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ANNUAL ENVIRONMENTAL REPORT

STARRUS ECO HOLDINGS LTD

DEEP WATER QUAY SLIGO

LICENCE NO. W0058-01

JANUARY 2014 – DECEMBER 2014

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| Project | Annual Environmental Report 2014 | | | |
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1. INTRODUCTION

This is the 2014 Annual Environmental Report (AER) for the Starrus Eco Holdings Ltd (Greenstar), Materials Recovery & Transfer facility (MRF) at Deep Water Quay, Sligo. It covers the period from the 1st January 2014 to the 31st December 2014. Transfer of the licence from Greenstar Limited to Starrus Eco Holdings Ltd was completed in March 2014.

The content is based on Schedule B of the Waste Licence (Reg. No. W0058-01) 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 Account is also taken of the AER Draft Guidance Document and AER Information Templates issued by the Agency in January 2013².

¹ EPA (Environmental Protection Agency) 1999 Waste Licensing – Draft Guidance on Environmental Management Systems and Reporting to the Agency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 facility is located at Deepwater Berths Road, approximately 1.5 km northwest of Sligo town centre and 1 km from a relief road linking the N4 to the N15.

The licensed area, which encompasses approximately 11,000 m² and is accessed off the Deepwater Berths Road, is occupied by one waste transfer building, site offices, open yard areas and a civic amenity area.

The main building encompasses approximately 2,322 m² and is divided into three bays. The site offices, which are located beside the main entrance, comprise a two storey building encompassing approximately 84 m². The north western yard is paved with concrete and provides access to the waste processing building. The south-eastern yard is also paved and comprises the civic amenity area and an open paved yard area.

2.2 Waste Management Activities

The facility is licensed to accept 100,000 tonnes per annum of household waste, commercial waste, industrial non-hazardous waste and construction and demolition waste for processing and/or transfer for disposal or recovery.

2.2.1 Waste Types

The facility is licensed to accept the following waste types: -

- Household (41,400 tonnes);
- Commercial (4,600 tonnes);
- Industrial Non-hazardous (45,000 tonnes);
- Construction & Demolition (C&D) (9,000 tonnes);

No hazardous wastes or liquid waste are accepted.

Waste bulking and segregation take place inside the waste transfer building, as specified in Condition 5.1 of the Licence and includes:

- Segregation of recyclable material (paper, cardboard, plastic, wood, aluminium cans);
- Baling of segregated materials;
- Sorting and segregation of C&D waste;
- Bulking up of Municipal Solid Waste;
- Transfer of recovered and residual materials to appropriately licensed recycling, recovery and disposal outlets.

Household Waste

Residual or black bin household waste arrives in refuse collection vehicles. It is then bulked up in the waste transfer building and loaded into large bulk transporters for consignment to an appropriately licensed landfill. Source segregated household dry recyclables are baled and stored prior to transfer to permitted/licensed off-site recycling facilities.

Commercial and Industrial Waste

Both mixed and segregated commercial waste is collected from commercial outlets. Commercial waste containing many recyclable waste streams (paper, cardboard, glass, metal, green waste and wood) is delivered to the facility by both permitted third party hauliers and by Greenstar vehicles. Plastic, card and paper are baled and stored prior to transfer to a suitable permitted/licensed off-site recycling outlet. Biodegradable wastes that are suitable for composting are sent to an offsite authorised composting facility. The remaining non-recyclable material is bulked and sent to appropriately licensed landfills/recovery facilities

C&D Waste

Waste loads include mixed construction and demolition wastes and soil and stone. The material arrives in skips of varying sizes. The waste loads are inspected and then bulked. The majority of the incoming material is recovered and sent off-site either for re-use or recycling at authorised facilities. The non-recyclable elements are transferred to a licensed landfill.

Civic Amenity Area

The civic amenity area is located to the south-east of the waste transfer building and has its own dedicated entrance for members of the public. There are a number of dedicated closed skips for MSW, dry recyclables (cardboard, plastics, metals, papers etc) and WEEE.

In September 2014 a bale & wrap operation commenced on site with the addition of a Flexus baler. Permission had previously been granted for this activity by the Agency with specific conditions attached.

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 – 2014

| No. | Plant | Model | Operational Capacity | Standby Capacity |
|------------|----------------|----------------------|-----------------------------|-------------------------|
| 1 | Baler | Boa | 7t/hr | 7t/wk |
| 1 | Paper Shredder | Alleghney | 500kg/hr | 500kg/hr |
| 5 | Trucks | Skip Trucks *3 | 60hr/wk | - |
| | | Refuse Trucks *4 | 60hr/wk | - |
| 1 | Hook Lifter | Scania | 65hr/wk | - |
| 1 | Loading Shovel | Caterpillar 938G | 70t/hr | - |
| 1 | Fork Lift | Yale x2 | 65hr/wk | - |
| | Trommel | Powerscreen | 60t/hr | |
| 1 | Grab | Fuchs MHL340 | 25t/hr | - |
| 1 | Weighbridge | Avery Weightronic | 46hr/wk | - |

3. EMISSION MONITORING

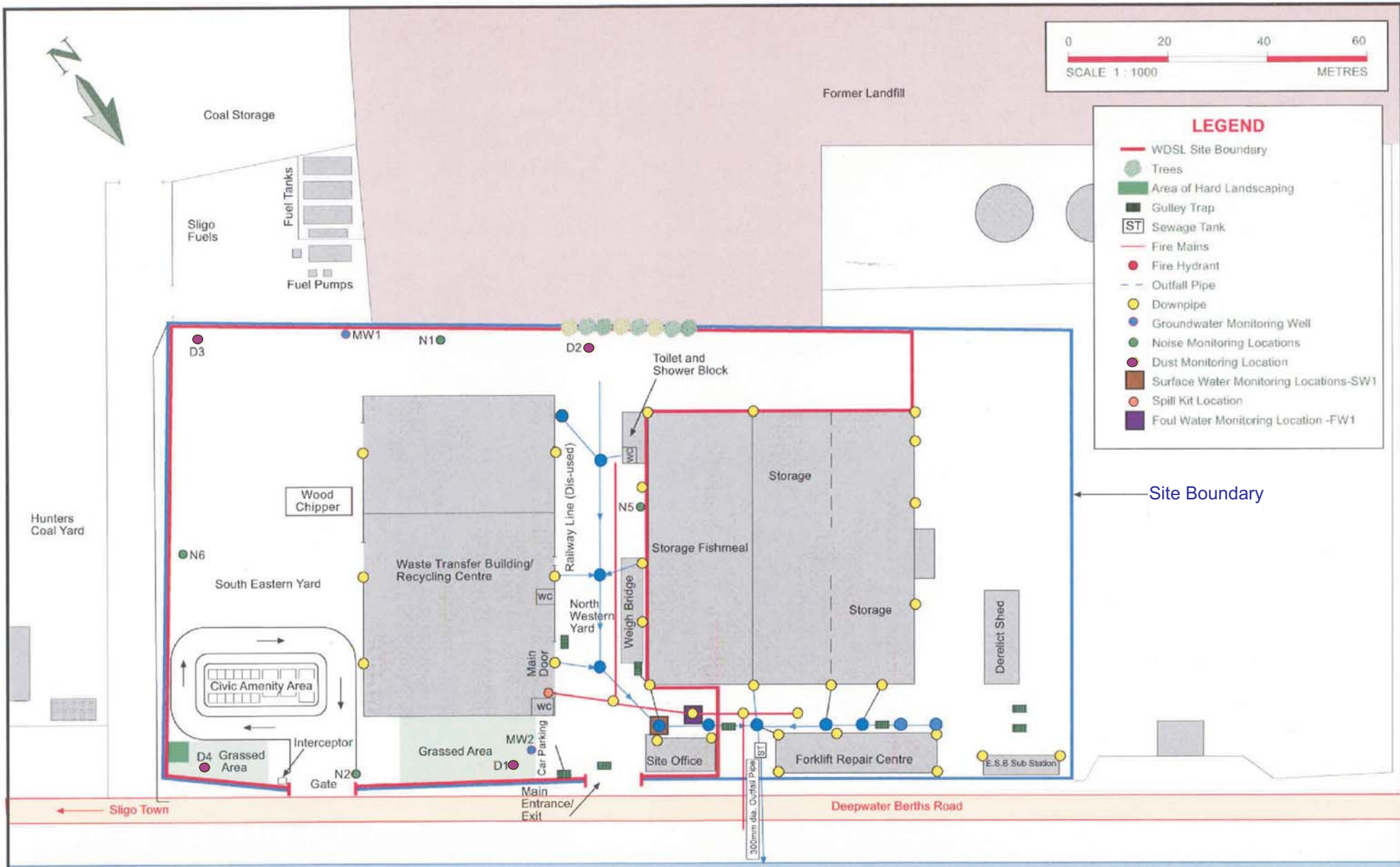
Greenstar implements a comprehensive environmental monitoring programme to assess the significance of emissions from site activities as per Schedule E of the Waste Licence. The programme includes surface water, foul water, groundwater, noise, landfill gas and dust monitoring. The monitoring locations are shown on Figure 3.1. The monitoring results are submitted to the Agency at quarterly intervals. An overview of the monitoring conducted in 2014 is presented in this Section. The Agency attempted to collect water samples on the 11th December 2014. No samples were collected however due to a lack of flow.

3.1 Surface Water Monitoring

The surface water drainage system, serving roofed and open yard areas, discharges via a silt trap and petrol/oil interceptor to the Garavogue River. The interceptor and drains are cleaned as required.

Surface water monitoring is carried out in accordance with Condition 9.2 and Schedule E of the Licence at quarterly intervals at the final discharge point (SE-2). The range of analysis is as specified in Schedule E and includes pH, electrical conductivity, Chemical Oxygen Demand (COD), Biological Oxygen Demand (BOD), ammoniacal nitrogen, chloride, surfactants, total suspended solids (TSS), mineral oils, and oils, fats and greases.

The results, which are shown on Table 3.1, indicate the discharge is generally of good quality. The ELVs were complied with 100% in the reporting period.



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CLIENT

Greenstar Sligo

Details

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FIGURE NUMBER

3.1

TITLE

Monitoring Locations

Scale

Not To Scale

Revision

A

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Table 3.1 Surface Water Results for 2014

| Parameter | Units | SE-2 Q1 2014 | SE-2 Q2 2014 | SE-2 Q3 2014 | SE-2 Q4 2014 | Emission Limit (Grab Sample) |
|------------------------|-----------|-----------------|-----------------|-----------------|-----------------|---------------------------------------|
| pH | pH units | 6.91 | 6.74 | 7.2 | 7.17 | 6 – 9 |
| Chloride | mg/l | 2.7 | ** | 0.285 | 19.9 | N/A |
| Ammoniacal Nitrogen | mg/l | 0.489 | 0.878 | 0.726 | 0.2 | N/A |
| COD | mg/l | 16 | 52 | 29 | 15 | N/A |
| BOD | mg/l | ** | 11 | 8 | 3 | 24 |
| Total Suspended Solids | mg/l | 12 | <2 | <2 | 34 | 36 |
| Surfactants | mg/l | <0.1 | 0.108 | 0.063 | 1.2 | N/A |
| Mineral Oils | mg/l | <0.01 | <0.01 | 0.257 | <0.01 | N/A |
| Oils, Fats & Greases | mg/l | <1 | 1.08 | <1 | <0.01 | 12 |
| Total Coliforms | MPN/100ml | N/A | N/A | N/A | 1,046.2 | N/A |
| Faecal Coliforms | cfu/100ml | N/A | N/A | N/A | 54 | N/A |

N/A - not applicable

*Condition 7.7.1.3. No grab sample shall exceed 1.2 times the emission limit value.

** Results not available due to laboratory instrument failure

*** Results not available due to bottle breakage in transit to laboratory

3.2 Groundwater Monitoring

There are no direct or indirect emissions to ground from the facility. Groundwater monitoring is carried out annually at two locations (MW1 and MW2) shown on Figure 3.1. MW1 is located on the southern boundary of the site in an open paved yard area, and MW2 is at the northern boundary near the main entrance to the site. MW1 is upgradient of site activities, while MW2 is downgradient.

The laboratory analysis included the annual range of parameters specified in Schedule E5 of the Licence. The parameters were ammoniacal nitrogen, BOD, chloride, mineral oils, pH, faecal coliforms and total coliforms.

The methodologies were all ISO/CEN approved or equivalent. There are no trigger limits set in the Licence and the results are compared to the Interim Guideline Values (IGV) on groundwater quality published by the Agency and the Groundwater Threshold Values (GTV) set out in the European Communities Environmental Objectives (Groundwater) Regulations (S.I. 9 of 2010). The IGVs are not statutory, but were developed to assist in the assessment of impacts on groundwater quality. The IGVs are based on, but are more conservative than the Drinking Water quality standards. GTVs have only been established for core indicator parameters. The summary results for 2014 are shown on Table 3.2.

The closed Finiskiln landfill is immediately south west and up hydraulic gradient of the site. The landfill was operated by Sligo Borough Council from 1958 to 1994 and was used for the disposal of municipal solid waste. The Garavogue River estuary is immediately north of the site.

The elevated ammoniacal nitrogen may be attributable to the former landfill. Elevated chloride has been detected in the groundwater in the recent past and is likely associated with saltwater intrusions from the estuary.

The mineral oil level in MW-1 (272.88mg/l) is significantly lower than that recorded in May 2013 (675mg/l). MW1 is approximately 5m from a neighbouring kerosene and diesel distribution centre. There are no on-site sources of hydrocarbon contamination in the vicinity of this well and it is understood that the source of the contamination is a leak that occurred at the distribution centre.

Oil contamination was initially detected in MW1 in 2006 and at that time Greenstar informed the distribution centre, the Agency and Sligo County Council of the presence of the contamination. In April 2010, Greenstar also met with the Agency and the Council to discuss the persistent presence of oil in MW-1. At the meeting it was generally agreed that the source was likely the neighbouring facility. A copy of all groundwater monitoring reports including this report is sent to the Council for their information.

The groundwater quality is generally consistent with previous monitoring results.

Table 3.2 Groundwater Monitoring Results – April 2014

| Parameter | Units | MW1 | MW2 | IGV | GTV |
|---------------------|-----------|--------|-------|------|-------------|
| pH | pH units | 6.93 | 7.15 | 6-9 | - |
| Chloride | mg/l | 19.0 | 94.1 | 30 | 24-187.5 |
| Ammoniacal Nitrogen | mg/l | 0.95 | 2.26 | 0.15 | 0.065-0.175 |
| BOD | mg/l | 63 | 15 | - | - |
| Mineral Oils | mg/l | 272.88 | <0.01 | 10 | - |
| Faecal Coliforms | cfu/100ml | <1 | <1 | 0 | - |
| Total Coliforms | cfu/100ml | 87 | 31 | 0 | - |

3.3 Foul Water Monitoring

Foul water is generated by floor runoff in the transfer building and sanitary discharges. In July 2010, following agreement with the Agency, the drainage system was connected to the Sligo County Council municipal sewer, which connects to the municipal waste water treatment plant located approximately 500 m from the facility. Monitoring is carried out at one location (SE-1), the final discharge point from the facility. A technical amendment issued in January 2013 defines the current monitoring schedule for emissions to sewer. Foul water monitoring is carried out quarterly in accordance with Condition 9.2 and Schedule E.7 of the licence. The sampling location is shown on Figure 3.1 and the monitoring results are presented on Table 3.3.

The range of analysis as specified in Schedule E.7 of the amended Waste Licence includes pH, BOD, COD, ammoniacal nitrogen, chloride, detergents, total suspended solids, mineral oils and oils, fats and greases. The sampling and analysis was carried out in accordance with recognised quality assurance and control procedures.

The ELVs set in the licence are based on a direct discharge to the Garavogue River. As the discharge to the river has stopped, the Licence ELVs are no longer applicable. In approving the connection to the municipal sewer, the Sanitary Authority set discharge limits and these are included in Table 3.3. The foul water discharge complied with the ELVs in 2014.

A technical amendment granted in January 2013 significantly altered the existing monitoring regime and introduced a requirement to obtain composite samples of foul water samples for a number of parameters (including pH, BOD, COD, Chloride, detergents, total suspended solids, mineral oil and Oils Fats and Greases). This requirement to obtain composite samples was appealed by Greenstar and with the agreement of Sligo County Council, the Agency advised that it was appropriate to maintain the current sampling technique (grab sampling).

Table 3.3 Foul Water Monitoring Results for 2014

| Parameter | Units | SE-1 Q1 2014 | SE-1 Q2 2014 | SE-1 Q3 2014 | SE-1 Q4 2014 | Sanitary Authority Emission Limits |
|------------------------|----------|--------------|--------------|--------------|--------------|------------------------------------|
| pH | pH Units | 7.29 | 7.01 | 7.26 | 7.28 | 6 – 10 |
| BOD | mg/l | * | <2 | 6 | <1 | 3,000 |
| COD | mg/l | 31 | 14 | 13 | 11 | 6,000 |
| Chloride | mg/l | <1 | ** | 0.2 | 17.6 | - |
| Ammoniacal Nitrogen | mg/l | 0.447 | 0.652 | 0.639 | 0.71 | 100 |
| Total Suspended Solids | mg/l | 266 | <2 | <2 | <10 | 1,250 |
| Surfactants | mg/l | <0.1 | 0.027 | 0.088 | 0.4 | 100 |
| Oils, Fats & Greases | mg/l | <1 | <0.001 | <1 | <0.01 | 100 |
| Mineral Oils | mg/l | <0.01 | <0.01 | <0.01 | <0.01 | 10 |

* Results not available due to laboratory instrument failure

** Results nor available due to bottle breakage in transit to laboratory

3.4 Noise Survey

All waste processing is carried out internally which provides significant attenuation for noise emissions from waste processing. The annual noise survey was carried out on the 12th June 2014 in accordance with Schedule E of the Licence. Monitoring was carried out at the four noise monitoring locations, N-1, N-2, N-5 and N-6 shown on Figure 3.1. The results are summarised on Table 3.4. The survey concluded that the facility was fully compliant with its licence requirements as there were no impacts from facility activities at any potentially noise sensitive locations.

The nearest sensitive receptors to the facility are private residences located approximately 200 metres to the east of the facility across the Garavogue River at Cartron. There are also some individual residences located close to the Finiskiln Industrial Estate approximately 200 metres

south of the facility. An inspection undertaken by the acoustic consultant in the vicinity of the nearest sensitive locations prior to the onsite noise survey established that noise emissions from the study site were not audible or discernible at these locations.

Table 3.4 Noise Monitoring Results July 2014

| Station | Time | L _{Aeq} 30 min dB | L _{AF10} 30 min dB | L _{AF90} 30 min dB | Specific level* dB | Noise audible |
|---------|-----------|-------------------------------|--------------------------------|--------------------------------|-----------------------|---|
| N1 | 1045-1115 | 55 | 53 | 45 | 55 | Vehicle movements on yard areas and plant movements in building audible at low level, although sporadic vehicles passing locally more intrusive. During quieter periods, cardboard baler in building slightly audible, reflected off building facade. Offsite, noise emissions variously audible at low level from vehicle movements in yards beyond boundary (incl. idling truck outside boundary during last 5 min), and coal conveyor system at nearby premises. Birdsong audible. |
| N2 | 1206-1236 | 57 | 59 | 50 | 57 | Loader operating in building continuously audible at low level, loading ejector trailers. Truck movements around site also audible at low level. Waste disposal noise at CAS site significant, chiefly glass disposal. Sporadic car movements through entrance dominant when present. Intermittent vehicle movements on quay roadway significant. Bird song/calls. |
| N5 | 1014-1044 | 57 | 56 | 49 | 57 | Occasional vehicle movements on yard around weighbridge area dominant when present, including several extended periods when vehicles idling near weighbridge. Forklift truck movements audible in building. During vehicle absence, baler in building continuously clearly audible. Intermittent vehicle movements on road outside boundary audible at low level. |
| N6 | 1119-1149 | 60 | 55 | 48 | 60 | Occasional vehicle movements on nearest yard area clearly audible when present. Waste activities around yard and in building also audible at low level, including loader in continuous use from 1138. Ejector trailer donkey engine at weighbridge area clearly audible through building 1123-1140, and dominant from 1129 when manoeuvred into building (driver left engine running for extended period). Glass disposal at CAS intermittently clearly audible, reflected off external wall. Road traffic outside boundaries intermittently clearly audible. Birdsong. |

*Specific level: Sound pressure level contribution considered attributable to facility, determined using real time assessment, field notes, time history profiles, statistical analysis, frequency spectra, near field correction if applicable, and other parameters.

3.5 Dust Monitoring

There are significant off-site sources of dust in the vicinity of the facility which is located in an industrial area of Sligo Port. In dry weather Greenstar dampen down access roads and the paved yards. Dust monitoring was carried out three times during the year in accordance with Schedule E of the Licence at four on-site locations (D1, D2, D3 and D4) as shown on Figure 3.1. The Licence requires that two of these monitoring events be carried out between May and September. Dust monitoring was carried out in May, September and December. The results of the dust monitoring are presented in Table 3.5.

The dust deposition limit (350 mg/m²/day) was exceeded at one of the four monitoring locations (D3 - 417 mg/m²/day) in September 2014. The limits were not exceeded at any location in either May or December 2014.

The sources of the dust at each of the locations is not exclusively the Greenstar facility, which is located in a busy port surrounded by a variety of industrial activities, including an open coal storage facility to the west and south west, a petrol and oil distribution centre to the south, a fish meal storage warehouse to the east and an unvegetated partially restored local authority landfill to the south. The facility is also bounded to the north by the Port road leading to other industrial units further along the quay.

Location D3 is on the western boundary of the facility, close to the open coal storage yard. When collecting the gauges, Greenstar staff noted the presence of black dust and some vegetation indicating the presence of coal dust from the coal yard and some leaves from some adjacent trees. Given the low levels recorded at D1, D2 and D4 it is not considered that the levels recorded at D3 are indicative of emissions from the Greenstar facility. It is considered that the elevated levels are due to offsite sources.

Table 3.5 Dust Monitoring Results 2014

| | May 2014 mg/m²/day | September 2014 mg/m²/day | December 2014 mg/m²/day | Deposition Limit mg/m²/day |
|----|--|--|---|--|
| D1 | 15.63 | 294 | 10.7 | 350 |
| D2 | 9.93 | 207 | 0.6 | 350 |
| D3 | 12.05 | 417 | 23.3 | 350 |
| D4 | 13.26 | 165 | 11.9 | 350 |

3.6 Landfill Gas Monitoring

The annual gas monitoring was carried out in accordance with Schedule E of the Licence and included measurements of methane, carbon dioxide, oxygen and atmospheric pressure from the two groundwater monitoring wells (MW1 & MW2) and the facility office on the 16th April

2014. OCM carried out the gas measurements using a Gas Data LSMx gas analyser. The meter was calibrated before use. The detection limit is 0.1% for methane, carbon dioxide and oxygen. The results are shown on Table 3.6. There are no trigger limits set in the waste licence. Carbon dioxide and methane were not detected at any of the monitoring locations. There is no evidence that landfill gas is present in the soils beneath the facility.

Table 3.6 Landfill Gas Monitoring Results 2014

| LANDFILL GAS MONITORING FORM | | | | Baseline | | Ambient | x |
|--|-----------------------------|---|-------------------------------|--|---------------------------------|----------------|----------|
| Site Name: Greenstar Ltd. – Sligo Depot | | | | Site Address: Greenstar, Sligo. | | | |
| Operator: GREENSTAR | | | | National Grid Reference: | | | |
| Site Status: Operational | | | | Date: 16/04/204 | | | |
| Instrument used: Gas Data LMSx | | Normal Analytical Range: 0 – 100% | | | | | |
| Monitoring Personnel: OCM | | | | Weather: Drizzle overcast | | | |
| Results | | | | | | | |
| Sample ID | Borehole/spike/other | CH₄ (% v/v) | CO₂ (% v/v) | O₂ (% v/v) | Barometric Pressure (mb) | Comment | |
| MW1 | Borehole | 0.0 | 0.0 | 21.2 | 986 | | |
| MW2 | Borehole | 0.0 | 0.0 | 21.8 | 986 | | |
| OFFICE | - | 0.0 | 0.0 | 20.9 | 986 | | |

4. SITE DEVELOPMENT WORKS

4.1 Engineering Works

The MRF building was constructed in two phases and the southern area of the floor is at a slightly lower level to the northern area. It was intended to raise the floor at the southern area to remove the divide between both sides of the building. A portion this was carried out Q3, to facilitate installation of the MSW baler.

4.2 Summary of Resource & Energy Consumption

Table 4.1 presents an estimate of the resources used on-site during the reporting period and the previous two years. An energy audit was completed in compliance with Condition 9.13 of the Technical Amendment during 2013 and an Energy Management Policy was developed subsequent to this.

Table 4.1 Estimates of Resources Used On-Site 2014, 2013 & 2012

| Resources | Quantities 2014 | Quantities 2013 | Quantities 2012 |
|------------------------|-----------------|-----------------|-----------------|
| Vehicle Diesel | 134,332 Litres | 129,152 Litres | 140,486 litres |
| Diesel (green) | 18,000 Litres | 19,800 Litres | 23,766 litres |
| Electricity | 117,681 Units | 87,018 Units | 123,466 kwh |
| Hydraulic & Engine Oil | 400 litres | 600 litres | 1,400 litres |

5. WASTE RECEIVED AND CONSIGNED 2014

Table 5.1 shows the quantities of wastes accepted and consigned for the reporting period. A more detailed description of the wastes received and consigned in 2014 is presented in the PRTR submission in Appendix 1.

The total quantity of waste received was 18,169 tonnes and the total amount consigned was 17,953.12 tonnes. For comparative purposes the amounts of waste received and consigned from 2003 to 2014 are presented in Tables 5.2 and 5.3. As per Condition 5.8 of the Licence all the wastes consigned from the site went to authorised recovery and disposal facilities and a copy of the relevant Facility Permit or Waste Licences retained on site for Agency inspection.

The records show that less waste was consigned from the site than accepted. The difference was 216 tonnes. The difference relates to wastes held on site at the end of 2014.

Table 5.1 Waste Received & Consigned 2014

| EWC | Description | Waste In | Waste Out |
|------------|--|-----------------|------------------|
| 02 07 05 | Interceptor Sludge | 562.22 | 559.48 |
| 030199 | Chip/Grit | 0.18 | |
| 15 01 01 | Cardboard Packaging | 804.74 | 1,110.84 |
| 15 01 02 | Plastic Packaging | 291.62 | 195.3 |
| 150103 | Wooden Packaging | 1.28 | |
| 15 01 04 | Metallic Packaging | 37.95 | 12.94 |
| 15 01 05 | Tetrapak | 12.86 | |
| 15 01 06 | Mixed Packaging | 2,961.93 | 2,697.18 |
| 15 01 07 | Glass Packaging | 65.87 | 98.26 |
| 16 03 06 | Silver Strips | 27.52 | 27.52 |
| 160601 | Battery | | 0.63 |
| 17 02 03 | Plastic | 53.05 | |
| 170802 | Plasterboard | 0.36 | |
| 17 09 04 | Mixed C&D | 78.08 | 30.62 |
| 19 08 02 | Waste from Desanding | 11.52 | |
| 191201 | Paper & Cardboard Residue | 0.36 | |
| 19 12 07 | Wood other | 20.46 | 6.54 |
| 19 12 09 | minerals | 101.49 | 29.06 |
| 191210 | Solid Recovered Fuel (SRF) | 23.12 | |
| 19 12 12 | Other Wastes | 21.60 | 2,254.88 |
| 20 01 01 | Paper & Cardboard | 340.10 | 200.04 |
| 20 01 02 | Glass Municipal | 88.46 | 50.87 |
| 20 01 08 | Biodegradable Kitchen & Canteen Waste Wastes | 261.06 | 108.04 |
| 20 01 11 | Textiles | 3.80 | 7.66 |
| 200133 | Haz Battery | | 0.71 |
| 200135 | REC Electronics & Electrics | 188.36 | 174.20 |
| 20 01 38 | Wood from municipal sources | 144.80 | 37.74 |
| 20 01 39 | Plastic from municipal sources | 38.79 | |
| 20 01 40 | Metal from municipal sources | 53.16 | 45.68 |
| 20 02 01 | Biodegradable garden & park waste | 9.44 | 12.50 |
| 20 03 01 | Mixed Residual Waste from mechanical treatment | 3,373.16 | 9,628.77 |
| 200303 | C&I Dry Mixed | 341.48 | 133.68 |
| 20 03 07 | Bulky Waste | 8,249.92 | 529.98 |
| | | | |
| | Total Accepted | 18,169 | |
| | Total Consigned | | 17,953.2 |
| | Recovery | | 12,020.29 |
| | Disposal | | 5,932.83 |
| | Recovery Rate | | 66.9% |

Table 5.2 Waste Received & Consigned 2013

| EWC | Description | Waste In | Waste Out |
|------------|---|-----------------|------------------|
| 02 07 05 | Interceptor Sludge | 552 | 573 |
| 15 01 01 | Cardboard Packaging | 854 | 1,317 |
| 15 01 02 | Plastic Packaging | 381 | 167 |
| 15 01 04 | Metallic Packaging | 60 | 5 |
| 15 01 05 | Tetrapak | 15 | - |
| 15 01 06 | Mixed Packaging | 2,293 | - |
| 15 01 07 | Glass Packaging | 88 | 1,711 |
| 15 02 03 | Absorbenst | 1 | |
| 16 03 06 | Silver Strips | 205 | 189 |
| 17 02 01 | Wood | 12 | - |
| 17 02 03 | Plastic | 6 | - |
| 17 05 04 | Soil & Stone from C&D Waste | 48 | - |
| 17 09 04 | Mixed C&D | 169 | 58 |
| 19 08 02 | Waste from Desanding | 7 | - |
| 19 08 12 | Sludge from biological treatment of waste water | - | 14 |
| 19 09 02 | Sludge from water clarification | 43 | 15 |
| 19 12 07 | Wood other | - | 27 |
| 19 12 09 | minerals | - | 170 |
| 19 12 12 | Other Wastes | - | 10,321 |
| 20 01 01 | Paper & Cardboard | 370 | 278 |
| 20 01 02 | Glass Municipal | 63 | 39 |
| 20 01 08 | Biodegradable Kitchen & Canteen Waste Wastes | 227 | 75 |
| 20 01 11 | Textiles | 12 | 8 |
| 20 01 36 | Discarded electronic equipment | 36 | 168 |
| 20 01 38 | Wood from municipal sources | 199 | - |
| 20 01 39 | Plastic from municipal sources | 35 | - |
| 20 01 40 | Metal from municipal sources | 53 | 47 |
| 20 02 01 | Biodegradable garden & park waste | 45 | - |
| 20 03 01 | Mixed Residual Waste from mechanical treatment | 1,980 | 324 |
| 20 03 07 | Bulky Waste | 8,274 | 1,050 |
| | | | |
| | Total Accepted | 16,032 | |
| | Total Consigned | | 16,556 |
| | Recovery | | 7,140 |
| | Disposal | | 9,416 |
| | Recovery Rate | | c43% |

Table 5.3 Total Tonnages Received and Consigned in 2003-2014

| Year | Tonnes per Annum | Tonnes Recovered | Tonnes Landfilled |
|-----------|------------------|------------------|-------------------|
| 2003/2004 | 14,484 | 2,199 | 12,285 |
| 2004 | 18,548 | 6,351 | 12,197 |
| 2005 | 21,500 | 6,750 | 12,694 |
| 2006 | 23,196 | 8,393 | 15,634 |
| 2007 | 32,271 | 9,224 | 24,672 |
| 2008 | 36,993 | 7,082 | 32,148 |
| 2009 | 24,267 | 8,760 | 16,864 |
| 2010 | 17,359 | 7,215 | 11,277 |
| 2011 | 24,982 | 8,961 | 16,021 |
| 2012 | 19,201 | 7,423 | 11,778 |
| 2013 | 16,556 | 7,140 | 9,416 |
| 2014 | 18,169 | 12,020 | 5,932 |

6. ENVIRONMENTAL INCIDENTS AND COMPLAINTS

6.1 Incidents

There was one minor environmental incident during the reporting period which related to an exceedance of the dust deposition limit. There were no other incidents at the facility as defined by the Licence.

The dust deposition limit (350mg/m²/day) was exceeded at one of the four monitoring locations (D3 - 417 mg/m²/day) in September 2014. The limits were not exceeded at any location in either May or December 2014. It is considered that the dust source was off site rather than an emission associated with site activities. The exceedance was reported to the Agency in accordance with Condition 3.3 of the Licence.

6.2 Register of Complaints

Greenstar maintains a register of complaints received in accordance with Condition 3.12 of the Licence. No complaints were received during the reporting period.

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 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. A successful IMS external surveillance audit was conducted in July 2014.

As part of this IMS, Greenstar has developed a list of environmental, management, operating and maintenance procedures, details of which are outlined in Appendix 2. The schedule of Objectives and Targets, including their status for 2014 (Table 7.1), as well as the proposed Objectives and Targets for 2015 (Table 7.2) are presented below.

7.1.1 Site Management Structure

Name: Barry Gallagher

Responsibility: Operations Manager; overall management of the site, responsible for management of all fleet activities

Experience: 23 years experience. N.C.B.S

Name: Anthony Lynch

Responsibility: Yard Foreman, management of baler, pickers, forklift driver and yard cleaner

Experience: 12 years

7.1.2 Staff Training

Environmental Awareness training was carried out for all staff in 2014. Barry Gallagher and Claire McMahon received waste management training in 2014.

7.2 Environmental Management Programme Proposal

7.2.1 Schedule of Objectives 2014

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

7.2.2 Schedule of Objectives 2015

The schedule of targets and objectives for 2015 are presented in Table 7.2.

Table 7.1 Schedule of Objective and Targets 2014

| No. | Objective | Target | Timescale | Responsibility |
|-----|---|--|-------------------|--|
| 1 | Integrity Testing of all above ground bunds in Compliance with Condition 4.12.4 of Licence | In compliance with Condition 4.12.4, testing is to be carried out and report submitted to the Agency | Q3-Q4 | Bunds were tested in July 2014 and passed fit for purpose. |
| 2 | Infrastructural Development – Hardstanding and drainage | Investigate the costs and develop SEW proposals to concrete the empty wheelie bin storage area and also to raise the floor at the southern section of the MRF building to come into line with the newer floor at the northern portion of the building. | Q3-Q4 | Ongoing |
| 3 | Reduce energy consumption and provide energy awareness training to employees | Tenders will be sought to review the current lighting system and introduce a lighting system with lower energy demands. | Q2 2014 | Ongoing |
| 4 | Odour Impacts | Compile an Odour Management Plan for the facility and include it on the training matrix | Q2 – Q3 | Ongoing |
| 5 | Development and adoption of Fire Prevention Procedure at the facility | Reduce risk of fire and enable early detection | Q2 2014 | Ongoing |
| 6 | Review of Emergency Response Plan to incorporate fire prevention procedure and new structure | Revision of Plan and additional training for site personnel | Q2 2014 | Ongoing |
| 7 | Achieve re-certification to ISO 14001 and OHSAS 18001 standard | 3 year certification period expires in 2014. The facility requires re-certification. | Q3/Q4 2014 | Re-certified in July 2014, site surveillance audit planned. |
| 8 | Develop and maintain traffic management plan at the facility | Review of all on-site traffic management | Q2/Q3 2014 | Ongoing |

| | | | | |
|----|---|--|-------------------|--------------------------------|
| | | | | |
| 9 | Environmental Training of Facility Staff | Update training presentation and ensure training of key managerial staff | Q2/Q3 2014 | Ongoing |
| 10 | Site Signage | Facility Notice Boards to be replaced to reflect new ownership | Q1 2014 | Completed in March 2014 |

Table 7.2 Schedule of Objective and Targets 2015

| No. | Objective | Target | Timescale | Responsibility |
|-----|--|--|---------------------|----------------------------|
| 1 | Infrastructural Development – Hardstanding and drainage | Investigate the costs and develop SEW proposals to concrete the empty wheelie bin storage area and also to raise the floor at the southern section of the MRF building to come into line with the newer floor at the northern portion of the building. Complete integrity testing of all pipelines on site. | Q3-Q4 2015 | Site Management/EHS |
| 2 | Reduce energy consumption, provide energy awareness training to employees and track energy usage on site. | Tenders will be sought to review the current lighting system and introduce a lighting system with lower energy demands. | Q2 2015 | Site Management/EHS |
| 3 | Odour Impacts | Compile an Odour Management Plan for the facility and include it on the training matrix | Q2 – Q3 2015 | Site Management/EHS |
| 4 | Development and adoption of Fire Prevention Procedure at the facility and review of Emergency Response Plan | Additional training for site staff required | Q2 2015 | Site Management/EHS |

| | | | | |
|-----------|--|--|-------------------|----------------------------|
| 5 | Install new Fire Detection (Aspiration) System | Reduce risk of fire and enable early detection | Q2 2015 | Site Management/EHS |
| | | | | |
| 6 | Develop and maintain traffic management plan at the facility | Review of all on-site traffic management | Q2/Q3 2015 | Site Management/EHS |
| 7 | Environmental Training of Facility Staff | Update training presentation and ensure training of key managerial staff | Q2/Q3 2015 | Site Management/EHS |
| 8 | Document a Preventative Maintenance (PM) plan for the inspection and cleaning of plant & equipment wrt fire | Incorporate into existing Site Inspection Database (EF-10A) and site specific PM plans | Q2-Q3 | Site Management/EHS |
| 9 | Document PM plan for all hardstand and drainage infrastructure on site | Incorporate into existing Site Inspection Database (EF-10A) | Q2-Q3 | Site Management/EHS |
| 10 | 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 | Q2-Q3 | EHS/Finance/WIMS |

7.3 Communications Programme

Greenstar are committed to setting the standard in waste management and ensuring environmental compliance in all operations. To this end Greenstar has drawn up a Communications Programme, which details how members of the public are facilitated in accessing environmental information at the facility.

Records available for public inspection on-site include:-

- Environmental, Health & Safety Policy;
- Waste Licence;
- Licence Application and Review documentation;
- 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 or Supervisor at 071 - 9143037.

7.4 ELRA & Report on 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. Both the DMP and ELRA have been approved by the Agency.

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 Greenstar 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

[Guidance to completing the PRTR workbook](#)

AER Returns Workbook

Version 1.1.18

| | |
|-----------------------|------|
| REFERENCE YEAR | 2014 |
|-----------------------|------|

1. FACILITY IDENTIFICATION

| | |
|----------------------------|--------------------------------------|
| Parent Company Name | Starrus Eco Holdings Limited |
| Facility Name | Starrus Eco Holdings Limited (Sligo) |
| PRTR Identification Number | W0058 |
| Licence Number | W0058-01 |

Classes of Activity

| No. | class name |
|-----|--------------------------------------|
| - | Refer to PRTR class activities below |

| | |
|--|---|
| Address 1 | Deepwater Quay |
| Address 2 | Sligo |
| Address 3 | |
| Address 4 | |
| | Sligo |
| Country | Ireland |
| Coordinates of Location | -8.48919 54.28 |
| River Basin District | IEWE |
| 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 | Group Compliance Manager |
| AER Returns Contact Telephone Number | 012947976 |
| 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 | 8 |
| User Feedback/Comments | Waste water discharge improved between 20013 and 2014 reflected I reduction in thelevels of COD, BOD, FOG, TSS and Mineral Oil. |
| Web Address | |

2. PRTR CLASS ACTIVITIES

| Activity Number | Activity Name |
|-----------------|---|
| 5(c) | Installations for the disposal of non-hazardous waste |
| 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) ? | |
|--|--|

This question is only applicable if you are an IPPC or Quarry site

4.1 RELEASES TO AIR

[Link to previous years emissions data](#)

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

| POLLUTANT | | RELEASERS TO AIR | | | Please enter all quantities in this section in KGs | | | |
|--------------|------|------------------|-------------|----------------------------|--|-------------------|------------------------|----------------------|
| No. Annex II | Name | M/C/E | METHOD | | Emission Point 1 | QUANTITY | | |
| | | | Method Code | Designation or Description | | T (Total) KG/Year | A (Accidental) KG/Year | F (Fugitive) 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 PRTR POLLUTANTS

| POLLUTANT | | RELEASERS TO AIR | | | Please enter all quantities in this section in KGs | | | |
|--------------|------|------------------|-------------|----------------------------|--|-------------------|------------------------|----------------------|
| No. Annex II | Name | M/C/E | METHOD | | Emission Point 1 | QUANTITY | | |
| | | | Method Code | Designation or Description | | T (Total) KG/Year | A (Accidental) KG/Year | F (Fugitive) 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 C : REMAINING POLLUTANT EMISSIONS (As required in your Licence)

| POLLUTANT | | RELEASERS TO AIR | | | Please enter all quantities in this section in KGs | | | |
|---------------|------|------------------|-------------|----------------------------|--|-------------------|------------------------|----------------------|
| Pollutant No. | Name | M/C/E | METHOD | | Emission Point 1 | QUANTITY | | |
| | | | Method Code | Designation or Description | | T (Total) KG/Year | A (Accidental) KG/Year | F (Fugitive) 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

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 (Sligo)

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# : W0058 | Facility Name : Starrus Eco Holdings Limited (Sligo) | Filename : W0058_2014.xls | Return Year : 2014 |

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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 this only

| RELEASES TO WATERS | | | | | Please enter all quantities in this section in KGs | | | |
|--------------------|------|-------------|-------------|----------------------------|--|-------------------|------------------------|----------------------|
| POLLUTANT | | Method Used | | | 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

| RELEASES TO WATERS | | | | | Please enter all quantities in this section in KGs | | | |
|--------------------|------|-------------|-------------|----------------------------|--|-------------------|------------------------|----------------------|
| POLLUTANT | | Method Used | | | 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)

| RELEASES TO WATERS | | | | | Please enter all quantities in this section in KGs | | | |
|--------------------|------|-------------|-------------|----------------------------|--|-------------------|------------------------|----------------------|
| POLLUTANT | | Method Used | | | 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

4.3 RELEASES TO WASTEWATER OR SEWER

[Link to previous years emissions data](#)

| PRTR# : W0058 | Facility Name : Starrus Eco Holdings Limited (Sligo) | Filename : W0058_2014.xls |

25/03/2015 16:06

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 | | | | |
| 06 | Ammonia (NH3) | M | ALT | Floor Washdown | 0.01836 | 0.01836 | 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 | | | | |
| 238 | Ammonia (as N) | M | ALT | Floor Washdown | 0.01836 | 0.01836 | 0.0 | 0.0 |
| 303 | BOD | M | ALT | Floor Washdown | 0.18 | 0.18 | 0.0 | 0.0 |
| 306 | COD | M | ALT | Floor Washdown | 0.5175 | 0.5175 | 0.0 | 0.0 |
| 308 | Detergents (as MBAS) | M | ALT | Floor Washdown | 0.00515 | 0.00515 | 0.0 | 0.0 |
| 314 | Fats, Oils and Greases | M | ALT | Floor Washdown | 0.0789 | 0.0789 | 0.0 | 0.0 |
| 324 | Mineral oils | M | ALT | Floor Washdown | 0.0003 | 0.0003 | 0.0 | 0.0 |
| 240 | Suspended Solids | M | ALT | Floor Washdown | 7.98 | 7.98 | 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# : W0058 | Facility Name : Starrus Eco Holdings Limited (Sligo) | Filename : W0058_2014.xls | Return Year : 2014 |

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SECTION A : PRTR POLLUTANTS

| POLLUTANT | | RELEASES TO LAND | | | 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 |
| | | | Method Code | Designation or Description | | | |
| | | | | | 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 | | RELEASES TO LAND | | | 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 |
| | | | Method Code | Designation or Description | | | |
| | | | | | 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# : W0058 | Facility Name : Starrus Eco Holdings Limited (Sligo) | Filename : W0058_2014.xls | Return Year : 2014 |

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Please enter all quantities on this sheet in Tonnes

40

| 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 : Address of Next Destination Facility | 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) |
|----------------------|---------------------|-----------|----------------------------|---|---------------------------|--|---|-----------------------|---|---|--|--|
| | | | | | | Non-Haz Waste : Name and Licence/Permit No of Recoverer/Disposer | Non-Haz Waste : Address of Recoverer/Disposer | | M/C/E | Method Used | | |
| Within the Country | 02 07 05 | No | 559.48 | sludges from on-site effluent treatment | R13 | M | Weighed | Offsite in Ireland | Envirogrind Ltd,env/143/wp4 | Donegal Road Pettigo ,Pettigo,Donegal ... , Ireland Millennium Business Park | | |
| Within the Country | 15 01 01 | No | 13.04 | paper and cardboard packaging | R13 | M | Weighed | Offsite in Ireland | Greenstar Limited ,W0183-01 | ...Ballycoolin , Dublin 11, Ireland Rosemount Business park, ,ballycoolin dublin 11, ,Ireland | | |
| Within the Country | 15 01 01 | No | 80.18 | paper and cardboard packaging | R13 | M | Weighed | Offsite in Ireland | Bailey Waste,WFP-FG-08-002-01 | 200 Tamal Plaza, , California , 95245 ,United States | | |
| To Other Countries | 15 01 01 | No | 186.24 | paper and cardboard packaging | R13 | M | Weighed | Abroad | Cellmark USA, IRE/G180/11 MLM Ltd (ACM Europe UK),TFS Broker |,UNITED KINGDOM | | |
| To Other Countries | 15 01 01 | No | 463.1 | paper and cardboard packaging | R13 | M | Weighed | Abroad | IRE/G021/11 Mark Lydon Enterprises Ltd,IRE/G021/12 |,United Kingdom Baanhoekweg 4 ,3313 LA Dordrecht ,Netherlands,Netherlands,Ne | | |
| To Other Countries | 15 01 01 | No | 204.88 | paper and cardboard packaging | R13 | M | Weighed | Abroad | Peute Recycling,TFS Broker IRE/G006/11 | therlands Haggartstown, ,Dundalk,Co Louth,Ireland | | |
| Within the Country | 15 01 02 | No | 192.33 | plastic packaging | R13 | M | Weighed | Offsite in Ireland | Leinster Environmental,WP 2008/06 | Hanleys Units ,Claregalway ,Co. Galway,Co. Galway,Ireland | | |
| Within the Country | 15 01 02 | No | 2.97 | plastic packaging | R13 | M | Weighed | Offsite in Ireland | Connaught Waste Recycling Ltd.,WFP-G-10-0005-01 | Galway,Ireland | | |
| Within the Country | 15 01 04 | No | 12.94 | metallic packaging | R4 | M | Weighed | Offsite in Ireland | Erin Recyclers,WCP-MO-09-0634-01 | Deepwater Quay, Finisklin ,Co. Sligo,Co. Sligo,Ireland | | |
| Within the Country | 15 01 06 | No | 2353.22 | mixed packaging | R13 | M | Weighed | Offsite in Ireland | Barna Waste ,W0106-02 | Carrowbrownne,Headford Rd,Co Galway, , Ireland | | |
| Within the Country | 15 01 06 | No | 343.96 | mixed packaging | R13 | M | Weighed | Offsite in Ireland | Greenstar Bray Depot,W0053-03 | Fassaroe,Bray,Wicklow,Wick low,Ireland | | |
| Within the Country | 15 01 07 | No | 78.96 | glass packaging | R13 | M | Weighed | Offsite in Ireland | Clonmel Waste ,WP-008-02 | Lawlesstown ,Clonmel ,Co. Tipperary ,Co. Tipperary ,Ireland | | |

| | | | | | | | | | |
|--------------------|----------|-----|--|-----|---|---------|--------------------|---|--|
| Within the Country | 15 01 07 | No | 19.3 glass packaging | R13 | M | Weighed | Offsite in Ireland | Rehab Recycling Ltd. ,WPR 004 | Ballymount Avenue ,Clondalkin,Dublin 22,,Ireland |
| To Other Countries | 16 03 06 | No | organic wastes other than those mentioned 27.52 in 16 03 05 | R4 | M | Weighed | Abroad | JBR Recovery Ltd,EPR/BJ9878IQ | Oldbury Road,Westbromich,Westmidlands,B70 9BS,UNITED KINGDOM |
| Within the Country | 16 06 01 | Yes | 0.63 lead batteries | R4 | M | Weighed | Offsite in Ireland | KMK Metals,W0113-03 | Tullamore,,Co Offaly,Ireland |
| Within the Country | 17 09 04 | No | mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 30.62 09 02 and 17 09 03 | R13 | M | Weighed | Offsite in Ireland | Norris Plant Hire ,WP SO-05-52 | Clloverhill ,,,,Co Sligo,Ireland |
| Within the Country | 19 12 07 | No | 6.54 wood other than that mentioned in 19 12 06 | R1 | M | Weighed | Offsite in Ireland | Arigna Fuels Ltd. ,WMP 14/06 | Arigna ,,, Carrick-On-Shannon ,Co. Roscommon ,, Ireland |
| Within the Country | 19 12 09 | No | 29.06 minerals (for example sand, stones) other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 | R13 | M | Weighed | Offsite in Ireland | Norris Plant Hire ,WP SO-05-52 | Clloverhill ,,,,Co Sligo,Ireland |
| Within the Country | 19 12 12 | No | 1273.3 11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 | D5 | M | Weighed | Offsite in Ireland | Bord Na Mona,W0201-03 | Drehid Landfill,Co Kildare,,,,Ireland |
| Within the Country | 19 12 12 | No | 19.64 11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 | R1 | M | Weighed | Offsite in Ireland | Indaver,W0167-02 | Carranstown,Duleek,Meath,, Ireland |
| Within the Country | 19 12 12 | No | 344.26 11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 | R13 | M | Weighed | Offsite in Ireland | Greenstar Bray Depot,W0053-03 | Fassaroe,Bray,Wicklow,Wicklow,Ireland |
| Within the Country | 19 12 12 | No | 617.68 11 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 | R13 | M | Weighed | Offsite in Ireland | Greenstar Limited ,W0183-01 | Millennium Business Park ,,,Ballycoolin, Dublin 11, Ireland |
| Within the Country | 20 01 01 | No | 2.04 paper and cardboard | R13 | M | Weighed | Offsite in Ireland | Connaught Waste Recycling Ltd.,WFP-G-10-0005-01 | Hanleys Units ,Claregalway ,Co. Galway,Co. Galway,Ireland |
| Within the Country | 20 01 01 | No | 173.9 paper and cardboard | R13 | M | Weighed | Offsite in Ireland | Greenstar Bray Depot,W0053-03 | Fassaroe,Bray,Wicklow,Wicklow,Ireland |
| Within the Country | 20 01 01 | No | 24.1 paper and cardboard | R13 | M | Weighed | Offsite in Ireland | MRF Rosemount,, |,Ireland |
| Within the Country | 20 01 02 | No | 11.18 glass | R13 | M | Weighed | Offsite in Ireland | Clonmel Waste ,WP-008-02 | Lawlesstown ,Clonmel ,Co. Tipperary ,Co. Tipperary ,Ireland |
| Within the Country | 20 01 02 | No | 39.69 glass | R13 | M | Weighed | Offsite in Ireland | Rehab Recycling Ltd. ,WPR 004 | Ballymount Avenue ,Clondalkin,Dublin 22,,Ireland |

| | | | | | | | | | | | |
|---------------------------|-----------------|-----------|---|-----|---|---------|--------------------|--|---|---|--|
| Within the Country | 20 01 08 | No | 108.04 biodegradable kitchen and canteen waste | R3 | M | Weighed | Offsite in Ireland | Barna Waste ,W0106-02 Textile Recycling Ltd,WPR014 | Carrowbrowne,Headford Rd,Co Galway... , Ireland Greenogue,Dublin 24,...,Ireland | | |
| Within the Country | 20 01 11 | No | 7.66 textiles batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these | R13 | M | Weighed | Offsite in Ireland | | | | |
| Within the Country | 20 01 33 | Yes | 0.71 batteries discarded electrical and electronic equipment other than those mentioned in 20 01 21 and and 20 01 23 containing | R4 | M | Weighed | Offsite in Ireland | KMK Metals,W0113-03 | Tullamore,...,Co Offaly,Ireland | KMK Metals,W0113- 03,tullamore,-,-,offaly,ireland | tullamore,-,-,offaly,ireland |
| Within the Country | 20 01 35 | Yes | 173.32 hazardous components discarded electrical and electronic equipment other than those mentioned in 20 01 21 and and 20 01 23 containing | R4 | M | Weighed | Offsite in Ireland | KMK Metals,W0113-03 RILTA,W0192-03,Block 402 Greenogue Business Park,Rathcoole,Co. Dublin,- .ireland | Tullamore,...,Co Offaly,Ireland | KMK Metals,W0113- 03,tullamore,-,-,offaly,ireland | tullamore,-,-,offaly,ireland |
| Within the Country | 20 01 35 | Yes | 0.88 hazardous components | R4 | M | Weighed | Offsite in Ireland | Arigna Fuels Ltd. ,WMP 14/06 Galway Metal,WFP-G-11- 0005-01 Clearcircle Metals Ltd., Erin Recyclers,WCP-MO-09- 0634-01 | Block 402 Greenogue Business Park,Rathcoole,Co. Dublin,-,ireland Arigna .., Carrick-On- Shannon ,Co. Roscommon .. Ireland Oranmore,Galway .., .ireland ...Limerick,..,ireland Deepwater Quay Finisklin .Co. Sligo,Co. Sligo.ireland | Greenogue Business Park,Rathcoole,Co. Dublin,- .ireland | Block 402 Greenogue Business Park,Rathcoole,Co. Dublin,-,ireland |
| Within the Country | 20 01 38 | No | 37.74 wood other than that mentioned in 20 01 37 | R1 | M | Weighed | Offsite in Ireland | | | | |
| Within the Country | 20 01 40 | No | 20.34 metals | R4 | M | Weighed | Offsite in Ireland | | | | |
| Within the Country | 20 01 40 | No | 24.88 metals | R4 | M | Weighed | Offsite in Ireland | | | | |
| Within the Country | 20 01 40 | No | 0.46 metals | R4 | M | Weighed | Offsite in Ireland | | | | |
| Within the Country | 20 02 01 | No | 12.5 biodegradable waste | R3 | M | Weighed | Offsite in Ireland | Barna Waste ,W0106-02 | | | |
| Within the Country | 20 03 01 | No | 1138.38 mixed municipal waste | D5 | M | Weighed | Offsite in Ireland | Bord Na Mona,W0201-03 | Kildare,...,Ireland Killala Road,Ballina,-,- .ireland | | |
| Within the Country | 20 03 01 | No | 3347.41 mixed municipal waste | D5 | M | Weighed | Offsite in Ireland | Rathroeen Landfill,W0067-02 | | | |
| Within the Country | 20 03 01 | No | 5106.06 mixed municipal waste | R1 | M | Weighed | Offsite in Ireland | Indaver,W0167-02 | | | |
| Within the Country | 20 03 01 | No | 36.92 mixed municipal waste | R13 | M | Weighed | Offsite in Ireland | Greenstar Limited ,W0183- 01 | Millennium Business Park ...Ballycoolin, Dublin 11, Ireland Killala Road,Ballina,-,- .ireland | | |
| Within the Country | 20 03 03 | No | 133.68 street-cleaning residues | D5 | M | Weighed | Offsite in Ireland | Rathroeen Landfill,W0067-02 | | | |
| Within the Country | 20 03 07 | No | 40.06 bulky waste | D5 | M | Weighed | Offsite in Ireland | Bord Na Mona,W0201-03 | Kildare,...,Ireland | | |
| Within the Country | 20 03 07 | No | 331.54 bulky waste | R13 | M | Weighed | Offsite in Ireland | Greenstar Bray Depot,W0053-03 | Fassaroe,Bray,Wicklow,Wick low,Ireland | | |
| Within the Country | 20 03 07 | No | 158.38 bulky waste | R13 | M | Weighed | Offsite in Ireland | Greenstar Limited ,W0183- 01 | Millennium Business Park ...Ballycoolin, Dublin 11, Ireland | | |

APPENDIX 2

Procedures List



| | | |
|--------------------------|--|-----------------------------|
| Doc. No.: Control | Revision No.: As Shown | Issue Date: As Shown |
| Approved By: | Malcolm Dowling – Group Environmental Manager Oliver Callan – Group H&S Manager | Page 1 of 2 |

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 |



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|--------------------------|--|-----------------------------|
| Doc. No.: Control | Revision No.: As Shown | Issue Date: As Shown |
| Approved By: | Malcolm Dowling – <i>Group Environmental Manager</i> Oliver Callan – <i>Group H&S Manager</i> | Page 2 of 2 |

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 01, 28/04/14 |
| 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 |