



ANNUAL ENVIRONMENTAL REPORT

2013

Name: Acorn Recycling Ltd

Address: Ballybeg Composting Facility, Ballybeg, Littleton, Co. Tipperary

Waste Licence: W0249-01

Reporting Period: 01 January 2013 – 31 December 2013

Submitted by *Sam Bowden*
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Environmental Manager

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Acorn Recycling Ltd Registered in Ireland: Company No: 384234. VAT No: 6404234F.
Managing Director: Rónán Beasley. Acorn Recycling is a member of the Arlo Group.

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- Environmental Objectives & Targets 2013
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1.0 Introduction

The Ballybeg Composting Facility operated by Acorn Recycling, Ballybeg, Littleton, Co. Tipperary commenced waste acceptance on the 21st June 2010.

The facility is a fully enclosed forced aeration in-vessel composting facility with air extraction and biofiltration.

The facility is licensed by the EPA under waste licence W0249-01 for the acceptance of 45,000 tonnes per annum of a biodegradable wastes.

In accordance with condition 11.12 of the licence this report is the Annual Environmental Report (AER) for 2013. The report covers the period 1st January 2013 to 31st December 2013.

2.0 Waste Activities carried out at the Facility

The facility is licensed to carry out the waste activities listed below in accordance with the third and fourth schedules of the waste management acts 1996 – 2008. The extent to which the waste activity was carried out is detailed for each activity

Third Schedule Activities

- 6. Biological treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 5 or paragraphs 7 to 10 of this Schedule (Code: D8)

No wastes were accepted for treatment under this activity in 2013

- 13. Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced (Code: D15)

Not carried out during the reporting period

Fourth Schedule Activities

- 2. Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological processes) (Code: R3).

32,239.78 tonnes of biodegradable wastes was accepted at the facility for composting

- 13. Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced (Code: R13)

Not carried out during the reporting period

3.0 Waste Management Record

3.1 Waste Acceptance

A total of 32,230.78 tonnes of waste was accepted at the facility for treatment during the reporting period.

Table 1. below shows the waste types and quantities accepted at the facility during the reporting period.

The most abundant waste type received was Biodegradable Kitchen & Canteen Waste (EWC 200108) which constituted XXX% of the total waste received.

Table 1. Waste Accepted 2013

EWC	DESCRIPTION	QUANTITY (t)
020106	ANIMAL FAECES, URINE AND MANURE (AGRI.)	12.52
020203	MATERIALS UNSUITABLE FOR CONSUMPTION OR PROCESSING	172.02
020204	SLUDGES FROM ON-SITE EFFLUENT TREATMENT (MEAT INDUSTRY)	189.33
020304	MATERIALS UNSUITABLE FOR CONSUMPTION OR PROCESSING (ANIMAL FEED)	312.48
020501	MATERIAL UNSUITABLE FOR CONSUMPTION OR PROCESSING (DAIRY INDUSTRY)	395.50
020502	SLUDGES FROM ON-SITE EFFLUENT TREATMENT (DAIRY INDUSTRY)	479.48
020704	MATERIALS UNSUITABLE FOR CONSUMPTION PROCESSING (DRINKS INDUSTRY)	280.94
020705	SLUDGE FROM ON-SITE EFFLUENT TREATMENT (DRINKS INDUSTRY)	9.26
070599	WASTES NOT OTHERWISE SPECIFIED (MUD FROM FIRE WATER RETENTION POND)	29.60
190805	SLUDGES FROM TREATMENT OF URBAN WASTE WATER	2749.94
190901	SOLID WASTE FROM PRIMARY FILTRATION AND SCREENINGS	179.66
190902	SLUDGE FROM WATER CLARIFICATION	28.34
190904	SPENT ACTIVATED CARBON	34.55
191207	WOOD OTHER THAN THAT MENTIONED IN 191206	920.40
200108	BIODEGRADABLE KITCHEN AND CANTEEN WASTE	25824.02
200125	EDIBLE OIL AND FAT	451.60
200201	BIODEGRADABLE WASTE	53.36
200304	SEPTIC TANK SLUDGE	76.46
200306	WASTE FROM SEWAGE CLEANING	30.52
	Total	32230.78

3.2 Waste Dispatched

Two waste types were dispatched offsite during the reporting period namely; plastics from the screening of compost (EWC 190501) and Interceptor sludges (EWC130503*)

The following quantities of each waste were disposed of in 2013

Table 2. Waste dispatched 2013

EWC	DESCRIPTION	TONNAGE DISPOSED
190501	Plastic 'Overs'	2479.20
130503*	Interceptor sludge	1.8

In accordance with condition 11.13 of the waste licence a full record is maintained on site which is open to inspection by the agency. This record contains the tonnages, EWC code, description of waste, details of the waste haulier, and details of the disposal destination (including waste licence/permits where appropriate).

4.0 Resource Consumption Summary

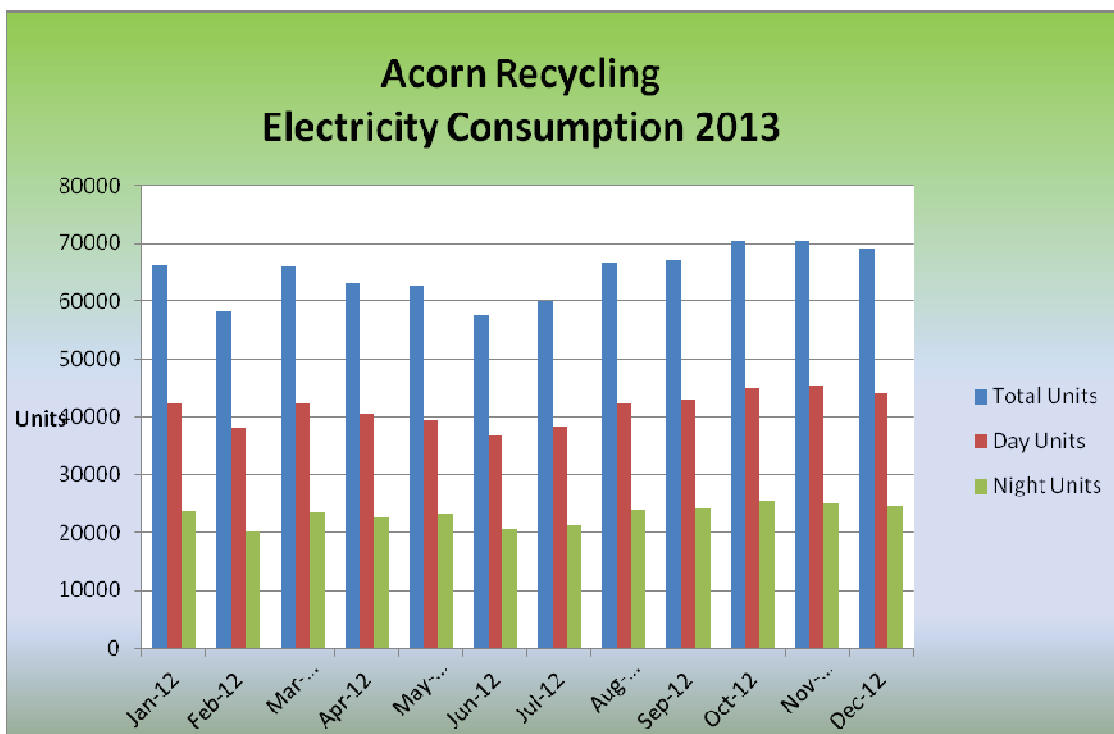
4.1 Electricity Usage

Table 3. and Figure 1. below detail the day and night units of electricity used on site during each month in 2013

Table 3. Electricity Consumption 2013

Electricity Consumption 2013			
Billing Period	Day Units	Night Units	Total Units
Jan-13	42402	23735	66137
Feb-13	38129	20143	58272
Mar-13	42376	23513	65889
Apr-13	40508	22555	63063
May-13	39369	23209	62578
Jun-13	36745	20827	57572
Jul-13	38477	21456	59933
Aug-13	42396	24133	66529
Sep-13	43028	24235	67263
Oct-13	45036	25443	70479
Nov-13	45360	25062	70422
Dec-13	44252	24709	68961
Total	498078.00	279020	777098.00

Figure 1. Electricity Consumption 2013



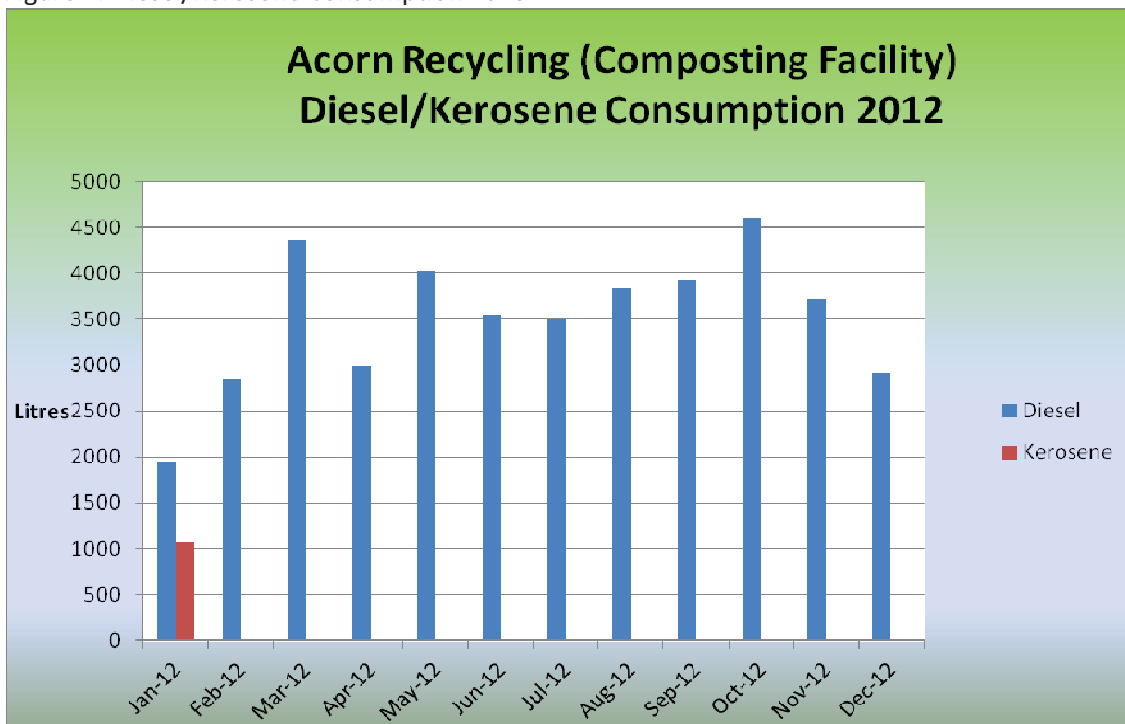
4.2 Diesel Usage

Table 4. and Figure 2. below show diesel and kerosene consumption in 2013. The Diesel consumption remained fairly steady during 2013. 1342 litres of kerosene was delivered to site in 2013 to fuel the power washer & this lasted until Jan 2014.

Table 4. Diesel Consumption 2013

Jan-13	3,769	854.00
Feb-13	3,630	
Mar-13	4,337	488.00
Apr-13	3,412	
May-13	5,347	
Jun-13	4,311	
Jul-13	5,383	
Aug-13	5,336	
Sep-13	4,801	
Oct-13	3,342	
Nov-13	4,460	
Dec-13	2,325	
Total	50,453	1,342.00

Figure 2. Diesel/Kerosene Consumption 2013



4.3 Compost Amendment Materials

920.04 tonnes of woodchip was accepted at the facility for use in the composting process.

31.46 tonnes of lime and 7.24 tonnes of Perlite were mixed with the final compost product prior to dispatch from site to improve product quality in 2013.

4.4 Water

Water usage on site is minimal. A power washer is used on site to wash vehicles upon exit as well as cleaning equipment on site. Other uses on site include use in the canteen.

Following this review a new pressure washer on site was purchased. The water usage when operational is 15l min. Total estimated water usage on site is 450 litres per day.

5.0 Report on the assessment of the efficiency of use of raw materials in processes and the reduction in waste generated.

Specific changes in operations resulted in cleaner/drier overs produced resulting in reduced woodchip use compared with 2012.

Total woodchip used was 920.04 tonnes down from 950.98 tonnes per annum in 2012. In proportion to the quantity of waste received for processing the use of woodchip was reduced from 48kg per tonne of waste received in 2012 to 29.434kg per tonne of waste received in 2013.

The plastics produced for disposal offsite was up marginally (as predicted) from 5.75% in 2012 to 7.842% in 2013 due to an increased proportion of brown bin waste in the waste received.

6.0 Complaints Summary

There was no complaints made to the facility in 2013

7.0 Reported Incidents Summary

There were no incidents in 2013

8.0 Review of Nuisance Controls

Every effort is made to eliminate nuisance problems on site.

Potential nuisance problems include the following;

Dust: During normal operations dust has not been an issue at the site whatsoever. 3 times per year monitoring will continue and no high levels of dust have been recorded. The potential for dust arise from compost that sometimes can become very dry in the maturation area. When a trailer is being loaded with compost the shed doors must be closed down to prevent any dust emissions.

Odour: The biofilter continued to operate well throughout 2013. Continuous monitoring continues as per licence requirements (See 11.4 Odour & Bioaerosols).

Litter: No litter nuisance has occurred outside the boundary of the site. Good housekeeping has ensured that any litter present within the site is quickly removed. Work practices on site, such as all loads tipped inside the building with doors closed, ensure there is little risk of litter generation outside the building. A member of staff patrols the site to collect any litter every day.

Vermin: A comprehensive pest control programme is in place whereby a specialist pest company puts out bait and monitors activity on site.

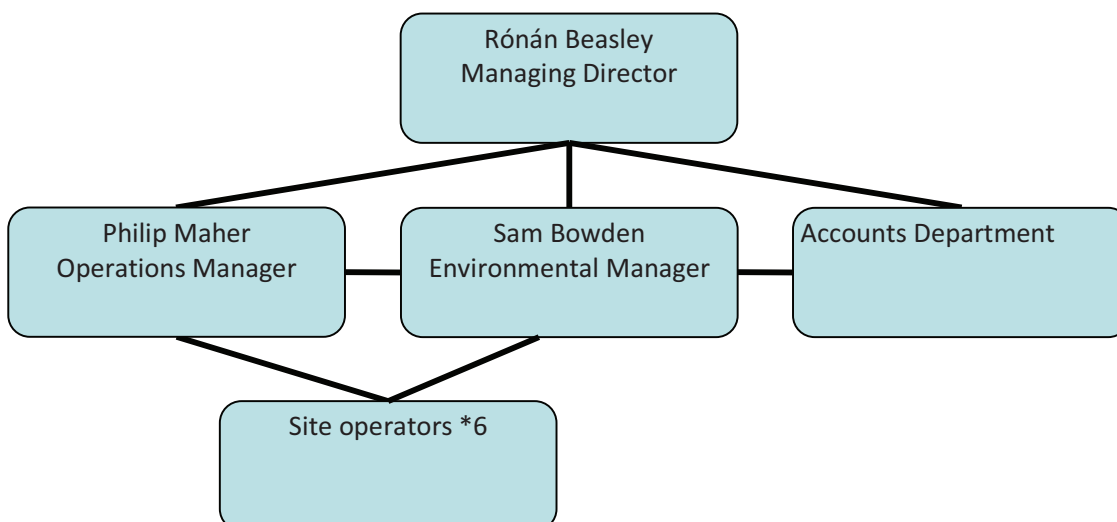
Birds: Birds are not an issue at the site. All waste activities are carried out within the closed building.

Noise: Noise monitoring has shown that no noise levels in excess of licence limits have been caused by noise from the facility at the noise sensitive locations. As all activities are carried out within a closed building this reduces the risk of nuisance caused by noise from the facility. There have been no complaints relating to noise from the facility.

9.0 Management and Staffing Structure of the Facility and programme for public information

Table 5. Management of the Facility

Name	Position	Duties and Responsibilities	Experience /Qualifications
Rónán Beasley	Managing Director	Overall Management of Company	B.Sc in Environmental Science Environmental Manager of McGill Environmental 2001 to 2006
Sam Bowden	Environmental Manager	Responsibility maintaining EMS, liaising with licensing authorities, quality control, process optimisation, waste acceptance. Health & Safety	B.Sc. in Environmental Science and Technology, M.Sc. in Environmental, Health and Safety Management Certificate in Compost Facility Operation
Philip Maher	Operations Manager	Day to day management operations on site. Responsibility for implementing procedures on site Maintenance of equipment	Cré - Institute of Technology, Sligo - FÁS Certificate in Compost Facility Operation Experience in managing composting facility.



Programme for public information

Acorn Recycling have an open door policy for public information. Members of the public are regularly shown around the facility and can access environmental information on site. A copy of the communications programme is available on site EMS ARB06-CP

10.0 Environmental Monitoring

10.1 Noise Monitoring

Day and Night noise monitoring was carried out at the facility by an independent consultants Panther Environmental on 20th Aug 2013. The results showed no significant noise nuisance being caused by the facility. Daytime and night noise levels at NSL1 & NSL2 above the licence limits were recorded but these were caused by high noise levels at the road and were not caused by the composting facility. There was no noise audible noise from the compost facility.

NSL1 Daytime

The dominant day-time noise source at this location is road traffic passing along the public road which was almost continuous during the busy monitoring period. Noise from the facility was not audible at this location at any time during the monitoring period.

The Leq10 was high due to this almost continuous traffic during the monitoring period.

The Leq90 which may be used to give an indication of the actual back-ground noise was determined to be 45 dB(A).

Facility noise at this location does not therefore appear to constitute a nuisance, as the dominant noise source is traffic from the main road during day-time periods.

NSL2 Daytime

The dominant day-time noise source at this location is road traffic passing along the public road which was almost continuous during the busy monitoring period.

Noise from the facility was not audible at this location at any time during the monitoring period.

The Leq10 was high due to this almost continuous traffic during the monitoring period.

The Leq90 which may be used to give an indication of the actual back-ground noise was determined to be 42 dB(A).

Facility noise at this location does not therefore appear to constitute a nuisance, as the dominant noise source is traffic from the main road during day-time periods.

NLS1 Night-time

Noise from the facility was not audible at this location at any time during the monitoring period. The Leq10 was high due to the passing traffic during the monitoring period.

The Leq90 which may be used to give an indication of the actual back-ground noise was determined to be 39 dB(A).

Facility noise at this location does not therefore appear to constitute a nuisance, as the dominant noise source is traffic from the main road during day-time periods.

NSL2 Night-time

The dominant night-time noise source at this location is road traffic passing along the public road, although not as frequent as the day-time period. Noise from the facility was not audible at this location at any time during the monitoring period.

The L_{eq10} was high due to the passing traffic during the monitoring period.

The L_{eq90} which may be used to give an indication of the actual back-ground noise was determined to be 38 dB(A). Facility noise at this location does not therefore appear to constitute a nuisance, as the dominant noise is traffic from the main road during day-time periods.

Table 6. Noise Monitoring 2013 (NSL1/NSL2) 20th Aug 2013

A survey was carried out at each location day & night

NSL	Day dB(A) Laeq (30min)	Day L_{90}	Night dB(A) Laeq (30min)	Night L_{90}
NSL1	62	45	55	39
NSL2	58	42	53	38

10.2 Groundwater Monitoring

As per Table C.2.3 of the waste licence groundwater on site was sampled and tested on 19th Dec for the parameters below.

Table 8. Groundwater Monitoring Results (Sampling Date: 19 Dec 2013)

Parameter	GW1	GW2**	GW3
pH	7.2	7.7	7.1
Nitrate	<1	<1	2.3
Total Ammonia	3.85	6.08	1.76
Total Nitrogen	6.8	2.6	11.2
Conductivity	549	329	574
Chloride	13.9	15.9	12.1
Organic Compounds	Not detected*	Not detected*	Not detected*

10.3 Monitoring of Emissions to Water

One sample was taken from storm water discharging from the site at SW1 during the reporting period.

Table 9. Storm Water Monitoring

Parameter	25Oct2013
Ammonia (mg/l)	4.55
Suspended Solids (mg/l)	<50

10.4 Odour & Bioaerosols

A comprehensive Odour and Bio aerosols monitoring program is carried out on site by independent consultants, Odour Monitoring Ireland Ltd. This program monitors the efficiency of the biofilter on site as well as ambient bioaerosols.

Table 10. Biofilter Monitoring
2013

Parameter	Q1 (28Feb2013)	Q2 (11Jun2013)	Q3 (12Sept2013)	Q4 (06Nov2013)	Limit
Average Odour OUE/m ³	3941	3941	1689	1564	—
% Odour Removal	93	93	97	97	—
Total Aliphatic Amines (mg/Nm ³)	0.86		0.24		—
Hydrogen Sulphide (mg/Nm ³)	0.004		0.01		<5
Ammonia (mg/Nm ³)	1.89		1.1		<50
Total Mercaptans (mg/Nm ³)	<0.1		<0.09		<5
Bed Media pH	6.9		6.5		—
Moisture (% w/w)	48		52		—
Total Viable Counts (CFU/Kg)	6.6*10 ⁵		5.9*10 ⁵		—

Table 11. Bioaerosols Monitoring 2013

Location	Aspergillus Fumigatus (CFU m ³)	Mesophilic Bacteria (CFU m ³)
Loc Bio1	10	33
Loc Bio2	9	164
Loc Bio3	14	72

Table 12. PM10 Monitoring
PM10 Monitoring 2013

Location	(H1) Average Concentration (ug/m ³) (11Jun2013)	(H2) Average Concentration (ug/m ³) (06Nov2013)	Limit (ug/m ³)
PM1	8	5	50

Ammonia Emissions

The total volume of air extracted through the biofilter is estimated at 55,710m³ per hour.

The total volume of air extracted during the year is 55,710m³/hr * 8760 hrs =

258,048,720m³/year

Average of 2 ammonia samples = 1.495 mg/m³ NH₃

Total ammonia emissions load in 2013 = 1.495mg/m³ * 258,048,720m³

= 385.782 kg/year NH3

10.5 Dust Deposition Monitoring

Dust deposition monitoring was carried out at the site on three times in 2013 at four monitoring locations. Average dust levels did not exceed the licence limit of 350mg/m²/day in 2013.

Table 13 Dust Deposition 2013 (mg/m²/day)

Duration	DD1	DD2	DD3	DD4
08/03/2013 - 18/04/2013	35.2	10.1	40.6	11.4
22/07/2013 - 03/09/2013	74.1	86.9	223.7	44.3
03/09/2013 - 25/10/2013	16.7	4.2	7.1	3.0

11.0 Procedures developed in 2013 relating to facility operations

Acorn Recycling developed the Standard Operation Procedures listed in Table 13. for operations at the composting facility. These procedures are kept under continuous review and updated during 2013, including 1 new procedure. Full up-to-date effective versions of these procedures are available on site for inspection.

Document Code	Procedure Description
SOP ARB01	Waste Acceptance and Characterisation Procedure
SOP ARB02	Cleaning and Hygiene Procedure
SOP ARB03	Blending/Loading a Bay
SOP ARB04	Screening and Loading/unloading of ABP sanitisation bays
SOP ARB05	Batch Traceability Procedure
SOP ARB06	Handling of Leachate Procedure
SOP ARB07	Compost Sampling and non-compliance
SOP ARB08	Non Compliance and Corrective Action
SOP ARB10	Awareness and Training Procedure
SOP ARB11	Emergency Response Procedure
SOP ARB12	Accident Prevention Procedure
SOP ARB13	Documentation Procedure
SOP ARB14	Groundwater Monitoring Procedure
SOP ARB15	Surface Water Monitoring Procedure
SOP ARB16	Dust Deposition Monitoring Procedure
SOP ARB17	Verification of ABP processing temperatures
SOP ARB18	Management of compost in maturation area
SOP ARB19	Testing of compost for physical contaminants

12.0 Environmental Objectives & Targets and Environmental Management Programme report for 2013 and proposal for 2014

See attached separately

ENVIRONMENTAL OBJECTIVES AND TARGETS.

Environmental Objective and Targets for period 2011 – 2015 (Primary Objectives over the period)			
Objective No.	Objective		
1.0	To implement and maintain an EMS in order to ensure all requirements of the waste licence is being adhered to.		
2.0	To ensure compliance with environmental monitoring and emission limits in the licence and to improve these parameters beyond the requirements of the licence where practicable.		
3.0	To continually improve energy efficiency and resource use at the site		
4.0	To continually improve the quality of the products and residues produced on site destined for reuse, recovery and recycling, and to minimise the quantity of products sent for disposal.		
5.0	To enhance our relationship with the local community through communication, transparency, nuisance avoidance, and provision of services		

ENVIRONMENTAL MANAGEMENT PROGRAMME 2013

Objective 1.0: To implement and maintain an EMS in order to ensure all requirements of the waste licence is being adhered to

Objective No.	Target	Plan	Timescale	Responsibility	Status
1.1	To ensure all relevant employees are made aware of the requirements of the EMS and waste licence	Identify Environmental Training needs of all employees Schedule appropriate training Provide environmental awareness training	Deadline 31.12.2013	Environmental Manager (SB) H & S co-ordinator (SB)	Completed

ENVIRONMENTAL MANAGEMENT PROGRAMME 2013

Objective 2.0: To ensure compliance with environmental monitoring and emission limits in the licence and to improve these parameters beyond the requirements of the licence where practicable.

Objective No.	Target	Plan	Timescale	Responsibility	Status
2.1	To carry out all environmental monitoring as agreed with the agency	develop and implement monitoring schedule. Change as per agreements with Agency liaise with contractors Collate data	Deadline 31.12.2013	Environmental Manager (SB)	ongoing
2.2	Establish life span of biofilter and methodology for replacement of media when required	1) Assess biofilter including assessment of the following parameters; Bacteria count Particle size Removal efficiency Bed & back pressure Trial pits for assessment to be dug 2) Establish budget & methodology for removal of biofilter (diversion of extraction during replacement, equipment, source of replacement woodchip etc)	Deadline 31.08.2013	Environmental Manager & Managing Director	Completed. Biofilter operation efficiently. Ongoing monitoring and further review in Autumn 2014

ENVIRONMENTAL MANAGEMENT PROGRAMME 2013

Objective 3.0: To continually improve energy efficiency and resource use at the site

Objective No.	Target	Plan	Timescale	Responsibility	Status
3.1	Track changes in diesel use in 2013. Reduce diesel consumption per tonne waste processed by 5%	Implement training of loader operators to ensure efficient loader operation	Dec 2013	Environmental Manager/Operations Manager	Completed. Training and awareness to drivers. Diesel usage reduced from 2.1 litres to 1.6 litres per tonne received
3.2	Maintain Electricity consumption per waste received at <35units per tonne received.	Continuous monitoring of electricity usage via scada system. Extraction & aeration fans to be adjusted to reflect operations Awareness to turn off lights when not in use.	Dec 2013	Environmental Manager	Completed. Electricity consumption reduced from 34.08 to 24.85 units per tonne of waste received.
3.7	To review on a continuous basis the compost quality results obtained from the testing as required under the licence.	Review results as received for conformity to the compost quality requirements	Continuously Deadline 31.12.2013	Environmental Manager	Completed.



ENVIRONMENTAL MANAGEMENT PROGRAMME 2013

Objective 4.0: To continually improve the efficiency of the materials flow through the operations with a view to improving the quality of the products and residues produced on site destined for reuse, recovery and recycling, and to minimise the quantity of products sent for disposal

Objective No.	Target	Plan	Timescale	Responsibility	Status
4.1	Carry out an assessment of the efficiency of use of raw materials in all processes, having particular regard to the reduction in waste generated	<p>Continued monitoring of batches to enhance process efficiency.</p> <p>Examine methods for improving the quality of the plastic recovered (Pre-screen operation)</p> <p>Investigate possibility of installing wind-sifter to extract light plastics from the recycled overs' fraction.</p> <p>Examine quality of waste received on site. Ensure any contamination with plastics, glass etc is reported to waste companies.</p>	Deadline 31.12.2013	Environmental Manager	<p>Completed.</p> <p>Established a more effective method for cleaning plastic, reducing weight to landfill.</p> <p>Investigated options, however these have little return unless compost increases in value.</p> <p>Training and staff competence in removing waste glass from incoming waste has improved quality.</p>



ENVIRONMENTAL MANAGEMENT PROGRAMME 2013

Objective 5.0: To enhance our relationship with the local community through communication, transparency, nuisance avoidance, and provision of services

Objective No.	Target	Plan	Timescale	Responsibility	Status
5.1	Review Public Awareness and Communication Programme	Provide tours of facility to local schools, CIWM, Macra Na Feirne etc.	31.12.2012	Environmental Manager (SB)	Completed
5.2	Review biofilter (See 2.2)				
5.3	Reduce potential for odour release when vehicles entering open doors	Installation of PVC strip curtains on each of 3 main access doors.	30.06.2013	Environmental Manager (SB)	completed

ENVIRONMENTAL OBJECTIVES AND TARGETS.

Environmental Objective and Targets for period 2011 – 2015 (Primary Objectives over the period)			
Objective No.	Objective		
1.0	To implement and maintain an EMS in order to ensure all requirements of the waste licence is being adhered to.		
2.0	To ensure compliance with environmental monitoring and emission limits in the licence and to improve these parameters beyond the requirements of the licence where practicable.		
3.0	To continually improve energy efficiency and resource use at the site		
4.0	To continually improve the quality of the products and residues produced on site destined for reuse, recovery and recycling, and to minimise the quantity of products sent for disposal.		
5.0	To enhance our relationship with the local community through communication, transparency, nuisance avoidance, and provision of services		

ENVIRONMENTAL MANAGEMENT PROGRAMME 2014

Objective 1.0: To implement and maintain an EMS in order to ensure all requirements of the waste licence is being adhered to

Objective No.	Target	Plan	Timescale	Responsibility	Status
1.1	To ensure all relevant employees are made aware of the requirements of the EMS and waste licence	Identify Environmental Training needs of all employees Schedule appropriate training Provide environmental awareness training	Deadline 31.12.2014	Environmental Manager (SB) H & S co-ordinator (SB)	

ENVIRONMENTAL MANAGEMENT PROGRAMME 2014

Objective 2.0: To ensure compliance with environmental monitoring and emission limits in the licence and to improve these parameters beyond the requirements of the licence where practicable.

Objective No.	Target	Plan	Timescale	Responsibility	Status
2.1	To carry out all environmental monitoring as agreed with the agency	develop and implement monitoring schedule. Change as per agreements with Agency liaise with contractors Collate data	Deadline 31.12.2014	Environmental Manager (SB)	Ongoing
2.2	Establish life span of biofilter and methodology for replacement of media when required	Continue to monitor. Plan established for removal and restocking biofilter. Re-examine biofilter in August 2014	Deadline 31.08.2014	Environmental Manager & Managing Director	Ongoing

ENVIRONMENTAL MANAGEMENT PROGRAMME 2014

Objective 3.0: To continually improve energy efficiency and resource use at the site

Objective No.	Target	Plan	Timescale	Responsibility	Status
3.1	Track changes in diesel use in 2014. Maintain 2013 Diesel consumption levels in 2014. New Loader with better fuel efficiency arriving 2014. Assessment of the loader type required.	Implement training of loader operators to ensure efficient loader operation	Dec 2014	Environmental Manager/Operations Manager	Review Jan/Feb 2015
3.2	Maintain Electricity consumption per waste received at <35units per tonne received.	Continuous monitoring of electricity usage via scada system. Extraction & aeration fans to be adjusted to reflect operations Awareness to turn off lights when not in use.	Dec 2014	Environmental Manager	Review Jan/Feb 2015
3.7	To review on a continuous basis the compost quality results obtained from the testing as required under the licence.	Review results as received for conformity to the compost quality requirements	Continuously Deadline 31.12.2014	Environmental Manager	Review Jan/Feb 2015



ENVIRONMENTAL MANAGEMENT PROGRAMME 2014

Objective 4.0: To continually improve the efficiency of the materials flow through the operations with a view to improving the quality of the products and residues produced on site destined for reuse, recovery and recycling, and to minimise the quantity of products sent for disposal

Objective No.	Target	Plan	Timescale	Responsibility	Status
4.1	Carry out an assessment of the efficiency of use of raw materials in all processes, having particular regard to the reduction in waste generated	<p>Continued monitoring of batches to enhance process efficiency.</p> <p>Examine methods for improving the quality of the plastic recovered (Pre-screen operation)</p> <p>Investigate possibility of installing wind-sifter to extract light plastics from the recycled overs' fraction.</p> <p>Examine quality of waste received on site. Ensure any contamination with plastics, glass etc is reported to waste companies.</p>	Deadline 31.12.2014	Environmental Manager	Review Jan/Feb 2014
4.2	Increase number of sustainable outlets for compost use and distribution. Increase use of local options reduces fuel, increases sustainability of compost use.	<p>Sales team to focus on a 30km radius of farms. Use established customer base to help draft new farms.</p> <p>Improve transportation methods for compost. New Tipping trailer which allows greater accessibility to farms.</p>	August 2014	Rónán Beasley	New outlet established in sept 2013 mixing a fertiliser rich product to improve quality of product.



Title: Environmental Objectives and Targets & EMP 2014
 Code: ARB EO&T2013
 Revision: 0
 Date: 25/03/2014
 Site Location: Ballybeg Composting Facility

ENVIRONMENTAL MANAGEMENT PROGRAMME 2014

Objective 5.0: To enhance our relationship with the local community through communication, transparency, nuisance avoidance, and provision of services

Objective No.	Target	Plan	Timescale	Responsibility	Status
5.1	Review Public Awareness and Communication Programme	Provide tours of facility to local schools, CIWM, Macra Na Feirme etc.	31.12.2014	Environmental Manager (SB)	Using plant for a training course for treatment plant operators April 2014
5.2	Review biofilter (See 2.2)				



| PRTR# : W0249 | Facility Name : Ballybeg Composting Facility | Filename : W0249_2013.xls | Return Year : 2013 |

27/03/2014 17:02

[Guidance to completing the PRTR workbook](#)

AER Returns Workbook

Version 1.1.18

REFERENCE YEAR	2013
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1. FACILITY IDENTIFICATION

Parent Company Name	Acorn Recycling Limited
Facility Name	Ballybeg Composting Facility
PRTR Identification Number	W0249
Licence Number	W0249-01

Waste or IPPC Classes of Activity

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

Address 1	Ballybeg
Address 2	Littleton
Address 3	Co. Tipperary
Address 4	
	Tipperary
Country	Ireland
Coordinates of Location	-7.72020004905 52.614212
River Basin District	IESE
NACE Code	3832
Main Economic Activity	Recovery of sorted materials
AER Returns Contact Name	Sam Bowden
AER Returns Contact Email Address	sam@acornrecycling.com
AER Returns Contact Position	Environmental Manager
AER Returns Contact Telephone Number	050433721
AER Returns Contact Mobile Phone Number	0861071231
AER Returns Contact Fax Number	
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	7
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
50.1	General

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

Is it applicable?	No
Have you been granted an exemption ?	No
If applicable which activity class applies (as per Schedule 2 of the regulations) ?	
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) ?	No
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This question is only applicable if you are an IPPC or Quarry site

[Link to previous years emissions data](#)

4.1 RELEASES TO AIR

SECTION A: SECTOR SPECIFIC PRTR POLLUTANTS

POLLUTANT		METHOD		QUANTITY	
No. Annex II	Name	M/C/E	Method Used Description or Description	T (Total) KG/Year	F (Fugitive) KG/Year
				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

POLLUTANT		METHOD		QUANTITY	
No. Annex II	Name	M/C/E	Method Used Description or Description	T (Total) KG/Year	F (Fugitive) KG/Year
06	Ammonia (NH3)	C	ESTIMATE	385,7828364	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)

POLLUTANT		METHOD		QUANTITY	
Pollutant No.	Name	M/C/E	Method Used Description or Description	T (Total) KG/Year	F (Fugitive) KG/Year
215	Hydrogen sulphide	C	ESTIMATE	1,806341	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 their figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under "Total" (KG/y) for Section A. Sector specific PRTR pollutants above. Please complete the table below.

Landfill: Ballybeg Composting Facility

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

Total estimated methane generation (as per the model)	Method Used		Facility Total Capacity m3 per hour
	M/C/E	Method Code	
0.0			N/A
0.0			0.0 (Total Flaring Capacity)
0.0			0.0 (Total Utilising Capacity)
0.0			N/A

Net methane emission (as reported in Section A above)