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**ANNUAL ENVIRONMENTAL REPORT
FOR STARRUS ECO HOLDINGS LTD.
SARSFIELDCOURT, CORK
LICENCE NO. W0136-03
JANUARY 2017 – DECEMBER 2017**

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Project	Annual Environmental Report 2017			
Client	Starrus Eco Holdings Ltd W0136-03			
Report No	Date	Status	Prepared By	Reviewed By
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1. INTRODUCTION

This is the 2017 Annual Environmental Report (AER) for Starrus Eco Holdings Limited (SEHL) Materials Recovery Facility (MRF) located at Sarsfieldcourt Industrial Estate, Glanmire, County Cork.

The report covers the period from the 1st January 2017 to the 31st December 2017. The content of the AER is based on Schedule H of the Waste Licence (W0136-03) and the report format follows guidelines set in the “Guidance Note for Annual Environmental Report” issued by the Environmental Protection Agency (Agency)¹. Account is also taken of the AER Draft Guidance Document and AER Information Templates issued by the Agency in January 2013².

¹ EPA (Environmental Protection Agency) 1999 Waste Licensing – Draft Guidance on Environmental Management Systems and Reporting to the Agency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 installation is situated within the Sarsfieldcourt Industrial Estate, approximately 8 km northeast of Cork City and 5 km north of Glanmire in the townland of Sarsfieldcourt. The site occupies 1.56 ha and comprises one MRF building and ancillary infrastructure, including administration offices, yard and parking areas and a vehicle wash.

2.2 Waste Management Activities

The licence authorised SEHL to accept and process up to 200,000 tonnes of waste per annum, comprising commercial/industrial non-hazardous waste, household waste, source separated biodegradable waste for composting and construction and demolition wastes. All waste processing takes place inside the waste transfer building, as specified in Condition 5.1 of the licence.

2.2.1 Waste Types & Processes

During the reporting period, the installation was licensed to accept the following waste categories and maximum quantities³, as specified in Schedule A of the Licence: -

- Mixed Household Waste (90,000 tonnes)
- Commercial & Industrial Waste (52,500 tonnes)
- Construction & Demolition Waste (35,000 tonnes)
- Industrial Non-Hazardous Solids (47,490 tonnes)
- Household Hazardous Waste (10 tonnes)⁴

³ The maximum tonnage 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

⁴ Hazardous household waste types, and similar waste from other sources, and quantities collected and stored at the civic amenity facility to be agreed in advance by the Agency.

The key processes carried out at the installation include: -

- Segregation of recyclable materials (wood, metals, glass);
- Segregation and bulking of C&D waste;
- Transfer of recovered and residual materials to appropriately licensed recycling, recovery and disposal outlets;
- Separation of organic fines from MSW waste by shredding and trommelling of the waste
- Bulking of material for transfer to appropriately licensed recycling, recovery and disposal outlets.
- Production, baling and storage of refuse derived fuel (RDF)

Household Waste

Mixed household waste as delivered is processed to remove bulky items, organic fines, metal and wood. The remaining material is baled and wrapped to produce RDF. All recyclable material is segregated, where possible, from the waste and transferred off-site to suitable licensed or permitted recycling facilities. The remaining non-recyclable and residual material not suitable for RDF production is sent to licensed landfills post processing

Commercial and Industrial Waste

SEHL provides skips of various sizes to a wide range of commercial and industrial premises in Cork city and county. Recyclable material is segregated, where possible, from the waste stream and transferred to suitable recycling facilities. The remaining non-recyclable and residual material is sent to licensed landfills or re-directed to the onsite baler for the production of RDF bales of waste material for export to approved recovery facilities.

In addition SEHL provides a source segregation service for those clients which generate large quantities of commercial and industrial waste. Trained SEHL staff sort and segregate waste at source and the waste is then collected in skips or bulker vehicles and appropriately transported. All material is transported to the Sarsfieldcourt installation and off-loaded in designated areas and stored pending consignment to recycling facilities or to a licensed landfill.

Construction and Demolition Waste

Construction and demolition material arrives on-site in skips of varying sizes. The loads are inspected and segregated on-site. Recoverable materials are extracted and sent off-site either for re-use or recycling. The non-recyclable materials are transferred to a licensed landfill.

2.2.2 Plant List

A list of the plant in use at the installation during the reporting period is given in Table 2.1. The plant provided 100% duty and 50% standby for waste processing.

Table 2.1 Existing Plant

No.	Plant	Model	Operational Capacity	Standby Capacity
1	Tromel	Generic	80 t/hr	0
8	Conveyor Lines	Generic	80 t/hr	0
1	Baler	Flexus Bala System	20t/hr	0
1	Baler	Flexus Bala System	20t/hr	0
1	Articulated Grab	New Holand	100 t/hr	100 t/hr
1	Static Grab	Palfinger	50t/hr	100t/hr
2	Loading Shovel	Volvo L120	70 t/hr	0
1	Wheel Wash	Eurojet	168 hr/wk	0
2	Telescopic Handler	JCB	60hr/wk	60hr/pw
1	Weighbridge – 2 Scales	-	56 hr/wk	56 hr/wk
1	Fork Lift	Linde 3.0 tonnes	60 hr/wk	60 hr/wk
1	Fork Lift	Linde 2.5 tonnes	60 hr/wk	60 hr/wk
1	Shredder/Bag Opener	M&J 4000	80 t/hr	0

3. EMISSION MONITORING

SEHL implements the comprehensive environmental monitoring programme as specified in the licence to assess the significance of emissions from site activities. The programme includes surface water, wastewater, groundwater, noise and dust monitoring. The monitoring locations are shown on Figure 3.1.

The monitoring results are submitted in reports to the Agency at quarterly intervals. An overview of the results of the monitoring is presented in this Section, with summary data in tables included.

3.1 Surface Water Monitoring

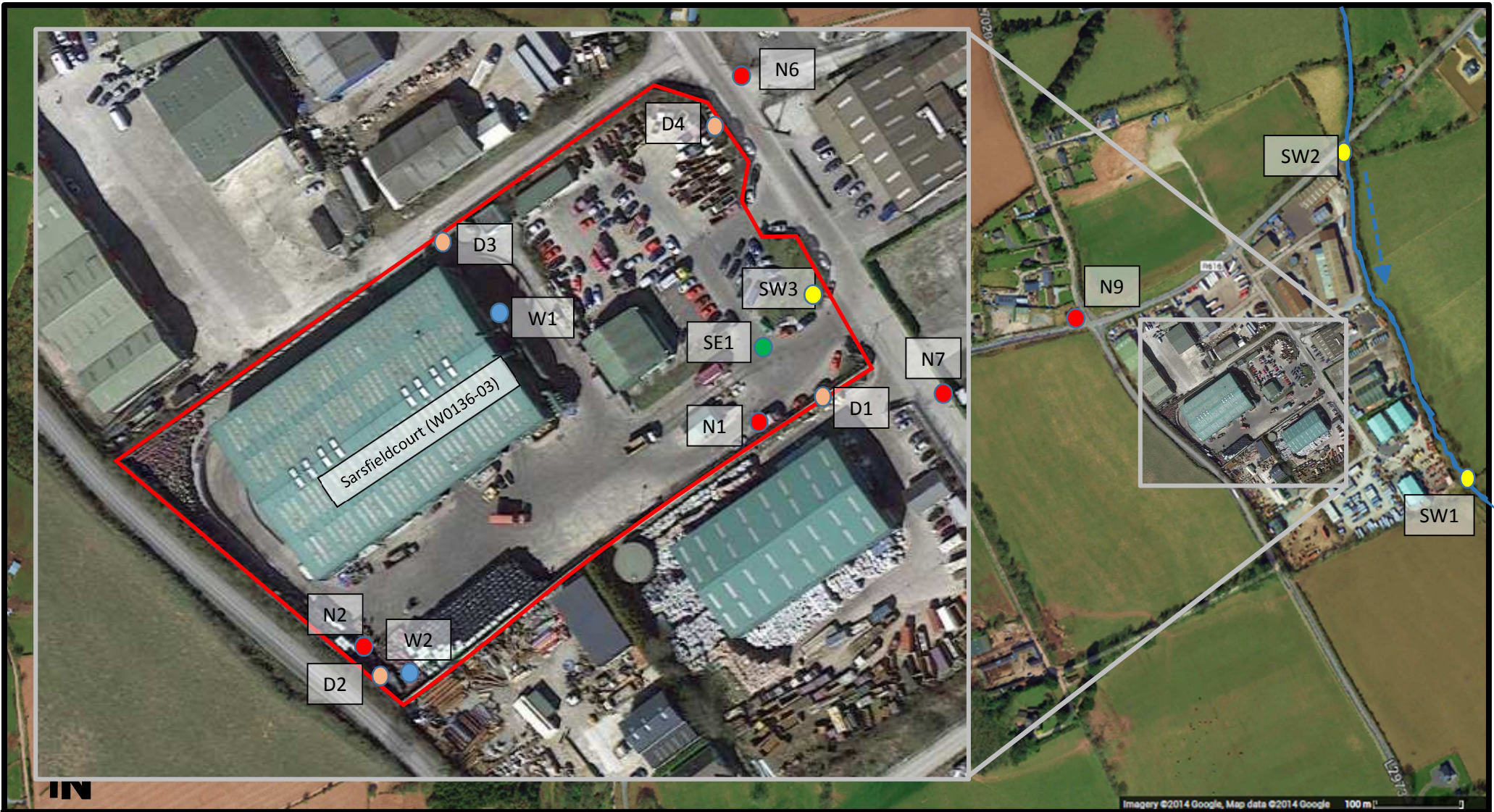
Surface water monitoring was carried out quarterly at three locations (SW-1, SW-2 and SW-3). SW-3 is the discharge point from the installation to a stream approximately 100 metres from the eastern boundary of the site. SW-2 is located to the north and upstream of the discharge point and SW-1 is located to the south and downstream of the outfall.

The range of analysis in the routine monitoring programme included pH, electrical conductivity, Chemical Oxygen Demand (COD), Biological Oxygen Demand (BOD), total organic carbon (TOC), ammonia, dissolved oxygen, total suspended solids (TSS), mineral oils and oils, fats and greases. The results of the routine monitoring are presented in Tables 3.1 to 3.3.

The Emission Limit Value (ELV) and Trigger Levels apply solely to the discharge from the installation (SW-3). The ELVs and trigger levels were revised in February 2014, which included the addition of a trigger level for ammonia (0.14mg/l as N) and a lowering of the BOD and Suspended Solids trigger levels from 25mg/l and 35mg/l to 5mg/l and 15mg/l respectively.

Prior to the revision there was 100% compliance with the ELVs and Trigger Levels. In 2017, the ammonia exceeded the revised trigger level in each quarter. The BOD and TSS levels exceeded the trigger levels in the third quarter. The remaining parameters were below the ELVs. The Agency were notified at the time of the exceedances, along with the Inland Fisheries Ireland and Cork County Council.

The quality of the water in the stream is generally good and is not being impacted by installation activities.



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Legend:

- Noise Monitoring Location
- Permit Boundary
- Stream
- ➔ Stream Flow Direction
- Wastewater Monitoring Location
- Dust Monitoring Location
- Groundwater Monitoring Location
- Surface Water Monitoring Location

Waste Reg.No.W0136-03

Figure:
Figure 3.1

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Client:
Starrus Eco Holdings Ltd

Title:
Emissions Monitoring Locations

Scale:
NOT TO SCALE

Table 3.1 Surface water Monitoring Results 2017: SW-1

Parameter	Units	Q1	Q2	Q3	Q4
pH	pH units	6.94	7.17	7.12	7.24
Conductivity	mS/cm	308	227	206	257
BOD	mg/l	<1	<1	2	<1
COD	mg/l	<7	<7	11	<7
Ammoniacal Nitrogen	mg/l	0.04	0.03	0.05	0.03
TSS	mg/l	<10	<10	<10	<10
Nitrate as NO ₃	mg/l	24.4	25.0	14.0	27.3
Nitrite as NO ₂	mg/l	<0.02	<0.02	0.03	<0.02
Mineral Oils	mg/l	<0.01	<0.01	<0.01	<0.01
Total Coliforms	cfu/100ml	>100	>100	>100	0
Faecal Coliforms	cfu/100ml	>100	0	>100	0

Table 3.2 Surface water Monitoring Results 2017: SW-2

Parameter	Units	Q1	Q2	Q3	Q4
pH	pH units	7.34	7.74	7.65	7.48
Conductivity	mS/cm	250	242	230	244
BOD	mg/l	<1	<1	<1	<1
COD	mg/l	<7	<7	7	<7
Ammoniacal Nitrogen	mg/l	0.03	0.04	0.04	0.03
TSS	mg/l	<10	<10	<10	<10
Nitrate as NO ₃	mg/l	23.2	25.1	22.0	39.6
Nitrite as NO ₂	mg/l	<0.02	<0.02	<0.02	0.18
Mineral Oils	mg/l	<0.01	<0.01	<0.01	<0.01
Total Coliforms	cfu/100ml	13	>100	0	9
Faecal Coliforms	cfu/100ml	5	>100	0	9

Table 3.3 Surface water Monitoring Results 2017: SW-3

Parameter	Units	Q1	Q2	Q3	Q4	Trigger Levels	Emission Limit
pH	pH units	7.08	7.70	6.93	7.00	N/A	N/A
Conductivity	mS/cm	412	374	344	461	N/A	N/A
BOD	mg/l	<1	<1	47	3	5	N/A
COD	mg/l	<7	<7	142	11	N/A	N/A
Ammoniacal Nitrogen	mg/l	0.49	0.50	3.49	3.59	0.14	N/A
TSS	mg/l	<10	<10	82	<10	25	N/A
Nitrate as NO ₃	mg/l	57.0	18.6	1.6	26.5	N/A	N/A
Nitrite as NO ₂	mg/l	0.07	<0.02	<0.02	<0.02	N/A	N/A
Mineral Oils	mg/l	<0.01	<0.01	<0.01	<0.01	N/A	5
Total Coliforms	cfu/100ml	>100	>100	>100	17000	N/A	N/A
Faecal Coliforms	cfu/100ml	>100	>100	>100	5600	N/A	N/A

3.2 Groundwater Monitoring

There are two on-site groundwater monitoring wells (W-1 and W-2). The licence specifies annual groundwater monitoring, however in 2007 the Agency requested SEHL to increase the monitoring frequency from annual to biannual.

The monitoring was carried out in Q2 and Q4 2017. The direction of groundwater flow is considered to be from west to east towards the stream, which flows along the eastern side of the Industrial Estate. W-2 is at the upgradient and W-1 is at the downgradient side of the site.

The parameters analysed are those in the licence, pH, Electrical Conductivity, Temperature, COD, BOD, Total Ammonia, Nitrates, Mineral Oil, Total and Faecal Coliforms and the results are presented in Tables 3.4 and 3.5

There are no Emission Limit Value (ELV) nor Trigger Levels set in the licence and for comparison purposes the tables also include the EPA Interim Guideline Values (IGVs) and the Groundwater Regulations Threshold Value (GTV)

There were exceedances of the nitrate levels in W-2 in both monitoring rounds, while the pH was slightly below the IGV low value of 6.5 in the second monitoring event. W-2 is an upgradient groundwater monitoring well and any impact identified in this well is likely to have occurred from an off-site upgradient source. The likely source of these elevated nitrate is agricultural practices within the catchment.

The quality of the groundwater was good in W-1 (beneath the site) and generally consistent with the previous monitoring carried out. The results indicate that the installation had no impact on groundwater.

Table 3.4 Groundwater Monitoring Results 2017: W-1

Parameter	Units	Q2	Q4	IGV	GTV
pH	pH units	7.10	7.08	6.5-9.5	-
Conductivity	mS/cm	0.336	0.373	-	0.800-1.875
Ammoniacal Nitrogen (N)	mg/l	0.03	0.03	-	0.065-0.175
Nitrate as NO ₃	mg/l	28.5	23.8	-	37.5
Nitrite as NO ₂	mg/l	<0.02	<0.02	-	0.375
Mineral Oils	mg/l	<0.01	<0.01	0.01	-
BOD	mg/l	1	<1	-	-
COD	mg/l	<7	<7	-	-
Total Coliforms	Counts / 100ml	0	0	0	-
Faecal Coliforms	Counts / 100ml	0	0	0	-

Note

Where a GTV exists this replaces the IGV value

Table 3.5 Groundwater Monitoring Results 2017: W-2

Parameter	Units	Q2	Q4	IGV	GTV
pH	pH units	6.60	6.32	6.5-9.5	-
Conductivity	mS/cm	0.231	0.226	-	0.800-1.875
Ammoniacal Nitrogen (N)	mg/l	<0.03	0.07	-	0.065-0.175
Nitrate as NO ₃	mg/l	55.9	50.6	-	37.5
Nitrite as NO ₂	mg/l	<0.02	<0.02	-	0.375
Mineral Oils	mg/l	<0.01	<0.01	0.01	-
BOD	mg/l	2	<1	-	-
COD	mg/l	<7	<7	-	-
Total Coliforms	Counts / 100ml	0	0	0	-
Faecal Coliforms	Counts / 100ml	0	0	0	-

Note

Where a GTV exists this replaces the IGV value

3.3 Noise Survey

The annual noise survey was carried out in November 2017 and included three off-site noise sensitive locations N-1, N-2 and N-3. Condition 6.11 and Schedule B.2 of the licence specifies the noise conditions applicable for the site which includes a daytime noise emission limit of 55 dB daytime, 50dB evening time and 45 dB night time limits applied to the nearest noise sensitive locations, identified as N-1 to N-3 on Table 3.6 and Figure 3.2 below.

Table 3.6 Noise Sensitive Locations

Station	ITM NGR	Location	Propagation route terrain
N1	571942 579177	Adjacent to crossroads NW of site, 35 m from nearest NSL	Free field; partial line of sight to building N facade; terrain level; terrain under paved yards & roadways with intervening walls & buildings
N2	572323 579479	Roadside verge 420 m NE of site, 40-60 m from nearest NSLs	Free field; line of sight to building E façade upper; terrain level; terrain under industrial estate surfaces & buildings, field & hedgerows
N3	572303 578519	Field 540 m SSE of site, 40 m from nearest NSL	Free field; no line of sight; terrain level; terrain under field & hedgerows

Facility noise emissions were audible only at N2 during the daytime survey. During the evening, emissions were also audible at N1. Emissions additionally became faintly audible at N3 during the night. In all cases, emissions were slightly audible only, resulting in contributions markedly lower than the 55 dB daytime, 50 dB evening and 45 dB night-time limits specified in licence W0136-03. In most cases, traffic noise prevented accurate calculation of SEH emissions. Emissions thus complied with the 55 dB daytime, 50 dB evening and 45 dB night-time limits specified in licence W0136-03. Site operations did not give rise to tones or impulses at any of the stations. The results are included on Table 3.7.

Figure 3.2 Noise Monitoring Locations



Table 3.7 Noise Monitoring Results 7th November 2017

Daytime 0700-1900 Evening 1900-2300 Night-time 2300-0700

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 day 1/3	07.11.17	0908-0938	-	70	75	48	<45
	<p>Facility: Inaudible. Extraneous: Frequent traffic movements through adjacent road junction dominant, and almost continuously audible on approaches. During infrequent lulls, distant traffic including M8 traffic audible, in addition to bird song/calls, aircraft, power washer pump at dwelling at 50 m, and occasional activity at nearest industrial premises. Specific L_{Aeq} T determination: Inaudible, thus <L95.</p>						
N1 day 2/3	07.11.17	1148-1218	-	67	71	49	<48
	<p>Facility: Inaudible. Extraneous: As previous, although road traffic reduced since earlier. Power washer at 50 m still present. Occasional hammering audible at dwelling/premises 100 m N. Specific L_{Aeq} T determination: As previous.</p>						
N1 day 3/3	07.11.17	1654-1724	-	70	76	47	<45
	<p>Facility: As previous. Extraneous: Frequent traffic movements through adjacent road junction dominant, and almost continuously audible on approaches. During infrequent lulls, distant traffic including M8 traffic audible, in addition to bird song/calls, aircraft, and occasional activity at nearest industrial premises. Specific L_{Aeq} T determination: As previous.</p>						
N1 eve 1/1	07.11.17	2138-2208	-	62	55	35	<35
	<p>Facility: Air management system continuously slightly audible in background during traffic lulls. Blow down also slightly audible at intervals. Inbuilding operations inaudible. Extraneous: Road traffic through adjacent junction dominant when present, with traffic flow decreasing gradually. During lulls, aircraft, distant traffic and distant dog barking audible. Refrigerated trailer clearly audible cutting in and out at intervals at nearby commercial premises, and quite significant when present. Other activity in industrial estate also sporadically audible. Specific L_{Aeq} T determination: Distant traffic dominating L90, and thus not possible to determine air management system contribution. <L90 determination possible only.</p>						
N1 night 1/2	07.11.17	2337-0007	-	58	50	31	<37
	<p>Facility: Decreasing traffic noise allowing plant in building become slightly audible at intervals. Air management system also slightly audible, including blow down. Extraneous: As previous, with local traffic now reduced to occasional. Dog barking frenzies occasionally quite audible in distance. Refrigerated trailer activity clearly audible. Specific L_{Aeq} T determination: Plant operations in building approaching 37 dB L_{AF} at loudest, with air management system determined at 31 dB. Specific L_{Aeq} thus <37 dB.</p>						
N1 night 2/2	07.11.17	0008-0038	-	57	48	32	<37
	<p>Facility: As previous. Extraneous: As previous. Specific L_{Aeq} T determination: As previous.</p>						

Audibility scale: Inaudible; faintly audible; slightly audible; audible at low level; quite audible; clearly audible; dominant; intrusive; excessive.
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.

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
N2 day 1/3	07.11.17	0908- 0938	x	61	62	39	<39
	Facility: Air management system continuously slightly audible during traffic lulls. Extraneous: Intermittent passing road traffic intrusive, and audible for extended distances on approaches. During lulls, distant traffic including M8 continuously audible in background. Bird song/calls, aircraft, and distant dog barking. Sporadic activity at nearest industrial estate premises audible at low level, chiefly truck loading/unloading operations. Specific L_{Aeq T} determination: L90 influenced by distant traffic, and therefore not representative of slightly audible air management system. Thus <L90.						
N2 day 2/3	07.11.17	1226- 1256	x	61	61	40	<40
	Facility: As previous. Extraneous: As previous. Excavator bucket or similar occasionally slightly audible to N in distance. Specific L_{Aeq T} determination: As previous.						
N2 day 3/3	07.11.17	1259- 1329	x	62	63	40	<40
	Facility: As previous. Extraneous: As previous. Specific L_{Aeq T} determination: As previous.						
N2 eve 1/1	07.11.17	2138- 2208	x	59	58	33	29
	Facility: Air management system continuously slightly audible during traffic lulls. Blow down faintly discernible. Extraneous: Intermittent passing road traffic intrusive, audible for extended distances on approaches, although traffic volume decreasing. During lulls, distant traffic including M8 continuously slightly audible. Aircraft, and distant dog barking. Sporadic activity at nearest industrial estate premises audible at low level, with intermittent refrigerated trailer also slightly audible. Specific L_{Aeq T} determination: Determined from subsequent interval, as specific emissions similar.						
N2 night 1/2	07.11.17	2307- 2337	x	56	53	29	29
	Facility: As previous. Inbuilding plant faintly discernible at intervals. Extraneous: As previous, with local traffic volume continuing to decrease. Specific L_{Aeq T} determination: Falling traffic noise in distance allowing L95 become representative of air management system.						
N2 night 2/2	07.11.17	2337- 0007	x	50	45	30	29
	Facility: As previous. Extraneous: As previous. Specific L_{Aeq T} determination: As previous.						

Audibility scale: Inaudible; faintly audible; slightly audible; audible at low level; quite audible; clearly audible; dominant; intrusive; excessive.
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.

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
N3 day 1/3	07.11.17	0831-0931	x	58	63	43	<42
	<p>Facility: Inaudible.</p> <p>Extraneous: Intermittent passing road traffic dominant when present. Distant traffic continuously audible on approaches, on M8, and to N. Bird song/calls. Aircraft. Sporadic clangs quite audible at premises in industrial estate, most likely scaffolding manipulation.</p> <p>Specific L_{Aeq T} determination: Inaudible, thus <L95.</p>						
N3 day 2/3	07.11.17	1113-1143	x	54	56	38	<37
	<p>Facility: Inaudible.</p> <p>Extraneous: Intermittent passing road traffic dominant when present. Distant traffic continuously audible on approaches, on M8, and to N. Bird song/calls. Aircraft. Sporadic activity at industrial estate audible at low level, including reversing alarms and several clangs. Lightly rustling vegetation becoming audible due to developing breeze.</p> <p>Specific L_{Aeq T} determination: Audible industrial estate emissions not consistent with known site activity, and thus unlikely to arise from site. Site therefore most likely inaudible, hence <L95.</p>						
N3 day 3/3	07.11.17	1619-1649	x	57	62	39	<38
	<p>Facility: As previous.</p> <p>Extraneous: As previous, although rustling vegetation absent due to dying breeze.</p> <p>Specific L_{Aeq T} determination: As previous.</p>						
N3 eve 1/1	07.11.17	2217-2247	x	48	45	31	<30
	<p>Facility: Inaudible.</p> <p>Extraneous: Intermittent passing road traffic dominant when present. Distant traffic continuously quite audible on approaches, on M8, and to N and NE. Aircraft and distant dog barking.</p> <p>Specific L_{Aeq T} determination: Inaudible, thus <L95.</p>						
N3 night 1/2	07.11.17	2300-2330	x	45	37	32	<31
	<p>Facility: Inaudible.</p> <p>Extraneous: As previous, although local traffic now reduced.</p> <p>Specific L_{Aeq T} determination: As previous.</p>						
N3 night 2/2	07.11.17	0103-0133	x	38	35	30	<30
	<p>Facility: Inbuilding operations faintly discernible at intervals.</p> <p>Extraneous: Local traffic now sporadic. Distant traffic continuously quite audible in several directions. Dog barking also audible in distance.</p> <p>Specific L_{Aeq T} determination: Amplitude insufficient to influence L90, thus <L90.</p>						

Audibility scale: Inaudible; faintly audible; slightly audible; audible at low level; quite audible; clearly audible; dominant; intrusive; excessive.
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.

3.4 Dust Monitoring

Dust monitoring is conducted quarterly. The results of the monitoring carried out in 2017 are included in Table 3.9. The result for D-2 (490 mg/m²/day) in May 2017 exceeded the dust deposition limit, however, the inorganic particulate fraction of the sample, which is representative of site activities was 116 mg/m²/day and below the limit. The sample was impacted greatly by the presence of vegetative growth (leaves, algae, etc.), which was not derived from site based activities.

Table 3.9 Dust Monitoring Results 2017

	March mg/m ² /day	May mg/m ² /day	August mg/m ² /day	October mg/m ² /day	Deposition Limit mg/m ² /day
D-1	139	269	290	92	350
D-2	286	490	223	105	350
D-3	105	72	135	83	350
D-4	130	164	185	75	350

3.5 Nuisance Control Review

SEHL installed and commissioned an air emission abatement system in the MRF building in 2006. The system extracts air from the waste handling area and passes it through a series of filters to remove any dust. The active carbon within the annular vessels acts on the odorous air by binding the odour causing molecules to the carbon thus removing odours from the released air. This technique in conjunction with maintaining the integrity of the extraction area forms the premise for the effective operation of the system and ensures treatment.

Other controls include automatic fast acting doors installed on both the tunnel entrance and exit and the in and out doorway in the main transfer building. This acts in conjunction with a building management system (BMS) which activates an alarm if a door is opened for longer than a pre-defined period.

SEHL implements a detailed Odour Management Plan (OMP) for waste handling operations. The OMP is a core document detailing operational and control measures appropriate to management and control of odours. It provides sufficient detail to allow facility and maintenance staff to clearly understand the odour management operational procedures for both normal and abnormal conditions.

Routine inspections and litter patrols, cleaning of site roads and yard areas and vermin control (Comserv) are maintained. SEHL has introduced an Integrated Management System (IMS) and as part of this has developed a list of environmental management procedures, details of which are outlined in Section 7 and include nuisance control measures.

4. SITE DEVELOPMENT WORKS

4.1 Engineering Works

No site development works were carried out in 2017. It is proposed to install the electrical substation in 2018.

4.2 Summary of Resource & Energy Consumption

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

Table 4.1 Estimates of Resources Used On-Site in 2016 & 2017

Resources	Quantities 2016	Quantities 2017
Road Diesel	889,752 litres	894,455 litres
Gas Oil	314,118 litres	345,250 litres
Gear Oil	50 litres	120 litres
Ad Blue	6,000 litres	6,000 litres
Hydraulic, Transmission, Engine Oil	800 litres	1,000 litres
Anti-Freeze	35 litres	20 litres
Electricity	477,161 kwh	563,700 kWh
Truck Wash Detergent	0 litres	0 litres
Carbon	32 tonnes	30 tonnes

4.3 Bund Integrity Test

Bund testing is carried out every three years. Integrity testing of the drainage system was carried out in 2015 which confirmed it was fit for purpose. The integrity testing of the bunds was carried out in 2017 which confirmed they are also fit for purpose.

5. WASTE RECEIVED AND CONSIGNED FROM THE FACILITY

Table 5.1 shows the total quantities of waste received and consigned from the installation in 2017. Table 5.2 shows the quantities of waste received and consigned in previous years. A breakdown of the waste types is provided in accordance with the European Waste Catalogue and Hazardous Waste (EWC/HWL) list. A more detailed description of the wastes accepted and consigned are provided in the PRTR return in Appendix 1.

The total amount received in 2017 was 111,426 tonnes. The total amount consigned was 113,346 tonnes. The difference (1,920 tonnes) is related to waste which remained on site at the end of 2016 and which was consigned in 2017. All the wastes consigned from the site went to recovery and disposal facilities agreed with the Agency.

Table 5.1 Waste Received & Consigned 2017

EWC	Description	Waste In	Waste Out
06 13 99	Activated Carbon		21.6
15 01 01	Cardboard & Paper Packaging	27.73	
15 01 02	Plastic Packaging	88.974	14.84
15 01 06	Mixed Packaging	300.04	
15 01 07	Glass Packaging	1,404.08	1,444.10
16 06 01	Lead Batteries – Hazardous Waste		0.74
16 11 06	Ash	5.08	
17 02 03	Plastic	128.64	
17 03 02	Bitmac		52.4
17 05 04	Soil & Stone	24.84	
17 09 04	Mixed C&D	2,564.638	2,703.06
18 01 04	Solid Recovered Fuel	15.18	
19 08 05	Liquid Waste		2,151.44
19 12 10	Solid Recovered Fuel	24.70	7,793.97
19 12 12	Mixed Residual Waste from mechanical treatment	6,584.24	55,876.10
20 01 01	Paper & Cardboard	3.92	
20 01 02	Glass	59.53	
20 01 08	Compost and Commercial Food Wastes	7,741.606	7,445.77
20 01 35	REC Electronics & Electrics	1.722	
20 01 36*	Electronics & Electrics	0.26	
20 01 38	Wood from municipal sources	227.12	431.05
20 01 39	Plastic from municipal sources	119.20	29.90
20 01 40	Metal from municipal sources	2.36	604.45
20 02 01	Cardboard & Paper	47.08	
20 03 01	Mixed Residual Waste	71,804.45	21043.75
20 03 07	Bulky Waste	20,250.977	13,733.241
	Total Received	111,426.367	
	Total Consigned		113,346.411
	Recovered		111,462.97
	Disposed		1,983.441
	Recovery Rate (%)		98.34%

Table 5.2 Waste Received & Consigned in Recent Years

Year	Total Received	Total Consigned	Total Recovered	Total Disposed	Recovery Rate
2016	108,037	111,327	109,913	1,414	98.73%
2015	86,136	85,802	66,694	16,109	81.22%
2014	10,307	10,851	7,616	3,191	70.19%
2013	71,812	76,478	62,452	14,026	81.66%
2012	75,619	74,035	34,038	39,996	46%
2011	67,621	69,848	27,263	42,585	39%
2010	68,252	69,988	31,807	38,181	45.45%
2009	54,697	46,394	15,521	40,872	27.52%

6. ENVIRONMENTAL INCIDENTS AND COMPLAINTS

6.1 Incidents

There were four exceedances of the surface water trigger levels throughout the year. These were an exceedance of the trigger level for BOD and TSS in Q3 and the ammonia trigger level in each quarter. Each one was reported to the Agency, Cork County Council and the Inland Fisheries Ireland at the time of each incident. The exceedances did not result in any adverse impact on the water quality in the receiving stream.

There were four incidents reports submitted to the Agency, in April there was a minor oil spill in the vicinity of the diesel generator, in June the abatement equipment temporarily went off line, in October there were two fires, one in the diesel generator on the 3rd and one in the processing building on the 30th. All follow up actions were successfully closed out and each event investigated.

6.2 Register of Complaints

SEHL maintains a register of complaints received in accordance with Condition 10.4 of the waste licence. The complaints register includes the details of all complaints and the actions carried out in response to each complaint. There were 8 complaints in relation to odour and 2 complaints in relation to noise during the reporting period.

7. ENVIRONMENTAL DEVELOPMENT

7.1 Environmental Management Programme Report

SEHL 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. SEHL 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 installation passed an external IMS audit in December 2015.

The schedule of Objectives and Targets, including their status for 2017 (Table 7.1), as well as the proposed Objectives and Targets for 2018 (Table 7.2) are presented below. An index of procedures used at the installation is included in Appendix 2.

7.1.1 Site Management Structure

Details of the site management structure are given below.

Name: Louise Demir

Responsibility: Operations Manager.

Experience: 10 years waste management experience. BSc. Biochemistry (UCC). FÁS Waste Management Course.

Name: Michael Hannon

Responsibility: Support Service Manager / Deputy Operations Manager.

Experience: 15 years waste management experience. FÁS Waste Management Course.

Name: Kieran Connor

Responsibility: Processing Operations Manager

Experience: Over 15 years waste management experience. FÁS Waste Management Course.

7.1.2 Staff Training

Environmental training is carried out for any new staff employed at the installation as required. Training carried out in 2017 included induction training, manual handling, first aid, shovel, teleport, 360 grab and forklift training. Copies of all training records are held in the installation office.

7.2 Environmental Management Programme

7.2.1 Schedule of Objectives 2017

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

7.2.2 Schedule of Objectives 2018

The schedule of targets and objectives for 2018 are presented in Table 7.2.

Table 7.1 Schedule of Objective and Targets 2017

No	Objective	Target	Responsibility	Timescale	Status
1	Odour management	Ensure odour management plans are followed and potential new sources of odour are identified	Site management	Q1 - Q4	Completed
2	Fire prevention	Implement recs from Fire Risk Assessments	Site management/ EHS team	Q1 - Q4	Ongoing
		Update ERP & APP			Ongoing
		Maintain fire detection equipment			Ongoing
3	Waste storage	Review waste storage practices on each site to ensure that they are inline with licence conditions, fire prevention and insurance recommendations	Site management/ EHS team	Q1 - Q4	Ongoing
4	Waste acceptance, classification & records	EWC training for all weighbridge ops. Centralisation of all licences & permits inc NWCPs for hauliers.	EHS team	Q1 - Q4	Completed
5	CRAMP, ELRA & Financial Provision	CRAMP, ELRA & Financial Provision to be reviewed	EHS team	Q2	Completed
6	Lighting in MRF buildings	Clean & upgrade where required all light fittings in MRF buildings	Site management	Q3	Completed
7	NWCP exemptions	Implement NWCP exemption declarations	Site management	Q1 - Q4	Completed
8	Pipeline integrity Testing	Complete bund and pipeline integrity testing	Site management	Q1/Q2	Completed
9	Increase electricity supply	Progress MIC application to increase electricity supply to site	EHS team	Q2-Q4	Q2 2018

Table 7.2 Schedule of Objective and Targets 2018

No	Objective	Target	Responsibility	Timescale
1	Nuisance management	Ensure odour/noise/dust management plans are followed and potential new sources are identified	Q1 - Q4	Site management
2	Fire prevention	Implement recs from Fire Risk Assessments Update ERP & APP where applicable Maintain fire detection equipment	Q1 - Q4	Site management/EHS team
3	Waste storage	Review waste storage practices on each site to ensure that they are in line with licence conditions, fire prevention and insurance recommendations	Q1 - Q4	Site management/EHS team
4	ISO 14001 transition	Transition ISO 14001 to the 2015 standard	Q2	EHS team
5	Paperless project	Implement plans for a paperless office	Q3-Q4	All staff
6	Resource tracking	Sites to track energy usage and other resources in order to conserve wherever possible	Q1 - Q4	Site management/EHS team
7	Hardstand & site infrastructure	Review hardstand and formulate repair plan as required. Record using EF11.	Q1 - Q4	Site management/EHS team
8	Pipeline integrity testing	Complete CCTV review of drainage network	Q3-Q4	EHS Team/site management
9	Grid Connection	Connect to National Grid	Q1-Q4	EHS Team/ Site Management

7.3 Communications Programme

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

SEHL has drawn up a Communications Programme, which details how members of the public are facilitated in accessing environmental information at the installation.

Records available for public inspection on site include:-

- Environmental Health & Safety Policy,
- Waste Licence,
- Monitoring Records,
- Complaints File,
- EPA Correspondence File.

Opening Times for Inspection of Records are from 10 am – 4 pm. Visits to the site should be arranged in advance by ringing the Facility Manager at 1890 600 900.

The facility manager meets with any interested other occupants of the Industrial Estate and the local residents to discuss the environmental performance of the installation and address any environmental issues or concerns that may arise.

7.4 Report Financial Provision

A Decommissioning Management Plan (DMP) and Environmental Liabilities Risk Assessment (ELRA) including Financial Provision (FP) were submitted to the Agency in 2013 as part of the transfer of the licence which occurred in Q1 2014. In 2017, the Agency requested a review of the DMP and ELRA, revised copies of the reports were submitted in April.

7.5 Nuisance Controls

SEHL has contracted a vermin control company Comserv to carry out nuisance control at the installation.

8. OTHER REPORTS

8.1 European Pollutant Release and Transfer Register

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

APPENDIX 1

European Pollutant Release and Transfer Register



Environmental Protection Agency

| PRTR# : W0136 | Facility Name : Starrus Eco Holdings Limited (Munster) | Filename : W0136_2017.xls | Return Year : 2017 |

[Guidance to completing the PRTR workbook](#)

PRTR Returns Workbook

Version 1.1.19

REFERENCE YEAR	2017
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1. FACILITY IDENTIFICATION

Parent Company Name	Starrus Eco Holdings Limited
Facility Name	Starrus Eco Holdings Limited (Munster)
PRTR Identification Number	W0136
Licence Number	W0136-03

Classes of Activity

No.	class name
-	Refer to PRTR class activities below

Address 1	Sarsfieldcourt Industrial Estate
Address 2	Sarsfieldcourt
Address 3	Glanmire
Address 4	
	Cork
Country	Ireland
Coordinates of Location	-8.40596 51.9631
River Basin District	IESW
NACE Code	3832
Main Economic Activity	Recovery of sorted materials
AER Returns Contact Name	Sara Smyth
AER Returns Contact Email Address	sara.smyth@greenstar.ie
AER Returns Contact Position	Environmental Engineer
AER Returns Contact Telephone Number	01 2746236
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	20
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) ?	
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4.1 RELEASES TO AIR

[Link to previous years emissions data](#)

| PRTR# : W0136 | Facility Name : Starrus Eco Holdings Limited (Munster) | Filename : W0136_2017.xls | Return Year : 2017 |

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SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

POLLUTANT		METHOD			QUANTITY			
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

POLLUTANT		METHOD			QUANTITY			
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)

POLLUTANT		METHOD			QUANTITY			
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 (Munster)

Please enter summary data on the quantities of methane flared and / or utilised	T (Total) kg/Year	M/C/E	Method Used		Facility Total Capacity m3 per hour
			Method Code	Designation or Description	
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](#)

| PRTR# : W0136 | Facility Name : Starrus Eco Holdings Limited (Munster) | Filename : W0136_2017.xls | Return Year : 2017 |

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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 it

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT		M/C/E	Method Used		QUANTITY			
No. Annex II	Name		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		M/C/E	Method Used		QUANTITY			
No. Annex II	Name		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		M/C/E	Method Used		QUANTITY			
Pollutant No.	Name		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](#)

| PRTR#: W0136 | Facility Name : Starrus Eco Holdings Limited (Munster) | Filename : W0136_201

26/03/2018 19:39

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			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
					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			
Pollutant No.	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
					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](#)

| PRTR# : W0136 | Facility Name : Starrus Eco Holdings Limited (Munster) | Filename : W0136_2017.xls | Return Year : 2017 |

26/03/2018 19:39

SECTION A : PRTR POLLUTANTS

POLLUTANT		RELEASERS TO LAND			Please enter all quantities in this section in KGs		
POLLUTANT		METHOD			QUANTITY		
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)

POLLUTANT		RELEASERS TO LAND			Please enter all quantities in this section in KGs		
POLLUTANT		METHOD			QUANTITY		
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

| PRTR# : W0136 | Facility Name : Starrus Eco Holdings Limited (Munster) | Filename : W0136_2017.xls | Return Year : 2017 |

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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 Haz Waste - Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	15 01 07	No	831.46	glass packaging	R3	M	Weighed	Offsite in Ireland	Mr Binman,W0061-03 Clonmel Waste Disposal Ltd,WP-008-02	Luddenmore,Grange,Kilmallock,Co. Limerick,Ireland		
Within the Country	15 01 07	No	612.64	glass packaging	R5	M	Weighed	Offsite in Ireland			KMK Metals, W0113-03,.,.,Tullamore,Co Offaly,Ireland	.,.,Tullamore,Co Offaly,Ireland
Within the Country	16 06 01	Yes	0.74	lead batteries	R4	M	Weighed	Offsite in Ireland	KMK Metals, W0113-03 . . .,Tullamore Co Offaly Ireland			
Within the Country	17 09 04	No	2703.06	09 02 and 17 09 03 mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	R13	M	Weighed	Offsite in Ireland	Mallow Contracts,CK(N)277/5	.,.,Mournabbey,Co Cork,Ireland		
Within the Country	19 08 05	No	2151.44	water sludges from treatment of urban waste	R13	M	Weighed	Offsite in Ireland	McBreen Environmental Ltd,WFP-CN-16-0001-01	Lismagraty,Cavan,Co. Cavan,.,Ireland		
Within the Country	19 12 12	No	82.26	11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R3	M	Weighed	Offsite in Ireland	Enrich Environmental Limited,WSP-MG-08-004-02	.,Larch Hill,Kilcock,Co. Meath,Ireland		
Within the Country	19 12 12	No	5049.79	11 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	Nurendale Limited,W0140-04	Rathdrinagh,Beauparc,Navan,Co. Meath,Ireland		
Within the Country	19 12 12	No	13207.78	11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R3	M	Weighed	Offsite in Ireland	McGill Environmental Systems Ltd,W0180-01	Coom,Carrignavar/Glenville, Co. Cork,.,Ireland		
Within the Country	19 12 12	No	133.6	11 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 Holding Limited,W0053-03	.,Fassaroe,Bray ,Co Wicklow ,Ireland		
To Other Countries	19 12 12	No	34302.45	11	R13	M	Weighed	Abroad	EON Varne Sverige AB,556146-1814	Energigatan 5 ,SE-601,71 Norrkoping ,Sweden		
Within the Country	20 01 08	No	6967.33	biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	Acorn Recycling Ltd,W0249-01	.,Littleton,Co Tipperary,Ireland		
Within the Country	20 01 38	No	238.65	wood other than that mentioned in 20 01 37	R13	M	Weighed	Offsite in Ireland	Cork Recycling Company Ltd,WFP-CK-09-0022-02	Lehenaghmore,Togher,Cork,.,Ireland		
Within the Country	20 01 38	No	192.4	wood other than that mentioned in 20 01 37	R3	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal Ltd,WP-008-02	Lawlesstown,Clonmel,.,Co Tipperary,Ireland		
Within the Country	20 01 40	No	119.1	metals	R13	M	Weighed	Offsite in Ireland	Davis Recycling Ltd,W0134-01	10 The Anchorage Business Park,Charlotte Quay,Dublin 4,.,Ireland		
Within the Country	20 01 40	No	585.35	metals	R4	M	Weighed	Offsite in Ireland	Cork Metal Company,WFP-CK-10-0067-01	Dublin Hill,Cork,.,.,Ireland		
Within the Country	20 03 01	No	81.94	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Nurendale Limited,W0039-02	Cross,Tallaght,Dublin 24,.,Ireland		
Within the Country	20 03 01	No	752.48	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Starrus Eco Holding Limited,W0183-01	Millennium Business Park,Grange,Ballycoolin,Dublin 11,Ireland		
Within the Country	20 03 01	No	185.77	mixed municipal waste	R5	M	Weighed	Offsite in Ireland	Dublin City Council,W0238-01	Merrywell Industrial Estate,Ballymount Road Lower,Ballymount ,Dublin 12,Ireland		
Within the Country	20 03 01	No	906.9	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Starrus Eco Holdings Ltd,W0188-01	Greenogue Business Park,Rathcoole,Co. Dublin,.,Ireland		

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Licence/Permit No of Next Destination Facility Haz Waste: Name and Licence/Permit No of Recover/Disposer Non-Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste: Address of Next Destination Facility Non-Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	20 03 01	No	12736.59	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Quality Recycling Limited,NWCPO-12-11065-01	..Ballylynch,Carrick On Suir,Co Tipperary,Ireland		
Within the Country	20 03 01	No	1076.8	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Starrus Eco Holding Limited,W0053-03	..Fassaroe,Bray ,Co Wicklow ,Ireland		
Within the Country	20 03 01	No	2134.19	mixed municipal waste	R1	M	Weighed	Offsite in Ireland	Covanta,W0232-01	Pigeon Huse Road,Poolbeg Peninsula,Dublin 4,..Ireland		
Within the Country	20 03 01	No	370.64	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Starrus Eco Holdings Ltd,W0082-02	..Ballykeefe Townland,Dock Road,Limerick,Ireland		
Within the Country	20 03 01	No	100.34	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Starrus Property Holdings Ltd,WFT-CK-10-0047-03	Sarsfieldcourt Industrial Estate,Glanmire,Co. Cork,..Ireland		
To Other Countries	20 03 01	No	2698.1	mixed municipal waste	R13	M	Weighed	Abroad	Attero BV,6070283	Vamweg 7,9418 TM Wijster,..,Netherlands		
Within the Country	20 03 07	No	0.0	bulky waste	R1	M	Weighed	Offsite in Ireland	Indaver Ireland Ltd,W0167-03	Carranstown,Duleek,Co. Meath,..Ireland		
Within the Country	20 03 07	No	416.48	bulky waste	R13	M	Weighed	Offsite in Ireland	Nurendale Limited,W0140-04	Rathdrinagh,Beauparc,Navan,Co. Meath,Ireland		
Within the Country	20 03 07	No	108.52	bulky waste	R13	M	Weighed	Offsite in Ireland	Starrus Eco Holding Limited,W0183-01	Park,Grange,Ballycoolin,Dublin 11,Ireland		
Within the Country	20 03 07	No	1983.441	bulky waste	D5	M	Weighed	Offsite in Ireland	Bord na Mona. ,W0201-03,Ireland		
Within the Country	20 03 07	No	7.54	bulky waste	R13	M	Weighed	Offsite in Ireland	Cork Recycling Company Ltd,WFP-CK-09-0022-02	Lehenaghmore,Togher,Cork,..Ireland		
Within the Country	20 03 07	No	11217.26	bulky waste	R13	M	Weighed	Offsite in Ireland	Starrus Eco Holding Limited,W0053-03	..Fassaroe,Bray ,Co Wicklow ,Ireland		
Within the Country	06 13 99	No	21.6	wastes not otherwise specified	R12	M	Weighed	Offsite in Ireland	Acorn Recycling Ltd,W0249-01	...Littleton,Co Tipperary,Ireland		
Within the Country	15 01 02	No	14.84	plastic packaging bituminous mixtures containing other than	R12	M	Weighed	Offsite in Ireland	Starrus Property Holdings Ltd,WFT-CK-10-0047-03	Sarsfieldcourt Industrial Estate,Glanmire,Co. Cork,..Ireland		
Within the Country	17 03 02	No	52.4	those mentioned in 17 03 01	R12	M	Weighed	Offsite in Ireland	Mallow Contracts,CK(N)277/5	...Mournabbey,Co Cork,Ireland		
To Other Countries	19 12 10	No	7793.97	combustible waste (refuse derived fuel) other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	R12	M	Weighed	Abroad	Cellmark Ltd.,IRE/G231-16	200 Tamal Plaza,California,..,United States		
Within the Country	19 12 12	No	302.76	11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	R12	M	Weighed	Offsite in Ireland	Starrus Eco Holdings Ltd,W0082-02	..Ballykeefe Townland,Dock Road,Limerick,Ireland		
To Other Countries	19 12 12	No	2797.46	11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12	R13	M	Weighed	Abroad	Cellmark Ltd.,IRE/G231-16	200 Tamal Plaza,California,..,United States		
Within the Country	20 01 08	No	478.44	biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	Ormonde Organics Ltd.,W0287-01	Killowen,Portlaw,Co. Waterford,..Ireland		
Within the Country	20 01 39	No	29.9	plastics	R13	M	Weighed	Offsite in Ireland	Starrus Property Holdings Ltd,WFP-CK-10-0047-03	Sarsfieldcourt Industrial Estate,Glanmire,Co. Cork,..Ireland		

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

APPENDIX 2

Procedures List



Doc. No.: Control	Revision No.: As Shown	Issue Date: As Shown
Approved By:	David Naughton – Group Environmental Manager	Page 1 of 5
	Joe Nicholson – Group H&S Manager	

Integrated Procedures - IP

IP-01	Document & Record Control Procedure	Rev 01, 22/05/17
IP-02	Health & Safety Risk Assessment Procedure	Rev 01, 22/05/17
IP-03	Environmental Aspects & Impacts Procedure	Rev 01, 22/05/17
IP-04	Legal & Regulatory Requirements Procedure	Rev 01, 22/05/17
IP-05	Objectives, Targets & Management Programmes Procedure	Rev 01, 22/05/17
IP-06	Competence, Training & Awareness Procedure	Rev 01, 22/05/17
IP-07	Communication & Consultation Procedure	Rev 01, 22/05/17
IP-08	Monitoring, Measurement & Improvement Procedure	Rev 01, 22/05/17
IP-09	Evaluation of Compliance Procedure	Rev 01, 22/05/17
IP-10	Non Conformances, Corrective/Preventive Actions Procedure	Rev 01, 22/05/17
IP-11	Internal Audit Procedure	Rev 01, 22/05/17
IP-12	Management Review Procedure	Rev 01, 22/05/17
IP-13	Control of Contractors/Visitors Procedure	Rev 01, 22/05/17
IP-14	Health & Safety & Environmental Monitoring	Rev 01, 22/05/17
IP-15	Emergency Preparedness & Response Procedure	Rev 01, 22/05/17
IP-16	Fire Prevention Procedure	Rev 01, 22/05/17
IP-17	Bin Washing Procedure	Rev 01, 22/05/17
IP-18	Accident Prevention Procedure	Rev 01, 22/05/17
IP-19	Fuel Procedure for Tanks & Mobile Plant	Rev 01, 22/05/17

Safety Procedures - SP

SP-01	Permit to Work Procedure	Rev 01, 22/05/17
SP-02	Maintenance & Calibration Procedure	Rev 01, 22/05/17
SP-03	Mobile Plant Procedure	Rev 01, 22/05/17
SP-04	Fork Truck Procedure	Rev 01, 22/05/17
SP-05	Operation of Fixed Plant Procedure	Rev 01, 22/05/17
SP-06	Lock Out / Tag Out Procedure	Rev 01, 22/05/17
SP-07	Health & Safety Notification Procedure	Rev 01, 22/05/17
SP-08	MSW Shredder routine Maintenance & Clearing of Blockages Procedure (SCGT)	Rev 01, 22/05/17
SP-09	Weighbridge & Tipping Procedure (SCGT)	Rev 01, 22/05/17
SP-10	Cleaning of Washing Bay (Greenogue)	Rev 01, 22/05/17



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Environmental Procedures - EP		
EP-01	Office Waste & Energy Management Procedure	Rev 01, 22/05/17
EP-02	Decommissioning and Aftercare Procedure	Rev 01, 22/05/17
EP-03	Environment Communications Procedure	Rev 01, 22/05/17
EP-04	Waste Permits & Licences Procedure	Rev 01, 22/05/17
EP-05	Waste Acceptance Procedure	Rev 01, 22/05/17
EP-06	Unacceptable Waste Procedure	Rev 01, 22/05/17
EP-07	Waste & Material Storage Procedure	Rev 01, 22/05/17
EP-08	Waste Processing Procedure	Rev 01, 22/05/17
EP-09	Site Infrastructure Procedure	Rev 01, 22/05/17
EP-10	Nuisance Management Procedure (Site Specific)	(Site Specific) Rev 01, 22/05/17
EP-11	Civic Amenity Site Procedure	Rev 01, 22/05/17

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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

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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
21/01/16	33	IP-05/IP-07/IP-12	02	Meeting frequency refs updated	SS
14/11/16	34	IP-18	02	Amended as per EPA instruction	SS
11/01/17	35	IP-19	01	New addition	SS
22/05/17	36	All EP's, SP's & IP's	01	Review of all procedures	DN & JN



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