



ANNUAL ENVIRONMENTAL REPORT 2009

Regional Materials Recovery Facility
Merrywell Industrial Estate,
Ballymount Road Lower,
Ballymount,
Dublin 12

EPA Licence W0238-01

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1. INTRODUCTION

Greyhound Recycling and Recovery Ltd. operate Waste Licence W0238-01 on behalf of Dublin City Council.

The following Annual Environmental Report was prepared in accordance with Condition 11.11 and Schedule E of Waste Licence W0238-01, and with reference to Environmental Protection Agency guidance on Annual Environmental Reporting. This AER relates to the calendar year 2009. The report provides details of the activities carried out at the facility from the 5th of January 2009 to the 31st December 2009.

2. DESCRIPTION OF THE SITE AND LICENSED ACTIVITIES

The Regional Materials Recovery Facility (MRF), is a specific objective of the Dublin Waste Management Plan 2005-2010. The MRF Ballymount Road Lower, Ballymount, Dublin 12 (53°18'52"N, 6°21'22"W) is located in the Merrywell Industrial Estate.

The facility is surrounded by various warehouses and industrial buildings including waste facilities. The Merrywell Industrial Estate is bordered by Ballymount Road Lower to the South, Turnpike Road to the West and Robinhood Road to the North.

Greyhound Recycling and Recovery Ltd commenced operation of the Regional Materials Recovery Facility on behalf of the four Dublin Local Authorities under Waste Licence W0238-01 in January 2009. This licence allows Greyhound Recycling and Recovery Ltd. to carry out the following waste handling activities as permitted under the Third and Fourth Schedules of the Waste Management Act 1996 to 2003:

- Class 12 and 13 Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Act, 1996.

Third Schedule, Class 12: Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.

Third Schedule, Class 13: Storage prior to submission referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.

- Class 2, 3, 4 and 13 Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Act, 1996.

Fourth Schedule, Class 2: Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes). Principle activity.

Forth Schedule, Class 3: Recycling or reclamation of metal and metal compounds.

Forth Schedule, Class 4: Recycling or reclamation of other inorganic materials

Forth Schedule, Class 13: Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.

Greyhound Recycling & Recovery Ltd accepts dry recyclable materials that have been collected in a single commingled waste stream from kerbside collections to the Regional Materials Recovery Facility. The materials accepted include paper, newspapers, magazines, cardboard, aluminium cans, steel cans, tetrapak beverage cartons, plastic bottles including PET, HDPE, PVC containers and plastic film. All materials collected and processed at the Regional MRF come from the Dublin Region.

3. WASTE MANAGEMENT RECORD

Materials entering the Regional MRF are weighed and documented at the weighbridge in accordance with the facility waste licence W0238-01. Once weighed the mixed recyclable material is tipped into the processing building where it is inspected and segregated both manually and mechanically. The segregated materials are baled and stored in designated bays where they are bulked up before being loaded into 40 foot containers for transport to approved recycling or recovery facilities for further processing.

All non conforming waste that comes on site is segregated from the main material stream and placed in the designated quarantine area for appropriate recovery/reprocessing offsite.

Waste Accepted 2009

Greyhound Recycling and Recovery Ltd accepted the following waste streams during the reporting period:

- Mixed municipal waste comprising of paper, newspaper, magazines, cardboard, metals and plastics.
- Mixed packaging waste comprising of cardboard, metals and plastics.

4. WASTE QUANTITIES 2009

The Regional Materials Recovery Facility is licensed to handle a maximum of 100,000 tonnes of mixed recyclable waste per annum. Material enters the Regional MRF from Dublin City Council Bring Centres (Mixed Packaging) and from green bin household collections in the Dublin Region (Mixed Municipal Waste).

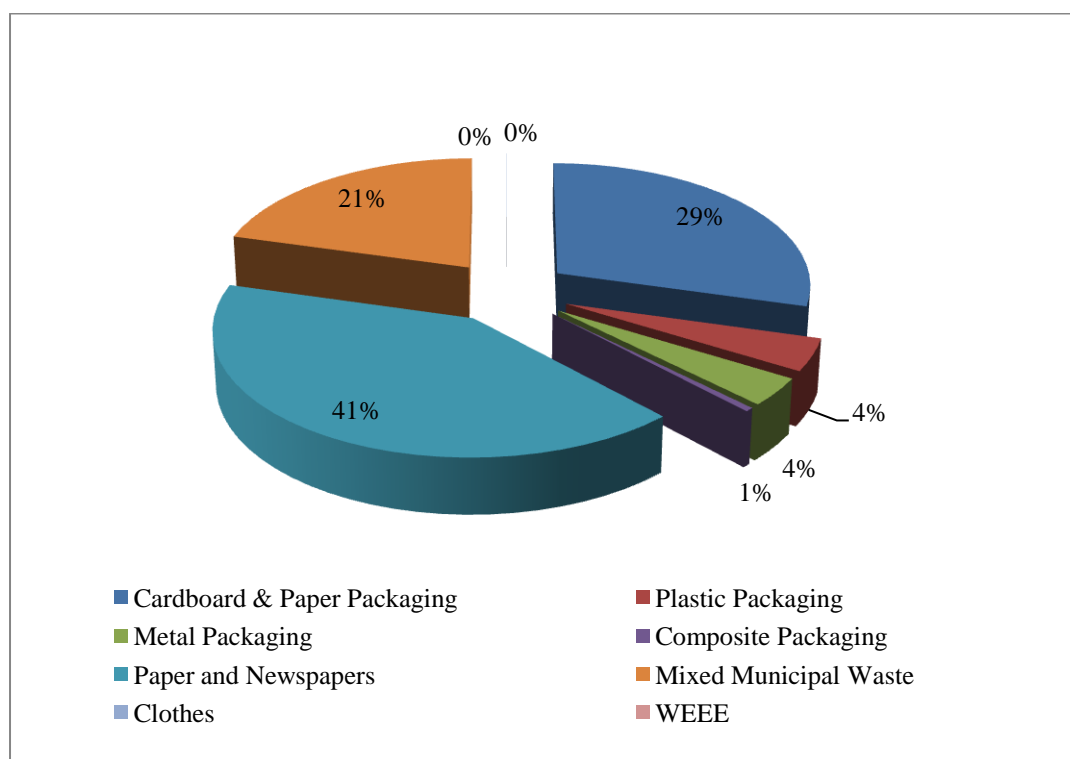
The total quantity of material accepted and processed at the licensed facility during the reporting period was 71,179.78 tonnes. The percentage recovery/recycled achieved on wastes handled at the facility during the reporting period was 79% recycled, 21% recovered. A tabulated breakdown of the quantity and composition of wastes received, recovered, and recycled, during the reporting period is shown in table 1.

Figure 1 shows the breakdown in percentage of material consigned from the MRF.

Table 4.1: Waste Acceptance and Dispatch

| EWC Code | Description of Waste | Waste In (tonnes) | Waste Out (Tonnes) | Recovery -R Recycling - Rd | % |
|----------|-----------------------------|-------------------|--------------------|----------------------------|------|
| 15 01 01 | Cardboard & Paper Packaging | | 19,623.44 | Rd | 29% |
| 15 01 02 | Plastic Packaging | | 2,857.09 | Rd | 4% |
| 15 01 04 | Metal Packaging | | 2,482.07 | Rd | 4% |
| 15 01 05 | Composite Packaging | | 336.00 | Rd | 1% |
| 15 01 06 | Mixed Packaging | 1,907.42 | | | |
| 20 01 01 | Paper and Newspapers | | 27,702.15 | Rd | 41% |
| 20 03 01 | Mixed Municipal Waste | 69,272.36 | 13,807.74 | R | 21% |
| 20 01 11 | Clothes | | 8.54 | Rd | 0% |
| 20 01 36 | WEEE | | 1.30 | Rd | 0% |
| | Total | 71,179.78 | 66,818.30 | | 100% |

Figure 4.1: Breakdown of Waste Consigned



The recycling target for household waste as set in the Waste Management Plan 2005-2010 for the Dublin Region is 60% recycling, 39% waste to energy and 1% to landfill to be achieved by 2013. This facility is well on the way to achieving these targets. The recycling and recovery rate for the facility for 2009 is 100% of all waste leaving the site (Table 2). No material leaving the facility went to landfill in 2009.

The waste recovered consists mainly of fines, contaminated dry recyclable material and non conforming mixed municipal waste which was used in Solid Recovered Fuel (SRF) production. The recycled materials consist of paper, cardboard, Tetrapak, all plastics, steel cans and aluminium cans.

Table 4.2: Recycling and Recovery Rates 2009

| Waste Statistics 2008 | Tonnes | % |
|------------------------------|-----------|-----|
| Total Waste Out | 66,818.30 | 100 |
| Total Waste Recycled | 53,010.56 | 79 |
| Total Waste Recovered | 13,807.74 | 21 |
| Total Recycled and Recovered | 66,818.30 | 100 |

5. ENVIRONMENTAL MONITORING AND EMISSIONS DATA

Monitoring of emissions from the facility during the reporting period was carried out in accordance with Condition 6 and Schedule C of the facility waste licence W0238-01.

Table 5.1: Storm Water Emissions Monitoring

| Parameters | COD | Suspended Solids | pH | Visual Inspection |
|-----------------|------|------------------|------|-------------------|
| ELV Grab (mg/l) | 3000 | 1000 | 6-10 | Scale of 1-10 |
| 8/1/2009 | | | 7.9 | 9 |
| 15/1/2009 | | | 7.1 | 9 |
| 23/1/2009 | | | 6.9 | 9 |
| 30/1/2009 | | | 8.6 | 8 |
| 5/2/2009 | | | 6.8 | 8 |
| 12/2/2009 | | | 7.3 | 9 |
| 17/2/2009 | | | 7.5 | 9 |
| 27/2/2009 | | | 8.1 | 9 |
| 6/3/2009 | | | 6.3 | 9 |
| 13/3/2009 | | | 6.9 | 9 |
| 19/3/2009 | | | 6.7 | 9 |
| 27/3/2009 | | | 6.9 | 8 |
| 3/4/2009 | | | 7.0 | 9 |
| 10/4/2009 | | | 8.1 | 9 |
| 17/4/2009 | | | 8.0 | 9 |
| 23/4/2009 | | | 6.9 | 9 |
| 30/4/2009 | | | 7.0 | 8 |

| | | | | |
|------------|----|----|-----|---|
| 8/5/2009 | | | 7.9 | 9 |
| 14/5/2009 | | | 7.1 | 9 |
| 4/6/2009 | | | 7.7 | 8 |
| 11/6/2009 | | | 7.0 | 9 |
| 18/6/2009 | | | 7.1 | 9 |
| 26/6/2009 | | | 7.2 | 9 |
| 3/7/2009 | | | 7.1 | 9 |
| 9/7/2009 | | | 8.1 | 9 |
| 17/7/2009 | | | 7.7 | 9 |
| 24/7/2009 | | | 6.4 | 9 |
| 31/7/2009 | | | 8 | 9 |
| 6/8/2009 | | | 7.1 | 9 |
| 17/8/2009 | | | 6.8 | 9 |
| 21/8/2009 | | | 7.4 | 9 |
| 28/8/2009 | | | 7.7 | 9 |
| 4/9/2009 | | | 7.1 | 9 |
| 11/9/2009 | | | 8.1 | 9 |
| 18/9/2009 | | | 8.5 | 8 |
| 24/9/2009 | | | 6.9 | 9 |
| 25/9/2009 | 13 | 10 | | |
| 2/10/2009 | | | 7.2 | 9 |
| 9/10/2009 | | | 7.0 | 9 |
| 15/10/2009 | | | 6.3 | 9 |
| 23/10/2009 | | | 6.9 | 9 |
| 30/10/2009 | | | 8.2 | 9 |
| 6/11/2009 | | | 6.7 | 9 |
| 13/11/2009 | | | 7.0 | 9 |
| 19/11/2009 | | | 7.7 | 9 |
| 27/11/2009 | | | 6.7 | 9 |
| 4/12/2009 | | | 7.1 | 9 |
| 11/12/2009 | | | 7.1 | 9 |
| 15/12/2009 | 5 | <2 | | |
| 17/12/2009 | | | 7.3 | 9 |

Table 5.2: Noise Monitoring

| Monitoring location | Day /Night period | L _{Aeq} dB(A) | L _{A90} dB(A) | L _{A10} dB(A) |
|---------------------|-------------------|---------------------------|---------------------------|---------------------------|
| N1 | Day | 68.7 | 47.2 | 65.6 |
| | Night | 47.9 | 39.0 | 49.2 |
| N2 | Day | 47.8 | 43.4 | 50.4 |
| | Night | 42.2 | 39.6 | 44.9 |
| N3 | Day | 53.7 | 45.8 | 55.4 |
| | Night | 41.8 | 38.9 | 43.5 |

Date of Survey: 4th August 2009

6. RESOURCE AND ENERGY CONSUMPTION

Data on resource, energy and primary raw material consumption for the reporting period is presented in Table 6.1 (below):

Table 6.1: Resource and Energy Usage in 2009.

| Raw Material/Resource | Application | Consumption |
|-----------------------|----------------------------------|----------------|
| Electricity | Office and plant use | 2,378,426 kWh |
| Hydraulic Oil | Process plant and fleet vehicles | 9,000 Litres |
| Marked Diesel | Mobile plant machinery | 64,700 Litres |
| Derv Diesel | Collection Vehicles | 538,000 Litres |

7. ENERGY EFFICIENCY AUDIT SUMMARY

Fahy Fitzpatrick Consulting Engineers carried out an energy audit of the MRF, weighbridge and administration building. The objective of the audit was to gather baseline data with a view to identifying and working towards goals and priorities for future improvements.

The energy audit covered the following areas:

1. Electrical Consumption
2. Lighting both internal and external
3. Oil Consumption
4. Office Equipment
5. Motor Equipment
6. Other miscellaneous equipment

The audit found that at present the energy management matrix level of the facility is between a Level 1 and a Level 2. The recommendations of the audit are currently under senior management review. The main recommendations from the audit report include staff training on energy efficient practices on site, reducing the current MIC for the site and use of energy efficient lighting throughout the facility. The Energy Audit Report was sent to the Agency.

8. ENVIRONMENTAL SYSTEMS & PROCEDURES

Greyhound Recycling and Recovery Ltd. hold ISO9001 and ISO14001 management system accreditations for the facility. All reviews, amendments, and implementations of quality and environmental procedures are undertaken within the framework of the ISO9001 and ISO14001 management systems.

9. ENVIRONMENTAL RISK ASSESMENT AND OUTCOMES

An environmental risk assessment was carried out in January 2009 covering all aspects of the MRF operation. The environmental risk assessment identified all impacts to the environment that may be caused to the surrounding environment due to onsite activities. The significance of the impacts was then quantified using the following equation:

Frequency (F) x Likelihood of loss of control (L) x Severity (S) x Legal Requirements
= Significance Rating (C)

The two areas which scored >-40 had procedures drawn up to avoid having an impact on the surrounding environment. These areas are highlighted in the attached Register of Environmental Aspects and Impacts which can be found in Appendix A of the report.

10. REVIEW OF ENVIRONMENTAL OBJECTIVES AND TARGETS FOR 2009

| No. | Aspects | Objective | Target | Responsibility of | Due | Status |
|-----|--|---|---|-------------------------------------|----------------|----------|
| 1 | Waste Management | Ensure the most efficient and environmentally sustainable management of material entering the MRF | Establish quarantine area in waste acceptance area – install quarantine cage and appropriate hazardous waste containers | Environmental Officer | January 2009 | Complete |
| | | | Promote Recycling in-house within the MRF site offices | Environmental Officer | On-going | On-going |
| | | | Carry out a packaging survey for REPAK | DCC / Repak / Environmental Officer | November 2009 | Complete |
| | | | Carry out a waste characterisation survey | Environmental Officer | September 2009 | Complete |
| 2 | Compliance with the facility Waste Licence | Operate the facility in accordance with the Conditions of the Waste Licence and promote continual environmental improvement | Review training schedule of each staff member and identify training needs | Environmental Officer | On-going | Complete |
| | | | Continue programme of regular inspections | Environmental Officer | On-going | On-going |
| | | | Continue to maintain the appropriate records at the facility in accordance with Condition 11 of the facility Waste Licence | Environmental Officer | On-going | On-going |
| 3 | Water/Oil | Prevent surface water contamination | Installation of two metal bunds in maintenance room – one of the two is to hold large drums, the second is to hold smaller containers | Environmental Officer | January 2009 | Complete |
| | | | Training for spill/leak response and the use of bund spill kits for all staff working in the MRF | Environmental Officer | Jan – Feb 2009 | Complete |
| | | | Install 2 fully equipped spill kits – 1 in the | Environmental | January | Complete |

| | | | | | | |
|---|------------------------------------|---|---|-----------------------------|--------------------|-------------------|
| | | | maintenance room and one in the operations around the balers. | Officer | 2009 | |
| | | | Carry out an integrity test on all pipes around the facility | Environmental Officer | July 2009 | Complete |
| | | | Carry out a risk assessment to determine if the MRF requires a fire water retention facility | Environmental Officer | June 2009 | Complete |
| 4 | Traffic Management | Achieve organised, efficient and safe movement of cars, trucks and machinery on site minimising noise and emissions | Installation of appropriate traffic management signage around the site | H&S Manger | January 2009 | Complete |
| | | | Installation of a side barrier on weighbridge to ensure that trucks entering and exiting the site are be weighed properly | Environmental Officer | January 2009 | Complete |
| 5 | Resource Use and Energy Efficiency | Identify opportunities for energy use reduction and efficiency. | Carry out an extensive energy audit and identify where savings on energy use can be made | Environmental Officer / SEI | July – August 2009 | Complete |
| | | | Dedicate an Energy Saving Manager and provide training for all staff on energy efficient practices | Environmental Officer | July 2009 | Postponed to 2010 |
| 6 | Public Relations | Minimisation of Complaints | Effectively deal with complaints | Environmental Officer | On-going | On-going |
| | | | Formulate action plans for all aspects of the service to minimise complaints | MRF Management Team | On-going | Complete |
| | | | Maintain a high standard of housekeeping practises at the facility to minimise the number of complaints – avoid windblown litter incidences | Environmental Officer | On-going | Complete |
| 7 | Miscellaneous | Ensure that all environmental aspects are identified and appropriate measures are put in | Carry out a noise survey | H&S Manger | May 2009 | Complete |
| | | | Prepare procedures for any of the aspects identified that require procedures i.e. site litter | Environmental Officer | February 2009 | Complete |

| | | | | | | |
|--|--|--|---|------------|---------------|----------|
| | | place to avoid these aspects having a damaging effect on the environment | Ensure that there are a sufficient number of fire extinguishers in the MRF and that the sprinkler system and fire alarm are tested periodically | H&S Manger | February 2009 | Complete |
|--|--|--|---|------------|---------------|----------|

11. ENVIRONMENTAL OBJECTIVES AND TARGETS FOR 2010

| No. | Aspects | Objective | Target | Responsibility of | Due |
|-----|--|---|--|-----------------------|--------------|
| 1 | Waste Management | Ensure the most efficient and environmentally sustainable management of material entering the MRF | Promote Recycling in-house within the MRF site offices | Environmental Officer | On-going |
| | | | Update weighbridge software to record contaminated loads | Environmental Officer | January 2010 |
| | | | Update banksman procedure to include inspection of incoming material and communication to weighbridge | Environmental Officer | January 2010 |
| | | | Carry out waste characterisation surveys monthly – to include quarterly residual waste characterisation survey | Environmental Officer | January 2010 |
| 2 | Compliance with the facility Waste Licence | Operate the facility in accordance with the Conditions of the Waste Licence and promote continual environmental improvement | Review training schedule of each staff member and identify training needs | Environmental Officer | On-going |
| | | | Continue programme of regular inspections to include storm water sampling | Environmental Officer | On-going |
| | | | Continue to maintain the appropriate records at the facility in accordance with Condition 11 of the facility Waste Licence | Environmental Officer | On-going |
| | | | Put pest control programme in place | Environmental Officer | April 2010 |
| 3 | Water/Oil | Prevent surface water | Installation of third metal bund in maintenance room to | Environmental | March |

| | | | | | |
|---|------------------------------------|--|---|-----------------------|---------------|
| | | contamination | store waste oil | Officer | 2010 |
| | | | Retrain all MRF staff in spill/leak response and the use of bund spill kits | Environmental Officer | February 2010 |
| | | | Schedule GRR road sweeper to clean site roads once per week | Environmental Officer | March 2010 |
| 4 | Traffic Management | Achieve organised, efficient and safe movement of cars, trucks and machinery on site minimising noise and emissions | Repair existing traffic control units | H&S Manger | January 2010 |
| 5 | Resource Use and Energy Efficiency | Identify opportunities for energy use reduction and efficiency. | Identify where energy savings can be made | Environmental Officer | May 2010 |
| | | | Dedicate an Energy Saving Manager and provide training for all staff on energy efficient practices | Environmental Officer | May 2010 |
| 6 | Public Relations | Minimisation of Complaints | Effectively deal with complaints | Environmental Officer | On-going |
| | | | Formulate action plans for all aspects of the service to minimise complaints | MRF Management Team | On-going |
| | | | Maintain a high standard of housekeeping practises at the facility to minimise the number of complaints | Environmental Officer | On-going |
| 7 | Material Quality | Ensure that all containers leaving the site have been loaded accordingly and that the material therein conforms to specified quality standards | Provide material quality training to all MRF to ensure that material loaded for export is of a high quality grade | Facility Manager | January 2010 |
| | | | Retrain forklift drivers on appropriate picture taking as per TFS Regulations | Environmental Officer | January 2010 |
| | | | Install additional chutes to remove plastic film from main material stream | Facility Manager | June 2010 |

12. INCIDENTS

There were two monitoring incidents recorded during the reporting period due to a scheduling error. The non-monitoring incidents related to storm water discharge testing. The scheduling error encountered was reported to the EPA and relevant corrective action measures were put in place to avoid reoccurrence of such an incident.

13. COMPLAINTS

The facility received 6 complaints in total during the reporting period. The complaints received during the reporting period were mainly related fly activity in the area. Please see Appendix Register of Environmental Complaints.

14. TANK AND PIPELINE TESTING AND INSPECTION REPORT

Siac Construction Ltd. carried out all pipeline integrity testing in December 2008 the types and results of which can be seen in Appendix C of the report. The pipes are scheduled to be retested in December 2011.

15. FINANCIAL PROVISION

Greyhound Recycling and Recovery Ltd. public and product liability indemnity limit is up to €6,500,000. In terms of environmental pollution the indemnity applies to damage to any buildings or other structures, to any water, land or atmosphere caused by pollution or contamination. The policy covers pollution caused by a sudden, identifiable, unintended and unexpected event and not gradual pollution. This cover will be in excess of any environmental liability that may arise due to such incident.

All trans-frontier shipment of non-green list material undertaken by Greyhound Recycling and Recovery is effected under a financial guarantee calculated on the cost for return and disposal of material where warranted.

16. MANAGEMENT AND STAFFING STRUCTURE

| Name | Position | Responsibilities | Experience | Backup |
|-----------------|-----------------------------|---|--|------------------------------------|
| Brian Buckley | Director | Overall Management of site | 11 years experience, FAS Waste course completed | Michael Buckley |
| Michael Buckley | Director | Overall Management of site | 11 years experience, FAS Waste course completed | Brian Buckley |
| Cormac Sheils | Group Operations Manager | EPA licence compliance, Group operations, Health & Safety | 10 years experience food, byproducts and waste management industry | Clare Donnellan Ivans Harolskis |
| Clare Donnellan | Environmental Officer | EPA licence compliance, ISO9001, ISO14001, | 2 years experience in Waste management | Aidan Rooney |
| Ivans Harolskis | Group Operations Supervisor | Production, Waste type and quality check | 5 years experience in Waste management, | Tomas Macionis |
| Padraig Traynor | Maintenance Manager | Plant Machinery Maintenance management | 5 years of experience with vehicle and machinery maintenance | Frank McBride |
| Brian McGrath | Administration Manager | Accounts Department, invoicing , purchasing | 9 years experience in accounts | Gareth Holland |

17. PROGRAMME FOR PUBLIC INFORMATION

Greyhound Recycling and Recovery Limited maintains a *Public Information File* at the licensed facility. This file contains specified information relating the environmental performance of the Company. The file is available for inspection by the public on request at the facility. No public requests for information were received during the reporting period. Greyhound Recycling and Recovery Limited also maintains a facility notice board providing facility information including facility licence number and operating hours.

18. RESIDUALS MANAGEMENT PLAN

There are no changes in the Residuals Management Plan which was submitted to the Agency in October 2008.

Appendix A

Assessment of Environmental Aspects & Impacts

N = Normal **A** = Abnormal
D = Direct **I** = Indirect

Frequency

Frequency of each aspect occurring

| Rating | Category |
|--------|---------------|
| 1 | Rare |
| 2 | Infrequent |
| 3 | Often |
| 4 | Frequent |
| 5 | Very frequent |

Likelihood of Loss of Control

1 = Unlikely **5** = Highly likely

Severity

Severity of the consequences of an incident

| Rating | Category | Description |
|--------|------------|---|
| 1 | None | The pollutant will cause no damage |
| -1 | Negligible | Impact is relatively innocuous |
| -2 | Low | Impact causes inconvenience or slight nuisance rather than harm |
| -3 | Medium | Impact could cause harm to plant/animal/bird/insect/marine life etc and be a nuisance to neighbours and employees |
| -4 | High | Impact could cause death to plant/animal/bird/insect/marine life etc and cause major nuisance to neighbours and employees |
| -5 | Extreme | Impact is persistent or could harm the health of the local population or lead to loss of human life |

Legal Requirement

1 = No legislation exists **2** = Legislation must be complied with

Result

Frequency x Likelihood of Loss of Control x Severity x Legal Requirements =
 Significance Rating C

Register of Aspects and Impacts

Frequency (F) x Likelihood of Loss of Control (L) x Severity (S) x Legal Requirements = Significance Rating C

| Dep. | Ref. | Aspect N = Normal A = Abnormal | Impact D = Direct I = Indirect | Frequency of Occurrence (F) | Likelihood of Loss of Control (L) | Severity of Consequences (S) | Legal Requirements | Significance Rating C |
|------------------------|------|--|---|-----------------------------|-----------------------------------|------------------------------|--------------------|-----------------------|
| Collections / Site | N | On-site vehicle noise (N) | Local increase in noise levels (D) | 2 | 3 | -3 | 2 | -36 |
| Recyclables | N | On-site operation – processing (N) | Local increase in noise levels (D) | 2 | 3 | -3 | 2 | -36 |
| Site | SW | Poor drainage infrastructure (N) | Raised BOD & COD levels (D) | 2 | 3 | -3 | 2 | -36 |
| Recyclables | LD | Waste acceptance / production break – lack of capacity (A) | Recyclables waste sent to landfill (I) | 1 | 3 | -3 | 2 | -18 |
| Transport / Processing | SW | Vehicle washing (N) | Possible surface water contamination (D) | 1 | 3 | -3 | 2 | -18 |
| Transport / Processing | SW | Vehicle washing (N) | Increased loading at sewage treatment plant (D) | 2 | 2 | -3 | 2 | -24 |
| Waste Transfer | LD | Landfilling of residual waste (A) | Reduction of capacity at landfill sites (I) | 1 | 4 | -3 | 2 | -24 |
| Waste Transfer | LD | Landfilling of residual waste (A) | Increased pollution problems at landfill sites (I) | 1 | 4 | -3 | 1 | -12 |
| Waste Transfer | LD | Hazardous waste in recyclables bin – not picked out and sent to landfill (A) | Contamination of land (I) | 1 | 3 | -4 | 2 | -24 |
| Site | FW | Surface water going to foul sewer (N) | Increased loading at sewage treatment plant (D) | 4 | 4 | -1 | 2 | -32 |
| Waste Transfer | N | Odour from waste processing activity (A) | Nuisance to neighbours (D) | 1 | 3 | -3 | 2 | -18 |
| Transport | N | Odour from waste transport on-site (A) | Nuisance to neighbours (D) | 1 | 3 | 3- | 2 | -18 |
| Collection | A | Road Vehicles Operation Emissions (N) | CO ₂ , CO, SO _x , NO _x , particulates and HC's – ground level ozone, greenhouse effect & | 5 | 2 | -1 | 2 | -20 |

| | | | | | | | | |
|------------------------|----------|--|---|---|---|----|---|-----|
| | | | acidification (D) | | | | | |
| Maintenance | SW | Lack of bunded storage facilities for drums on site (N) | Potential for hydrocarbon spills (D) | 2 | 2 | -4 | 2 | -24 |
| Recyclables | A | Dust associated with normal operations (N) | Local air pollution (D) | 2 | 3 | -2 | 2 | -24 |
| Collections | N | Windblown litter from vehicles (N) | Litter pollution along collection route (D) | 2 | 2 | -3 | 2 | -24 |
| Maintenance | SW LD | Hazardous wastes from maintenance of onsite machinery – Improper storage and handling of waste (A) | Possible contamination of surface / ground water (D) | 2 | 2 | -4 | 2 | -32 |
| Site | GW | Surface water (N) | Possible contamination of ground water (D) | 2 | 4 | -2 | 2 | -32 |
| Transfer / Maintenance | SW DW | Chemical / oil drums not clearly labelled (N) | Potential for health & safety or environmental accident (D) | 1 | 2 | -4 | 2 | -16 |
| Site Construction | N | Construction & site development noise (A) | Local increase in noise levels (D) | 1 | 4 | -2 | 2 | -16 |
| Maintenance | SW GW | Vehicle / machinery leaks causing off-site spill of hydrocarbons (A) | Surface and ground water contamination (I) | 2 | 2 | -4 | 2 | -32 |
| Site / Transfer | N | Windblown litter on-site (N) | Local litter pollution (D) | 3 | 4 | -2 | 2 | -48 |
| All | R | Machinery, vehicle and surface cleaning (N) | Water usage – resource depletion | 4 | 2 | -3 | 1 | -24 |
| Office | R | Administration paper use (N) | Resource Depletion – forests | 5 | 1 | -3 | 1 | -15 |
| | | | | | | | | |
| Construction | SW | Construction and Site Development (A) | Increase suspended solids in storm and surface water runoff (D) | 1 | 2 | -3 | 2 | -12 |
| Transfer / | SW | Detergent spill (A) | Surface water | 1 | 3 | -3 | 2 | -18 |

| | | | | | | | | |
|------------------------|----------|--|---|---|---|----|---|-----|
| Maintenance | | | contamination, possible eutrophication (D) | | | | | |
| All | SW | Fire fighting systems – release of liquid organics (A) | Contamination of surface water (D) | 1 | 3 | -4 | 2 | -24 |
| Maintenance / Transfer | LD | Spill of oil on non concreted surface (A) | Soil and land contamination (D) | 1 | 4 | -3 | 2 | -24 |
| Transfer | N | Visual Impact of facility (N) | Reduction of physical amenity of area (D) | 5 | 1 | -1 | 1 | -5 |
| Waste Transfer | A | Waste on fire (A) | Emission of various gases to the air including dioxins (D) | 1 | 5 | -4 | 2 | -40 |
| Waste Transfer | SW A | Handling of hazardous wastes (A) | Spillage: Contamination of surface water, escape to the air (D) | 1 | 3 | -4 | 2 | -24 |
| Site | LD GW | Migration of contaminated surface water from high area to non concreted area (N) | Soil and land contamination (D) | 1 | 4 | -3 | 2 | -24 |
| Site | SW | Migration of contaminated surface water from HIGH to LOW risk area (N) | Contamination of surface water (D) | 1 | 4 | -3 | 2 | -24 |
| Waste Transfer | FW | Quarantined mixed waste on fire(A) | Increase COD and suspended solids in foul water effluent from firewater | 1 | 4 | -4 | 2 | -32 |
| Site | SW | Lack of oil separators for the treatment of surface water (N) | Contamination of surface water (D) | 2 | 3 | -2 | 2 | -24 |

Appendix B

Register of Environmental Complaints

| | Date Recieved | Complainant | Actions carried Out / In Place | Reoccurrence of Issue |
|------------------------------|----------------------|--|---|------------------------------|
| Litter / Housekeeping | 27th February 2009 | A Local Business - Fuji Fijitsu complained to Oxigen Environmental about litter from operations | A joint action plan was put in place between Oxigen Environmental and Greyhound Recycling. Both sites put a yard sweeper in place daily to combat the issue of windblown litter | None |
| Fly Activity | 27th March 2009 | The complaint was made by residents of the Ballymount Cottages to South Dublin County Council | An investigation was carried out, the findings of which were sent to SDCC | Yes |
| | 16th April 2009 | The complaint was recieved by the EPA from an unamed source | An investigation was carried out, the findings of which were sent to the EPA | Yes |
| | 11th May 2009 | The EPA inspected the site and a non-compliance was issued | An investigation was carried out and all remediation work was put in place | Yes |
| | 2nd June 2009 | The complaint was made by residents of the Ballymount Cottages to Dublin City Council | A response explaining the issue and actions taken to minimise the problem was sent to DCC | None |
| Material Quality | 9th July 2009 | The complaint was made by the National TFS Office to Greyhound regarding contamination of a load of material leaving the MRF | The container was returned to the MRF were an investigation into the quality issue was carried out. The material in the container was reworked before leaving the site | None |

Appendix C

| Ballymount MRF | Pipe Testing Schedule | | | |
|----------------|-----------------------|------------------|-------------|--|
| Pipe Line | Type of Test | Duration of Test | Test Result | |
| MH 01 to MH 02 | Air Test | 5min | Pass | |
| MH 02 to MH 03 | Air Test | 5min | Pass | |
| MH 03 to MH 04 | Air Test | 5min | Pass | |
| MH 04 to MH 05 | Air Test | 5min | Pass | |
| MH 05 to MH 06 | Air Test | 5min | Pass | |
| MH 06 to MH 07 | Air Test | 5min | Pass | |
| MH 07 to MH 08 | Air Test | 5min | Pass | |
| MH 08 to MH 09 | Air Test | 5min | Pass | |
| MH 10 to MH 11 | Air Test | 5min | Pass | |
| MH 12 to MH 13 | Air Test | 5min | Pass | |
| MH 13 to MH 14 | Air Test | 5min | Pass | |
| MH 14 to MH 15 | Air Test | 5min | Pass | |
| MH 15 to MH 16 | Air Test | 5min | Pass | |
| MH 16 to MH 17 | Air Test | 5min | Pass | |
| MH 17 to MH 18 | Air Test | 5min | Pass | |
| MH 18 to MH 19 | Air Test | 5min | Pass | |
| MH 19 to MH 20 | Air Test | 5min | Pass | |
| MH 20 to MH 21 | Air Test | 5min | Pass | |
| MH 21 to MH 22 | Air Test | 5min | Pass | |
| MH 22 to MH 23 | Air Test | 5min | Pass | |
| MH 23 to MH 24 | Air Test | 5min | Pass | |
| MH24 to MH 25 | Air Test | 5min | Pass | |
| MH25 to MH 26 | Air Test | 5min | Pass | |
| | | | | |