

**Waste Transfer and Recycling Facility
Six Cross Roads Business Park,
Waterford City**

**Annual Environmental Report
2009**

Veolia Environmental Services (Ireland) Limited

Environmental Protection Agency Licence W0177-03

E.P.A. Headquarters
Johnstown Castle Estate
Wexford

Veolia Environmental Services (Ireland) Limited

Waste Transfer and Recycling Facility

Waterford

Annual Environmental Report

For the reporting period

1st January 2009 to 31st December 2009

Prepared by: _____
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Environmental Officer
30/03/10

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1.0 INTRODUCTION

Veolia Environmental Services (Ireland) Limited (previously trading as ONYX Ireland Ltd.), were issued a Waste Licence (Reg No. W0177-01) on the 14th November 2003 to operate a Waste Transfer and Recycling Facility at the Six Cross Roads Business Park, Waterford City.

The company has since been awarded two further licence amendments, W0177-02, awarded 10th February 2006, and the current W0177-03, awarded 24th August 2006. This report meets the contents requirements of the latest waste licence, W0177-03. In accordance with the requirements of Schedule F of the latter Waste Licence, an Annual Environmental Report (AER) for the facility must be submitted to Environmental Protection Agency.

Major Developments in 2009:

The site installed a new shredder-granulator in late November 2008 to process hard plastics. This operated throughout 2009 and allowed greater tonnages to be delivered per dispatch, but required more energy usage on-site. We believe it succeeded in increasing total process energy efficiency and reducing impact on the environment.

Closure of the adjacent Waterford City Council Compost Facility led to the diversion of City Council and Veolia's own C&I brown bin collections to this site for immediate bulk loading into sealed composting bins and transfer to other compost sites in the region. Later, bulk green waste was collected from the City Council's CA site for on-site shredding and transfer to compost sites. Better segregation of glass streams was initiated to increase recycling rates.

Since the initial announcement in late 2008 of the sale of the Irish operations by our parent company, the opportunity to develop our operations as intended has been severely limited. To date, completion of the sale process has still not been achieved and has limited our ability to plan ahead, as will be seen by the Environmental Management Programme projects.

Reporting period

In this, our eighth AER, covering the calendar year 2009, comparisons will be made, where possible, to the calendar year 2008.

The facility is located at:-

Veolia Environmental Services (Ireland) Limited
Waste Transfer and Recycling Facility
Six Cross Roads Business Park
Waterford City

Tel. (051) 333922

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1.1 Environmental Policy

Veolia Environmental Services (Ireland) Limited is fully committed to the operation of its facilities to the highest environmental standards and fully supports and adheres to that policy.

It is the policy of Veolia Environmental Services (Ireland) Limited to protect the local environment and to minimise the impact of the operation on the environment. To achieve this objective it is committed to:

- Adhering to all relevant environmental legislation and relevant statutory obligations that relate to its activities both on and off site.
- Ensuring that all operations carried out by the company are done in a manner which ensures that environmental protection is taken into account.
- Providing and maintaining site facilities that are designed, constructed, operated and maintained to encompass the principles of good environmental practice.
- Striving to achieve a continuous improvement in efficiency of operations and environmental performance.
- Striving to minimise the quantity of waste disposed of at landfill and increasing the amount of material recycled / recovered.
- Providing environmental information to the community and responding positively to queries or complaints.
- Providing adequate training to all employees on environmental awareness and resource management.

(Signed Morgan Toner, Managing Director, Veolia Environmental Services (Ireland) Ltd, 01/10/07.)

2.0 WASTE ACTIVITIES OF THE SITE

The Waste Transfer and Recycling facility is located at the Six Cross Roads Business Park, Waterford City within an area zoned for industrial development. The Site location plan is shown in the Appendix. The facility is surrounded in the industrial estate by various commercial and industrial buildings and is adjacent to the Green Road on the western boundary.

In 2009 waste handling activities at the facility consisted of accepting and bulk loading of commercial industrial and municipal waste for transfer to licensed disposal sites. Domestic and commercial food wastes were accepted during 2009 for bulk loading and transfer to compost sites.

The site inspects and sorts segregated recyclables (cardboard, C&D waste, paper, timber, glass, plastic and metal). In addition, where possible, recyclable wastes were recovered from the waste streams and sent for recycling. Recycling of hard plastics (PVC & Polypropylene) takes place on site for transport as raw material for plastic goods manufacturers.

The waste handling activities, permitted under the Third and Fourth Schedule of the Waste Management Act (1996), are detailed below;

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

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

Third Schedule, Class 11. Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this schedule.

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

Fourth Schedule, Class 3. Recycling or reclamation of metals and metal compounds.

Fourth Schedule, Class 4. Recycling or reclamation of other inorganic materials.

Fourth 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 such waste is produced.

It is considered that the activities carried out at the facility do not have an adverse impact upon local environmental conditions due to the enclosed nature of the facility and operational controls.

Local environmental conditions do not significantly influence the facility. Annual Rainfall records for the area indicate an average annual rainfall of 1000mm. The surface water drainage system is designed with an adequate capacity for high rainfall events at the site. Prevailing winds are from a south-westerly direction. In 2009 there were approximately 26 people based at the facility.

3.0 WASTE RECEIVED AND CONSIGNED FROM THE FACILITY

3.1 Waste In Composition

Waste accepted at the Waste Transfer and Recycling Facility consists of Industrial, Commercial, Municipal, Construction & Demolition and Household. A breakdown of the waste and the relative tonnages for the reporting period can be described in Table 3.1. More detail on waste-in composition for 2009 will be found in the (electronic) E-PRTR submitted previously (Appendix III).

Table 3.1 Waste Received at the Waterford Facility 2008 v 2009

Quantity & composition of the waste received at the Waterford Facility		Stream Percentage of Waste		Tonnage		
Materials	EWC	2008	2009	2008	2009	% Change
Cardboard	150101	9.9	7.1	5171	3463	-33%
Paper	200101	3.7	3.1	1958	1501	-23%
Plastic Packaging	150102	0.3	6.2	169	302	+79%
Mixed Packaging	150106	10.5	12.3	5471	5991	+10%
Wood	200138	3	2.0	1572	946	-40%
Metal	200140	0.6	0.4	321	190	-41%
Aluminium	150104	-	<0.1	-	4	-
Glass	200102	2	3.6	1060	1724	+63%
C&D	170107	4.2	3.3	2183	1594	-27%
Mixed Municipal Waste	200301	62	55.7	32308	27070	-16%
Mixed Dry Recyclables	200301	-	1.3	-	633	-
Biodegradable Waste	200108	0.5	7.2	255	3509	+1276%
Green Waste	200201	-	0.3	-	159	-
Electronic Waste	200136	<0.1	<0.1	2.41	1	-60%
Plastics (PP & PVC)	200139	2.1	2.0	1070	988	-8%
Grain Chaff	020705	0.3	0	167	0	-100%
Bottom Ash (Wood)	100101	0.7	1.0	346	485	+40%
TOTAL		100	100	52055	48560	-6.7%

3.2 Waste and Recovery Quantities

Veolia received a Waste Licence (W0177-03), on the 24th August 2006 for the facility at Six Cross Roads Business Park. In accordance with this licence the waste intake was limited to 50,000 tonnes per annum of non-hazardous waste, with an increase to 80,000 tonnes sanctioned after Agency-agreed infrastructural developments. These developments were completed and Agency-approved during 2007. The total waste received at the facility during the 2009 period amounted to 48560 tonnes, down 6.7% on 2008, but satisfactory given economic conditions.

The hard recyclable wastes were received separately or recovered on-site from the waste stream and the wood, glass, metal, aluminium and C&D were stockpiled for transfer to appropriate recycling facilities. Soft recyclables were baled in the high compression baler and shipped to recyclers. Non-recyclable waste was bulk loaded and transferred to off-site licensed disposal facilities. As previously mentioned, hard plastic (PP & PVC) recycling takes place on site for transport as raw material to plastic goods manufacturers.

The relative quantities of waste accepted and disposed of at the facility, including the amount of materials recovered, during the reporting period are set out in Table 3.2(a) and 3.2(b) below.

Table 3.2(a) Summary of waste quantities for disposal out of Waterford Depot 2008 v 2009

Description	EWC Code	Waste Out of Facility (Tonnes) 2008	Waste Out of Facility (Tonnes) 2009	% Change
Bottom Ash (Wood)	10 01 01	248	391	+58%
Mixed Waste Municipal	20 03 01	31596	26291	-17%
Biodegradable Waste (rejected)	20 01 08	255	0	-100%
TOTAL	-	32099	26682	-17%

Waste collected and brought to the Waste Transfer and Recycling Facility and deemed non-recyclable was disposed of in licensed or permitted facilities.

* In addition to the 26,682 tonnes of material disposed in 2009, approximately 66 tonnes of disposable material was held on site at the end of December 2009.

Table 3.2(b) Summary of recyclable material recovered from Waterford Depot.

Description	EWC Code	Recovered in Facility (Tonnes) 2008	Recovered in Facility (Tonnes) 2009	% Change
Paper	200101	744	299	-60%
Cardboard	150101	9410	7983	-15%
Mixed Packaging	150106	817	0	-100%
Mixed Dry Recy	200301	-	1182	-
Biodegradable Waste	200108	-	3274	-
Green Waste	200201	-	129	-
Textiles	200111	90	0	-100%
Plastic	150102	497	581	+17%
Wood	200138	1864	1324	-29%
Glass	200102	929	1707	+84%
Metal	200140	433	297	-31%
Aluminium	170402	4	0	-100%
Electronic Waste	200136	15	6	-60%
C & D	170107	4096	3091	-25%
Grain Chaff	020705	61	0	-100%
Plastic (PP & PVC)	200139	1152	1019	-12%
TOTAL	-	20113	20892	+4%

All of the above materials have been sent to Licensed and Permitted facilities during 2009. See Appendix 3 for more detail.

*In addition to the 20,892 tonnes of material recycled during 2009, approximately 428 tonnes of recyclable materials were contained on-site at the end of December 2009.

3.1 & 3.2 Analysis

The overall business declined in 2009 compared with 2008. Within the falling tonnage input, the main trend seen throughout 2009 was the increase in recyclables output, led by expanded lines such as compost, green waste, glass and mixed dry recyclables. The significant reduction in mixed waste municipal, highlights the company's commitment to increasing its market share of the recyclables business.

Client-site developments: This was achieved through offering more segregated recyclables equipment (balers, bins, compactors) to our clients on their sites and developing our weekly bale area runs (cardboard/paper/plastic) and compost runs. The mixed dry recyclable service (bags) for REL collection for companies regularly producing relatively small amounts of individual recyclable waste types was also expanded. Finally, Veolia continues to implement projects for larger clients to maximise their recovery rates on their own sites, yielding better-segregated recyclables streams.

On-site developments: Continuing our sorting and segregating activities on our site, by comparing the waste-in categories with the disposal/recovery categories, among the more notable achievements are:

- Reduction of mixed waste municipal tonnage by 780 tonnes (an increased amount over 2008 and on a significantly smaller input).
- Exclusion of 1498 tonnes of construction and demolition wastes from the mixed waste municipal stream, preserving landfill capacity.
- Recovery of an extra 378 tonnes of wood and 107 tonnes of metal over inputs.

Continuing progress towards increased sorting and recovery operations both on our site and at source is apparent in the increase in recovered waste tonnages (+4%, table 3.2 b) and decline in wastes sent to landfill (-17%, table 3.2 a). We believe that these are significant achievements, set against the background of difficult economic conditions.

3.3 Unacceptable Waste

During the twelve-month period any waste that was deemed to be unacceptable and/or hazardous waste is removed to the Waste Quarantine Area prior to removal off-site for proper disposal where possible. One unacceptable load was deposited in the facility during 2009.

On the 20th April 2009 a removed general waste wheelie bin's contents were inspected and found to contain a number of car batteries. The customer had gone out of business. The batteries were quarantined in Veolia's own battery dolav and will be removed when full.

3.4 Rejected Waste Loads

There were no rejected loads *per se* at the facility during the reporting period. On occasion loads have been re-categorised (e.g. from C&D to Mixed Waste Municipal) if found to contain excessive levels of non-hazardous contaminants. Records are maintained, the customer notified, the waste sorted and the customer re-charged as required.

4 MONITORING AND EMISSION SUMMARY

Environmental monitoring results for the reporting period are outlined in the following sections. An interpretation of the results and impacts on the environment are also presented. A site plan showing the position of each monitoring location is included in the Appendix.

4.1 Emissions to Surface Water

Site emissions to surface water were addressed in Conditions 6 and Schedules B & C of W0177-03. The Licence requires weekly testing at four monitoring points (when there is an available flow). The samples were tested for Ammonia, Conductivity and daily visual inspection. All sampling is carried out by trained VES personnel and analysis carried out by Envirolab Laboratories, Christendom, Waterford City (later Clonmel, Co Tipperary).

Quarterly averages of the results are given in Tables 4.1(a) for yard drainage and 4.2(b) for roof drainage points below. All individual results have been forwarded to the Agency.

Table 4.1(a) Emissions to Surface Waters 2009, Yard Drainage SW1 & 3

	<i>SW1 Ammonia mg/l NH₃N</i>	<i>SW1 Conductivity µS/cm</i>	<i>SW3 Ammonia mg/l NH₃N</i>	<i>SW3 Conductivity µS/cm</i>
Q1 2009	0.62	289	0.26	166
Q2 2009	4.1	317	1.1	343
Q3 2009	1.55	283	0.34	44.2
Q4 2009	0.09	274	0.12	50

Note: All samples were grab samples.

Table 4.1(b) Emissions to Surface Waters 2009, Roof Drainage SW 2 & 4

	<i>SW2 Ammonia mg/l NH₃N</i>	<i>SW2 Conductivity µS/cm</i>	<i>SW4 Ammonia mg/l NH₃N</i>	<i>SW4 Conductivity µS/cm</i>
Q1 2009	0.14	21	0.19	22.4
Q2 2009	0.3	20	0.2	30
Q3 2009	0.19	44.2	0.19	44.9
Q4 2009	0.1	50	0.11	48

Note: All samples were grab samples.

Analysis: No ELVs were set for the surface water parameters, so a Warning Limit of 2.0 mg/l / 466 µS/cm and an Action Limit of 4.4 mg/l / 774 µS/cm was set respectively for each parameter. See Charts No1 & 2 showing graphs of weekly results. The conductivity action limit was not breached during the year, but the ammonia action limit was breached on two occasions. In one case, low rainfall and stagnating water were identified as the source. In the other, silt deposition into the sampling chamber was identified as the source. In both cases, cleaning filters and sumps (and resumption of rainfall) improved results dramatically in subsequent tests.

Chart 1 2009 Surface Water Monitoring (Ammonia)

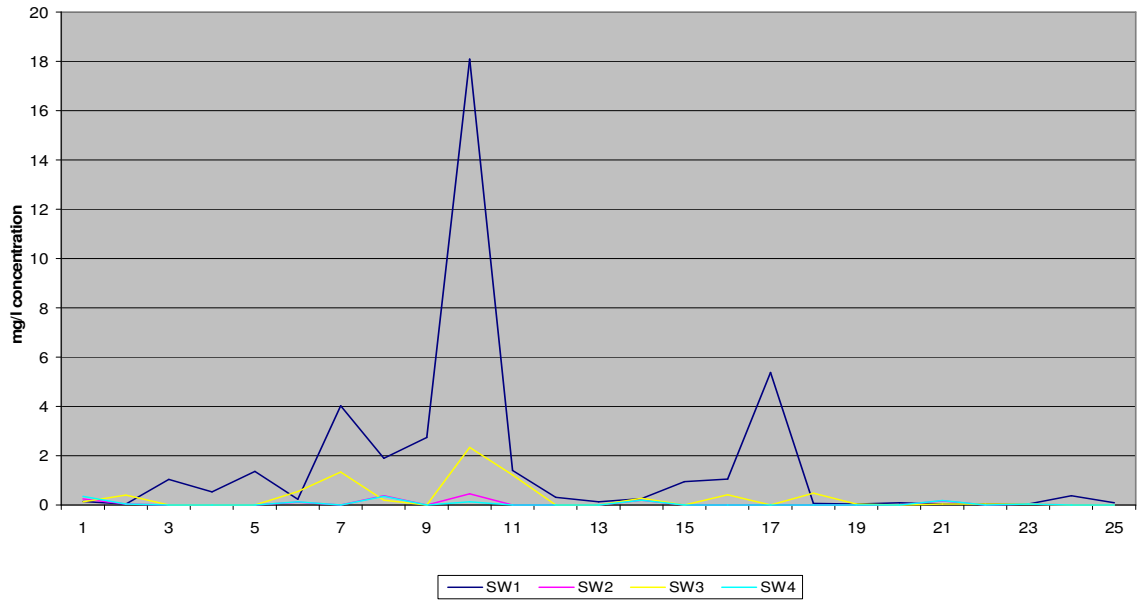
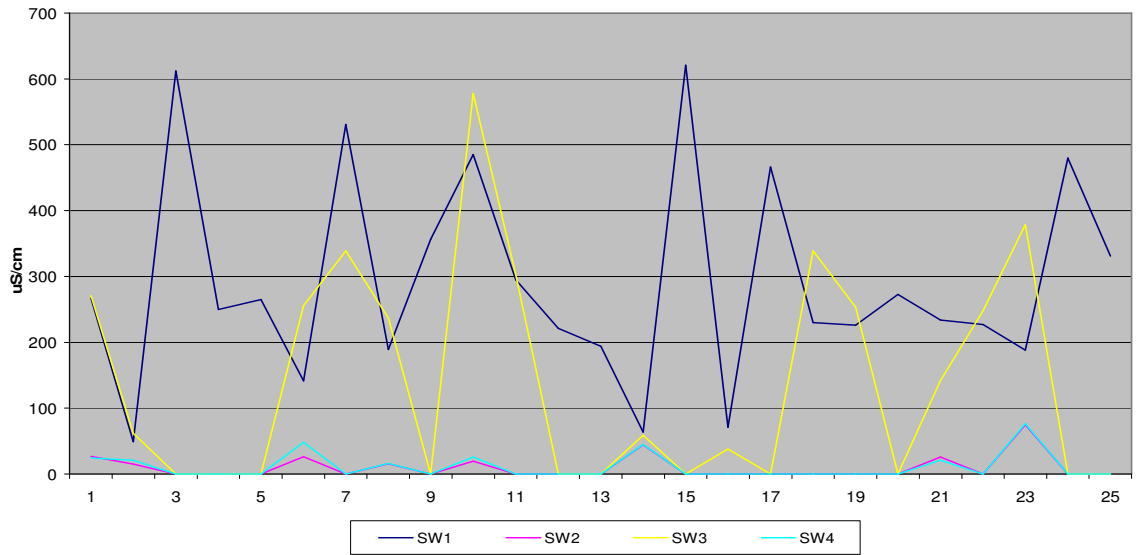


Chart 2 2009 Surface Water Monitoring (Conductivity)



4.2 Emissions to Foul Sewer

Site emissions to Foul Sewer are addressed in Condition 6 and Schedules B & C of Waste Licence W0177-03. Effluent from the truck wash area is collected and passed through two grit traps and an oil interceptor trap, then discharged to Waterford City Council's foul sewer. The runoff from the concrete apron at the front of the Materials Handling Building is also collected and passed through this interceptor and discharged to foul sewer. The Licence requires that emissions to foul sewer be measured quarterly. ELVs are expressed as concentrations and (in certain cases) mass balances. All sampling was carried out by trained VES personnel and analysis carried out by Envirolab Ltd. A summary of the results is given in table 4.2.

Table 4.2 Emissions to Foul Sewer 2009.

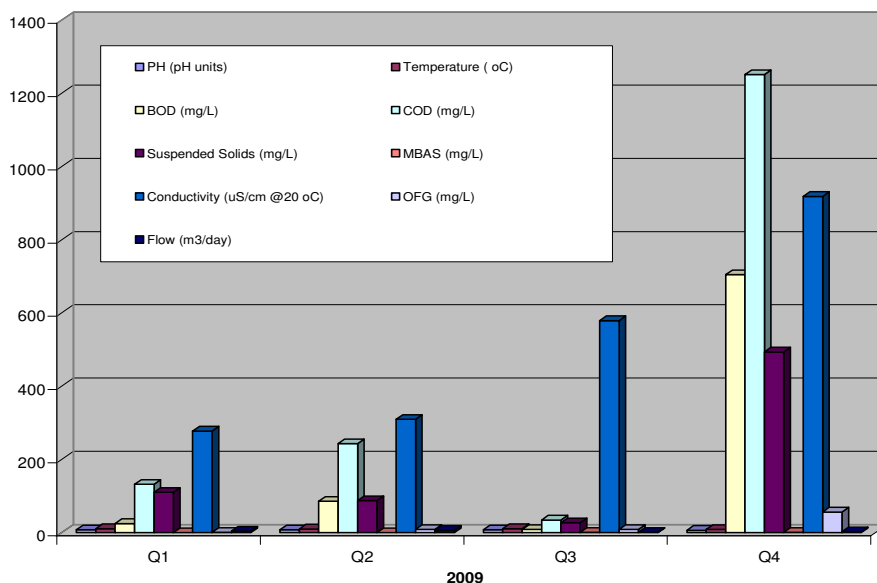
<i>Point FW 1</i>	<i>pH</i>	<i>Cond. uS/cm</i>	<i>Temp. °C</i>	<i>OFG mg/L</i>	<i>OFG kg/day</i>	<i>SS mg/L</i>	<i>SS kg/day</i>	<i>BOD mg/L</i>	<i>BOD kg/day</i>	<i>COD mg/L</i>	<i>COD kg/day</i>	<i>MBAS mg/L</i>
ELV	6-9	1,500	18	10	0.5	300	1.0	400	1.0	1,100	2.7	0.2
27/04/09	7.4	277	11	<1	0.004	110	0.48	24.6	0.11	132	0.57	<0.02
12/06/09	7.4	309	10	8.4	0.05	87	0.55	85	0.54	243	1.55	0.026
24/09/09	7.5	579	11	9	0.007	27	0.02	8.6	0.006	34	0.025	<0.2
18/12/09	6.5	918	9	56	0.125	493	1.1	704	1.57	1251	2.79	<0.2

Note: All samples were grab samples.

Analysis:

Foul water tests were largely compliant throughout 2009, with the exception of the last quarter's sample. Drain and filter cleaning and re-fitting operations were stepped up to compensate, leading to the satisfactory results obtained in subsequent tests. Please see Chart 3 below for quarterly foul water graph.

Chart 3 Foul Water Monitoring



4.3 Noise

Condition 4 and Schedules B & C specify that Noise Monitoring must be carried out on an annual basis at the facility.

Noise measurements were recorded at the northern (N1), Southern (N2) and Western (N3) site boundaries and at 2 locations outside of the facility to the Northeast and North West of the site, as outlined in Table 4.3(a). The locations of the noise monitoring points are given in Appendix 1. Noise levels at the site boundary monitoring positions were compared to the 55 dB(A) daytime and 45 dB(A) night-time sound pressure levels specified the Waste Licence for the facility's noise sensitive locations. Measurements were also made of the L_{Aeq} , L_{A10} , L_{A90} data.

Table 4.3(a) Noise Monitoring Locations

Measurement No.	Reference No.	Monitoring Period	Description
1	N1	Day-time/ Night-time	Northern Site Boundary
2	N2	Day-time/ Night-time	Southern Site Boundary
3	N3	Day-time/ Night-time	Western Boundary
4	NS1	Day-time/ Night-time	North West of Site
5	NS2	Day-time/ Night-time	North east of Site

The noise levels recorded at each monitoring location, including noise sensitive locations for night-time and daytime monitoring requirements are presented in Table 4.3(b) (below).

Noise Monitoring Conclusions:

The results of the noise measurements carried out show that the site is located in a high noise environment. Traffic noise during both day and night-time monitoring was a significant source of noise at all of the measurement locations.

The environmental noise assessment carried out at the site examined the background noise in the region and the noise generated by the waste management operations on the site. The following conclusions have been reached:

- The site is located in a high noise area, where traffic noise dominates.
- The nearest noise sensitive locations, (NS1 & NS2) is subject to significant traffic noise passing on the Ring road and this overrides any noise impact from the facility. This is highlighted by the night-time noise levels since the Veolia site was not operating at this time and the L_{Aeq} recorded was still over 60dBA.
- The on-site measurement locations are also affected by other activities on adjacent premises.

In general, the noise emissions from the site are consistent with the general noise regime in the area. During the daytime, there were a diffuse range of noise sources from the industrial/commercial area around the site particularly from the high volumes of traffic in the area. The main noise source on-site was from traffic movements in the yard. No noise was audible from the waste transfer building. The dominant noise source in the locality, however, was from traffic on the near-by Ring road, with the exception of points N1 and N2 where an off-site timber shredder and off-site air compressor and a power washer in an adjacent premises dominated proceedings respectively.

Table 4.3(b) Night-time and Daytime Noise Measurements recorded at Veolia Environmental Services (Ireland) Ltd., Waste Transfer Station - Six Cross Roads Business Park, Carrignard, Co. Waterford (21st & 22nd August 2009).

Reference No.	Description	End Time	L _{Aeq} 15mn dB(A)	L _{A10} 15mn dB(A)	L _{A90} 15mn dB(A)
Night-time					
N1	Northern Site Boundary	01:30	37	38	35
N2	Southern Site Boundary	00:29	41	45	36
N3	Western Site Boundary	01:05	42	36	38
NS1	North West of Site	02:33	56	44	34
NS2	North East of Site	03:04	54	65	36
Day-time			L _{Aeq} 15mn dB(A)	L _{A10} 15mn dB(A)	L _{A90} 15mn dB(A)
N1	Northern Site Boundary	16:04	60	62	56
N2	Southern Site Boundary	15:43	67	73	54
N3	Western Site Boundary	16:45	52	60	50
NS1	North West of Site	17:23	62	66	47
NS2	North East of Site	17:56	67	71	46

4.4 Air Quality and Climate

The two potential sources that could cause concern to the neighbouring businesses are unpleasant odours and excessive dust levels. Veolia Environmental Services has installed an odour neutralising system that greatly reduces the impact caused by fugitive odours. This system can be operated at the discretion of the Environmental Officer.

Three dust monitoring surveys were carried out during 2009, in compliance with Schedules B & C of the Waste Licence W0177-03 to determine the impact of site operations on the surrounding environment. Results of this monitoring are detailed in Table 4.4.

Table 4.4 Dust Monitoring locations

<i>Monitoring Location</i>	<i>Results (mg/m²/day)</i>			<i>Waste Licence W0177-03 ELV (mg/m²/day)</i>
	<i>Jan-Feb 2009</i>	<i>May-June 2009</i>	<i>September-Oct 2009</i>	
D1 North Eastern Boundary	13.9	10.2	<5	350
D2 Northern Boundary	17.1	97.2	<5	350
D3 Western Boundary	18.4	38.3	67.5	350

Summary

Results were very satisfactory again in 2009, with all points well below ELVs. This shows the benefit of regular use of the road sweeper on site. There were no building works on site this year and all surrounding units and their associated surfaces in the business park are also completed. Additionally, the adjacent compost site (nearest D3) completed its shutdown from March to October, with much reduced traffic, but increased sweeping prior to closure. Finally, last year was again particularly wet during the summer. All of these factors helped keep dust-sources to a minimum.

5.0 RESOURCE AND ENERGY CONSUMPTION

Resources consumed at the facility include electricity, diesel fuel, water and, to a lesser extent, steel wire and hydraulic oil. The major consumers of energy at the facility are as follows:

- Baling and ancillary (Electricity, Hydraulic Oil, Diesel generator)
- Mobile Plant (Diesel, Hydraulic Oil)
- Road Fleet (Diesel)

Major items of energy and resource consumption at the facility during 2009, in comparison to 2008, is summarised in table 5.1, which follows. Annual throughput is taken to mean tonnages of waste in, i.e. tonnes of waste processed. In 2008, therefore, throughput was 52,055 tonnes. In 2009, throughput was reduced, 48,560 tonnes.

Table 5.1 – Resource Usage and Efficiency 2008 v 2009.

Resource Category	2008	2009	% Change	2008 Consumption per tonne throughput	2009 Consumption per tonne throughput	% Change
Diesel Oil (litres) WTS only	40,932	53,236	+30	0.78	1.09	+39
Electricity (MWH)	350.4	328.7	-6.2	0.0067	0.0067	0.0
Water Usage (litres)	359,490	342,150	-4.8	6.91	7.04	+2.0

Analysis:

Late 2008 saw the addition of a shredder-granulator for hard plastics. We produce high-compaction bales/IBC bags of shredded plastics of recyclables immediately ready for transport to a recycler, without intermediate destinations. Greater handling is required by lifting vehicles on site. However, fewer, heavier dispatches direct to recyclers - rather than shipped in loose bales for re-baling elsewhere prior to sending to recyclers - leads to transport fuel and energy savings to the entire recycling process.

However, as dispatch transport is contracted out, there is little scope for *measuring* energy savings to the account of Veolia Waterford WTS. In summary, 2009's electricity figures per tonne throughput show no change, as the extra electricity demands for a full year's hard plastics granulating was met from an on site diesel generator. Key performance indicators for average weights of outward shipments (see EMP14, Section 8) show the indirect benefits of these processes.

The **diesel** oil usage tracks that used on site by diggers, grabs and forklifts and the on-site electricity generator from June 2009. There was a 39% rise in usage/tonne processed. Greater handling requirements and the generator account for this rise.

The use of **water** is relatively fixed on this site and increasing throughput will cause very little extra demand.

6.0 SITE DEVELOPMENT/INFRASTRUCTURAL WORKS.

Works completed in 2009

Infrastructural works comprised:

- (i) installing an electricity generator for the shredder/granulator system for our hard plastics intake.
- (ii) improving our confidential shredding service in early 2009 through provision of a dedicated shredder (formerly shared with the hard plastics operation) and a neater internal processing area for this waste.
- (iii) replacement of damaged tarmac areas and reinstatement of surface water shores in the rear yard area with a more durable concrete surface.

Works planned for 2010

Final completion of the flow meter installation was completed in early 2010 and a new water usage meter was installed. Infrastructural works planned at present include a permanent repair of damaged security fencing in rear yard area.

Operating and Standby Capacity

Further works undertaken to increase waste processing capacity and the provision of standby capacity at the site during the reporting period are summarised hereunder;

- Veolia maintains a sufficient number of contract transfer trailers to take waste to landfill from the facility. As described elsewhere, Veolia has an ongoing project (EMP14) to maximise the tonnage of dispatches in order to minimise the number of dispatches required. In addition, our transport contractor has always proven capable of providing an extra trailer at a few hours notice, allowing an extra theoretical standby capacity of 7,650 tonnes (one 25 tonne load per day, six days per week, 51 weeks per year).
- A loading shovel is available at all times on-site in the case of a breakdown of the grab machine. It is unlikely that both machines will breakdown at the same time, however if such an event arises a replacement loading shovel can be provided the same day.

7.0 SCHEDULE OF ENVIRONMENTAL OBJECTIVES AND TARGETS

7.1 Definitions

Emissions: Any discharges or noise generated by activities at the Veolia Environment Services Limited facility at Six Cross Roads Business Park, Waterford City.

Targets: Goals or aims, which when achieved will result in a reduction in emissions from the facility or general improvement in the overall environmental performance of the facility.

Objectives: The means or actions by which targets will be achieved. This will include a measurable range of activities.

Target Date: The date or timeframe by which the ultimate target (aim or goal) will be achieved. Target dates may also be set for the completion of the objectives.

Responsible Person: Employee(s) with the overall responsibility of ensuring that the targets and objectives are completed on schedule.

7.2 ON THE STRUCTURE AND CHOICE OF OBJECTIVES & TARGETS 2010

EPA Licence W0177-03 (Condition 2.2) requires the following four objectives be included in the schedule:

- (i) Energy & Resource Efficiency,
- (ii) Use of Cleaner Technology,
- (iii) Cleaner Production and,
- (iv) Prevention, Reduction and Minimization of Waste.

The first is appropriate for inclusion as it stands. Furthermore, a specific target is required under this objective (Condition 7), i.e. performance of an audit of energy & resource efficiency (covering energy, water and raw material usage).

Given the nature of our business, we believe it is appropriate to merge the last three specified objectives, with the understanding that the subordinate targets will also likely have an energy and resource efficiency impact.

The final objectives fall under the separate headings of Environmental Monitoring and Environmental Management, identified as continuing objectives for this year. A new target under the environmental monitoring objective is set by an Agency directive of February 2009.

Under the environmental management objective, Site Environmental Reviews have identified Legislative Compliance as a permanent O&T going forward.

7.3 Schedule of 2010 Objectives & Targets:

What follows is the summary of 2010's Environmental Objectives & Targets. We add the Environmental Management Programme project numbers which are dealt with in Section 8.0 and which will detail the progress made to date in achieving these objectives and targets.

Energy & Resource Efficiency

Activity/Emission	Objective	Target	EMP Numbers:	Target Date	Status	Person Responsible
Energy Usage	2008 energy efficiency audit data a permanent monitoring procedure.	Continue annual audit and monitor KPIs for future years	EMP 08	December 2010	Ongoing	EHSO/Yard Supervisor Operations Supervisor
	Increase energy efficiency of fleet	Expand use of AdBlue diesel additive.	EMP 11	End 2010	Ongoing	
Water Usage	Identify opportunities for water use reduction	Reduce water usage where opportunity identified.	EMP 08	December 2010	Ongoing	EHSO

Use of Cleaner Technology/Cleaner Production/Prevention, Reduction, Minimization of Waste

Activity/Emission	Objective	Target	EMP Numbers:	Target Date	Status	Person Responsible
Process Improvements	Increase efficiency of operations	KPI: average weight of dispatch of MWM and Soft Recyclables – add specific KPI for hard plastics.	EMP 14	December 2010	Ongoing	Depot Manager/ Ops & Yard Supervisors
	Reduce recyclables losses / Maximise recyclables gains	KPI of Soft Recyclable process losses KPI of Hard Recyclable process gains improving on 2008's results	EMP 15	December 2010	Ongoing	

Environmental Monitoring

Activity/Emission	Objective	Target	EMP Numbers:	Target Date	Status	Person Responsible
Monitoring Quality Assurance	Improve quality of self-monitoring data.	Complete calibration of installed foul water flow meter.	EMP 17	March 2010	Complete	Contractor/EHSO

Environmental Management

Activity/Emission	Objective	Target	EMP Numbers:	Target Date	Status	Person Responsible
Environmental Management System	Legislative Compliance	Zero non-compliances	All Activities	December 2010	Ongoing	Management Team

8.0 Environmental Management Programme

In accordance with Schedule F of Waste Licence W0177-03, the EMP progress report on completing 2009's Objectives & Targets (see previous AER) and our project proposals for 2010 are detailed below.

EMP 8 – Audit and assess energy and resource usage.

Report: As detailed in Section 5 of last year's AER, Veolia completed the initial study regarding energy usage in June 2008. The Licence also requires a study to assess the opportunities for water reduction and also for raw materials use. Summary findings included:

1. Electricity usage would continue to rise as 2008 would be the first full year of baler operation. Information not available at the time included the growth in baler-bound recyclables in 2008 (+18%) and the decision to install a shredder-granulator indoors for the hard plastics line. These increased the overall demand for electricity.
2. Gains to the environment due to the above compacting-shredding operations are not directly measurable, but are already indirectly measured elsewhere (EMP14).
3. Raw material usage was identified as baler wire alone. Data showed that usage was in line with production. Broken wire, necessitating re-baling, is rare. The small amount of waste wire thus produced is diverted to the scrap metal bay and not lost. No further work studying raw material usage was deemed worthwhile.
4. Diesel usage was increasing rapidly. The on-site vehicles using this facility were 2 x 3600 Grabs, 2 x Manitou Teleporters, 2 x FLT's. Review of vehicle capacity as a result of the energy audit identified the opportunity to return one FLT to the lessor. This took place in September 2008.
5. Stricter control of access to the truck wash was identified as an opportunity to reduce water usage. In addition, a higher pressure truck wash unit would allow quicker completion of truck washing, with the expectation that less water would be used per cleaning. A hose repair here was identified as another corrective action. These works were completed in January 2009.
6. It was agreed by the management team that the resource usage monitoring be continued and improved going forward.

2009 actions: The KPIs for water, diesel, electricity usage per tonne were monitored and reported to management as per section 5 above. In June 2009 a campaign for electricity conservation was commenced with awareness brochures distributed among staff.

Proposal 2010 O&T: Continue monitoring annually. Increase monitoring frequency for electricity usage and discuss further savings among management team.

Status: **Ongoing.**

EMP 11 – Install & commence use of AdBlue exhaust treatment chemical.

Report: Latest generation trucks require (under EURO IV/V emission standards) the addition of a second tank supplying urea to the exhaust chambers of diesel trucks, converting oxides of nitrogen to pure nitrogen gas and water. Bunded tanks were supplied and installed and use of the system commenced once 2007-model trucks were purchased. The system promises to cut fuel costs by up to 5% once all the fleet has been replaced, so as the fleet is replaced over the next few years, NOx emission levels and energy efficiency will improve.

The facility will eventually have an all-AdBlue (or equivalent) fleet in the future and it has been decided to renew this project until complete fleet renewal (some years into the future). One extra vehicle was added to the fleet in January 2008 and another in May 2008. Difficult market conditions prevented any changes during 2009.

Proposal 2010 O&T: Continue renewal of fleet with AdBlue-fitted models.

Target Completion Date: As fleet is replaced with 2007 and later model vehicles.

Status: **Ongoing.**

EMP 12 – Perform comprehensive hydrogeological investigation.

Report: Condition 6.11 of W0177-03 requires the carrying out of a comprehensive hydrogeological investigation of the site. The scope, detail and structure of the report must be agreed in advance by the Agency. Veolia originally arranged with external consultants to prepare a submission to the Agency by July 2007, with completion of required survey (following Agency approval of the submission) by September 2007. However, numerous follow-up communications between the Agency and Veolia were required in the latter half of 2007 before a mutually-agreed plan of campaign was forthcoming. Permission was given to merge this project with an identical requirement of the adjacent Waterford City Council Compost Facility's Licence, sharing an up-gradient borehole with that adjoining site.

Borehole infrastructure was completed in February 2008, samples taken thereafter and very satisfactory groundwater results received at end-March. The first report was submitted April 2008. The initial reaction of the Inspector was to query the downstream borehole siting. However, in discussions with the Inspector in October 2008, we explained the necessity – due to access problems (both under and over ground) - for siting the borehole on our site, adjacent to the compost facility. We took a second set of samples in December 2008. Results were again satisfactory. Another series of tests are to begin in April 2010.

Target Completion Dates: 2008

Actual Completion Date: December 2008.

Status: **Ongoing**

EMP 14 – Increase efficiency of operations.

Report: Implementation of ISO procedures caused the identification of this objective in 2008 O&T. This project seeks to measure and maximise the process efficiency of general waste and 'soft' recyclable (cardboard, papers, plastic packaging) treatment on site. For 2009 added hard plastics (separate from hard recyclables) to the monitoring programme to measure the benefits of the new granulator.

We identified key performance indicators (KPIs) for measuring this: target average dispatch weights for each category of waste mentioned. These average dispatch weights are measured and assessed monthly.

They measure, among other activities, the success in compaction of general waste on loading and the success in producing standard weight/size bales of soft recyclables, having identified the ideal specifications that maximise use of dispatch container space.

Benefits to the environment include the minimisation of numbers of dispatches per tonne of 'product' shipped. Records of this (commercially sensitive) project are held on site for the Agency's consideration.

Target Completion Dates: Expected to be ongoing.

Proposal 2010 O&T: Continue to measure the KPIs and take action to improve them, where possible.

Status: **Ongoing.**

EMP 15 – Reduce recyclables process losses and maximise recyclables process gains.

Report: Implementation of ISO procedures also caused the identification of this objective in 2008 O&T. This project seeks to measure and maximise the process efficiency of general waste, 'soft' recyclable and 'hard' (wood, C&D, metal, glass etc) recyclables treatment on site.

We have also identified key performance indicators (KPIs) for measuring this.

They measure, among other activities, the success in retrieval of hard recyclables from general waste inputs and the success in minimising process losses of soft recyclables.

Benefits to the environment include the maximisation of recycling rate and minimisation of landfill. Records of this (commercially sensitive) project are held on site for the Agency's consideration.

Target Completion Dates: Expected to be ongoing.

Proposal 2010 O&T: Continue to measure the identified KPIs and take action to improve them, where possible.

Status: **Ongoing.**

EMP 16 – Improve confidential waste processing.

Report: This new project, under the Cleaner Production O&T classification, was designed to inaugurate a dedicated confidential waste stream, utilising the former plastics and confidential shredder. Benefits to the environment are less risk of cross contamination and consequently to permit greater recycling of shred product, rather than its disposal. Internal installation of the current shredder minimises litter and noise risks.

Key to the development was the creation of a lockable store for the waste allowing for neater storage and processing in larger batches more efficiently.

Veolia Environmental Services, Waterford AER 2009

Fitting out of the area was completed ahead of plan in February. A procedural review was undertaken with the goal of complying with the terms of BS8470:2006 Destruction of Confidential Material.

Target Completion Date: May 2009

Status: **Complete.**

EMP 17 – Improve Environmental Monitoring.

Report: This new project, under the Environmental Monitoring O&T classification, was required to comply with directives from the Agency.

1. To review the relevant conditions of our Licence and the current environmental monitoring system (sampling, analysis, reporting, procedures, training/qualifications) to assure the quality of the monitoring system. Agency circular of 16/02/09.
2. To complete the installation of the new flow meter for the foul water line as required by the Licence. Inspection non-compliance October 2008. Installation was completed in early 2010.
3. Calibration of installed flow meter was identified as an outstanding requirement. This was completed in March 2010.

Target Completion Date: June & May 2009

Actual Completion Date: June 2009, February 2010, March 2010.

Status: **Complete.**

9.0 SUMMARY OF PROCEDURES DEVELOPED BY THE LICENSEE.

With the implementation of ISO procedures numerous amendments were made to the existing documentation during 2007. In certain cases site-specific documents were issued of formerly national Veolia group documents, in others nationally-approved common procedures were agreed, replacing the historic local issue SOPs.

A summary list of operating/environmental procedures for the facility (virtually all of which were reviewed or issued/re-issued in 2007 and 2008) is described below. New or amended procedures during 2009 are highlighted in bold.

Environmental Policy
Environmental Manual
Site Management Structure & Responsibilities (Environmental)
Site Environmental Review/Register of Environmental Impacts & Aspects
Schedule of Objectives & Targets (as Section 7)
Environmental Management Programme Project Reports (as Section 8)

Environmentally-Relevant Veolia Procedures and Flow Charts:

VP001 Document & Data Control Procedure
VP002 Control of Records
VP003 Management Review Procedure
VP005 Internal Audit Procedure
VP006 Control of Unacceptable Waste
VP007 Procedure for determination of significance of Environmental Aspect
VP008 Objective & Target Setting
VP010 Environmental Aspect Identification
VP011 Internal & External Communication Procedure
VP012 Documentation requirements for Waste Movements
VP014 Legislation Register
VP015 Corrective & Preventative Action Procedure
VP017 Environmental Incident Investigation & Reporting
VP018 Environmental Complaints
VFC002 Work Allocation – Customer Orders
VFC003 Docket Processing
VFC005 Yard Operation & Recycling
VFC006 Maintenance of Equipment
VFC008 Human Resources

Retained/New Issue Local Issue SOPs:

Weekly Bund Inspection	EP 001
Weekly Foul Interceptor Inspection	EP 002
Weekly Surface Water Inspection	EP 003
Environmental Monitoring	EP 004
Weekly Nuisance Inspections	EP 005
Loading of Waste Bins	EP 006
Spillage Procedure	EP 007
Weighbridge Operation	EP 008
Housekeeping	EP 009
Emergency Response Procedures	ERP

Condition 8.2 of the Waste Licence requires that a set of Emergency Response Procedures (ERP) be implemented at the facility. A document describing this procedure was last reviewed in September 2007 and was submitted to the Agency 03/10/07. Emergencies have been defined as unexpected events, which prohibit the transfer operation or reduce transferring capacity, or any occurrence resulting in non-compliance with the conditions of the Waste Licence. Potential emergencies at the facility can be grouped under the following headings:-

- Unable to load waste to transfer trailers.
- Unable to transfer waste to Landfill or Baling Station.
- Threats to worker health and safety.
- Threats to the environment – (e.g. spillages, fire, breaches of ELV)
- Emergency situations outside normal working hours.

The ERP document, which is maintained in the facility office, contains detailed procedures and a list of contact numbers to be used in the event of an emergency. The document was reviewed in association with the National Environment & Health & Safety Managers to expand the emergency responses relating to collection activities off-site.

10. TANK DRUM PIPELINE AND BUND INSPECTIONS.

Condition 6.7 of the Waste Licence W0177-03 requires that the integrity and water tightness of all underground pipes and tanks and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee at least once every three years. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.

There are two bunds on-site which contain Waste Oil, Lubricant Oil, Engine Oil tanks and Diesel Oil and Odour Neutralising Solution tanks respectively. A weekly bund inspection is carried out for the presence of liquid from these tanks and leaks. The results of these inspections are maintained on file at the depot.

Re-test was due and performed in January-February 2006. The next test was due for 2009, but has been arranged for April 2010.

11. REPORTED INCIDENTS AND COMPLAINTS SUMMARY.

11.1 Incidents Summary

Condition 11 of the Waste Licence requires that the Licence holder make written records of the environmental incidents. One incident was recorded during the reporting period and a summary of this is presented in Table 11.1. An outline of steps taken to minimise the emissions, prevent recurrence of future potential emissions and remedial actions undertaken is also presented.

Table 11.1 Recordable Incidents during 2009

<i>Date</i>	<i>Record No.</i>	<i>Nature and ELV Exceedance</i>	<i>Cause</i>	<i>Corrective Action</i>
27/04/09	EI 2009-01	Breaches in flow rate through foul sewer. 4.3m ³ /day v ELV of 2.5m ³ /day	Heavy rainfall.	See (a) below
12/06/09	EI 2009-02	Breaches in flow rate through foul sewer. 6.38m ³ /day v ELV of 2.5m ³ /day	Heavy rainfall.	See (b) below
13/11/2009 (received notification 20/01/10)	EI 2009-03	EPA monitoring Breaches in suspended solids through foul sewer. 1068mg/l v ELV of 300mg/l.	See EI 2009-04 below	See (c) below
18/12/09 (lab report received 25/01/10)	EI 2009 - 04	Breaches in BOD, COD, SS, OFG in foul sewer.	System cleanup prior to this notification and the above (10/01/10) had identified the tubular filter as full, misshapen and allowing material through this sump.	See (d) below

Corrective Action

- (a) Informed Agency 08/06/09. Flow put down to rainfall and oft-stated impossibly low flow ELV of 2.5m³/day set by Agency in last Review (previously 763.2m³). Discussed with Inspector October 2008, who suggested we get opinion of Sanitary Authority. Despite numerous attempts to interest the latter in the issue, no communication has been forthcoming.
- (b) Informed Agency 09/07/09. As above.
- (c) Did not inform Agency as an incident as the issue was answered in the below communication. Non-compliance notice for this oversight 26/02/10.
- (d) Informed Agency 09/02/10. Filter previously, 10/01/10, identified as source. Removed for cleaning and re-mounting and filter removal to be routine along with grit trap cleaning henceforth.

11.2 Complaints Summary

All complaints received at the facility are acknowledged, replied to verbally and /or in writing and recorded in the Complaints file on-site. There were no complaints received at the facility during the reporting period.

12.0 REVIEW OF NUISANCE CONTROLS.

Nuisance Control at Facility.

In compliance with condition 6.16 of the waste licence, weekly nuisance and litter inspections are carried out at the facility by the Environmental Officer. The site is inspected for evidence of vermin, odour, litter, mud, dust birds, flies. Each inspection is recorded, including any corrective action that may be taken as a result of the inspections.

Veolia has an on-going contract with *Prevent a Pest* (formerly *Pestguard Environmental Services*) for the control of vermin and fly control at the facility. This includes the provision and maintenance of twenty nine bait boxes for the control of rats and mice at the facility and 5 treatments annually for the treatment of insects at the facility between the months of May to September inclusive. **Pest control** includes the site offices, transfer and recycling building and any other area, which may be affected.

During the reporting period bait had been occasionally taken from some of the external bait boxes but there were no major infestations of vermin on site. Medium levels of activity occurred (and are expected) during winter at perimeter boxes, while for other times of the year activity was light or not detected.

Litter picks occur on a daily basis by yard operators in the course of their daily duties, in compliance with condition 6.12. If **dust** is found to be a nuisance at the facility, the concrete surfaces of the yard are sprinkled periodically with water to suppress dust levels. **Mud** is removed from the facility by sweeping the yard with a road sweeper with wetting capabilities on a regular basis.

Odours are controlled on site by the removal of waste from the MHRB as soon as possible. There is also an odour control system in operation at the facility. The system can be operated automatically or manually by the environmental Officer and Operations Supervisor as needed. The system was used occasionally throughout the year.

The nuisance controls in place were found to be effective in preventing nuisance to the public. No complaints were received from the public on these (or other) issues in 2009.

13.0 REPORTS ON FINANCIAL PROVISION/MANAGEMENT STRUCTURE/ COMMUNICATIONS PROGRAMME

13.1 Financial Provision

In accordance with Condition 12 of the Waste Licence, Veolia Environmental Services Limited submitted an Environmental Liabilities Risk Assessment (performed June 2004) for the approval of the Agency on March 15th 2006. Measures taken by Veolia to prevent environmental damage have been highlighted elsewhere in this AER and were addressed in the risk assessment under the following headings:

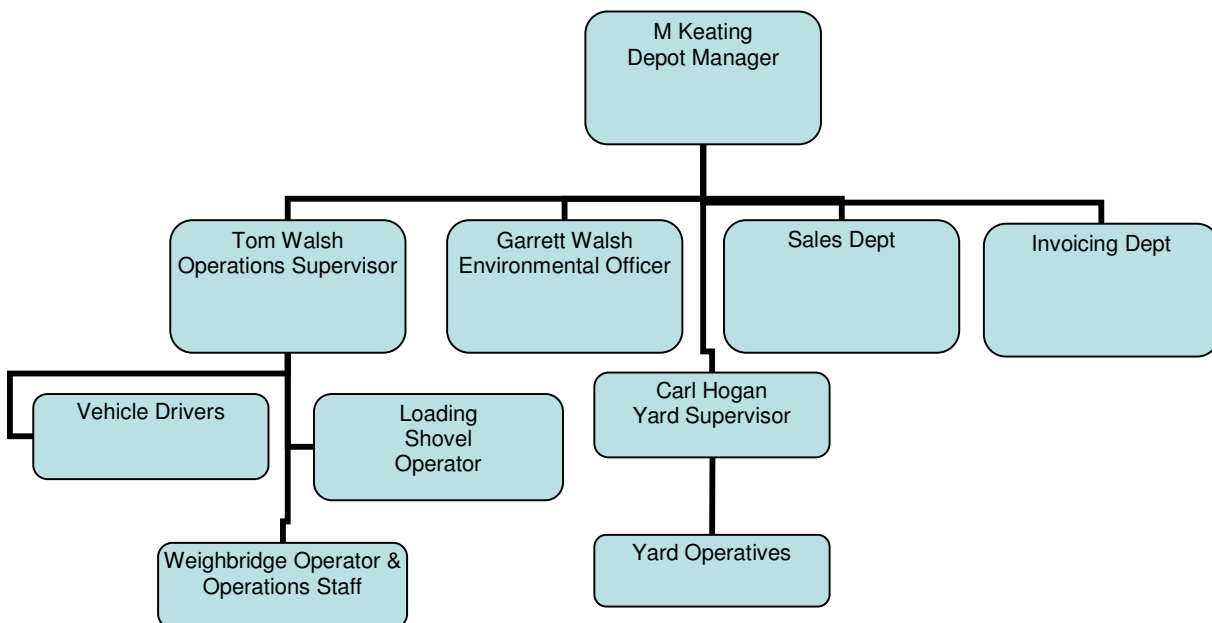
- Emissions to Air, Surface Water, Groundwater, Noise.
- Equipment Breakdown or Temporary Site Closure.
- Significant Spillages on Site.
- Fire at the facility.
- Decommissioning.

The submitted Environmental Liabilities Risk Assessment (to the UK DEFRA Guidelines) recommended that the company set aside 130,000 Euro as a financial provision to cover worst case of abnormal operations at the facility. This could be in the form of a bond, financial allocation or an insurance premium or another form agreed with the Agency, which will guarantee the availability of funds for potential liabilities arising from:

- Emergency situations occurring from the operation of the site
- Closure and decommissioning of the site.

The Agency approved this submission with the award of the current waste licence W0177-03 on 24th August 2006. In a request for information in August 2008, the Agency sought clarification of the status of the site’s ELRA (and subsidiary reports). The request was answered in September 2008, summarising the previous submissions. The Agency has not yet responded to the submission.

13.2 Management Structure 2009



13.3 Communications programme

In compliance with condition 2.2.2.7 of the waste licence, a communications programme is maintained to ensure that members of the public can obtain information on the environmental performance of the company at all times. During the reporting period there were no requests from members of the public to inspect any of the records and files listed below. During customer audits however, environmental records, such as incident files, complaints files etc were inspected. Company brochures listing a range of services and company history are also available on request.

The list of documents available for inspection is as follows:

- Training Records
- Communication Records
- Environmental Monitoring Results
- Complaints Register
- Non-Compliance Records
- Corrective Action Records
- Unacceptable Waste Records
- Pest/Vermin Control Records
- Daily transactions for incoming and outgoing vehicles
- Current Waste Licence
- Waste Licences of Destination Facilities
- Waste Collection Permits of Hauliers
- Veolia Safety Statement
- Daily/Weekly Inspection Reports
- Emergency Response Procedures
- Environmental Procedures
- Tonnage Records
- Recycling Information
- Material Safety Data Sheets

All telephone and written requests are answered verbally if this is sufficient or in writing if required. In any case the Environmental Officer will reply to all such requests within 5 working days. All public visits for inspection of records must be prearranged with the Environmental Officer. Information regarding the company can also be found on the company's web site at www.veolia.ie, or by contacting

The Environmental Officer, Veolia Environment Services Limited (Ireland), Six Cross Roads Business Park, Waterford City.

14.0 VOLUME OF WASTEWATER PRODUCED AND TRANSPORTED OFF SITE.

14.1 Volume Wastewater Produced

The volume of wastewater produced on site for the reporting period was 1405m³, an increase of 17% on 2008's figure of 1197m³. Rainfall – the main determinant of our flow – was at record levels last year.

Month	Volume (m³)
January 09	119.09
February 09	67.23
March 09	58.26
April 09	120.18
May 09	75.46
June 09	87.87
July 09	196.24
August 09	150.49
September 09	61.26
October 09	122.17
November 09	205.78
December 09	141.38
TOTAL	1405.41

14.2 Volume Wastewater Transported off-site

Permanent hiring of the road sweeper (which also has a drain cleaning function) has allowed much more frequent cleaning of shores and grit traps, with solids disposal to general waste. This has maintained the shore & trap efficiency and minimised silt deposition in the final sump on each drainage line, the oil-water separator. In past years both silt and oil-water interceptor contents were pumped into a tanker for co-disposal.

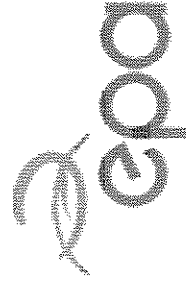
Frequent shore and grit trap cleanouts that are now possible have greatly increased the length of time between oil-water separator emptying. The minor volume of oil removed from the three oil-water separator cylinders was disposed into the on-site waste oil bund.

15.0 OTHER ITEMS SPECIFIED BY THE AGENCY.

There were no other items specified by the Agency for the reporting period.

APPENDIX I

Site Plans



Environmental Protection Agency

| PRTR# : W0177 | Facility Name : Veolia Environmental Services (Ireland) Limited |
 Filename : W0177_2009.xls | Return Year : 2009 |

AER Returns Worksheet

REFERENCE YEAR 2009	Version 1.1.10
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1. FACILITY IDENTIFICATION

Parent Company Name	Veolia Environmental Services (Ireland) Limited
Facility Name	Veolia Environmental Services (Ireland) Limited
PRTR Identification Number	W0177
Licence Number	W0177-03

Waste or IPPC Classes of Activity

No.	class_name
3.12	Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.11	Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.13	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.
4.13	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.
4.2	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
4.3	Recycling or reclamation of metals and metal compounds.
4.4	Recycling or reclamation of other inorganic materials.

Address 1	Carrignard
Address 2	Six Cross Roads
Address 3	Business Park
Address 4	Waterford City
Country	Ireland
Coordinates of Location	-7.14684 52.2345
River Basin District	IESE
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Garrett Walsh
AER Returns Contact Email Address	garrett.walsh@greenstar.ie
AER Returns Contact Position	Environmental Officer
AER Returns Contact Telephone Number	051-333922 / 051-382270
AER Returns Contact Mobile Phone Number	0986-1705034
AER Returns Contact Fax Number	051-333945
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	0
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
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? No
	Have you been granted an exemption? No
	If applicable which activity class applies (as per Schedule 2 of the regulations) ?
	Is the reduction scheme compliance route being used ?

4.1 RELEASES TO AIR

| PRTR# : W0177 | Facility Name : Veolia Environmental Services (Ireland) Limited | Permit# : W0177_2009-06 | Return Year : 2009 |

08/05/2010 11:58

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

POLLUTANT	Name	M/C/E	Method Used	QUANTITY		
				A (Accidental) KG/Year	F (Fugitive) KG/Year	T (Total) KG/Year
				0.0	0.0	0.0

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

SECTION B : REMAINING PRTR POLLUTANTS

POLLUTANT	Name	M/C/E	Method Used	QUANTITY		
				A (Accidental) KG/Year	F (Fugitive) KG/Year	T (Total) KG/Year
				0.0	0.0	0.0

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

SECTION C : REMAINING POLLUTANT EMISSIONS (As required in your Licence)

POLLUTANT	Name	M/C/E	Method Used	QUANTITY		
				A (Accidental) KG/Year	F (Fugitive) KG/Year	T (Total) KG/Year
				0.0	0.0	0.0

VD2113 Cement
Engineering Institute
(Average of EF readings
in February & July see area
(10125m2) x 365 days)

POLLUTANT	Name	M/C/E	Method Used	QUANTITY		
				A (Accidental) KG/Year	F (Fugitive) KG/Year	T (Total) KG/Year
				49.99	11.94	61.93

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

Additional Data Requested from Landfill operators

For the purpose 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 'Total' (kg/y) for Section A; Sector specific PRTR pollutants below. Please complete the table below.

Landfill:

Please enter summary data on the quantities of methane flared and / or utilised

Total estimated methane generation (as per site model)	Methane flared	Methane utilised in engines	Net methane emission (as reported in Section A above)
0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0
Veolia Environmental Services (Ireland) Limited			

4.2 RELEASES TO WATERS

| PRT# : W0177 | Facility Name : Veolia Environmental Services (Ireland) Limited | Filename : W0177_2009.xls | Return Year : 2009 |

08/05/2010 11:56

SECTION A : SECTOR SPECIFIC PRT# POLLUTANTS

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

No. Annex II	Name	M/C/E	Method Used	Description or Description	Emission Point 1		
					T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0
RELEASERS TO WATERS							
POLLUTANT							
QUANTITY							0.0

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

SECTION B : REMAINING PRT# POLLUTANTS

No. Annex II	Name	M/C/E	Method Used	Description or Description	Emission Point 1		
					T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0
RELEASERS TO WATERS							
POLLUTANT							
QUANTITY							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 No.	Name	M/C/E	Method Used	Description or Description	Emission Point 1		
					T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0
RELEASERS TO WATERS							
POLLUTANT							
QUANTITY							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

| PRT# : W0177 | Facility Name : Veolia Environmental Services (Ireland) Limited | Filename : W017

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SECTION A : PRT# POLLUTANTS

No. Annex II	Name	M/C/E	METHOD		QUANTITY		
			Method Used	Description or Description Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
OFF-SITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE WATER TREATMENT OR SEWER							
							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 No.	Name	M/C/E	METHOD		QUANTITY		
			Method Used	Description or Description Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
303	BOD	M	PER	Annual average (5-day test based on APHA 2005 4500 DC, 5210B) x annual foul water flow	288.88	288.88	0.0
306	COD	M	PER	Annual average (In-house method based on APHA 2005 5200D) x annual foul water flow	583.24	583.24	0.0
308	Detergents (as MBAS)	M	PER	Annual average (extraction Blue Book) x annual foul water flow	0.157	0.157	0.0
314	Fats, Oils and Greases	M	PER	Annual average (extraction APHA 2005 5220D) x annual foul water flow	26.14	26.14	0.0
240	Suspended Solids	M	PER	Annual average (gravimetric method based on APHA 2005 2540D) x annual foul water flow	251.9	251.9	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#: W0177 | Facility Name : Veolia Environmental Services (Ireland) Limited | Filename : W0177_2009.xls | Return Year : 2009

08052010 11:58

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Licence/Permit No. of Receptor/Depositor	Licence/Permit No. of Receptor/Depositor	Disposal Facility Name and Licence/Permit No. of Receptor/Depositor	Disposal Facility Name and Licence/Permit No. of Receptor/Depositor	Address of Final Receptor (ONLY)	Address of Final Receptor (HAZARDOUS WASTE ONLY)	Local Address of Final Destination (HAZARDOUS WASTE ONLY)
						Method Used	W/C/E								

Within the Country	10 01 01	No	391.07	Bottom ash (wood)	D1	M	Weighed	Offsite in Ireland	McGurness Landfill @ Lower Ballynon, Carlow on Padraig Ballynon, W.P.059	Naull, Co Dublin, Ireland	Murphy Environmental	Naull, Co Dublin, Ireland			
Within the Country	17 01 07	No	3091.35	Mixed C&D bricks, stones, tiles, concrete	D1	M	Weighed	Offsite in Ireland	Cork Co. W0068-02	Wexford, Ireland	Wexford County Council, W0191-01	Wexford, Ireland			
Within the Country	20 03 01	No	3550.85	Mixed municipal waste	D1	M	Weighed	Offsite in Ireland	Wexford County Council, W0191-01	Wexford, Ireland	Wexford, Ireland				
Within the Country	20 03 01	No	6790.05	Mixed municipal waste	D1	M	Weighed	Offsite in Ireland	Greenstar Ltd, W0165-01	Carlow County Council, W0025-01	Carlow, Ireland				
Within the Country	20 03 01	No	5446.03	Mixed municipal waste	D1	M	Weighed	Offsite in Ireland	Veolia Environmental Services (Ireland) Ltd, W0082-02	Carlow, Ireland	Carlow, Ireland				
Within the Country	20 03 01	No	360.66	Mixed dry recyclables	R3	M	Weighed	Offsite in Ireland	Veolia Environmental Services (Ireland) Ltd, W0082-02	Carlow, Ireland	Carlow, Ireland				
Within the Country	20 03 01	No	817.37	Mixed dry recyclables	R3	M	Weighed	Offsite in Ireland	Asian Eagle Ltd, W0217-01	Killarney, Co Kerry, Ireland	Killarney, Co Kerry, Ireland				
Within the Country	20 03 01	No	4.4	Mixed dry recyclables (largely plastics - clear)	R3	M	Weighed	Offsite in Ireland	Asian Eagle Ltd, W0217-01	Killarney, Co Kerry, Ireland	Killarney, Co Kerry, Ireland				
Within the Country	20 01 36	No	2.1	WEEE	R4	M	Weighed	Offsite in Ireland	Asian Eagle Ltd, W0217-01	Killarney, Co Kerry, Ireland	Killarney, Co Kerry, Ireland				
Within the Country	20 01 36	No	3.6	WEEE	R4	M	Weighed	Offsite in Ireland	Asian Eagle Ltd, W0217-01	Killarney, Co Kerry, Ireland	Killarney, Co Kerry, Ireland				
Within the Country	15 01 07	No	1580.3	Class Packaging	R5	M	Weighed	Offsite in Ireland	Asian Eagle Ltd, W0217-01	Killarney, Co Kerry, Ireland	Killarney, Co Kerry, Ireland				
Within the Country	15 01 07	No	126.36	Class Packaging	R5	M	Weighed	Offsite in Ireland	Asian Eagle Ltd, W0217-01	Killarney, Co Kerry, Ireland	Killarney, Co Kerry, Ireland				
Within the Country	20 02 01	No	94.13	Shred green wastes	R3	M	Weighed	Offsite in Ireland	Asian Eagle Ltd, W0217-01	Killarney, Co Kerry, Ireland	Killarney, Co Kerry, Ireland				
Within the Country	20 02 01	No	34.8	Shred green wastes	R3	M	Weighed	Offsite in Ireland	Asian Eagle Ltd, W0217-01	Killarney, Co Kerry, Ireland	Killarney, Co Kerry, Ireland				
Within the Country	20 01 08	No	1675.94	Biodegradable kitchen & canteen waste	R3	M	Weighed	Offsite in Ireland	Asian Eagle Ltd, W0217-01	Killarney, Co Kerry, Ireland	Killarney, Co Kerry, Ireland				
Within the Country	20 01 08	No	1368.78	Biodegradable kitchen & canteen waste	R3	M	Weighed	Offsite in Ireland	Asian Eagle Ltd, W0217-01	Killarney, Co Kerry, Ireland	Killarney, Co Kerry, Ireland				
Within the Country	20 01 08	No	8.92	Biodegradable kitchen & canteen waste	R1	M	Weighed	Offsite in Ireland	Asian Eagle Ltd, W0217-01	Killarney, Co Kerry, Ireland	Killarney, Co Kerry, Ireland				
Within the Country	20 01 40	No	297.28	Mixed metals	R4	M	Weighed	Offsite in Ireland	Asian Eagle Ltd, W0217-01	Killarney, Co Kerry, Ireland	Killarney, Co Kerry, Ireland				
Within the Country	15 01 02	No	118.28	Plastic packaging	R3	M	Weighed	Offsite in Ireland	Asian Eagle Ltd, W0217-01	Killarney, Co Kerry, Ireland	Killarney, Co Kerry, Ireland				
Other Countries	15 01 02	No	154.1	Plastic packaging	R3	M	Weighed	Abroad	Asian Eagle Ltd, W0217-01	Killarney, Co Kerry, Ireland	Killarney, Co Kerry, Ireland				

