ANNUAL ENVIRONMENTAL REPORT

JANUARY 2014
TO
DECEMBER 2014

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**

CONTENTS

SECTION 1

INTRODUCTION

1.1 INTRODUCTION

The following is the Annual Environmental Report (AER) for the period January 2014 to December 2014 at Miltown Composting Ltd.

The company was granted an EPA Waste Licence No. W0270-01 on the 9th September 2010. This is the 2014 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 west from a high point in the east.

It is occupied by the three main composting buildings-Sheds 1, 2 and 3- a covered yard, and 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 rest is a series of constructed wetlands in the south west of the site.

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 2014. 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 (m^2). Maturation is carried out in Sheds 2 and 3, which occupy 2,840 m^2.

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 covered yard to the east of Shed 1 and the open yards to the west of Shed 1 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.

Five (5 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 loaders and buckets are used to move the materials into and out of the vessels.

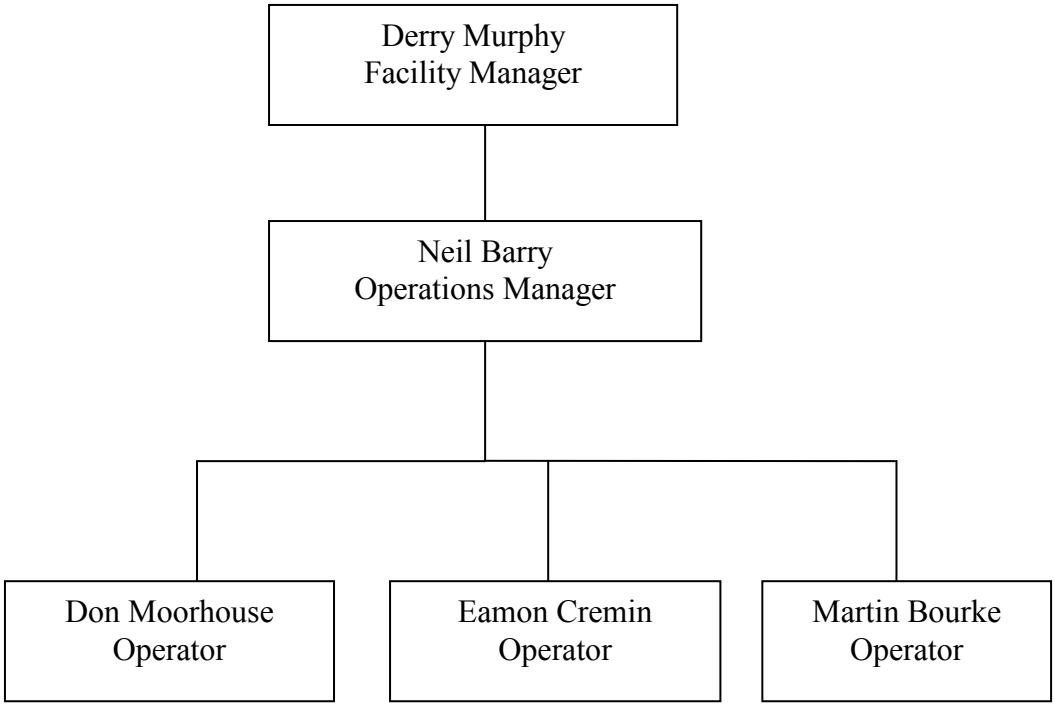
Mesophilic Stage

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 as required 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 Shed 3 pending consignment to off-site disposal/treatment facilities.

1.2.2 Organisational Chart 2014



Section 2

DATA

2.1 WASTE MANAGEMENT

TABLE 2.1.1 – ANNUAL WASTE INTAKE 2014		
Waste Type	EWC Code	2014 Intake Tonnes
Waste from the mechanical treatment of wood waste	19 12 07	987.24
Garden and park waste from municipal sources	20 02 01	298.14
Organic Fines	19 12 12	20409.27
Wastes form Agriculture – Plant tissue waste	02 01 03	75

2.2 ENVIRONMENTAL MONITORING

2.2.1 Groundwater Results 2014

Table 2.2.1 / 2 – Groundwater Analysis Results 2014

2.2.1 GENERAL CHEMICAL ANALYSIS RESULTS			
Parameter	**GW1**	**GW2**	**GW3**
Chloride (mg/l)	68.4	137.9	28.5
Conductivity (uS/cm)	578	807	297
Nitrate (mg/l)	1.42	1.02	12.23
pH	6.9	6.9	6.6
Total Nitrogen (mg/l)	2.6	<1	10
Ammonia (mg/l)	0.242	0.13	0.016

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	1
1,1,2-Trichloroethane	<2.0	<2.0	<2.0

TABLE 2.2.2 - VOC ANALYSIS USEPA 524.2 (CONTINUED)			
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 2014

TABLE 2.2.3 - DUST RESULTS 2014			
Month	**D1** ($mg/m^2/day$)	**D2** ($mg/m^2/day$)	**D3** $mg/m^2/day$)
June	123	270	59
September	41	66	41
November	53	41	47

2.2.3 Biofilter Monitoring 2014

TABLE 2.2.4 MONITORING RESULTS FROM THE BIOFILTER 19/03/14	
Parameter	Result
% Moisture	75.6
pH	8.4
Ammonia (mg/kg)	54.91
Total Viable Counts @ 30ºC (Solid) cfu/g	$>3 \times 10^6$

TABLE 2.2.5 MONITORING RESULTS FROM THE BIOFILTER 29/09/14	
Parameter	Result
% Moisture	74.6
pH	7.6
Ammonia (mg/kg)	25.75
Total Viable Counts @ 30ºC (Solid) cfu/g	850000

TABLE 2.2.6 BIOFILTER INLET EMISSION LEVELS 19/03/14		
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 2.2.7 BIOFILTER OUTLET EMISSION LEVELS 19/03/14	
Parameter	Inlet Concentration (ppm)
Hydrogen Sulphide	<0.2
Ammonia	<5
Mercaptan	<0.5
Amines	Negative

TABLE 2.2.8 BIOFILTER INLET EMISSION LEVELS 29/09/14		
Parameter	Inlet 1 Concentration (ppm)	Inlet 2 Concentration (ppm)
Hydrogen Sulphide	<0.2	<0.2
Ammonia	25	10
Mercaptans	0.5	<0.5
Amines	Negative	Negative

TABLE 2.2.9 BIOFILTER OUTLET EMISSION LEVELS 29/09/14	
Parameter	Inlet Concentration (ppm)
Hydrogen Sulphide	<0.2
Ammonia	<5
Mercaptan	<0.5
Amines	Negative

2.2.4 PM10 Monitoring 2014

TABLE 2.2.10 RESULTS OF PM_{10} MONITORING 2014			
Sampling Location	Date	Weight Gain (g)	Concentration ($\mu g/m^3$)
Location 1	30/6/14 - 1//7/14	<0.001	< 0.1
Location 1	9/12/14 - 10/12/14	<0.001	< 0.1

2.2.5 Odour Monitoring 2014

TABLE 2.2.11 METEOROLOGICAL CONDITIONS Q2 / Q4		
Parameter	**Q2 2014**	**Q4 2014**
Wind speed (km/hr)	12-16	14 - 18
Wind direction	South Easterly	Westerly

TABLE 2.2.12 ODOUR SAMPLING RESULTS Q2 2014		
Locations	**On site observations**	**Results**
OD1 300m downwind of site	No distinct odour	49 ou_E/m^3
OD2 Biofilter	Slight sweet odour	62 ou_E/m^3

TABLE 2.2.13 CHEMICAL ANALYSIS Q2 2014				
Sample	Hydrogen Sulphide	Ammonia	Mercapten	Amines
OD 01	<0.2	<5	<0.5	Negative
OD 02	<0.2	<5	<0.5	Negative

TABLE 2.2.14 ODOUR SAMPLING RESULTS Q4 2014		
Locations	**On site observations**	**Results**
OD 01 300 meters downwind of compost yard	No Distinct Odour	49 ou_E/m^3
OD 02 At biofilter unit	Slight sweet odour	168 ou_E/m^3

TABLE 2.2.15 CHEMICAL ANALYSIS Q4 2014				
Sample	Hydrogen Sulphide	Ammonia	Mercapten	Amines
OD 01	<0.2	<5	<0.5	Negative
OD 02	<0.2	<5	<0.5	Negative

2.2.6 Noise Monitoring 2014

TABLE 2.2.16: DAY-TIME NOISE MEASUREMENT RESULTS 08:00 to 12:00					
Location / Measurement No.	Measurement Period (min)	L_{eq} dB(A)	L_{10} dB(A)	L_{90} dB(A)	$L_{F\ Max}$ dB(A)
NSL No1	30	48	47	33	76
NSL No2	30	52	47	33	83
NSL No3	30	46	40	30	78
N2 No1	30	54	53	43	81
N2 No2	30	67	67	44	92
N2 No3	30	62	66	52	67

TABLE 2.2.17: NIGHTTIME NOISE MEASUREMENT RESULTS 04:00 to 07:00					
Location / Measurement No.	Measurement Period (min)	L_{eq} dB(A)	L_{10} dB(A)	L_{90} dB(A)	$L_{F\ Max}$ dB(A)
NSL No1	15	43	48	37	63
NSL No2 *	15	48	51	38	71
NSL No3 *	15	52	50	36	81
N2 No1	15	50	54	43	57
N2 No2	15	50	52	43	59
N2 No3	15	50	53	44	55

* - No site noise audible at the NSL during night time measurements

2.2.7 Surface Water 2014

Table 2.2.18 - Surface water Results 2014 for SW1			
Sample ID	BOD (mg/l)	Suspended Solids (mg/l)	Ammonia (mg/l)
SW1 05/06/14	4	<20	3.2
SW1 22/12/14	4	<20	0.65

2.2.8 Non-Compliances 2014

Table 2.2.19 Details of Reported Non-compliance 2014 – Water	
Date	**Non-compliance**
12/6/13 ---------- 21/02/14	Discharge of contaminated storm water at SW1 with BOD = 315mg/l and Ammonia = 15.31mg/l
26/7/13 ---------- 21/2/14	Discharge of contaminated storm water at SW1 with BOD = 70mg/l, Ammonia = 8.23mg/l and Suspended Solids = 137mg/l.
25/10/13 ---------- 21/2/14	Discharge of contaminated storm water at SW1 at 8am with BOD = 182.4mg/l, Ammonia = 22.9mg/l and Suspended Solids = 34.8mg/l
25/10/13 ---------- 21/2/14	Discharge of contaminated storm water at SW1 at 12pm with BOD = 114.4mg/l, Ammonia = 11.63mg/l and Suspended Solids = 33.6mg/l.
25/10/13 ---------- 21/2/14	Discharge of contaminated storm water at SW1 at 2pm with BOD = 98.8mg/l and Ammonia = 8.6mg/l.
30/10/13 --------- 21/2/14	Discharge of contaminated storm water at SW1 with BOD = 127mg/l and Ammonia = 27.81mg/l.
18/12/13 --------- 21/2/14	Discharge of contaminated storm water at SW1 with BOD = 27mg/l and Ammonia = 4.9mg/l.

Table 2.2.20 Details of Non-compliance 2014 – Air	
Date	**Non-Compliance**
	None

Table 2.2.21 Details of Non-compliance 2014 – General Audit	
Date	**Non-Compliance**
21/5/14	Licensee is using an un-approved waste storage area on-site.
21/5/14	Licensee did not notify the Agency of discharge of contaminated storm water on 26/07/2013 and 30/10/2013
21/5/14	Waste is not being stored to protect it as may be appropriate against spillage and leachate run-off and waste is not clearly labelled
21/5/14	The Licensee did not assign EWC codes to all incoming waste materials accepted at the facility
21/10/14	On site visit of 21/10/2014 it was noted that an un-approved waste storage area on-site (a former slatted agricultural shed) was being used for the storage of waste material. This issue was highlighted as a non-compliance in the Agency site visit of 21/05/2014.
21/10/14	On site visit of 21/10/2014, it was noted that a report on the fire water risk assessment was received by the Agency on 27/01/2012, however the report was not to the satisfaction of the Agency and the Licensee was requested to submit a revised report (Reference Agency correspondence W0270/rf02db of 22/03/2012). The Agency has not received a revised report to date
21/10/14	At site visit of 21/10/2014 Derry Murphy, Site/Environmental Manager, stated the results of monitoring of storm water discharges from the facility at emission point SW1, which showed elevated levels of BOD, Suspended Solids and Ammonia being discharged at SW1 on 12/06/2013, 26/07/2013, 25/10/2013 8am, 25/10/2013 12pm, 25/10/2013 2pm, 30/10/2013 and 18/12/2013 were not notified to the Local Authority as soon as practicable after he became aware of the quality of the discharge

2.3 RESOURCE USAGE

The summary details of energy and water usage at the plant for the period January 2014 to December 2014 is detailed in Table 2.31 below.

Resources	Quantities
Diesel	41849 L
Electricity	208435 KwH
Hydraulic, Transmission & Engine Oil	1800 L
Detergent	20 L
Grease	20 Kg
Anti Freeze	100 L

2.4 ENVIRONMENTAL INCIDENTS AND COMPLAINTS

2.4.1 Incidents report for the period January 2014 to Dec 2014.

Incident	Incident Category	Start date	Finish date	Likely Cause
Exceedance of trigger level for Ammonia	1	21/10/14	22/10/14	Inadequate Operational Procedures/Training
Exceedance of trigger level for Ammonia	1	6/11/14	7/11/14	Inadequate Operational Procedures/Training

2.4.2 There were no complaints to report for the period January 2014 to Dec 2014.

2.5 ENVIRONMENTAL SPENDING

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

January 2014 – December 2014	**€**
EPA Fee's	8658.96
Waste Licence management	36000
Contaminated water re-circulation system	9000
Rain water tank installation	16000
Bunding and roof for screener hose	2500
Total Spend	72158.96

2.6 ENVIRONMNETAL TRAINING

Copy of environmental training record included in Attachment 2.

Environmental Management Programme for 2014.

Review of Objectives and Targets for the period January to December 2014

Tables EMP 1.1 to 1.5 reviews the Objectives and Targets set for 2015. 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 2014. 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 2015

Item No	OBJECTIVE	TARGET	RESPONSIBLE PERSON
1	Water Management	• Maintain checklist for alarms and daily records • Prepare planning application for the covering for final unroofed yard • Prepare planning application for fire water retention facility	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	2014 Review	Person Responsible
Water Management	Maintain checklist for alarms and daily records	Continuous 2014	Complete	Derry Murphy
	Assess possibility of covering for final unroofed yard	Q2 2014	Complete	Derry Murphy
	Investigate options for fire water retention facility	Q2 2014	Complete	Derry Murphy

Energy management EOT 1.2

Objective	Target	Target Date	2014 Review	Person Responsible
Energy Management	Carry out Energy Audit	Q2 2014	Move to 2015	Derry Murphy - OCM
	Investigate potential for Anaerobic Digestion (AD) Plant.	2014	On-Going	Derry Murphy
	Study possibility of installing a CHP plant in conjunction with AD plant.	2016	Not due until 2016	Derry Murphy

Environmental Management System EOT 1.3

Objective	Target	Target Date	2014 Review	Person Responsible
E.M.S	Maintain EMS documentation.	2014	Complete	Derry Murphy
	Update procedures to reflect operational and control change.	Continuous 2014	3 new SOP's in 2014 *	Derry Murphy
	Maintain EMP by means of Bi-annual assessment.	June / Dec 2014	Complete	Derry Murphy

* **SOPMC11 -** Incident Notification Procedure
SOPMC12 - Storm water discharge daily visual inspection procedure
SOPMC13 - Storm water trigger level procedure

Licence Management EOT 1.4

Objective	Target	Target Date	2014 Review	Person Responsible
Licence Management	Prepare proposal for and finalise Hydrogeological Study.	2014	Move to 2015	Derry Murphy
	Assess nuisance control procedures and practices.	Continuous 2014	On-Going	Derry Murphy
	Undertake all environmental monitoring as per licence.	2014	Complete	Matrix Env

Incoming waste / Finished product EOT 1.5

Objective	Target	Target Date	2014 Review	Person Responsible
Incoming waste / Finished product	Investigate new waste types for inclusion in compost process	2014	One new waste added 02 01 03	Derry Murphy
	Research new sustainable outlets for the finished products	2014	Further to meeting with EPA the current monitoring costs are restrictive.	Derry Murphy

Water Pollution Prevention EOT 2.1

Objective	Target	Target Date	Method
Water Pollution Prevention	Maintain checklist for alarms and daily records	Continuous 2015	Fill in the daily checklist and site alarms
	Prepare planning application for the covering for final unroofed yard	Q1 2015	Send on planning application to county council
	Prepare planning application for fire water retention facility	Q1 2015	Send on planning application to county council

Energy Management EOT 2.2

Objective	Target	Target Date	Method
Energy Management	Carry out Energy Audit	Q3 2015	Undertake Energy Audit as per EPA requirements.
	Investigate potential for Anaerobic Digestion (AD) Plant.	2015	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
E.M.S	Maintain EMS documentation.	Q2 2015	Review all EMS procedures
	Update procedures to reflect operational and control change.	Continuous 2015	Continuous review of procedures to reflect any changes which occur in terms of site operations or processes.
	Maintain EMP by means of Bi-annual assessment.	June / Dec 2015	Assess biannually to ensure targets are achieved.

Licence Management EOT 2.4

Objective	Target	Target Date	Method
Licence Management	Prepare proposal for and finalise Hydrogeological Study.	2015	Prepare and submit a proposal detailing the methodology for a hydrogeological study.
	Assess nuisance control procedures and practices.	Continuous 2015	Review procedures. Ensure 6 weekly visits of nuisance control company occurs.
	Undertake all environmental monitoring as per licence.	2015	1 x Noise Survey 2 x Odour Assessment 3 x Dust Monitoring 2 x Biofilter Analysis 1 x Bioaerosol Study 2 x PM10 Survey

Incoming waste / Finished product EOT 2.5

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

Appendix 1

PRTR Scans

Guidance to completing the PRTR workbook

AER Returns Workbook

Version 1.1.16

REFERENCE YEAR	2014

1. FACILITY IDENTIFICATION

Parent Company Name	Miltown Composting Systems Limited
Facility Name	Miltown Composting Systems Limited
PRTR Identification Number	W0270
Licence Number	W0270-01

Classes of Activity

No.	class_name
-	Refer to PRTR class activities below

Address 1	Miltownmore
Address 2	Fethard
Address 3	
Address 4	
	Tipperary
Country	Ireland
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	Derry Murphy
AER Returns Contact Email Address	derry@miltowncomposting.ie
AER Returns Contact Position	Site Manager
AER Returns Contact Telephone Number	0874125625
AER Returns Contact Mobile Phone Number	0874125625
AER Returns Contact Fax Number	
Production Volume	0.0
Production Volume Units	
Number of Installations	1
Number of Operating Hours in Year	0
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)

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 on-site treatment (either recovery or disposal activities) ?	

4.1 RELEASES TO AIR

Link to previous years emissions data

| PRTR# : W0270 | Facility Name : Miltown Composting Systems Limited | Filename : W0270_2014 (1).xls | Return Year : 2014 | 27/03/2015 15:39

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					
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 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
215	Hydrogen sulphide	M	OTH	Dreagar Tubes	0.0	0.0	0.0	0.0
220	**Mercaptans**	M	OTH	Dreagar Tubes	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: Miltown Composting Systems Limited

Please enter summary data on the quantities of methane flared and / or utilised

	T (Total) kg/Year	M/C/E	Method Used: Method Code	Method Used: 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	

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

Please enter all quantities on this sheet in Tonnes

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	19 03 05	No	1073.64	stabilised wastes other than those mentioned in 19 03 04	R10	M	Weighed	Offsite in Ireland	South Tipperary Co Co,W074-03	Garyshane,Donohill,Co. Tipperary,",",Ireland		
Within the Country	19 05 99	No	2329.86	wastes not otherwise specified	R10	M	Weighed	Offsite in Ireland	Limerick CoCo Gortadroma Landfill ,W0017-04	Gortadroma Landfill,Ballyahill,Co.Limerick ,",",Ireland		
Within the Country	19 05 99	No	3245.0	wastes not otherwise specified	R10	M	Weighed	Offsite in Ireland	Monaghan CoCo Scotch Corner landfill,W020-03	Letterbane,Annyalla,Castlebl aney,Co. Monaghan,Ireland		
Within the Country	19 05 03	No	7995.3	off-specification compost	R10	M	Weighed	Offsite in Ireland	Bord na Mona Drehid landfill,W0203-03	Killinagh Lower Upper,",",Carbury,Co. Kildare,Ireland		
Within the Country	20 01 40	No	14.98	metals	R4	M	Weighed	Offsite in Ireland	Souther Truck Recycling Ltd,NWCPO-09-04587-02	Cloughleaflin,",",Mitchelstow n,Co. Cork ,Ireland		

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

Appendix 2

Training Records

Final Version *Page: 31*

Task/Work Practice	**Specific Training Provided** *(In-House/Outside Agency/Date)*	**Name of Employee**
I work through SOP's 1-10 13/02/2014.	In House with Facility Manager Derry Murphy	Martin Bourke
Staff Briefing Meeting Training on EPA Requirements License Conditions etc. 11/04/2014	with Tony Nugent	Martin Bourke Don Moorehouse EAMON CREMIN NEIL BARRY DERRY MURPHY
Environmental training & awareness – emphasising storm water management from Licence, SOP's & Management of Stormwater	In-House with Facility Manager Derry Murphy David & Patrick Smith – Contractors	
Recirculation system 18/11/2014	– with Staff, Eamon CREMIN, Don MOOREHOUSE Martin BOURKE & Neil Barry	
Staff Training in SOP's 11 – Incident Notification Procedure ~~with~~ on 18th December 2014	In House with Facility Manager DERRY MURPHY	NEIL BARRY EAMON CREMIN MARTIN Bourke Don MOOREHOUSE DAVID SMITH
STAFF TRAINING ON SOP 12 – STORM WATER DAILY VISUAL SOP 13 – STORM WATER TRIGGER Level PROCEDURE 30/12/2014	IN HOUSE With FACILITY MANAGER DERRY MURPHY	Neil BARRY EAMON CREMIN – MARTIN BOURKE DON MOOREHOUSE DAVID SMITH