



Acorn Recycling
Waste Management for the next generation

ANNUAL ENVIRONMENTAL REPORT

2014

Name: Acorn Recycling Ltd

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

Waste Licence: W0249-01

Reporting Period: 01 January 2014 – 31 December 2014

Submitted by *Sam Bowden*

Sam Bowden
EHS Manager

Web: www.acornrecycling.com

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.

Contents

1.0 Introduction	2
2.0 Waste Activities carried out at the Facility	2
3.0 Waste Management Record.....	3
4.0 Resource Consumption Summary.....	4
5.0 Report on the assessment of the efficiency of use of raw materials in processes and the reduction in waste generated.	6
6.0 Complaints Summary	7
7.0 Reported Incidents Summary	7
8.0 Review of Nuisance Controls.....	7
9.0 Management and Staffing Structure of the Facility and programme for public information.....	8
10.0 Environmental Monitoring	9
11.0 Procedures developed in 2014 relating to facility operations	13
12.0 Environmental Objectives & Targets and Environmental Management Programme report for 2014 and proposal for 2015.....	14

Attachments

Environmental Objectives & Targets 2014
Environmental Objectives & Targets 2015

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 2014. The report covers the period 1st January 2014 to 31st December 2014.

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 2014

- 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).

29342.96 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 29,342.96 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 82.89% of the total waste received.

Table 1. Waste Accepted 2014

EWC	DESCRIPTION	QUANTITY (t)
020101	SLUDGES FROM WASHING/CLEANING (AGRI.)	14.64
020106	ANIMAL FAECES, URINE AND MANURE (AGRI.)	27.40
020201	SLUDGES FROM WASHING/CLEANING	38.50
020203	MATERIALS UNSUITABLE FOR CONSUMPTION OR PROCESSING	294.82
020204	SLUDGES FROM ON-SITE EFFLUENT TREATMENT (MEAT INDUSTRY)	192.08
020304	MATERIALS UNSUITABLE FOR CONSUMPTION OR PROCESSING (ANIMAL FEED)	23.38
020501	MATERIAL UNSUITABLE FOR CONSUMPTION OR PROCESSING (DAIRY INDUSTRY)	122.70
020502	SLUDGES FROM ON-SITE EFFLUENT TREATMENT (DAIRY INDUSTRY)	129.08
020701	WASTES FROM WASHING, CLEANING AND MECHANICAL REDUCTION	227.96
020702	WASTE FROM SPIRITS DISTILLATION	0.66
020704	MATERIALS UNSUITABLE FOR CONSUMPTION PROCESSING (DRINKS INDUSTRY)	60.94
030311	SLUDGES FROM ONSITE EFFLUENT TREATMENT	14.52
070599	WASTES NOT OTHERWISE SPECIFIED	29.10
160306	ORGANIC WASTE OTHER THAN THOSE MENTIONED IN 160305	1
190606	DIGESTATE FROM ANAEROBIC TREATMENT OF WASTE	8.24
190805	SLUDGES FROM TREATMENT OF URBAN WASTE WATER	1566.72
190899	WASTES NOT OTHERWISE SPECIFIED	36.32
190901	SOLID WASTE FROM PRIMARY FILTRATION AND SCREENINGS	224.82
190904	SPENT ACTIVATED CARBON	28.60
191207	WOOD OTHER THAN THAT MENTIONED IN 191206	1542.92
200108	BIODEGRADABLE KITCHEN AND CANTEEN WASTE	24323.76
200125	EDIBLE OIL AND FAT	375.88
200201	BIODEGRADABLE WASTE	17.64
200304	SEPTIC TANK SLUDGE	12.74
200306	WASTE FROM SEWAGE CLEANING	38.54
	Total	29342.96

3.2 Waste Dispatched

Four waste types were dispatched offsite during the reporting period namely; plastics from the screening of compost (EWC 190501), off specification compost (190503), Water from the biofilter onsite (190599) and Interceptor sludges (EWC130503*)

The following quantities of each waste were disposed of in 2014

Table 2. Waste dispatched 2014

EWC	DESCRIPTION	TONNAGE DISPOSED
190501	Plastic 'Overs'	3328.18
130503*	Interceptor sludge	0.62
190599	Biofilter Water	551.52
190503	Off specification Compost	102.00

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

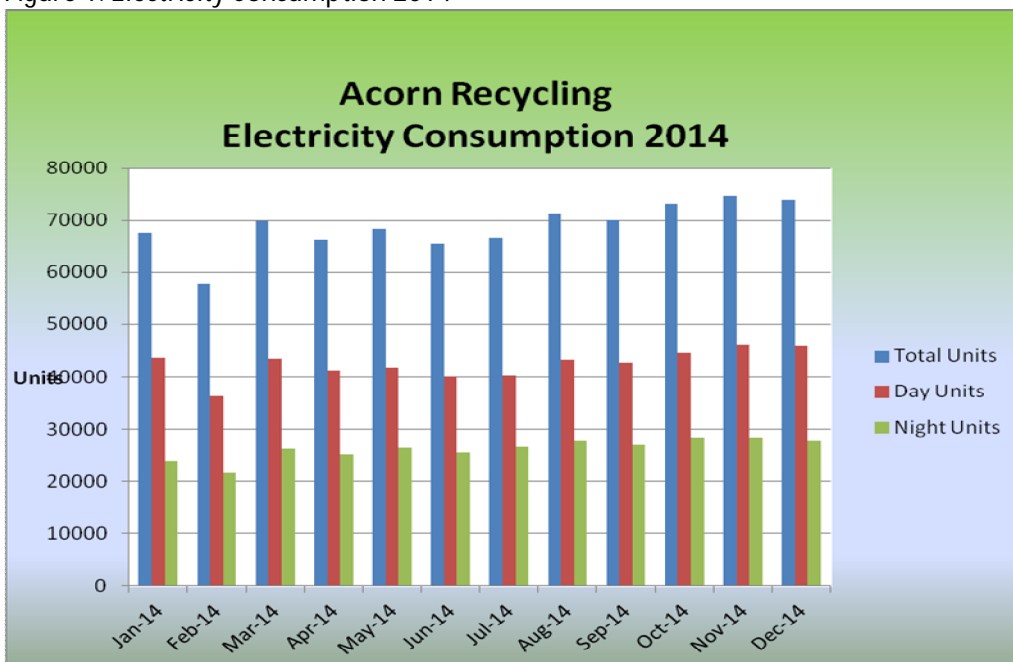
4.1 Electricity Usage

Table 3. and Figure 1. below detail the day and night units of electricity used on site during each month in 2014

Table 3. Electricity Consumption 2014

Electricity Consumption 2014			
Billing Period	Day Units	Night Units	Total Units
Jan-14	43648	23954	67602
Feb-14	36310	21594	57904
Mar-14	43573	26342	69915
Apr-14	41159	25206	66365
May-14	41982	26394	68376
Jun-14	40068	25492	65560
Jul-14	40234	26614	66848
Aug-14	43370	27952	71322
Sep-14	42730	27273	70003
Oct-14	44601	28428	73029
Nov-14	46067	28465	74532
Dec-14	45970	27885	73855
	509712.00	315599	825311.00

Figure 1. Electricity Consumption 2014



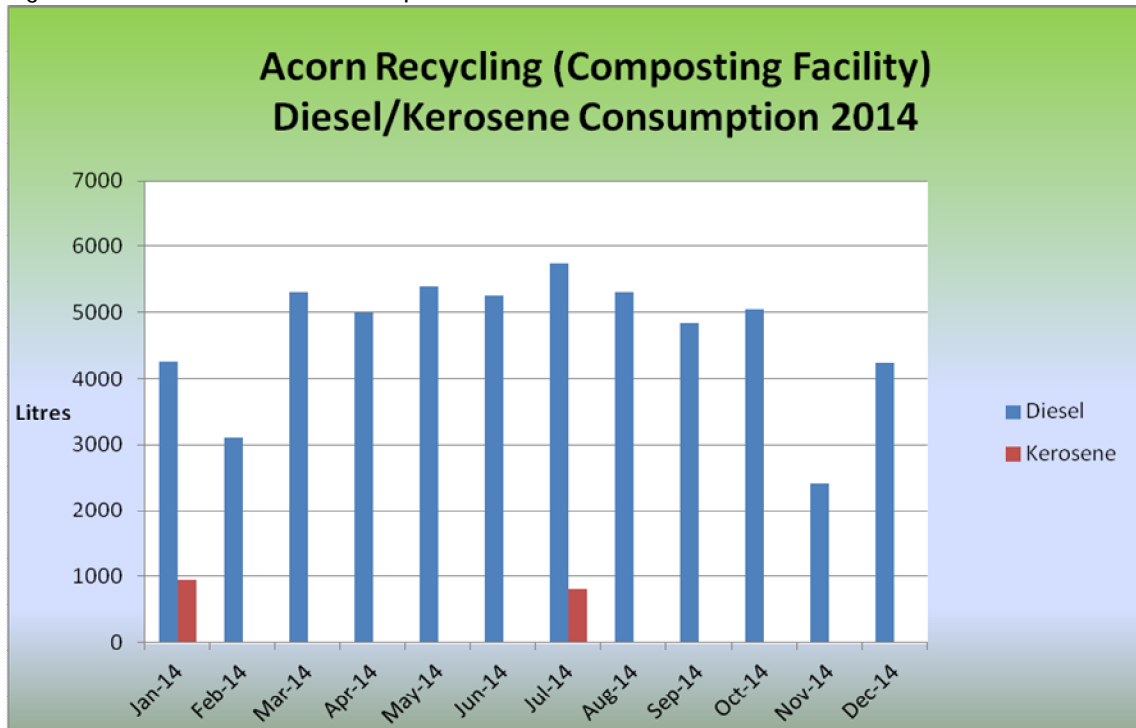
4.2 Diesel Usage

Table 4. and Figure 2. below show diesel and kerosene consumption in 2014. Diesel is used for the two front end loaders on site and kerosene is used for the power washer.

Table 4. Diesel Consumption 2014

Month	Diesel (litres)	Kerosene
Jan-14	4269	942.00
Feb-14	3106	
Mar-14	5300	
Apr-14	5001	
May-14	5385	
Jun-14	5245	
Jul-14	5737	819.00
Aug-14	5303	
Sep-14	4847	
Oct-14	5042	
Nov-14	2407	
Dec-14	4248	
Total	55,890	1,761.00

Figure 2. Diesel/Kerosene Consumption 2014



4.3 Compost Amendment Materials

1542.92 tonnes of woodchip was accepted at the facility for use in the composting process.

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. The water usage when the power washer is operational is estimated at 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.

Total woodchip used was 1542.92 tonnes up from 920.4 tonnes per annum in 2013. This was due to very little waste being accepted in the last 5 months of 2013 and additional woodchip used in early 2014 to reduce the bulk density in the primary processing bays.

The plastics produced for disposal offsite increased from 7.842% in 2013 to 11.34% in 2014 due to an increased proportion of brown bin waste in the waste received and increased contamination from waste suppliers.

6.0 Complaints Summary

There was no complaints made to the facility in 2014

7.0 Reported Incidents Summary

There were no incidents in 2014

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 2014. 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 at least once a week.

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

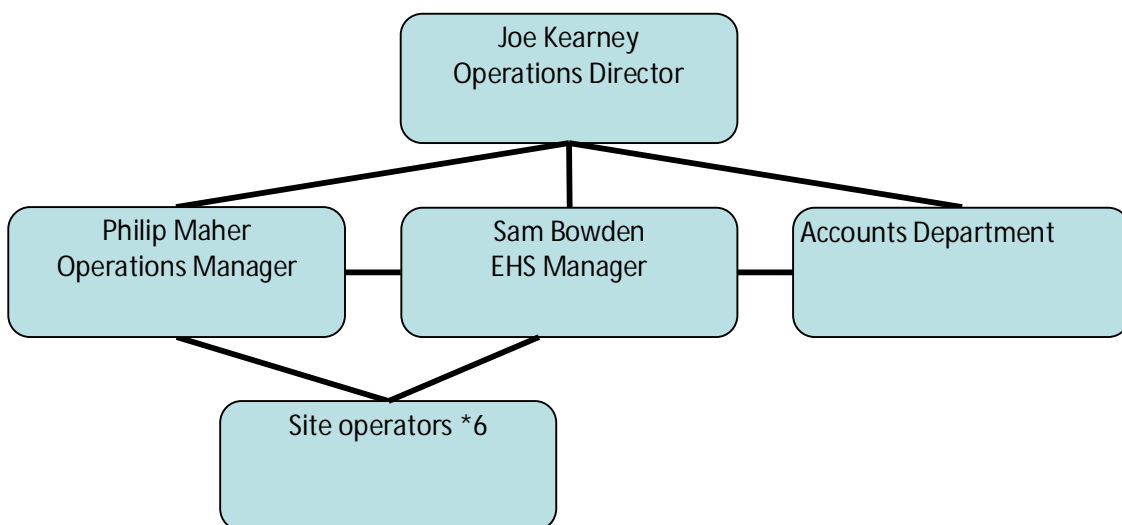
Birds: Birds are not an issue at the site. All waste activities are carried out within the closed building.

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
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 - FAS 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 30th July 2014. 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 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 40 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 36 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 40 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 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 36 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 2014 (NSL1/NSL2) 30th July 2014
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	64	40	56	41
NSL2	61	36	55	40

10.2 Groundwater Monitoring

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

Table 8. Groundwater Monitoring Results (Sampling Date: 19 Nov 2014)

Sampling Date: 19 November 2014

Parameter	GW1	GW2**	GW3
pH	7.9	7.6	6.9
Nitrate	<1	<1	<1
Total Ammonia	3.36	5.98	2.5
Total Nitrogen	6.1	7.9	4.3
Conductivity	415	338	901
Chloride	14.2	14.7	6.5
Fluoride	0.12	0.25	0.13
Organic Compounds	Not detected*	Not detected*	Not detected*

10.3 Monitoring of Emissions to Water

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

Table 9. Storm Water Monitoring

Parameter	17Jun2014	23Oct2014
Ammonia (mg/l)	8.26	0.31
Suspended Solids (mg/l)	24	<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.

Biofilter Monitoring 2014

Parameter	Q1 (15Mar2014)	Q2 (09Jul2014)	Q3 (30Sept2014)	Q4 (12Nov2014)	Limit
Average Odour OUE/m3	58361	68116	63053	54052	–
% Odour Removal	94	94	96	96	–
Total Aliphatic Amines (mg/Nm3)	0.89		0.86		–
Hydrogen Sulphide (mg/Nm3)	0.008		0.009		<5
Ammonia (mg/Nm3)	1.67		1.65		<50
Total Mercaptans (mg/Nm3)	<0.08		<0.07		<5
Bed Media pH	7.1		7.2		–
Moisture (% w/w)	47		48		–
Total Viable Counts (CFU/Kg)	6.6×10^5		6.6×10^5		–

Table 11. Bioaerosols Monitoring 2014

Location	Aspergillus Fumigatus (CFU m3)	Mesophilic Bacteria (CFU m3)
Loc Bio1	12	46
Loc Bio2	19	131
Loc Bio3	16	89

Table 12. PM10 Monitoring

PM10 Monitoring 2014

Location	(H1) Average Concentration (ug/m3) 23Apr2014	(H2) Average Concentration (ug/m3) 12Nov2014	Limit (ug/m3)
PM1	9	9	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 = 1.66 mg/m³ NH₃

Total ammonia emissions load in 2014 = 1.66mg/m³ * 258,048,720m³

= 428.360 kg/year NH3

10.5 Dust Deposition Monitoring

Dust deposition monitoring was carried out at the site on three times in 2014 at four monitoring locations. Average dust levels did not exceed the licence limit of 350mg/m²/day in 2014.

Table 13 Dust Deposition 2014 (mg/m²/day)

Duration	DD1	DD2	DD3	DD4
12/03/2014 - 01/05/2014	53	36	31	41
26/05/2014 - 14/07/2014	37	61	61	264
23/07/2014 - 08/09/2014	174	46	43	83

11.0 Procedures developed in 2014 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 2014, including 1 new procedure SOPARB20. 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 Procedure
SOP ARB08	Non Compliance and Corrective Action
SOP ARB09	Fire Safety Protocol
SOP ARB10	Awareness and Training Procedure
SOP ARB11	Emergency Preparedness and 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
SOP ARB20	Cleaning of yard and gullies procedure

12.0 Environmental Objectives & Targets and Environmental Management Programme report for 2014 and proposal for 2015

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		

ACORN RECYCLING LTD



Title: Environmental Objectives and Targets & EMP 2014
Code: ARB EO&T2014
Revision: 1
Date: 25/03/2015
Site Location: Ballybeg Composting Facility

ENVIRONMENTAL MANAGEMENT PROGRAMME 2015

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)	Completed

ENVIRONMENTAL MANAGEMENT PROGRAMME 2015

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)	Completed & 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 Manger & Managing Director	Biofilter is operating efficiently 94-96%. No requirement to replace media. Large (bulky nature of woodchip used has allowed the structure to be maintained. Biofilter to be continued to be monitored



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.	Implement training of loader operators to ensure efficient loader operation	Dec 2014	Environmental Manager/Operations Manager	Completed. Diesel usage increase in 2014 due to increase management of material in the secondary processing area. New loader arrived in June 2014
3.2	Maintain Electricity consumption per waste received at <35 units 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	Completed. Electricity usage at 29.7 units per tonne processed.
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	Completed. Compost quality improved in 2014. Very low heavy metal content


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	<p>Ongoing.</p> <p>Contamination levels increase to 11% in 2014 due to change in waste suppliers. Less commercial (very clean) waste received.</p>
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	Environmental Manager	2014 saw increase demand for compost from local farmers. Increase demand and new farmers are expected in 2015 which will reduce transportation requirement from site.



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 Feirne etc.	31.12.2014	Environmental Manager (SB)	Possible cre training tour in 2015 (TBC)
5.2	Review biofilter (See 2.2)				



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		

ACORN RECYCLING LTD



Title: Environmental Objectives and Targets & EMP 2015

Code: ARB EO&T2015

Revision: 0

Date: 25/03/2015

Site Location: Ballybeg Composting Facility

ENVIRONMENTAL MANAGEMENT PROGRAMME 2015

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 31.12.2015	Environmental Manager (SB) H & S co-ordinator (SB)	

**ENVIRONMENTAL MANAGEMENT PROGRAMME 2015**

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 31.12.2015	Environmental Manager (SB)	
2.2	Monitor 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 Sept 2015	Deadline 31.08.2015	Environmental Manger (SB)	
2.3	Improvements to management of surface water onsite to ensure only clean surface water is discharge	Installation of new Acco channels in front of roller doors to prevent washwater and condensation running onto clean yard. Channels to be cut inside each roller door to ensure pooling is prevented. This will prevent washed trucks carrying out dirty wash water upon exiting the building. Installation of new Acco channels along front of building to prevent any condensation dripping onto clean yard. Acco channels will also enable us to wash the front of the building regularly and keep clean Diversion of back concrete yard to biofilter sump so that any condensation from extraction ducting does not enter the storm water discharge.	Deadline 01.06.2015	Environmental Manger (SB)	

**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 2015. Maintain 2014 Diesel consumption levels in 2014.	Implement training of loader operators to ensure efficient loader operation	Dec 2015	Environmental Manager/Operations Manager	Review Jan/Feb 2016
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. New extraction ducting to suck air from apex of primary processing area will increase electricity usage by 10-15% Awareness to turn off lights when not in use.	Dec 2015	Environmental Manager	Review Jan/Feb 2016
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 31.12.2015	Environmental Manager	Review Jan/Feb 2016

**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.</p> <p>Investigate feasibility of connecting storage bay and bay 10 in secondary processing bay to primary processing bay. Currently there is excess storage capacity in the secondary processing area. Increase aerated floor capacity in primary processing area would allow plastics to be stored and re-screened on site allowing drier and cleaner plastics being disposed to landfill.</p> <p>Approval to change internal layout would need to be sought from EPA and Dept of Ag. Alternations would not</p>	Deadline 31.12.2015	Environmental Manager	Review Jan/Feb 2016

ACORN RECYCLING LTD

Title: Environmental Objectives and Targets & EMP 2015
 Code: ARB EO&T2015
 Revision: 0
 Date: 25/03/2015
 Site Location: Ballybeg Composting Facility

		change any processes on site.			
4.2	Increase number of sustainable outlets for compost use and distribution. Increase use of local options reduces fuel, increases sustainability of compost use.	Sales team to focus on a 30km radius of farms. Use established customer base to help draft new farms. Improve transportation methods for compost. New Tipping trailer which allows greater accessibility to farms. Also high sided skip may be used.	August 2015	Environmental Manager	Review Jan/Feb 2016

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. Cre	31.12.2015	Environmental Manager (SB)	
5.2	Improve visual appearance site. New gravel to be laid in car park and around site perimeters. Wild flowers to be planted and maintained at east of site. Lawn to be maintained along driveway.	Improve visual appearance site. New gravel to be laid in car park and around site perimeters. Wild flowers to be planted and maintained. Lawn to be maintained along driveway.	07.08.15	Environmental Manager (SB)	

ACORN RECYCLING LTD



Title: Environmental Objectives and Targets & EMP 2015

Code: ARB EO&T2015

Revision: 0

Date: 25/03/2015

Site Location: Ballybeg Composting Facility