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ANNUAL ENVIRONMENTAL REPORT

STARRUS ECO HOLDINGS LTD

SIX CROSS ROADS, WATERFORD

LICENCE NO. W0116-02

JANUARY 2015 – DECEMBER 2015

Prepared For: -

Starrus Eco Holdings Ltd.,
Fassaroe,
Bray,
Co. Wicklow
.

Prepared By: -

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Cork.

5th April 2016

Project	Annual Environmental Report 2015			
Client	Starrus Eco Holdings Ltd. W0116-02			
Report No	Date	Status	Prepared By	Reviewed By
150481405	29/03/2016	Draft	Martina Gleeson PhD	Jim O'Callaghan MSc
	05/04/2016	Final	Martina Gleeson PhD	Jim O'Callaghan MSc

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1. INTRODUCTION

This is the 2015 Annual Environmental Report (AER) for the Starrus Eco Holding Ltd. (Greenstar) Materials Recovery Facility (MRF) at Six Cross Roads, Butlerstown, County Waterford. The report covers the period from the 1st January 2015 to the 31st December 2015.

The content of the AER is based on Schedule F of the Waste Licence (W0116-02) and the report format follows guidelines set in the "*Guidance Note for Annual Environmental Report*" issued by the Environmental Protection Agency (Agency)[1]. Cognisance was also taken of the AER Draft Guidance Document issued in January 2012[2].

[1] EPA (Environmental Protection Agency) 1999 Waste Licensing – Draft Guidance on Environmental Management Systems and Reporting to the Agency

[2] EPA (Environmental Protection Agency) 2012 Draft AER Guidance Document

2. SITE DESCRIPTION

2.1 Site Location and Layout

The facility is located at Six Cross Roads, Carriganard, Butlerstown and is accessible from the Six Cross Roads, just south of the Waterford by-pass (R710). The surrounding area to the north, south and east of the facility is occupied by industrial and commercial premises. The facility is bordered to the west by a third class road and agricultural land.

The waste processing building which houses the baler is located in the eastern section of the site. The baled materials are stored on the hard standing within the waste processing building and on the external paved section along the northern boundary of the site. The runoff from the areas used to store the bales is diverted by the waste water drainage system to an underground tank**.** The weighbridge and site office are located to the east of the yard.

2.2 Waste Management Activities

The licence allows Greenstar to accept and process 70,000 tonnes of waste per annum, comprising commercial/industrial non-hazardous waste, household waste, and construction and demolition wastes.

2.2.1 Waste Types & Processes

The facility is licensed to accept the following waste types and quantities, as specified in Schedule A of the licence: -

- Household (30,000 tonnes)
- Industrial Non-Hazardous Solid (20,000 tonnes)
- Construction & Demolition (20,000 tonnes)

No hazardous wastes are accepted. The maximum amount of each waste type accepted, may be altered with the prior agreement of the Agency as long as the total maximum tonnage is not exceeded.

The key process carried out at the facility in 2015 involved: -

The use of a mobile baling and wrapping system within the waste transfer building that comprises the following elements;

- In-feed Conveyor
- Bale Chamber
- Wrapping Unit
- Bale Conveyor

The Baling Process

The baler is located within the MSW transfer shed. Suitable feedstock material (MSW – EWC 20 03 01) is subjected to a basic pre-pick using an articulated grab to remove any large pieces of material. Waste material is then fed into a bale chamber via an in-feed conveyor. In the chamber, material is rotated around the axis of the chamber and as more material is fed in, bale compression increases and the bale becomes evenly firm and stable. A computer system monitors the compression by measuring the hydraulic pressure in the system and the compression level required is set by the operator in advance via the computerised system.

When the required chamber pressure is reached, a net is wound around the bale. This ensures that the bale keeps its form and prevents the compressed material from expanding when the chamber is opened. The netting is fed into the chamber by means of jet air nozzles and again the process is controlled by the operator in that the operator specifies the number of windings of the net and the computer system checks continuously that the net is properly fed.

The bale is then transferred to the wrapping unit. The baling chamber opens and the heads of the chamber are pressed towards each circular end of the bale to hold it firmly during the transfer to the wrapping unit.

The bale is wrapped with a thin, strong and stretchable plastic film that is airtight and water resistant. The wrapping is put in place by means of a sweep arm that rotates on the wrapping table to give 50% overlap of film on bale. While wrapping is occurring at one end, the heads of the bale chamber return to the baling position. The bale chamber closes and new material is fed into the baler.

When wrapping is completed, the film is cut and the bale is loaded into the bale conveyor.

The wrapped bale is tilted onto the bale conveyor for unloading to storage (pending off-site transportation). Bales are mainly stored externally (subject to conditions in terms of retention time and number of bales).

2.2.2 Plant List

A list of the plant in use at the facility is given in Table 2.1. The plant provides 100% duty and 50% standby for waste processing.

Table 2.1 Plant List – 2015

No.	Plant	Model	Operational Capacity tpd	Standby Capacity tpd
1	Road Sweeper	Iveco 180E23	500 lts	
2	Loading Shovel	Volvo L90F	200	120

3. EMISSION MONITORING

The monitoring specified in the licence includes surface water, dust and noise monitoring. The monitoring locations are shown on Figure 3.1. The surface water monitoring results are included in reports submitted to the Agency at quarterly intervals. The dust monitoring results are reported to the agency bi-annually and an annual noise report is submitted to the agency. An overview of the monitoring completed in 2015 is presented in this section.

3.1 Surface Water Monitoring

Surface water monitoring is carried out at three locations (SW-1, SW-2 and SW-3). Rainwater run-off from the site discharges to a culverted stream on the eastern side of the access road (cul de sac). The receiving stream runs from the New Ring Road to the Six Cross Roads and is culverted from the start of the industrial estate to the Six Cross Roads.

The monitoring locations include the surface water discharge point and up and downstream of the discharge, as shown on Figure 3.1. SW-1 is to the north and upstream of the facility. SW-2 is at the discharge point and SW-3 is to the south and downstream, where the stream is not culverted. This is the closest accessible downstream location.

The samples, collected by Greenstar staff, were analysed for the quarterly parameters specified in Schedule C of the Licence. It was not possible to collect a sample at SW-2 in Q2 2015 as there was no discharge from the facility. The methodologies were all ISO/CEN approved or equivalent and the method detection limits were lower than the proposed trigger levels for the discharge. The results were all less than the proposed trigger levels.

Table 3.1 Surface Water Monitoring Results – Q1 2015

Parameter	Units	SW-1 Upstream	SW-2* Discharge	SW-3 Downstream	Proposed Trigger Level*
pH	pH units	7.49	6.07	7.60	5.5 – 9.0
Conductivity	mS/cm	0.256	0.164	0.792	1.000
COD	mg/l	15	24	24	40
Total Ammonia	mg/l	0.16	1.22	0.12	3.78
Suspended Solids	mg/l	37	<10	48	-
Mineral Oils	mg/l	<0.01	<0.01	<0.01	-

* The Trigger levels only apply to the discharge point SW-2

Table 3.2 Surface Water Monitoring Results – Q2 2015

Parameter	Units	SW-1 Upstream	SW-2* Discharge	SW-3 Downstream	Proposed Trigger Level*
pH	pH units	6.9	-	7.17	5.5 – 9.0
Conductivity	mS/cm	0.412	-	0.419	1.000
COD	mg/l	12	-	18	40
Total Ammonia	mg/l	0.05	-	0.12	3.78
Suspended Solids	mg/l	<10	-	<10	-
Mineral Oils	mg/l	<0.01	-	<0.01	-

* The Trigger levels only apply to the discharge point SW-2

Table 3.3 Surface Water Monitoring Results – Q3 2015

Parameter	Units	SW-1 Upstream	SW-2* Discharge	SW-3 Downstream	Proposed Trigger Level*
pH	pH units	7.11	7.35	7.25	5.5 – 9.0
Conductivity	mS/cm	0.286	0.283	0.367	1.000
COD	mg/l	<7	40	<7	40
Total Ammonia	mg/l	0.17	2.43	0.12	3.78
Suspended Solids	mg/l	<10	<10	<10	-
Mineral Oils	mg/l	<0.01	<0.01	<0.01	-

* The Trigger levels only apply to the discharge point SW-2

Table 3.4 Surface Water Monitoring Results – Q4 2015

Parameter	Units	SW-1 Upstream	SW-2* Discharge	SW-3 Downstream	Proposed Trigger Level*
pH	pH units	7.06	7.22	7.19	5.5 – 9.0
Conductivity	mS/cm	0.339	0.147	0.247	1.000
COD	mg/l	27	29	30	40
Total Ammonia	mg/l	0.30	1.08	0.35	3.78
Suspended Solids	mg/l	<10	25	<10	-
Mineral Oils	mg/l	<0.01	<0.01	<0.01	-

* The Trigger levels only apply to the discharge point SW-2

3.2 Noise Monitoring

The licence requires bi-annual noise surveys to be completed. The monitoring locations include three boundary locations (N1 – N3) and two off site noise sensitive locations (N4 and N5). The survey was conducted when the site was fully operational and confirmed that noise emissions fully complied with the licence and that the facility is not impacting negatively on the nearest sensitive receptors. The first noise survey was conducted in June and the second was conducted in September. There were no on site operations being undertaken during the noise survey in September. A summary of the noise results is shown in Tables 3.5 and 3.6.

Table 3.5 Noise Monitoring Results June 2015

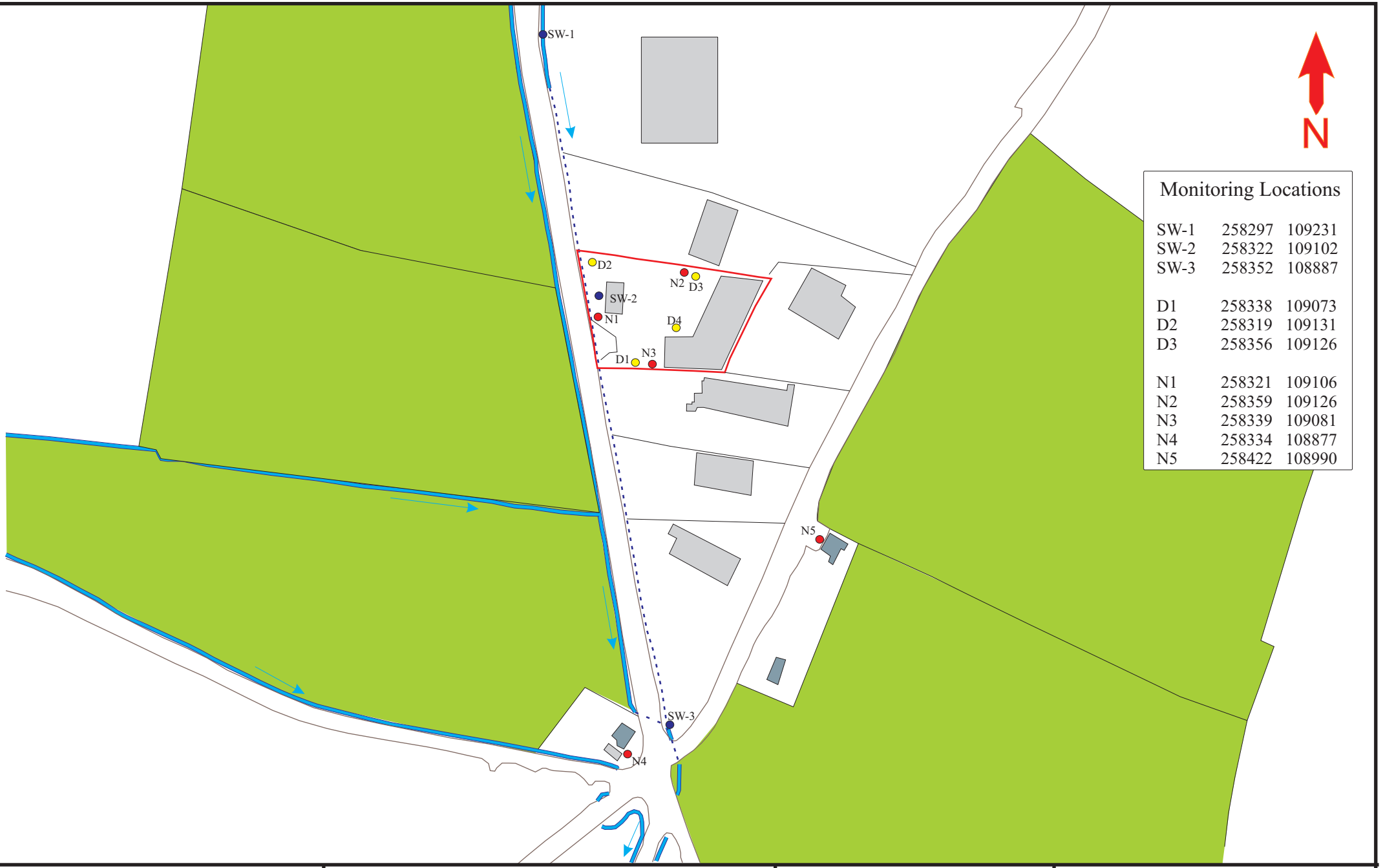
Station	Date	Time	$L_{Aeq\ 30\ min}$ dB	$L_{AF10\ 30\ min}$ dB	$L_{AF90\ 30\ min}$ dB	Specific $L_{Aeq\ 30\ min}$ dB
N1	24.06.15	1444-1514	61	62	59	61
	Site: Power washer in building continuously dominant. **Extraneous**: All extraneous noise masked by power washer, apart from sporadic truck movements on access road outside boundary.					
N2	24.06.15	1413-1443	62	68	44	62
	Site: Small truck idling in building continuously dominant from arrival at 1420 to departure at 1428. Power washer in building dominant from 1437. **Extraneous**: No extraneous noise audible outside 1428-1437. In this window, sporadic traffic on local access road clearly audible when present. Distant traffic also continuously audible. Crow calls continuously present. Aircraft. Voices and activity including truck and skip movements occasionally audible at adjacent facility to N.					
N3	24.06.15	1420-1450	54	56	42	54
	Site: Small truck idling in building continuously dominant until departure at 1428. Thereafter, no noise audible apart from continuous hum from plant in building, audible at low level, until power washer in building from 1437, dominant. **Extraneous**: No extraneous noise apart from crow calls audible outside 1428-1437. In this window, sporadic traffic on local access road clearly audible when present. Distant traffic also continuously audible. Crow calls continuously present. Aircraft. Voices and activity including truck and skip movements occasionally audible at adjacent facility to N.					
N4	24.06.15	1517-1547	56	54	41	<<41
	Site: No emissions audible. **Extraneous**: Intermittent road traffic through adjacent junction dominant when present. Distant traffic continuously slightly audible. Tractor operating in field 100-300 m almost continuously audible at low level. Crows significant. Aircraft.					
N5	24.06.15	1550-1620	63	63	44	<<44
	Site: No emissions audible. **Extraneous**: Intermittent passing road traffic dominant. During lulls, continuous emissions from air handling system at nearby premises clearly audible, in addition to distant traffic slightly audible, crow calls, birdsong and aircraft. Lightly rustling vegetation.					

Specific L_{Aeq}: Level considered attributable to source under consideration, determined using real time assessment, field notes, time history profiles, statistical analysis, frequency spectra, spectral statistics and near field correction if applicable.
Audibility scale: Inaudible; faintly audible; slightly audible; audible at low level; quite audible; clearly audible; dominant; intrusive; excessive.

Table 3.6 Noise Monitoring Results September 2015

Station	Date	Time	Wind vector	$L_{Aeq\ 30\ min}$ dB	$L_{AF10\ 30\ min}$ dB	$L_{AF90\ 30\ min}$ dB	Specific $L_{Aeq\ 30\ min}$ dB
N1	03.09.15	1610-1640	0	52	54	49	0
	Site: No emissions. **Extraneous**: Distant road traffic continuously clearly audible, and dominating noise environment. No other noise audible apart from sporadic truck movements on access road outside boundary and at adjacent premises, and local birdsong. Also sporadic activity audible at adjacent premises.						
N2	03.09.15	1537-1607	0	53	54	49	0
	Site: No emissions. **Extraneous**: Distant road traffic continuously clearly audible, and dominating noise environment. No other noise audible apart from sporadic truck movements on access road outside boundary and at adjacent premises, and local birdsong. Also sporadic activity audible at adjacent premises, particularly from 1554.						
N3	03.09.15	1503-1533	0	56	59	52	0
	Site: No emissions. **Extraneous**: Distant road traffic continuously clearly audible, and dominating noise environment. No other noise audible apart from sporadic truck movements on access road outside boundary and at adjacent premises, and local birdsong.						
N4	03.09.15	1420-1450	+	63	58	50	0
	Site: No site emissions. **Extraneous**: Traffic noise dominant: intermittent through junction, and continuous in distance. Bird song/calls, aircraft and rustling trees. Agricultural machinery audible at low level in distance throughout most of interval.						
N5	03.09.15	1346-1415	+	63	63	49	0
	Site: No site emissions. **Extraneous**: Intermittent passing road traffic intrusive when present. During lulls, continuous traffic audible in distance, and also emissions from air management system at nearby commercial premises, both clearly audible. Bird song/calls, aircraft and rustling trees.						

Wind vector: See final appendix. **Specific L_{Aeq}**: Level considered attributable to source under consideration, determined using real time assessment, field notes, time history profiles, statistical analysis, frequency spectra, spectral statistics and near field correction if applicable. **Audibility scale**: Inaudible; faintly audible; slightly audible; audible at low level; quite audible; clearly audible; dominant; intrusive; excessive.



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CLIENT

Greenstar

TITLE

Monitoring Locations
Waterford

LEGEND

- Commercial/Industrial unit
- Private Dwelling
- Agricultural Land
- Surface Water Monitoring Point
- Dust Monitoring Point
- Noise Monitoring Point

FIGURE NUMBER

3.1

Scale

Not To Scale

Revision

A

3.3 Dust Monitoring

Dust monitoring was carried out on two occasions at three on-site locations (D1, D2 and D3) in June and July 2015. The results of the monitoring are included on Table 3.7. The dust emission limit (350 mg/m^2/day) was not exceeded. No complaints relating to dust were received from neighbouring premises during the reporting period.

Table 3.7 Dust Monitoring Results 2015

Dust Emission (mg/m^2/day)	**June**	**July**	**Emission Limit**
Sample Location	**(30 days)**	**(30 days)**	**(mg/m^2/day)**
D1	10.9	11.2	350
D2	8.079	153.7	350
D3	109.7	10.0	350

4. SITE DEVELOPMENT WORKS

4.1 Specified Engineering Works

There were a number of works undertaken to prepare the site for preparations in 2015. The works included.

- Q1: Additional Sealing of Building
- Q2: Upgrade of Odour Control System
- Q3: Installation of new fire detection system
- Q4: Removal of Flexus Waste Bailer.

4.2 Summary of Resource & Energy Consumption

Table 4.1 presents an estimate of the resources used on-site during the reporting period and in 2014.

Table 4.1 Estimate of Resources Used On-Site in 2015

Resources	Quantities 2014	Quantities 2015
Diesel (green)	24,141 litres	14,633 litres
Electricity	124,400 kWh	70,620 kWh
Hydraulic Oil	400 litres	0 litres
Odour Neutraliser	1,050 litres	450 litres

4.3 Bund Integrity Test

Condition 6.9 of the licence requires that the integrity and water tightness of all underground pipes, tanks, bunding structures and containers and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee. It further states that this testing shall be carried out by the licensee at least once every three years and reported to the Agency on each occasion. This testing shall be carried out in accordance with any guidance published by the Agency. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.

Integrity testing was carried out in February 2014 and the interceptors and drainage lines were passed fit for purpose. The reports are retained at the facility for Agency inspection.

5. WASTE RECEIVED AND CONSIGNED FROM THE FACILITY

The facility stopped accepting waste in October 2010 and no wastes were accepted in 2012 or 2103. The facility recommenced waste activities in January 2014.

Table 5.1 shows the total quantities of waste received and consigned from the facility in 2015. The total amount of waste accepted and consigned in the past five years is shown on Table 5.2. A breakdown of the waste types is provided in accordance with the European Waste Catalogue and Hazardous Waste list. A more detailed description of the wastes accepted and consigned is provided in the PRTR return in Appendix 1.

The total quantity of waste received was 19,834.994 tonnes. The total waste consigned was 20,922.22 tonnes. More waste was consigned than received, this was waste which remained onsite at the end of 2014 and which was consigned in Q1 2015. A total of 11.72 tonnes of waste water were consigned from the site in 2015. All the wastes consigned went to authorised recovery and disposal facilities approved by the Agency.

Table 5.1 Waste Received & Consigned 2015

EWC	Description	Waste In	Waste Out
15 01 01	Cardboard Packaging	0.32	
15 01 06	Mixed Packaging	270.24	
19 12 12	MSW Municipal Mixed	1,924.45	3,151.18
20 01 01	Cardboard Packaging	1.42	
20 01 39	Plastic	0.30	
20 03 01	MSW Municipal Mixed	15,284.30	17,748.92
20 03 03	Street-cleaning residues	9.58	
20 03 07	C&I Dry Mixed	2,344.384	22.12
Total Received		**19,834.994**	
Total Consigned			**20,922.22**
Recovery			**20,922.22**
Disposal			**0**
Recovery Rate			**Approximately 100%**

Table 5.2 – Waste Received and Consigned since 2009

	2014	2013	2012	2011	2010	2009
Total Received	34,980	0	0	714.00	14,151	22,366
Total Consigned	33,420	0	0	673.68*	13,869	22,651
Recovery Rate	100%	N/A	N/A	100%	100%	95.5%

NA-Not Applicable
*6% weight loss through evaporation.

6. ENVIRONMENTAL INCIDENTS AND COMPLAINTS

6.1 Incidents

There were no reportable incidents at the facility in 2015.

6.2 Register of Complaints

Greenstar maintains a register of complaints received at the facility offices. There were 7 complaints received in 2015, each of which related to odour in the vicinity of the facility. In each case, the complaint was thoroughly investigated and a response was issued to the Agency.

7. ENVIRONMENTAL DEVELOPMENT

7.1 Environmental Management Programme Report

Greenstar have implemented an Integrated Management System (IMS) in accordance with the requirements of Occupational Health and Safety Assessment Series (OHSAS) 18001:2007 and International Standard Organisation (ISO) 14001:2004 in order to manage the Health, Safety and Environmental performance of their business and to control health and safety risk and to minimise their environmental aspects and impacts.

The IMS has been developed for the achievement of continual improvement taking into account the requirements of the Waste Licence Conditions. Greenstar has prepared and effectively implement documented procedures and instructions in accordance with the requirements of both the OHSAS 18001:2007 and ISO 14001:2004. The facility is accredited to both standard and this accreditation was retained following an audit in July 2014.

The schedule of Objectives and Targets, including their status for 2015 (Table 7.1), as well as the proposed Objectives and Targets for 2016 (Table 7.2) are presented below. An index of procedures used at the facility is included in Appendix 2.

7.1.1 Site Management Structure

Management and Staffing structure: -

Name: Declan O'Reilly
Responsibility: Director of Collections & Transfer
Experience: 13 years waste management experience

Name: Tom Walsh
Responsibility: Operations Manager
Experience: Over 10 years experience waste management experience; has completed the FÁS waste management course.

Name: Ivan Cummins
Responsibility: Yard Supervisor
Experience: 30 years experience waste management experience.

Name: Robertas Zemaitaitis
Responsibility: General Yard Operative
Experience: Over 5 years waste management experience; has completed the Patel Tonra (CIWM accredited) Waste Management Course

Name: Stephanie Pietercelie
Responsibility: Operations & Environmental
Experience: Over 5 years waste management experience; has completed the Patel Tonra (CIWM accredited) Waste Management Course

7.1.2 Staff Training

Environmental training is carried out for any new staff employed at the facility as required. Staff training carried out in 2015 included manual handling, loading shovel training, 360 excavator, teleporter, forklift and moffet training and reversing training. Copies of all training records are held in the facility office.

7.2 Environmental Management Programme

7.2.1 Schedule of Objectives 2015

The objectives achieved during this reporting period are outlined in Table 7.1.

7.2.2 Schedule of Objectives 2016

The schedule of targets and objectives for 2016 are presented in Table 7.1.

7.3 Communications Programme

Greenstar is committed to setting the standard in waste management and ensuring environmental compliance in all operations. In addition, Greenstar's Environmental, Health & Safety Policy makes a specific commitment to ensure that this policy and environmental records are available to the public and interested parties.

To this end Greenstar has drawn up a Communications Programme, which details how members of the public are facilitated in accessing and viewing environmental information at the facility. Members of the public who wish to inspect these files may do so at any reasonable time by making an appointment with the Operations Manager using the telephone number posted on the main facility entrance sign.

7.4 Report Financial Provision

A Closure and Decommissioning Plan and a Environmental Liabilities Risk Assessment (ELRA) including Financial Provision (FP) were submitted to the Agency as part of the transfer of the licence which occurred in Q1 2014. Financial provision was approved by the Agency prior to completion of the Licence transfer in March 2014.

The facility has an Integrated Management System (IMS) in place and the site has achieved external accreditation for its implementation of ISO 14001 and OHSAS 18001, environmental and health and safety management systems. Effective implementation of these systems is the most appropriate way to ensure that mitigation measures achieve the required risk reduction on site. The IMS serves as a guidance document for facility staff and describes operational control and management practices that are applied at the facility. The IMS is designed to ensure that management of site activities complies with regulatory requirements and best practice. The IMS includes a detailed Emergency Response Procedure which sets out the steps to be taken in the event of an incident at the facility with the potential to cause environmental damage. Greenstar also implements a comprehensive monitoring programme which will highlight any potential environmental incidents with the potential to cause environmental damage.

7.5 Nuisance Controls

Greenstar has contracted a vermin control company to carry out nuisance control at the facility. Prevent a Pest provide pest control at the facility and also provide for the treatment of insects at the facility if necessary. Daily litter picks and road-sweeping are carried out by yard operators during the course of their daily duties.

An odour control system (de-odouriser spray system) is in place that can be operated automatically or manually by the Environmental Officer and Operations Supervisor as needed. In general, during operations the deodorizer is on full time. Outside operations it is set on a timer to spray for 10 minutes every hour.

A site inspection is carried out daily and recorded on the facilities inspection log which is controlled as part of the current Integrated Management System. During 2014, daily odour impact assessments of the facility and the vicinity were carried out and records are available on-site. These assessments were carried out in a manner consistent with the Agency Guidance Note for EPA Licensed Sites (AG5).

7.6 Foul water Volume Transported Off-Site

There was 11.72 tonnes of wastewater removed from site in 2015.

Table 7.1 Schedule of Objective and Targets 2015

No.	Objective	Target	Timescale	Responsibility	Status
1	**Upgrade & maintenance of existing building**	Additional sealing of building	Q2 / Q3	Site Management / EHS	Completed
2	**Energy Audit**	Make site more energy efficient and help reduce the cost of energy bills	Q3	Site Management / EHS	Not completed
3	**Review of Emergency Response Plan**	Revision of Plan and additional training for site personnel	Q2	Site Management / EHS	Completed
4	**Odour Control Management**	Maintain records of odour assessments as per licence requirements	On going	Site Management / EHS	On going
5	**Document a Preventative Maintenance (PM) plan for inspection and cleaning of plant and equipment wrt fire**	Incorporate into existing Site Inspection Database (EF-10A) and site specific PM plans	Q2	Site Management / EHS	On going
6	**Document a Preventative Maintenance (PM) plan for inspection of hardstand and drainage infrastructure on site**	Incorporate into existing Site Inspection Database (EF-10A)	Q2	Site Management / EHS	Completed
7	**Review EWC codes in active use group wide and implement recommendations at each site**	Review EWC codes with Finance / WIMS & advise changes to site management through additional training	Q2	Site Management / EHS	Completed

Table 7.2 Schedule of Objective and Targets 2016

No.	Objective	Target	Timescale	Responsibility
1	**Increase awareness of Odour Management on site group wide**	Specify Odour detection in Site Inspection Database (EF-10A) on a daily basis and generate actions as appropriate	Q1-Q2	Site Management/EHS
2	**Waste storage practices**	Review waste storage practices on each site to ensure that they are in line with licence conditions, fire prevention and insurance recommendations	Q2	Site Management/EHS
3	**Emergency response procedures - ER pack update**	Review the Emergency Response Pack on each site and ensure that all information & equipment required in case of an emergency is available. Confirm that relevant staff training adequately addresses.	Q2	Site Management/EHS
4	**CRAMP, ELRA & Financial Provision**	CRAMP, ELRA & Financial Provision to be reviewed	Q2/Q3	EHS team
5	**Waste acceptance, classification & records**	EWC training for all weighbridge ops. Centralisation of all licences & permits inc NWCPs for hauliers.	Q2/Q3	EHS team

8. OTHER REPORTS

8.1 European Pollutant Release and Transfer Register Regulation

Under the European Pollutant Release and Transfer Register Regulation (EC) No. 166/2006 GES are required to submit information annually to the Agency. A copy of the return submitted to the Agency via the web-based data reporting system is included in Appendix 1.

APPENDIX 1

European Pollutant Release and Transfer Register

| PRTR# : W0116 | Facility Name : Starrus Eco Holdings Limited (Butlerstown) | Filename : W0116_2015.xls | Return Year : 2015 |

Guidance to completing the PRTR workbook

PRTR Returns Workbook

Version 1.1.19

REFERENCE YEAR	2015

1. FACILITY IDENTIFICATION

Parent Company Name	Starrus Eco Holdings Limited
Facility Name	Starrus Eco Holdings Limited (Butlerstown)
PRTR Identification Number	W0116
Licence Number	W0116-02

Classes of Activity

No.	class_name
-	Refer to PRTR class activities below

Address 1	Six Cross Roads
Address 2	Carriganard
Address 3	Butlerstown
Address 4	
	Waterford
Country	Ireland
Coordinates of Location	-7.145867687 52.23057934
River Basin District	IESE
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Malcolm Dowling
AER Returns Contact Email Address	malcolm.dowling@greenstar.ie
AER Returns Contact Position	Environmental Executive
AER Returns Contact Telephone Number	01-2947949
AER Returns Contact Mobile Phone Number	
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	0
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
50.1	General
5(c)	Installations for the disposal of non-hazardous waste
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# : W0116 | Facility Name : Starrus Eco Holdings Limited (Butlerstown) | Filename : W0116_2015.xls | Return Year : 2015 | 29/03/2016 17:44

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
					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: Starrus Eco Holdings Limited (Butlerstown)

Please enter summary data on the quantities of methane flared and / or utilised			Method Used			
	T (Total) kg/Year	**M/C/E**	**Method Code**	**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	

4.2 RELEASES TO WATERS

Link to previous years emissions data

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as t

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT					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 WATERS					Please enter all quantities in this section in KGs			
POLLUTANT					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 WATERS					Please enter all quantities in this section in KGs			
POLLUTANT					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
					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

4.3 RELEASES TO WASTEWATER OR SEWER

Link to previous years emissions data

SECTION A : PRTR POLLUTANTS

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					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 POLLUTANT EMISSIONS (as required in your Licence)

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					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
					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

4.4 RELEASES TO LAND

Link to previous years emissions data

SECTION A : PRTR POLLUTANTS

RELEASES TO LAND					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
					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 POLLUTANT EMISSIONS (as required in your Licence)

RELEASES TO LAND					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
					0.0	0.0	0.0

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

Please enter all quantities on this sheet in Tonnes 0

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					
To Other Countries	19 12 12	No	3136.72	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R13	M	Weighed	Abroad	Indaver (EON Sweden),.	.,.,.,.,Sweden		
Within the Country	19 12 12	No	14.46	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R13	M	Weighed	Offsite in Ireland	Starrus Eco Holdings Ltd,W0177-03	Six Cross Roads Business Park ,Butlerstown ,Co. Waterford,.,Ireland		
Within the Country	20 03 01	No	74.2	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Killarney Waste Disposal,W0217-01	Aughacurreen,Killarney ,Co. Kerry,.,Ireland		
To Other Countries	20 03 01	No	17094.04	mixed municipal waste	R13	M	Weighed	Abroad	Indaver (EON Sweden),.	.,.,.,.,Sweden		
Within the Country	20 03 01	No	565.86	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Quality Recycling Ltd.,WFP-TS-08-0079-01	Ballylynch,Carrick-on-Suir,Co. Tipperary,.,Ireland		
Within the Country	20 03 01	No	14.82	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Starrus Eco Holdings Ltd,W0177-03	Six Cross Roads Business Park ,Butlerstown ,Co. Waterford,.,Ireland		
Within the Country	20 03 07	No	22.12	bulky waste	R13	M	Weighed	Offsite in Ireland	Starrus Eco Holdings Ltd,W0177-03	Six Cross Roads Business Park ,Butlerstown ,Co. Waterford,.,Ireland		

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

APPENDIX 2

Procedures List

Integrated Procedures - IP		
IP-01	Document & Record Control Procedure	Rev 01, 28/04/14
IP-02	Health & Safety Risk Assessment Procedure	Rev 01, 28/04/14
IP-03	Environmental Aspects & Impacts Procedure	Rev 01, 28/04/14
IP-04	Legal & Regulatory Requirements Procedure	Rev 01, 28/04/14
IP-05	Objectives, Targets & Management Programmes Procedure	Rev 01, 28/04/14
IP-06	Competence, Training & Awareness Procedure	Rev 01, 28/04/14
IP-07	Communication & Consultation Procedure	Rev 01, 28/04/14
IP-08	Monitoring, Measurement & Improvement Procedure	Rev 01, 28/04/14
IP-09	Evaluation of Compliance Procedure	Rev 01, 28/04/14
IP-10	Non Conformances, Corrective/Preventive Actions Procedure	Rev 01, 28/04/14
IP-11	Internal Audit Procedure	Rev 01, 28/04/14
IP-12	Management Review Procedure	Rev 01, 28/04/14
IP-13	Control of Contractors/Visitors Procedure	Rev 01, 28/04/14
IP-14	Health & Safety & Environmental Monitoring	Rev 01, 28/04/14
IP-15	Emergency Preparedness & Response Procedure	Rev 01, 28/04/14
IP-16	Fire Prevention Procedure	Rev 01, 28/04/14
IP-17	Bin Washing Procedure	Rev 01, 28/04/14

Safety Procedures - SP		
SP-01	Permit to Work Procedure	Rev 01, 28/04/14
SP-02	Maintenance & Calibration Procedure	Rev 01, 28/04/14
SP-03	Mobile Plant Procedure	Rev 01, 28/04/14
SP-04	Fork Truck Procedure	Rev 01, 28/04/14
SP-05	Operation of Fixed Plant Procedure	Rev 01, 28/04/14
SP-06	Lock Out / Tag Out Procedure	Rev 01, 28/04/14
SP-07	Health & Safety Notification Procedure	Rev 01, 28/04/14
SP-08	MSW Shredder routine Maintenance & Clearing of Blockages Procedure (SCGT)	Rev 01, 28/04/14
SP-09	Weighbridge & Tipping Procedure (SCGT)	Rev 01, 28/04/14
SP-10	Cleaning of Washing Bay (Greenogue)	Rev 01, 28/04/14

Environmental Procedures - EP		
EP-01	Office Waste & Energy Management Procedure	Rev 01, 28/04/14
EP-02	Decommissioning and Aftercare Procedure	Rev 01, 28/04/14
EP-03	Environment Communications Procedure	Rev 01, 28/04/14
EP-04	Waste Permits & Licences Procedure	Rev 01, 28/04/14
EP-05	Waste Acceptance Procedure	Rev 01, 28/04/14
EP-06	Unacceptable Waste Procedure	Rev 01, 28/04/14
EP-07	Waste & Material Storage Procedure	Rev 01, 28/04/14
EP-08	Waste Processing Procedure	Rev 01, 28/04/14
EP-09	Site Infrastructure Procedure	Rev 02, 06/05/15
EP-10	Nuisance Management Procedure (Site Specific)	(Site Specific) Rev 01, 28/04/14
EP-11	Civic Amenity Site Procedure	Rev 01, 28/04/14

Amendment History

Date	Amendment No.	Procedure No:	Revision No:	Comment	Authorised By
05.07.10	01	All	01	Initial Issue	M.D & O.C
13.09.10	02	EP-03	02	Issue of Incident Reports	M.D
20.09.10	03	IP-10	02	Env issues not logged on WIMS Database	M.D
29.10.10	04	IP-13	02	Use of M&M equipment by contractors	M.D & O.C
29.10.10	05	IP-14	02	Use of M&M equipment by contractors	M.D & O.C
29.10.10	06	SP-02	02	Inclusion of Maintenance Schedule	M.D & O.C
05.11.10	07	IP-04	02	Inclusion of other requirements	S.B & O.C
01.02.11	08	SP-08	01	Inclusion of new procedure	O.C
01.02.11	09	IP-10	03	Inclusion of SP-08	O.C
01.02.11	10	IP-15	02	Removal of SF-022	O.C
01.02.11	11	Contents	As shown	EP-10 Site Specific	M.D & O.C
01.02.11	12	IP-06	02	Addressing Agency Staff needs	M.D & O.C
01.02.11	13	Circ List	02	Amendment to document control	M.D & O.C
04.04.11	14	SP-02	03	Inclusion of Site Specific Maintenance schedules	O.C
07.06.11	15	IP-11	02	Inclusion of H&S & Env Internal Audit Schedules	M.D & O.C
14/09/11	16	EP-02	02	Inclusion of decommissioning of plant/equipment	S.B
15/09/11	17	IP-09	02	Inclusion of Statutory Inspections	O.C
01/12/11	18	SP-09	01	Inclusion of new procedure for SCGT	O.C
01/12/11	19	SP-10	01	Inclusion of new procedure for SCGT	O.C
03/05/12	20	SP-01	02	Amendment to remove SF 028	O.C
05/05/12	21	SP-11	01	Inclusion of a new procedure for Greenogue	O.C
28/05/12	22	IP-11	03	General Amendments to internal audit procedure	M.D & O.C
08/06/12	23	IP-13	03	Grammatical amendment	M.D & O.C
15/04/13	24	IP-06	03	Agency staff – sign-off record sufficient proof of training. TMS optional	M.D & O.C

Date	Amendment No.	Procedure No:	Revision No:	Comment	Authorised By
30/06/13	25	IP-16	01	Inclusion of new procedure	M.D.
09/09/13	26	IP-03	02	Use of Scannell Software Solutions (EnviroManager) instead of IF-03A	M.D & O.C
09/09/13	27	IP-04	30	Use of Scannell Software Solutions (EnviroManager) instead of IF-03A	M.D & O.C
09/09/13	28	IP-05	02	Use of Scannell Software Solutions (EnviroManager) instead of IF-03A	M.D & O.C
16/10/13	29	EP-03	03	Introduction of EPA ALDER Portal	K.B
28/04/14	30	All EP's & IP's	01	Change of Company name and review of all Integrated and Env procedures	M.D & O.C
28/04/14	31	SP's	01	Change of Company name and review of all safety procedures including re-numbering & deletion of Motor Claim Notification Procedure – SP 08	O.C
06/05/15	32	EP-09	02	Ref to new form EF-11 added	SS

Circulation List

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