 as per licence requirements

EOT 2.2

Energy Management

Objective	Target	Target Date	Method
	Carry out Energy Audit	Q3 2013	Undertake Energy Audit as per EPA requirements.
Energy Management	Investigate potential for Anaerobic Digestion (AD) Plant.	2014	Carry out a review of AD plants and the feasibility of installing a plant at the Milltown Compost Site
	Study possibility of installing a CHP plant in conjunction with AD plant.	2016	Further to the review of the AD plant a further review of a CHP plant to be carried out.

Environmental Management System

EOT 2.3

Objective	Target	Target Date	Method
	Maintain EMS documentation.	Q2 2013	Review all EMS procedures
E.M.S	Update procedures to reflect operational and control change.	Continuous 2013	Continuous review of procedures to reflect any changes which occur in terms of site operations or processes.
	Maintain EMP by means of Biannual assessment.	June / Dec 2013	Assess biannually to ensure targets are achieved.

Licence Management

EOT 2.4

Objective	Target	Target Date	Method
	Prepare proposal for and finalise Hydrogeological Study.	2013	Prepare and submit a proposal detailing the methodology for a hydrogeological study.
Licence Management	Assess nuisance control procedures and practices.	Continuous 2012	Review procedures. Ensure quarterly visits of nuisance control company occurs.
	Undertake all environmental monitoring as per licence.	2012	1 x Noise Survey 4 x Odour Assessment 12 x Dust Monitoring 2 x Biofilter Analysis 1 x Bioaerosol Study 1 x PM10 Survey

Incoming waste / Finished product

EOT 2.5

Objective	Target	Target Date	Method
Incoming waste / Finished	Investigate new waste types for inclusion in compost process	Continuous	Continue to investigate new waste streams for inclusion in the compost process
product	Research new sustainable outlets for the finished products	Continuous	Prepare marketing campaign to source sustainable outlets for the finished product

Appendix 1

PRTR Scans



| PRTR# : W0270 | Facility Name : Miltown Composting Systems Limited | Filename W0270 | 2012 xls | Return Year : 2012 |

Guidance to completing the PRTR workbook

AER Returns Workbook

1. FACILITY IDENTIFICATION Parent Company Name Miltown Composting Systems Limited Facility Name Miltown Composting Systems Limited PRTR Identification Number W0270 Licence Number W0270-01

Waste or IPPC Classes of Activity

Tracto of it is a classed of receivity	
No.	class_name
	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).

A A	IV:II
	Miltownmore
Address 2	
	County Tipperary
Address 4	
	Tipperary
Country	
Coordinates of Location	-7.76889 52.45236
River Basin District	IESE
NACE Code	3832
Main Economic Activity	Recovery of sorted materials
AER Returns Contact Name	Craig Mallinson
AER Returns Contact Email Address	craigmallinson@inbox.com
AER Returns Contact Position	
AER Returns Contact Telephone Number	087 2886848
AER Returns Contact Mobile Phone Number	087 2886848
AER Returns Contact Fax Number	
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	
Number of Employees	5
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)

1 0 0 1 2	
Is it applicable?	
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?	

4. WASTE IMPORTED/ACCEPTED ONTO SITE

Guidance on waste imported/accepted onto site

Do you import/accept waste onto your site for onsite treatment (either recovery or disposal activities) ? Yes

Sheet: Releases to Air

Link to previous years emissions data

4.1 RELEASES TO AIR

Please enter all quantities in this section in KGs

0.0

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

RELEASES TO AIR

M/C/E Method Code

SECTION B: REMAINING PRTR POLLUTANTS

No. Annex II

nter all quantities in this section in KGs	QUANTITY	Ssion Point 1 T (Total) KG/Year A (Accidental) KG/Year F (Fugitive) KG/Year
Piease	METHOD	M/C/E Method Code Designation or Description Emi
RELEASES TO AIR	POLLUTANT	No. Annex II

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

	RELEASES TO AIR			Please enter all quantities	in this section in KGs	大阪の からの 日本の のの はない	
	POLLUTANT	ME	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	F (Fugitive) KG/Yea
215	Hydrogen sulphide	M OTH	Dreager Tube	0.0	0.0		
220	Mercaptans	M OTH	Dreager Tube	0.0	0.0	0.0	0.0

the purposes of the bisload investery on Greenhouse Gasea, landing operators are requested to provide summany data out landfill gas (Methine).

The control of their betilines to accompany the figures for tests in retains a providence, operators should not proportions from thintine (EH4) in the figures for tests in retains retains are increased in the proposition for the mithine (EH4) in the retains to the environment lander T(bas) KGS/F to Section & Section & Section & Section (Section Section & Section & Section (Section Section & Section Additional Data Requested from Landfill operators

Landfill: Please enter summary data on the quantities of methane flared and / or utilised Total estimated methane generation (as per Site model) Methane flared Methane utilised in englads Net methane emission (as reported in Section	Millown Composing Systems Limited T (Total) kg/Year 00 00	M/C/E	Method Code	Method Used Description
A above)	0.0			

0.0 (Total Flaring Capacity) 0.0 (Total Utilising Capacity)

N/A

Facility Total Capacity m3 per hour

5. ONSITE TREATMENT 8. OFFSITE TRANSFERS OF WASTE | permeroprial permitted on this sheet in Tornes

2	The state of Final Recovery Actual Address of Final Destination Disposer (+AZAPODUS WASTE Re Final Recovery Disposer) (+AZAPODUS WASTE CMLY)													
	Name and License / Pernit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)													
	Haz Wasie : Address of Next Destination Facility Non Haz Wasie. Address of Recover/Disposer				Garyshane, Donohill, Co.	Tipperary,"", Ireland	Crag Avenue, Clondalkin Ind	est, Clondalkin , Co.	Dublin, Ireland	Beauparc Business	Pk,Navan,Co.	Meath,"", Ireland	Cree, Kilrush, Co	Clare,"", Ireland
	Licence/Permit No of Next Destination Facility Haz Waste: Name and Licence/Permit No of Recover/Disposer				South Tipperary Co	Co,W074-03		Greyhound Recycling and	Offsite in Ireland Recovery, W0205-01			Offsite in Ireland Panda Waste, W0140-03	Clean Ireland	Offsite in Ireland Recycling,002/07/WPT/CL Clare," ", Ireland
The second secon			Location of	Treatment		Offsite in Ireland Co,W074-03			Offsite in Ireland			Offsite in Ireland		Offsite in Ireland
Please enter all quantities on this sheet in Tonnes	Method Used			Operation M/C/E Method Used		Weighed			Weighed			Weighed		Weighed
			+	M/C/E		M			M			M		M
		Waste	Treatment	Operation		10			R1			R1		R1
				Description of Waste	non-composted fraction of municipal and	544.34 similar wastes		non-composted fraction of municipal and	231.82 similar wastes		non-composted fraction of municipal and	27.62 similar wastes	non-composted fraction of municipal and	9.02 similar wastes
lease enter	Quantity (Tonnes per Year)					544.34			231.82			27.6		9.00
1				Hazardous		No No			No			Se e		No
			European Waste	Code		19 05 01			19 05 01			19 05 01		19 05 01
				Transfer Destination		Within the Country 19 05 01			Within the Country 19 05 01			Within the Country 19 05 01		Within the Country 19 05 01

Page 1 of 1