



**OXIGEN ENVIRONMENTAL LTD.**

**COES RD FACILITY  
WASTE LICENCE  
W0144-01**

**ANNUAL ENVIRONMENTAL REPORT  
(AER) 2011**

<b>Contents</b>	<b>Page</b>
1. Introduction	3
1.1. Description of Site	3
1.2. Licensed Waste Disposal Activities	3
1.3. Licensed Waste Recovery Activities	4
1.4. Process Operation Summary	4
2. Quantity of Waste Received, Recovered, Recycled & Disposed of in 2011	7
2.1. Tonnage of Waste Compositions Received in 2011	8
2.2. Tonnage of Waste Transferred from the Facility in 2011	10
2.3. Tonnage of Waste Compositions Disposed in 2011	11
2.4. Tonnage of Waste Compositions Recycled/Recovered in 2011	12
3. Emissions From the Facility	15
3.1. Quarterly Foul Sewer Monitoring Results Summary	16
3.2. Dust Monitoring Results Summary	19
3.3. Noise Monitoring Results Summary	20
4. Resource and Energy Consumption Summary	24
4.1. Diesel Consumption	24
4.2. Electricity Consumption	25
5. Development/Infrastructural Works for 2011/2012	27
5.1. 2011 Development Works	28
5.2. 2012 Development Works	28
6. Objectives & Targets	29
6.1. Objectives & Targets 2011	30
6.2. Progress Report on the Achievement of 2011 Objectives and Targets	32
6.3. Objectives & Targets 2012	35
7. Operational Procedures Developed by Oxigen Environmental in 2011	38
8. Tank, Drum, Pipeline and Bund Testing inspection Report	41
9. Reported Incidents	43
10. Complaints Summary	45
11. Review of Nuisance Control	47
11.1 Odour	47
11.2 Rodents	47
11.3 Flies	47
11.4 Birds	47
11.5 Dust	48
12. Financial Provision	50
13. Management Structure	52
14. Programme for Public Information	54

## Appendix 1 PRTR Emissions Data

## 1. Introduction

Sean Rooney Limited t/a Bambi Bins & Wheel Bin Services Limited was issued Waste Licence (Reg. No. W0144-01), on the 6<sup>th</sup> February 2002, to operate a Waste Transfer Station and Recycling Facility at Coes Road, Dundalk, Co. Louth. This Licence was transferred to Oxigen Environmental Ltd on the 2<sup>nd</sup> of February 2011.

In accordance with the requirements of Condition 11.5 of the Waste Licence, an Annual Environmental Report (AER) for the facility must be submitted to the Environmental Protection Agency (EPA).

This is the tenth AER, covering the reporting period from the 1<sup>st</sup> January 2011 to the 31<sup>st</sup> December 2011.

The facility is located at:-

Oxigen Environmental Limited,  
Waste Transfer Station and Recycling Facility  
Coes Road,  
Dundalk,  
Co. Louth.

Tel: (042) 9335000 Fax: (042) 9354175

### 1.1 Description of Site

The Waste Transfer Station and Recycling Facility is located within an area zoned for industrial development. The facility is surrounded in the industrial estate by various warehouses and industrial buildings. The Coes Road runs adjacent to the eastern site boundary. The total area of the site is approximately 7,178m<sup>2</sup>.

Waste handling activities at the site consist of accepting and bulk loading of commercial, industrial and municipal waste for transfer to other recycling depots or other disposal outlets. In addition, where possible, recyclable waste (cardboard, glass, metal, timber, plastic) is recovered from the waste streams and sent for further recycling.

The licensed waste activities, permitted under the Third and Fourth Schedule of the Waste Management Act (1996), in the Waste Licence (W0144-01) are as detailed below:

### 1.2 Licensed Waste Disposal Activities

*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.

### 1.3 Licensed Waste Recovery Activities

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

*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.

### 1.4 Process Operation Summary

There are a number of waste processing operations in place at the facility as detailed in Table 1.1.

*Table 1.1: Waste Processing Activities*

<b>WASTE DESCRIPTION</b>	<b>PROCESS OPERATION</b>
Commercial/Domestic Skip Waste	Skip waste comprises of mixed waste coming from domestic houses and offices. It consists of items such as furniture and office materials. On being documented at the weighbridge the waste is tipped in the C&D Shed and inspected. Items that are not accepted at the facility are quarantined and sent to the respective facilities for recycling/disposal. The remaining waste is bulked up into 40ft open top ejector trailers. The material is transferred to an Oxigen Facility in Dublin where it is processed.
Construction & Demolition Waste (C&D)	C&D Waste is tipped in the designated bay once documented at the weighbridge. Any contaminants in the form of metal, wood or cardboard are removed. The remaining C&D Waste such as rubble and soil and stones is used as infill at approved and permitted facilities. This material is also used for engineering works such as haul roadways in approved landfill sites.
Municipal Waste	Oxigen Environmental collect black bins containing municipal waste from a large number of domestic and commercial customers in the Northeast Region. Once documented at the

weighbridge, the waste is tipped in the municipal processing shed where it is bulked up into a 40ft compactor and is sent to Licensed Landfills for disposal.

During 2011 Oxigen Environmental upgraded the MSW processing plant to further trail the pre-treatment of municipal waste in effort to recover metals and biodegradable fraction in line with EU Landfill Directive 1999/31/EC. Initial results from these trails produced poor quality fines however following several upgrades, much improved organic fines were produced, which were suitable for biostabilisation.

#### Dry Recyclables

Oxigen Environmental collect green bins containing co-mingled dry recyclables such as paper, cardboard and metal cans from numerous domestic and commercial customers in the North East Region. Having been documented at the weighbridge this material is tipped in the Dry-Recyclable tipping area, inspected for contamination, and then bulked up into 40ft compactors before being delivered to other facilities for further recovery and recycling.

#### Kitchen & Garden Waste

Oxigen Environmental collect brown bins containing organic kitchen and garden waste such as food and grass cuttings from numerous domestic and commercial customers in the North East Region. Once documented at the weighbridge this material is tipped on the shed floor and inspected for contamination. The material is bulked up into 40ft tipper trailer before being transferred offsite.

#### Wood Products

Wood is segregated into a bay and loaded into a 40ft trailer which is sent to an approved facility for further processing.

#### Metal Products

Metals are segregated and loaded into 40ft tipper trailers and sent to an approved facility for recycling.

#### Cardboard Products

Cardboard is segregated and loaded into 40ft open top trailers and sent to an approved facility where

it is bailed for further recycling.

Glass

Glass is stored in bays before being transferred for recycling to a processing plant for recycling.

**2. QUANTITY AND COMPOSITION OF WASTE RECOVERED, RECEIVED  
AND DISPOSED OF DURING 2011**

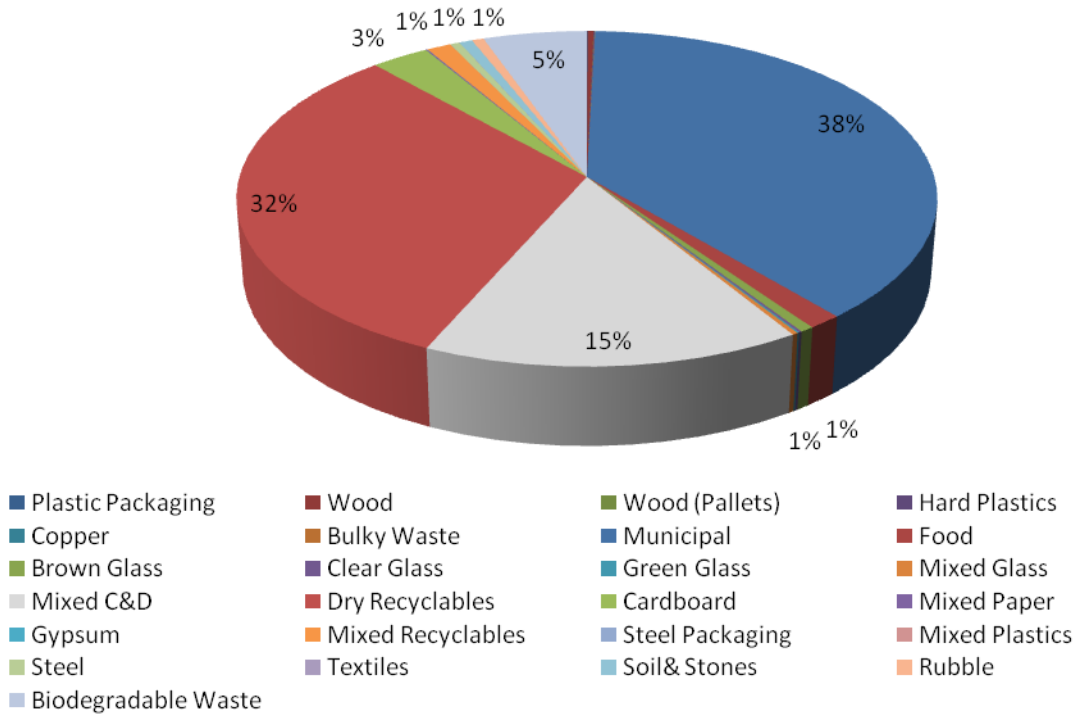
## 2.1 Tonnage of Waste Compositions Received at the Coes Road Facility from the 1<sup>st</sup> of January – 31<sup>st</sup> of December 2011

Table 2.1: Tonnage of Waste by Type Received at the Coes Road Facility in 2011

Commodity	EWC Codes	Tonnage
Plastic Packaging	15 01 02	16.66
Wood	17 02 01/20 01 38	152.50
Wood (Pallets)	15 01 03	5.99
Hard Plastics	20 01 39	22.70
Copper	17 04 01	0.46
Bulky Waste	20 03 07	9.06
Municipal Waste	20 03 01	18,524.08
Food	02 02 03	667.60
Brown Glass	15 01 07	271.47
Clear Glass	15 01 07	59.32
Green Glass	15 01 07	42.86
Mixed Glass	15 01 07	113.56
Mixed C&D	17 09 04	7,482.03
Dry Recyclables	20 03 01	15,303.48
Cardboard	15 01 01	1,465.54
Mixed Paper	20 01 01	45.16
Gypsum	17 08 02	4.42
Mixed Recyclables	20 03 01	612.45
Steel Packaging	15 01 04	4.88
Mixed Plastics	15 01 02	0.40
Steel	20 01 40	239.20
Textiles	20 01 11	4.92
Soil& Stones	17 05 04	333.08
Rubble	17 01 07	298.71
Biodegradable Waste	20 01 08	2,621.39
<b>Total</b>		<b>48,301.93</b>



**Materials accepted on-site 2011**



*Figure 2.1 Percentage of Waste by Type Received at the Coes Road Facility in 2011*

## 2.2 Tonnage of Waste Transferred from the Coes Road Facility during the period of 1<sup>st</sup> January – 31<sup>st</sup> December 2011

Table 2.2 Tonnage of Waste Transferred from the Coes Road Facility for in 2011

<b>Commodity</b>	<b>EWC Codes</b>	<b>Tonnage</b>
Wood	17 02 01/20 01 38	163.38
Wood Pallets	15 01 03	54.80
Plastics	15 01 02	55.12
Plastic Packaging	15 01 02	29.72
Municipal Waste	20 03 01	18,577.12
Biodegradable Waste	20 01 08	554.90
Food	02 02 03	645.47
Organic Fines	19 12 12	1,469.75
Metal Packaging	15 01 04	0.00
Clear Glass	15 01 07	135.62
Brown Glass	15 01 07	213.98
Green Glass	15 01 07	79.70
Mixed Glass	15 01 07	44.34
Dry Recyclables	20 03 01	15,209.47
Mixed Recyclables	20 03 01	57.54
Cardboard	15 01 01	1,705.71
Steel	20 01 40	378.82
Mixed Paper	20 01 01	22.36
C&D	17 09 04	7,881.16
Soil & Stones	17 05 04	447.54
Rubble	17 01 07	25.72
Bulky Waste	20 03 07	47.94
Interceptor Waste	13 05 08	8.58
Toner	08 03 18	27.84
Tyres	16 01 03	4.32
Textiles	20 01 11	1.80
<b>Total</b>		<b>47,842.70</b>

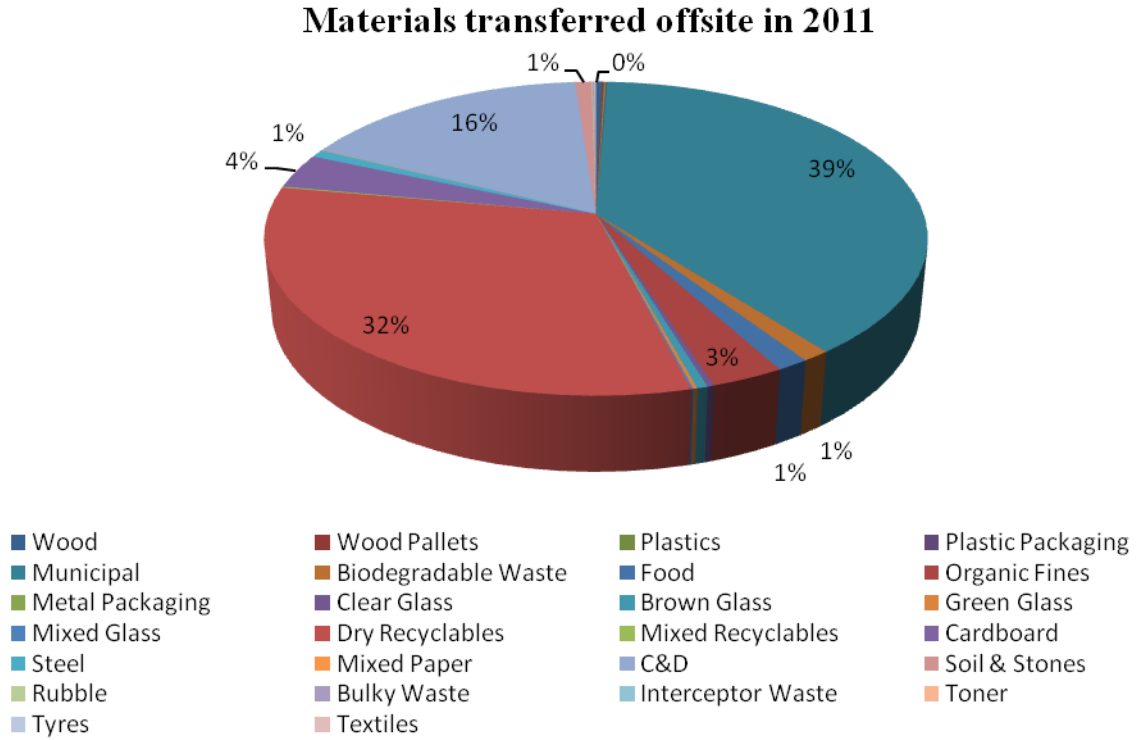


Figure 2.2 Percentage of Waste by Type Received at the Coes Road Facility in 2011

### 2.3 Tonnage of Waste Transferred from the Coes Road Facility for Disposal during the period of 1<sup>st</sup> January – 31<sup>st</sup> December 2011

Table 2.3 Tonnage of Waste Transferred from the Coes Road Facility for Disposal in 2011

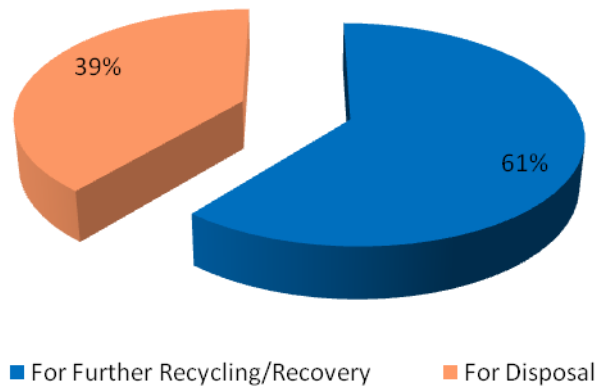
Commodity	EWC Code	Tonnage
Toner	08 03 18	27.84
Municipal Waste	20 03 01	18,577.12
<b>Total</b>		<b>18,604.96</b>

## 2.4 Tonnage of Waste Transferred from Coes Road Facility for Recovery/Recycling during the period 1<sup>st</sup> of January -31<sup>st</sup> of December 2011

*Table 2.4 Tonnage of Waste Transferred from the Coes Road Facility for Recovery/Recycling in 2011*

<b>Commodity</b>	<b>EWC Codes</b>	<b>Tonnage</b>
Wood	17 02 01/20 01 38	163.38
Wood Pallets	15 01 03	54.80
Plastics	15 01 02	55.12
Plastic Packaging	15 01 02	29.72
Biodegradable Waste	20 01 08	554.90
Food	02 02 03	645.47
Organic Fines	19 12 12	1,469.75
Metal Packaging	15 01 04	0.00
Clear Glass	15 01 07	135.62
Brown Glass	15 01 07	213.98
Green Glass	15 01 07	79.70
Mixed Glass	15 01 07	44.34
Dry Recyclables	20 03 01	15,209.47
Mixed Recyclables	20 03 01	57.54
Cardboard	15 01 01	1,705.71
Steel	20 01 40	378.82
Mixed Paper	20 01 01	22.36
C&D	17 09 04	7,881.16
Soil & Stones	17 05 04	447.54
Rubble	17 01 07	25.72
Bulky Waste	20 03 07	47.94
Interceptor Waste	13 05 08	8.58
Tyres	16 01 03	4.32
Textiles	20 01 11	1.80
<b>Total</b>		<b>29,237.74</b>

### Material Transferred from Facility 2011



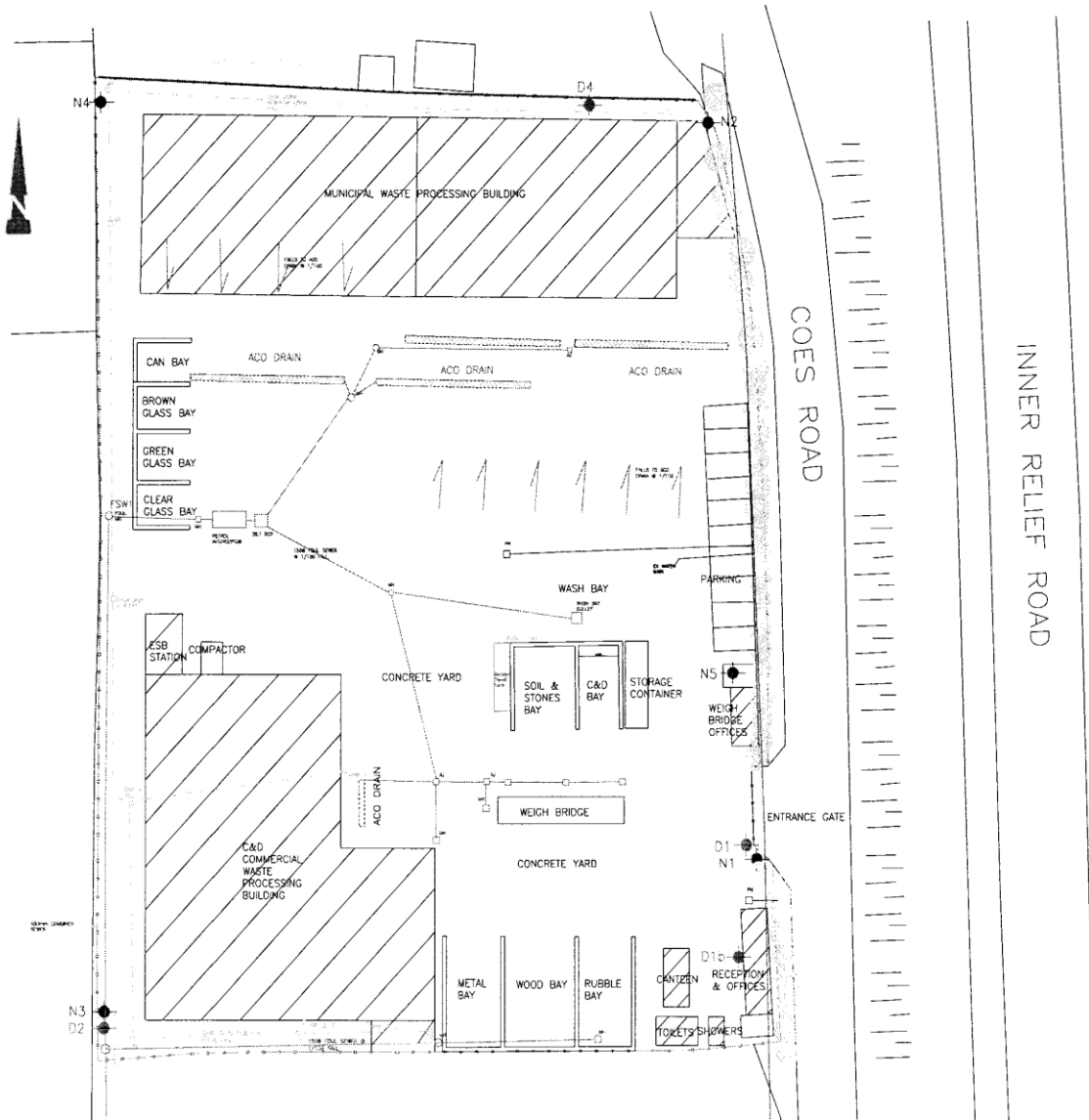
*Figure 2.3 Percentage of Waste Transferred for Disposal/Recovery in 2011*

### **3. EMISSIONS FROM THE FACILITY**

### 3 Emissions from the Facility

Environmental monitoring results for the reporting period are outlined in the following sections. The results of all monitoring have been summarised in the tables below. An interpretation of the results and a location plan of all monitoring points are also presented. There is a high level of compliance with the standards set in the licence.

Figure 3.1 Site Map Outlining Monitoring Locations.



### 3.1 Quarterly Foul Sewer Monitoring Results Summary

Schedule D.4.1 of Waste Licence W0144-01 requires that emissions to sewer be monitored on a quarterly basis. The samples collected are analysed for Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Suspended Solids (SS) and pH.

One foul sewer monitoring point is present on the site. This has been designated as FW1.

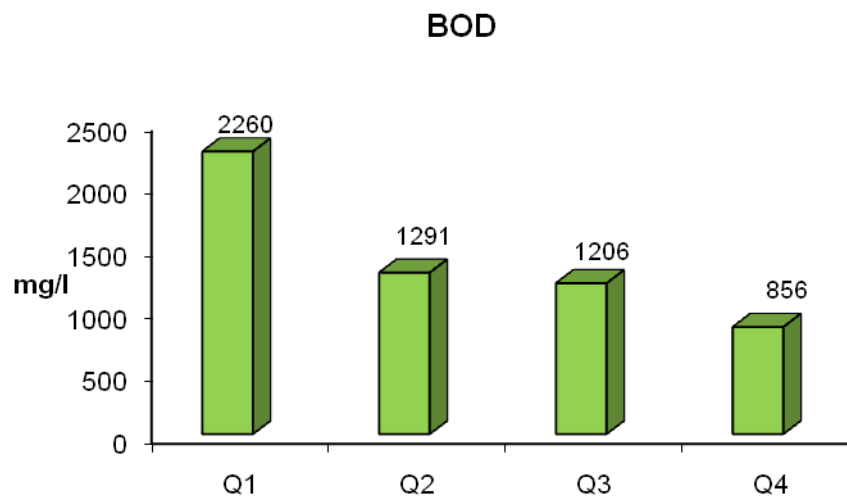
*Table 3.1 Quarterly Foul Sewer Monitoring Results 2011*

Date/Parameter	BOD (mg/l)	COD (mg/l)	Suspended Solids (mg/l)	pH pH Units	Temperature °C
<b>ELV's as per Waste Licence W0144-01</b>	<b>3000</b>	<b>4500</b>	<b>3000</b>	<b>6 - 9</b>	<b>30</b>
<b>Q1</b>	2260	3117	295	6.09	7.1
<b>Q2</b>	1291	3540	1706	6.42	12.6
<b>Q3</b>	1206	2060	1990	7.12	14.5
<b>Q4</b>	856	2297	2568	6.53	14.2

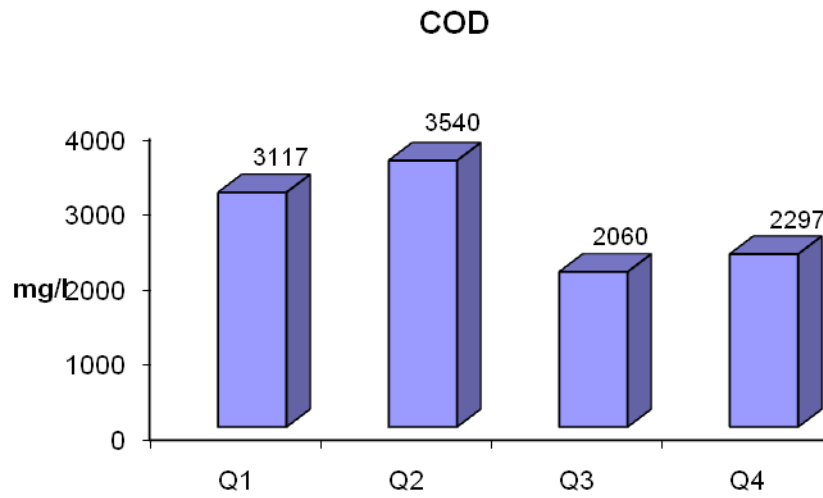
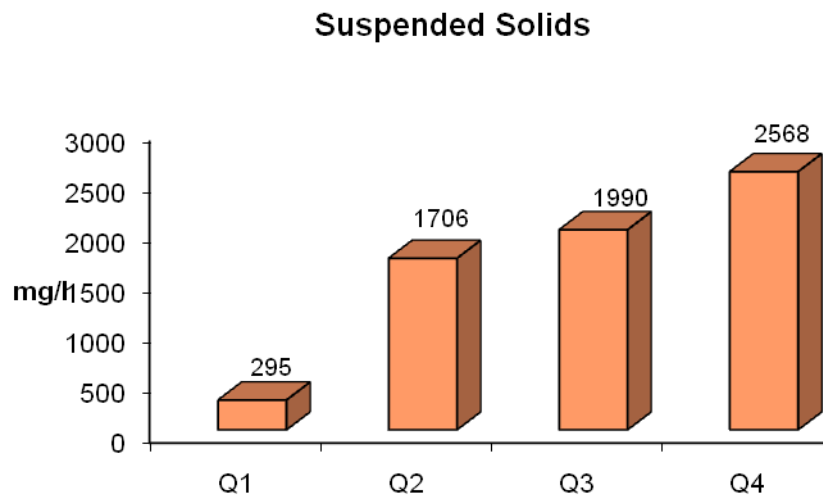
Schedule C.3 of Waste Licence W0144-01 specifies Emission Limit Values (ELV's) for each of the parameters to be analysed. As can be seen from the results above the emissions to foul sewer were compliant for each foul sewer monitoring event in 2011.

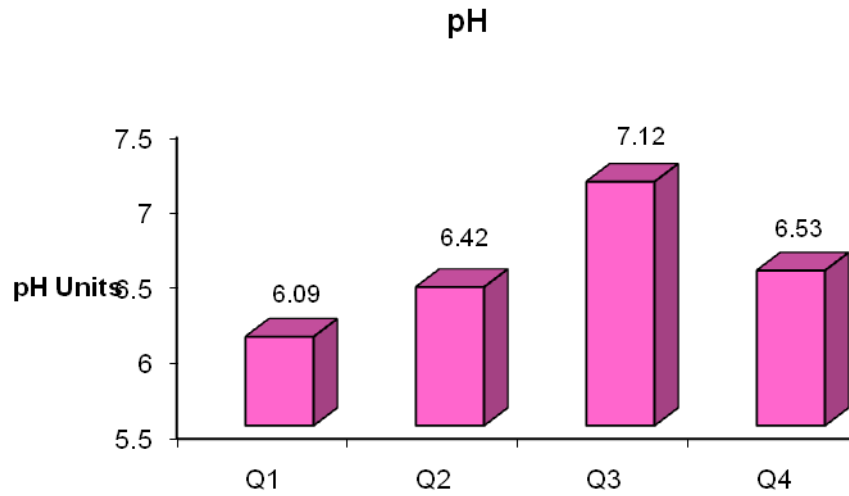
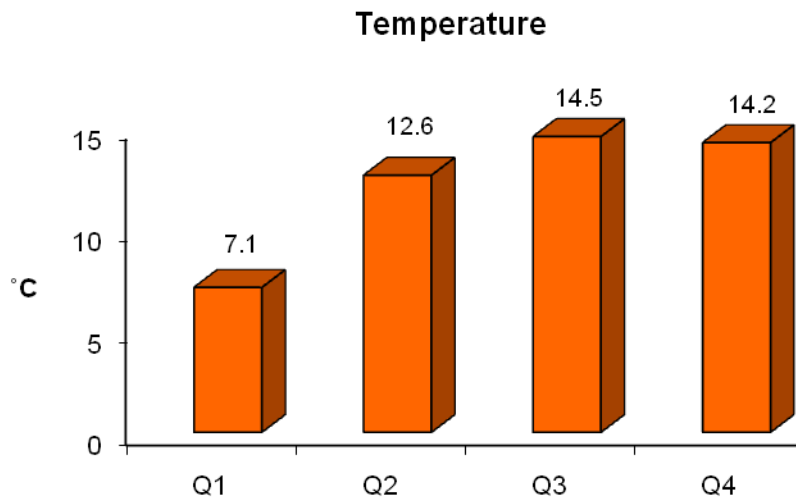
Graphical representations of the results are presented in figures 3.2 to 3.6 below.

*Figure 3.2 Quarterly BOD Monitoring Results 2011*





*Figure 3.3 Quarterly COD Monitoring Results 2011**Figure 3.4 Quarterly Suspended Solids Monitoring Results 2011*

*Figure 3.5 Quarterly pH Monitoring Results 2011**Figure 3.6 Quarterly Temperature Monitoring Results 2011*

### 3.2 Dust Monitoring Results Summary

In compliance with Schedule D.2 of Waste Licence W0144-01, three dust monitoring surveys were carried out during 2011, two between the months of May and September, to determine the impact of site operations on the surrounding environment.

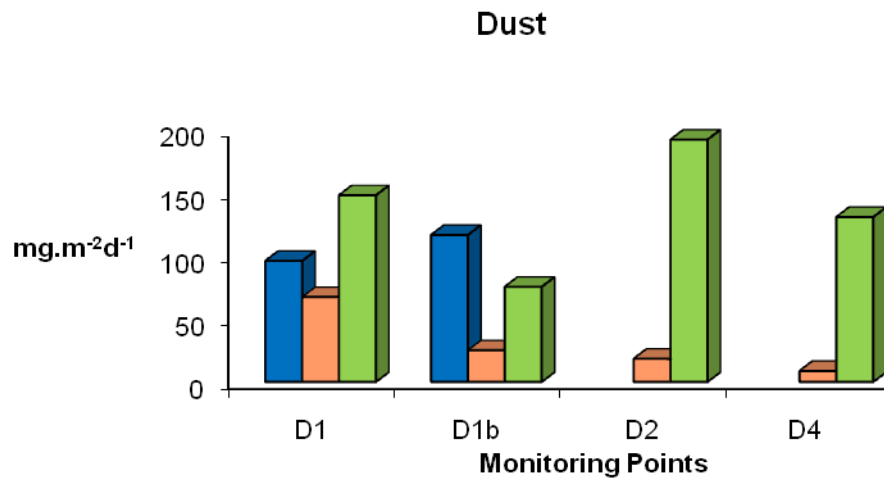
Schedule D.1 requires three dust monitoring locations, D1, D2 and D4 to be surveyed. Results of the dust monitoring events are presented in Table 3.2 below.

Table 3.2 Dust Monitoring Results Summary 2011

Location/Date	ELV (mg/m <sup>2</sup> /day)	May	July	August
<b>D1</b>	<b>350</b>	96.1	67.4	148.2
<b>D1b</b>	<b>350</b>	116.7	25.1	75.5
<b>D2</b>	<b>350</b>		18.4	192.4
<b>D4</b>	<b>350</b>		8.7	130.9

All monitoring points sampled in 2011 were compliant with the emissions limits set out in Schedule C.2 Ambient Monitoring of W0144-01.

Figure 3.7 Dust Monitoring Results 2011



### 3.3 Noise Monitoring Results Survey

As required in Schedule D.3.1. of Waste Licence W0144-01, noise monitoring is required to be carried out on an annual basis at three noise monitoring locations on site, N3, N4 and a Noise Sensitive Location (NSL). An NSL, as per the explanation in Waste Licence W0144-01 refers to:

*“a dwelling house, hotel or hostel, health building, educational establishment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels”*

Due to the industrial nature of the area, this type of receptor does not exist. Instead of monitoring at a noise sensitive location, monitoring was therefore carried out at a boundary position outside the Oxigen Environmental site located between Oxigen and the adjacent site “Dundalk Building Supplies Ltd.”. This location is identified as N1.

The day time noise monitoring survey for 2011 was carried out on the 21<sup>st</sup> of November. Night time noise monitoring was conducted on the 21<sup>st</sup> of November.

Results of the Day-time and Night-time noise surveys are presented in Tables 3.3 and 3.4 below.

*Table 3.3 Day Time Noise Monitoring Results 2011*

<b>Location</b>	<b>ELV as per Waste Licence W0144-01 L<sub>Aeq</sub> (30 mins) dB(A)</b>	<b>L<sub>Aeq</sub> dB(A)</b>	<b>L<sub>A10</sub> dB(A)</b>	<b>L<sub>A90</sub> dB(A)</b>
<b>N1</b>	55	61.1	62	52.1
<b>N3</b>	55	52.3	54.1	47.9
<b>N4</b>	55	58.4	60.7	50.7

*Table 3.4 Night Time Noise Monitoring Results 2011*

<b>Location</b>	<b>ELV as per Waste Licence W0144-01 L<sub>Aeq</sub> (30 mins) dB(A)</b>	<b>L<sub>Aeq</sub> dB(A)</b>	<b>L<sub>A10</sub> dB(A)</b>	<b>L<sub>A90</sub> dB(A)</b>
<b>N1</b>	45	55.4	56.3	51.9
<b>N3</b>	45	43.2	44.2	37.9
<b>N4</b>	45	43.9	44.9	38.9

Oxigen Environmental Limited is located in an industrial area, with commercial premises on either side of the site. The site is rectangular in shape and the front of the yard runs parallel to the Dundalk by-pass. The access road to the industrial estate consists of a slip

road from the by-pass, which is located approximately 20 meters from the front entrance to the premises.

Due to the industrial nature of the area, a very high volume of traffic uses both the Dundalk by-pass and the access road to the industrial estate. During the course of the survey, it was noted that as well as traffic associated with Oxigen, there was a constant volume of traffic on the access road associated with the other businesses in the industrial estate. It was also noted that wind speed and the tipping of one glass skip during the course of the monitoring effected overall readings.

The Emission Limit Values specified in Waste License W0144-01, Schedule C.1 were 55 dB (A) for daytime and 45 dB (A) for night-time activities. These limits were exceeded at a number of the monitoring locations during the 2011 annual noise survey. As can be seen from the results presented in the tables above, traffic on the Coes Road, wind speed and activities on neighbouring sites contributed to the overall noise levels.

There is no significant tonal content associated with the operations at the facility.

Graphical representations of the results are presented in Figures 3.8 and 3.9 below.

*Figure 3.8 Day Time Noise Monitoring Results 2011*

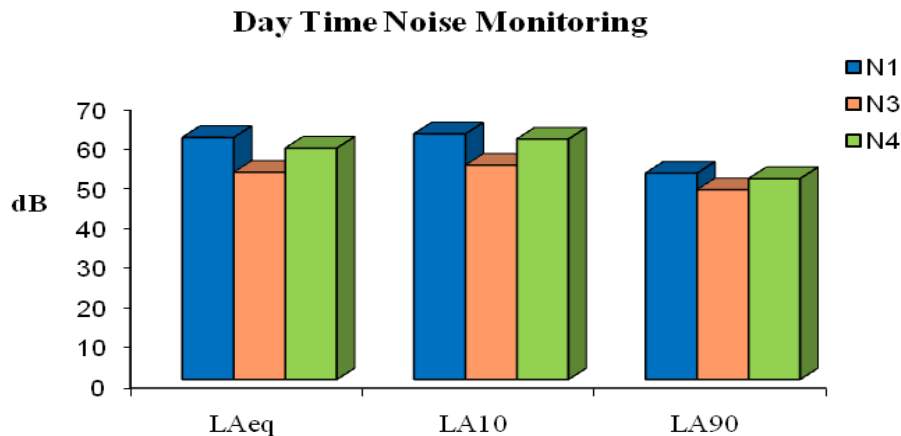
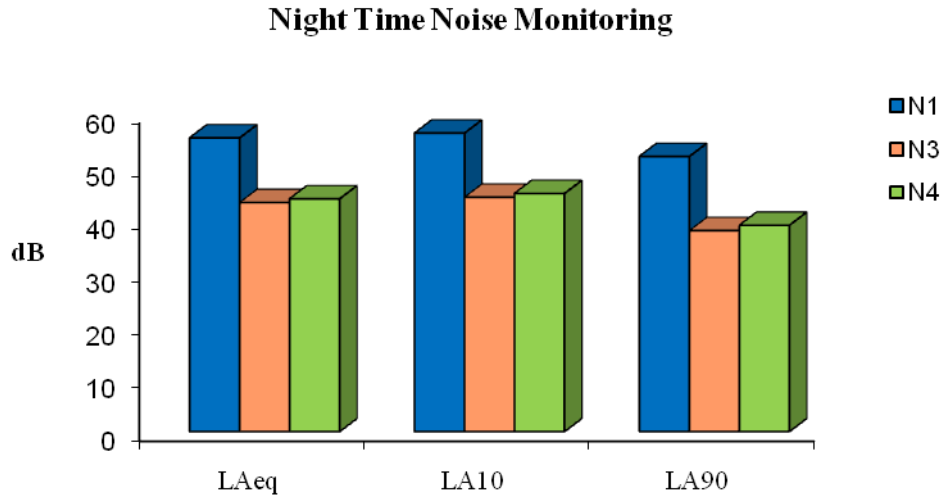


Figure 3.9 Night Time Noise Monitoring Results 2011



#### **4. RESOURCE AND ENERGY CONSUMPTION SUMMARY**

#### 4. Resource and Energy Consumption Summary

Oxigen Environmental use machine gas oil, electricity and water in the operation at the facility. It is a dry process and therefore large amounts of water are not used.

Gasoil and electricity are the two forms of energy used on site. This energy is used to power machinery used in the bulking up of waste prior to transfer offsite and to illuminate the working area. Electricity is also used in the day to day staff activity for example lighting in common areas, water heating in canteen.

*Table 4.1 Summary table of resource consumption for the reporting period*

Site Energy Usage 2011	Quantity	Units
Gasoil	63,024	Litres
Electricity	106,798	kWh

##### 4.1 Diesel Consumption

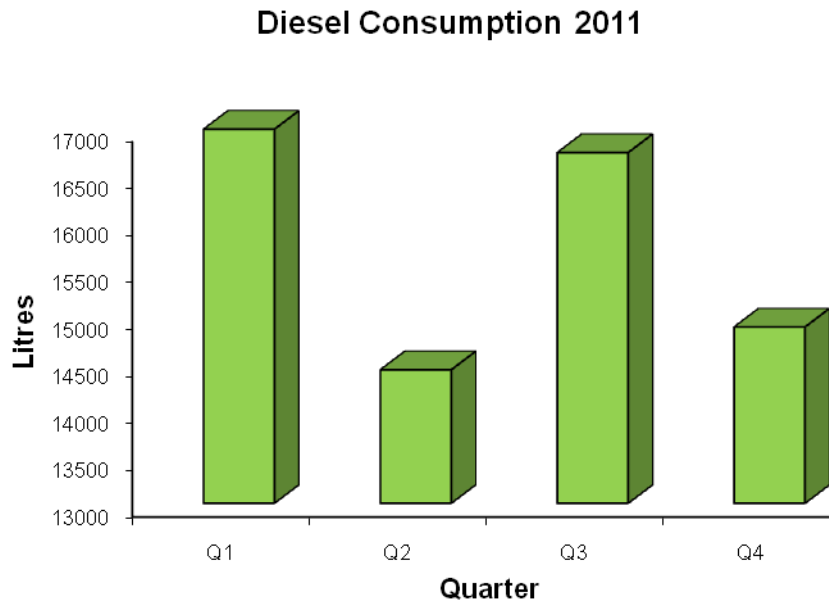
In August 2010 a 55,000L diesel tank incorporating a 40,000L Diesel tank, 15,000L Gasoil Tank and a pump station was installed into Coes Road. This tank works on a fob key system with an individual fob assigned to each vehicle or machine. To activate the pump station, the vehicle mileage must be entered and the litres of fuel consumed by each machine are recorded. 2011 saw an increase in fuel consumption of nearly 25% from 2010. The reason for this increase can be contributed to several factors including:

- More accurate recording of diesel consumption;
- The regular use of the Terminator Shredding Machine for the trialling of MSW mechanical pre-treatment throughout the year;
- The use of additional hired plant machinery, which was required to replace several machines which incurred a lot of down time during the year.
- The use of older machinery on-site which are not energy efficient.

The Objectives & Targets for 2011 aimed at reducing the overall diesel consumption onsite. While new and various methods were undertaken in 2011 to reduce diesel consumption at the facility and across the whole Oxigen fleet, including the introduction of a tyre pressure and maintenance check programme, educating drivers on Eco Driving techniques, unforeseen circumstances such as the need to use additional machinery (two teleporters were on-hire for several months), resulted in a noticeable increase in consumption rates throughout the year. For 2012 Oxigen will further investigate the possibility of the using more energy efficient plant and machinery and also review if any current operations can be changed so as to reduce energy consumption rate onsite.

A graphical representation of the diesel consumption is outlined in figure 4.1 below.



*Figure 4.1 Graphical Representation of Diesel Consumption during the reporting period*

## 4.2 Electricity Consumption

*Table 4.2 Summary Table of Electricity Usage during the reporting period*

2011	Day Units kWh	Night Units kWh
<b>Total</b>	82,810	23,980

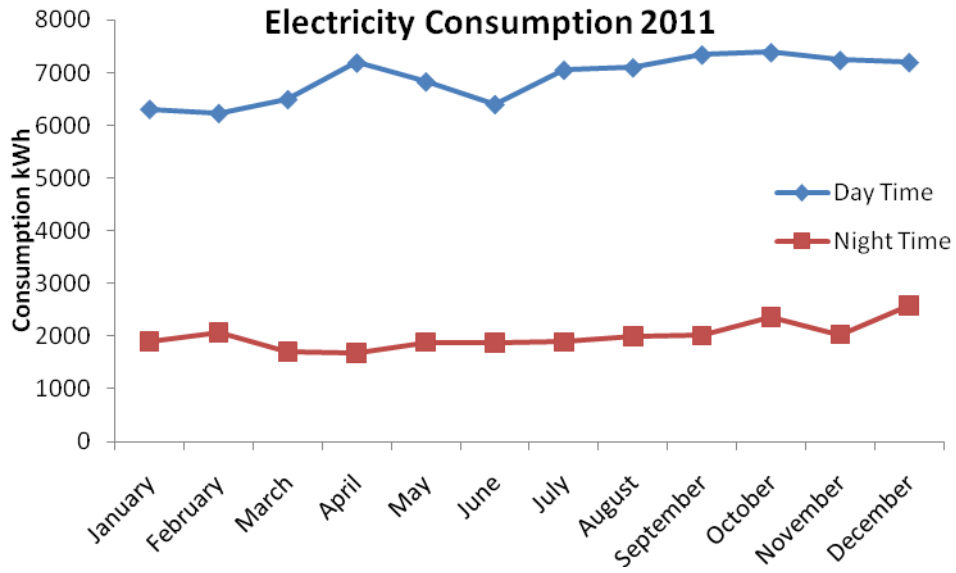
Day and night time electricity usage for 2011 is noticeably lower than the figure reported for 2010. These figures are based on estimate readings provided in bills from the electricity supplier.

Factors contributing to the decreased electricity usage in 2011 include:

- The Installation of a more efficient odour control system.
- The reduced operating hours at the facility.
- The decreased heating demand during the winter months on account of the relatively mild weather.

A graphical representation of the electricity consumption is outlined in figure 4.2 below.

Figure 4.2 Graphical Representation of Electricity Usage during the reporting period



## **5. DEVELOPMENT/INFRASTRUCTURAL WORKS FOR 2011/2012**

### **5.1 2011 Development Works**

Development works in 2011 included the construction of a lean two extension to the Municipal Waste Processing Building (MWPB). The extension created additional space in front of doors 7 and 8 of the MWPB, thereby allowing for the doors to remain fully closed while waste processing is ongoing within the building.

The odour misting system was upgraded in June 2011. The upgrade included the installation of a new pumping system and stainless steel piping and nozzles along both sides of the MWPB. Additional sprayers were also fitted inside doors 5 and 6 which further increased the circulation of odour neutraliser within the building.

Further to work carried out in 2010, improvement works to the hardstand area of the yard were carried in January, February and December 2011, with the resurfacing of areas of poor quality concrete.

A skip gantry was constructed in September 2011. This allows for all skip drivers to remove the skip nets and covers in a safe manner without having to climb onto the truck or skip.

Storage bays for materials such as glass and wood were rearranged in September 2011. These works included removing the previous glass storage bays which facilitated for a trailer parking area and increased driving space around the yard.

### **5.2 2012 Development Works**

It is proposed to carry out further improvement works to the MWPB. These works will include the upgrade of some of the existing doors and the sealing of other access points within the building. It is expected that these works will be completed by the end of May 2012.

The area at the back of the commercial storage shed is to be cleared in 2012. This area is currently unused and Oxigen aim to surface this area which can then be used for a wheelie bin storage area.

No other major developmental works are planned or proposed for 2012 at this stage.

## **6. OBJECTIVES & TARGETS**

## 6.1 Objectives & Targets for 2011

Table 6.1 List of Environmental Objectives and Targets for 2011 as contained in AER

6.3 Objectives & Targets for 2011				
Objective	Description	Person Responsible	Target	Completion Date
1.	Reduce Energy Consumption	Facility Manager Purchasing Manager Project Manager	1.1 Reduce diesel consumption by 5% by end of 2011.	31.12.11
			1.2 Establish current electricity usage on-site with in conjunction with SEAI	31.03.11
			1.3 Introduce an energy saving plan based on current on-site electricity consumption and SEAI findings.	01.04.11
			1.4 Reduce energy consumption on a phased basis over the next 5 years.	31.12.15
2.	Reduce Waste Produced and divert material from landfill	Operations Director Facility Manager  Purchasing Manager	2.1 Increase percentage recovery rates to reduce the level of material sent to landfill	31.12.11
			2.2 Introduce tyre pressure and maintenance training programme to increase life of tyres and reduce the level of waste tyres produced as a result of operations.	01.03.11
3.	Training	Purchasing Manager  Purchasing Manager	3.1 Train drivers on how to monitor and manage tyre pressure and tyre maintenance to increase life of tyre and reduce diesel consumption of the vehicle in conjunction with Bridgestone Ireland.	01.03.11
			3.2 Educate drivers, mechanics and site managers on Eco Driving Skills in	01.06.11

		Compliance Officer	partnership with SEAI to optimise diesel mpg; tyre life; life of the truck and reduce CO <sub>2</sub> emissions.	As Required
		Compliance Officer	3.3 Provide induction training to any new staff on EPA Site Licence & relevant environmental procedures in line with the identification of training needs schedule.	As Required
		Compliance Officer	3.4 Provide staff with training on any new environmental procedures developed	As Required
4.	Odour Control	Operations Director Facility Manager Compliance Officer	4.1 Investigate current odour control fogging systems on the market that would best suit the operations of Oxigen Environmental to eliminate/control potential odours.	01.04.11
			4.2 Install an enhanced odour control fogging system.	31.05.11
5.	Pest Control	Purchasing Manager Compliance Officer	5.1 Introduce enhanced pest control monitoring service to include bar coding of all bait points and electronic reporting to aid internal monitoring of pest activity and establish on-site trends if any.	20.02.11
6.	Site Upgrades	Facility Manager	6.1 Carry out improvement works to the concrete hardstand area of the facility	31.01.11

## **6.2 Progress Report on the Achievement of 2011 Objectives and Targets**

### **Objective 1 Reduce Energy Consumption**

*Target 1.1 Reduce diesel consumption by 5% by the end of 2011.*

Diesel consumption increased by 20% in 2011 compared with 2010. This increase was a direct result of the additional plant machinery which was onsite throughout much of the year.

*Target 1.2 Establish current electricity usage on-site with in conjunction with SEAI*

*Target 1.3 Introduce an energy saving plan based on current on-site electricity consumption and SEAI findings.*

*Target 1.4 Reduce energy consumption on a phased basis over the next 5 years.*

SEAI visited the site in 2011 in which they carried out a preliminary audit, however due to the planned change in operations in the MWPB, it was advised any energy saving plan would be non applicable once any operational changes took place. As a result Oxigen plan to recommence an energy saving scheme once plant operations are being maintained on a regular basis.

### **Objective 2 Reduce waste produced and divert material away from Landfill**

*Target 2.1 Increase percentage recovery rates to reduce the level of material sent to landfill.*

There was a notable increase in waste diverted from Landfill in 2011. This reduced reliance on Landfill was a result of extensive changes to waste collection and processing arrangements. During 2011 Oxigen introduced a pay by use system for all domestic customers in the North East region. This new collection scheme allows for households to only pay for their waste when collections are made without any standard annual charges. The result of this new arrangement has seen a decrease in the number of waste collections in the region and a further trend towards recycling. Oxigen also continued the role out of their brown service, with areas including Carlingford and Cooley now available for brown bin collections.

In addition to these new collection services, Oxigen upgraded the municipal processing plant onsite, which now produces organic fines suitable for biostabilisation. These changes and the subsequent diversion of organic fines away from landfill is seen as a key long term objective by Oxigen Environmental Ltd and is in line with the National Biodegradable Waste Strategy, the EU Waste Framework directive (2006/12/EC) and the EU Landfill directive (1999/31/EC) and will therefore contribute to reaching both Oxigen Environmental and Government objectives.

*Target 2.2 Introduce tyre pressure and maintenance training programme to increase life of tyres and reduce the level of waste tyres produced as a result of operations.*

A new tyre pressure and maintenance training programme took place with all drivers in March 2011. All aspects to tyre safety and maintenance were covered in the training



module and a companywide tyre maintenance programme commence directly after the training was completed.

### **Objective 3 Training**

*Target 3.1 Train drivers on how to monitor and manage tyre pressure and tyre maintenance to increase life of tyre and reduce diesel consumption of the vehicle in conjunction with Bridgestone Ireland.*

As stated above a new tyre pressure and maintenance training programme took place by Bridgestone Ireland with all Oxigen drivers in March 2011.

*Target 3.2 Educate drivers, mechanics and site managers on Eco Driving Skills in partnership with SEAI to optimise diesel mpg; tyre life; life of the truck and reduce CO<sub>2</sub> emissions.*

*Target 3.3 Provide induction training to any new staff on EPA Site Licence & relevant environmental procedures in line with the identification of training needs schedule.*

Induction training sheets were updated in 2011 to include all site specific Environmental H&S aspects. All new staff were provided with the induction training.

*Target 3.4 Provide staff with training on any new environmental procedures developed*  
An assessment of training needs and requirements was completed taking into account individuals role and responsibilities. Refresher training was provided for staff on an ongoing basis throughout the year on the conditions of Waste Licence W0144-01, Emergency Response Procedure, Chemical Spill Control Procedure, Spill Kit Procedure and nuisance control procedures. New training needs were identified which related to the changes in the Receipt, Processing and Dispatch Procedure.

*Target 3.2 Provide training for any new staff members*

Training was provided to new staff members throughout 2011 which incorporated all relevant Environmental Management System procedures. A training file containing all staff environmental training records is maintained on-site and available for inspection.

### **Objective 4 Odour Control**

*Target 4.1 Investigate current odour control fogging systems on the market that would best suit the operations of Oxigen Environmental to eliminate/control potential odours.*

Numerous odour control systems and designs were investigated prior to the purchase of the new system. Most systems were largely similar with a standard system consisting of a pumping station and tank, pipe networks and nozzle/sprayer mechanism. Despite recommendations from contractors who proposed to upgrade only parts of the old

fogging system, Oxigen decided to install an entirely new heavy duty system with high pressure nozzles and stainless steel piping.

*Target 4.2 Install an enhanced odour control fogging system.*

Odour is identified as the most significant environmental aspect arising from the operations of the Facility in Coes Road. In June 2011, Oxigen upgraded the Odour Neutralising System. These works included the installation of a new pumping station and stainless steel pipe system including new dispersion nozzles. The pipelines and nozzles were positioned along both lengths of the MWPB so as to ensure the system provides the optimum dispersion of odour neutralising liquid within the shed. The absence of blockages in the nozzles and the new pumping system ensures that the correct water pressure is maintained in the piping, and also reduces the risk of leaks occurring in the pipelines. This will result in less, if not totally eliminate, 'down time' of the system.

### **Objective 5 Pest Control**

*Target 5.1 Introduce enhanced pest control monitoring service to include bar coding of all bait points and electronic reporting to aid internal monitoring of pest activity and establish on-site trends if any.*

Eastern Pest Control upgraded their pest monitoring service during 2011. A 'pest on-line' monitoring system was established in April 2011. This system allows for all bait points to be bar coded and scanned. These barcodes are scanned upon inspection recording the amount of bait put into that bait point. The inspection reports outline the controls, level of activity and observations for each site inspection. Records of all site inspection visits carried out by EPC are uploaded on their website and available to view at any time.

### **Objective 6 Site Upgrades**

*Target 6.1 Carry out improvement works to the concrete hardstand area of the facility*

Repair works to the concrete hardstand area of the facility took place in January and December 2011. These works had been scheduled for 2010 but due to unprecedented weather conditions in late 2010 the works were not completed. All concrete areas which were in poor repair were resurfaced in January 2011, ensuring the integrity of the yard surface. Due to the constant heavy traffic within the site, further improvements to the site hardstand were required in December.

<b>6.3 Objectives &amp; Targets for 2012</b>				
<b>Objective</b>	<b>Description</b>	<b>Person Responsible</b>	<b>Target</b>	<b>Completion Date</b>
1.	Odour Control	Operations Director Facility Manager Compliance Officer	1.1 Investigate further odour preventative measures with the aim to reduce the potential for offsite odour to a minimum.	01.05.12
2.	Site Upgrades	Facility Manager	2.1 Clear and concrete area behind commercial shed with a view to creating additional wheelie bin storage area.	01.05.12
3.	Reduce Waste Produced and divert material from landfill	Operations Director Facility Manager	3.1 Increase percentage recovery rates to reduce the level of material sent to landfill. 3.2 Investigate new technologies which could increase recycling rates and provide a feasible and sustainable pathway for reaching zero landfill disposal.	31.12.12
4.	Training	Compliance Officer  Compliance Officer	3.5 Provide induction training to any new staff on EPA Site Licence & relevant environmental procedures in line with the identification of training needs schedule. 3.6 Provide staff with training on any new environmental procedures developed	31.12.12  31.12.12
4.	Reduce Energy Consumption	Facility Manager Purchasing Manager Project Manager	4.1 Reduce energy consumption on a phased basis over the next 5 years. 4.2 Role out new waste collection scheme which will reduce vehicle numbers,	31.12.12

			diesel consumption and the company's Carbon footprint.	
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## **7. OPERATIONAL PROCEDURES DEVELOPED IN 2011**

## 7. Procedures Developed by Oxigen Environmental in 2011

In accordance with the conditions of Licence W0144-01, a review was conducted on the Environmental Management System for the Facility in 2011. In order to improve the Environmental Management System (EMS) and to maintain ISO 14001 Standard Certification, the EMS was amended; existing procedures were updated and new procedures were developed. Notable updates were made to the Odour Monitoring and Control Procedure and the Receipt, Processing and Dispatch of Waste Procedure.

The EMS for the Facility was accredited to ISO 14001 Standard by Certification Europe in August 2009.

Below is a list of all current environmental procedures currently in place at the Facility.

### Environmental Procedures

OXEP 01	Waste Acceptance Procedure
OXEP 02	Receipt, Processing and Dispatch of Waste Procedure
OXEP 03	Procedure for Emptying Water from Bunded Areas
OXEP 04	Procedure for Testing of Bunded Areas
OXEP 05	Procedure for Chemical Control
OXEP 06	Chemical Spill Control Procedure
OXEP 07	Control of Material Safety Data Sheets
OXEP 08	Energy Auditing Procedure
OXEP 09	Dust Monitoring Procedure
OXEP 10	Odour Monitoring and Control Procedure
OXEP 11	Bird Control Procedure
OXEP 12	Fly Control Procedure
OXEP 13	Litter Control Procedure
OXEP 14	Noise Monitoring Procedure
OXEP 15	Vermin Control Procedure
OXEP 16	Yard Sweeping Procedure
OXEP 17	Emergency Response Procedure
OXEP 18	Document Control and Record Management Procedure
OXEP 19	Communications Procedure
OXEP 20	Silt Trap Emptying Procedure

OXEP 21	Complaints/ Non Conformance Handling and Corrective Action Procedure
OXEP 22	Environmental Auditing Procedure
OXEP 23	Management Review Procedure
OXEP 24	Operational Control Procedure
OXEP 25	Foul Water Monitoring Procedure
OXEP 26	Gypsum Acceptance Procedure
OXEP 27	Environmental Training Procedure
OXEP 28	Identification of Applicable Legal and Other Requirements Procedure
OXEP 29	Environmental Monitoring and Measuring Procedure
OXEP 30	Customer Service Communications Procedure
OXEP 31	Trans Frontier Shipments Procedure
OXEP 32	Use of Diesel Tank Procedure

## **8. TANK, DRUM, PIPELINE AND BUND TESTING INSPECTION REPORT**



**8. Tank, Drum, Pipeline and Bund Inspection Report**

Portable bunds are maintained on site for the storage of hydraulic oil, engine oil, waste oil, diesel, coolants and waste chemicals. These bunds have all been certified for integrity by the suppliers for a period of 3 years from the date of purchase. A copy of these certificates are held on file and available for inspection.

All bunds with outdated certificates were tested on site as per EMS Procedure 'OXEP 04 Procedure for Testing of Bunded Areas'. All tests were recorded on EMS Log Sheet 'EP111 Testing of Bunded Area Log Sheet'. These log sheets are kept on file along with original certificates.

A bunded diesel tank was installed on-site in August 2010. A copy of the Certificate of Integrity for this tank is maintained on-site.

## **9. REPORTED INCIDENTS**

## **9. Reported Incidents**

No incidents took place at the Facility during 2011.

All monitoring carried out by BHP Laboratories on behalf of the Licensee were in compliance with the limits set out in Schedule C of the Licence.

An Incidents File is maintained on-site at all times.

## **10. COMPLAINTS SUMMARY**

**10. Complaints Summary**

23 complaints were received during the reporting period directly from individuals and also from the Agency Office. All complaints received were related to odours emanating from the facility. Corrective actions relating to odour nuisances are documented in section 11.1.

A Complaints Log is completed for each complaint received. A Complaints Register is maintained on-site at all times and is available for inspection.

## **11. REVIEW OF NUISANCE CONTROLS**

## 11. Review of Nuisance Controls

### 11.1 Odour

Odour remains the most significant environmental aspect onsite and is reflected in the number of control measures to prevent potential odour nuisances. A new odour misting system has installed in June 2011, which was a substantial upgrade to the previous system. New pumps and pipes were fitted along both sides of the MWPB with additional nozzles and piping strategically placed to provide the maximum odour neutralizing effect. The construction of a lean two extension commenced in September, which allows for a larger turning circle within the MWPB, and will ensure that all doors will remain closed during processing. As the potential for odour increases with the volume of municipal waste onsite, preventing the build up of waste stockpiles is critical in mitigating against odour problems. To mitigate against this problem, extensive upgrades to the two municipal waste packers were carried out in 2011 which has reduced the potential downtime and ensures a quick turnaround of municipal wastes. In addition to maintaining stockpiles to a minimum, cleaning of the floors, plant and drains takes place on a daily basis and acts to prevent any residual odours emanating from the facility.

### 11.2 Rodents

Eastern Pest Control carried out 9 visits during 2011 to monitor the pest nuisance on site. Records of all site inspection visits carried out by EPC are kept on-file and uploaded on the company website. The 'pest on-line' monitoring system was established in April 2011. This system allows for all bait points to be bar coded and scanned. These barcodes are scanned upon inspection recording the amount of bait put into that bait point. The inspection reports outline the controls, level of activity and observations for each site inspection.

### 11.3 Flies

Fly nuisance was minimal in 2011 due to the relevantly cool summer, however fly spraying of the facility sheds and offices was carried out by Eastern Pest Control as a precautionary measure to eradicate any possible fly nuisance.

### 11.4 Birds

A number of seagulls were noted on-site during the months of January, November and December. Efforts were made to prevent the attraction of birds to the facility by reducing birds access to food sources on-site by keeping shed doors closed, cleaning food spills and ensuring the food bin was stored indoors at all times. In addition to this a kite hawk and bird siren was used on-site as trial bird repellent. The bird siren was used a peak pressure times as an additional deterrent. The siren was found to have the most effective immediate result, however similar to the Kite hawk it had to be used infrequently in order to prevent the birds getting accustomed to it. The extension to the MWPB also proved to be a significant deterrent to gulls and other birds. The lack of physical and visible access to the municipal waste resulted in significantly reduced numbers of birds onsite during the winter months. Findings at the end of the year were that, due to the close proximity of the facility to the local Port, there were occasions of moderate bird numbers onsite,

however the use of the kite hawk and bird siren and combined with the other prevention measures were effective deterrents.

#### 11.5 Dust

There were no issues with dust in 2011 as reflected in the monitoring results. Under the site cleaning schedule, the entire yard is power washed on a daily basis which acts to prevent possible dust emissions as well as clean the yard floor. In dry conditions additional spraying is carried as required.

In summary there are procedures in place to deal with any such nuisances in the facility. Routine site inspections are carried out by the facility manager or the compliance officer on site, which will highlight any nuisances on site, such as litter, pests, noise, birds, flies, odour or dust. Should any such nuisances be recorded, then appropriate measures are undertaken.



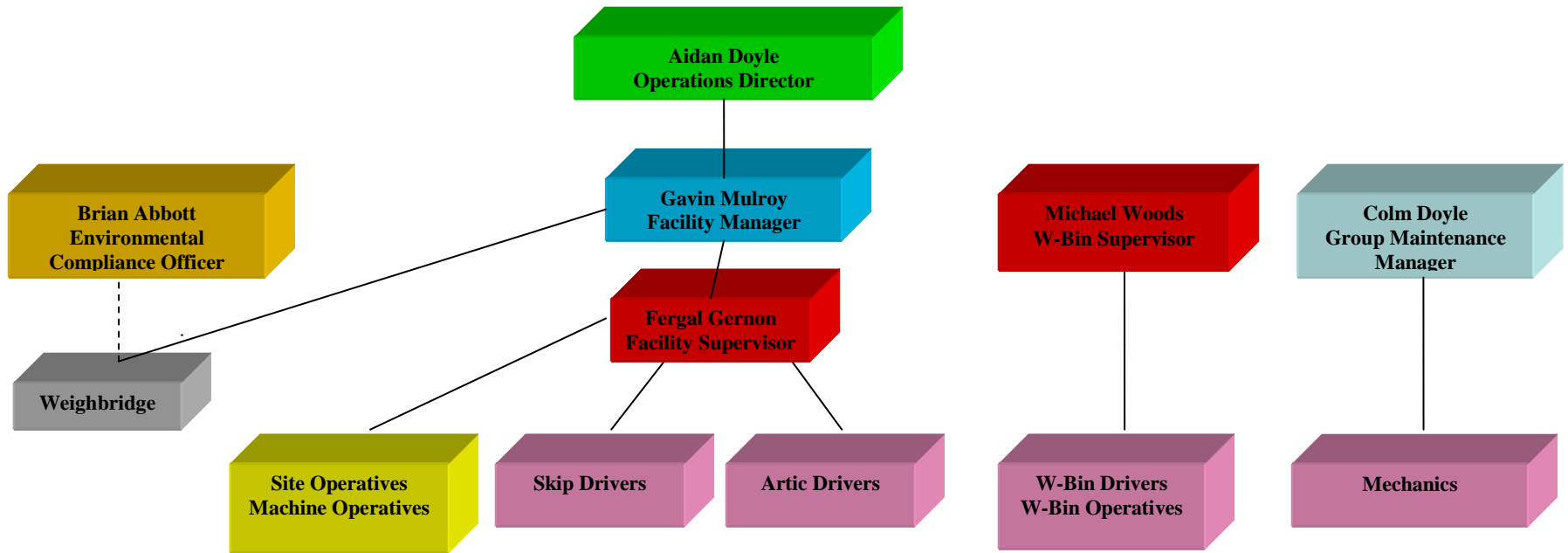
## **12. FINANCIAL PROVISION**

## **12. Financial Provision**

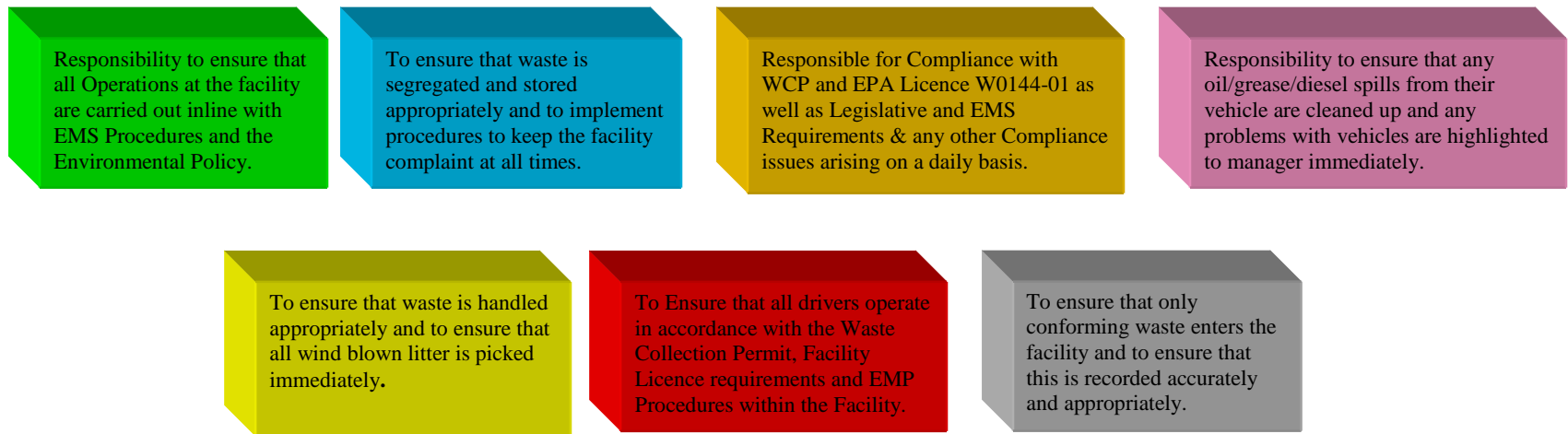
An Environmental Liabilities Risk Assessment was forwarded to the Agency in March 2003. Details of costs for the Financial Provision for Closure, Restoration and Aftercare were included as part of this report. Bambi Bins & Wheel Bin Services proposed to put a Bank Bond in place to cover such costs once the figures had been accepted by the Agency.

At present Oxigen Environmental have sufficient turnover and company assets to offset environmental liabilities in the event that they may be incurred during the course of the Facility Operations or in the event that the facility is closed. This will include the covering of costs associated with abatement installation, control & monitoring; closure & remediation of the site; clean-up following a plausible accident/incident and/or long-term aftercare for residual environmental liabilities. Oxigen Environmental has Pollution Cover of up to €13M with Brit Insurance, Policy No: F10028792E.

### **13. MANAGEMENT STRUCTURE**



**Key: Environmental Responsibilities**



## **14. PROGRAMME FOR PUBLIC INFORMATION**

#### **14. Programme for Public Information**

A program for public information is in place at the facility. During the reporting period there were no requests from the public to inspect any of the records and files listed in the submission.

The lists of documents available for inspection in the Communication Folder are as follows:

- Waste Licence W0144-01
- Environmental Policy
- Unacceptable Waste List
- Pest/Vermin Control Records
- Waste Licences/Permits of Facilities
- Environmental Monitoring Results for the current year
- Complaints Register

Members of the public who wish to inspect these files may do so at any reasonable time by making an appointment either with the Facility Manager or Compliance Officer at the telephone number posted on the main facility entrance sign erected in accordance with Condition 3.3.

**APPENDIX 1**  
**PRTR Emissions Data**



| PRTR# : W0144 | Facility Name : Oxigen Environmental Limited | Filename :  
Copy of W0144\_2011(1).xls | Return Year : 2011 |

07/03/2012 14:20

[Guidance to completing the PRTR workbook](#)

# AER Returns Workbook

Version 1.1.13

<b>REFERENCE YEAR</b>	2011
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## 1. FACILITY IDENTIFICATION

Parent Company Name	Oxigen Environmental Limited
Facility Name	Oxigen Environmental Limited
PRTR Identification Number	W0144
Licence Number	W0144-01

### Waste or IPPC Classes of Activity

No.	class_name
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	Coes Road
Address 2	Dundalk
Address 3	Co Louth
Address 4	
	Louth
Country	Ireland
Coordinates of Location	-6.38396 54.0015
River Basin District	GBNIIENB
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
<b>AER Returns Contact Name</b>	Brian Abbott
<b>AER Returns Contact Email Address</b>	babbott@oxigen.ie
<b>AER Returns Contact Position</b>	Regional Environmental Compliance Officer
<b>AER Returns Contact Telephone Number</b>	042-9335000
<b>AER Returns Contact Mobile Phone Number</b>	086 0485319
<b>AER Returns Contact Fax Number</b>	042 9354175
<b>Production Volume</b>	0.0
<b>Production Volume Units</b>	
<b>Number of Installations</b>	0
<b>Number of Operating Hours in Year</b>	0
<b>Number of Employees</b>	0
<b>User Feedback/Comments</b>	
<b>Web Address</b>	

## 2. PRTR CLASS ACTIVITIES

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

## 3. SOLVENTS REGULATIONS (S.I. No. 543 of 2002)

Is it applicable?	
Have you been granted an exemption ?	
If applicable which activity class applies (as per Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being used ?	



5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

| PRTR# : W0144 | Facility Name : Oxigen Environmental Limited | Filename : Copy of W0144\_2011(1).xls | Return Year : 2011 |

07/03/2012 14:20

Please enter all quantities on this sheet in Tonnes

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility	Haz Waste : Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used		Non	Non Haz Waste: Address of Recover/Disposer	ONLY		
Within the Country	02 02 03	No	645.47	materials unsuitable for consumption or processing	R1	M	Weighed	Offsite in Ireland	College Proteins,P0037-03		...,Nobber,Co. Meath,Ireland		
Within the Country	08 03 18	No	27.84	waste printing toner other than those mentioned in 08 03 17	D5	M	Weighed	Offsite in Ireland	Scotch Corner Landfill,W0020-02		.,Annyalla,Castleblaney,Co. Monaghan,Ireland		
Within the Country	13 05 08	Yes	8.58	mixtures of wastes from grit chambers and oil/water separators	R13	M	Weighed	Offsite in Ireland	Riita Environmental Ltd,W0192-03		Park,Rathcoole,Co.Dublin,Ireland	Riita Environmental Ltd,W0192-03,Block 402,Greenogue Business Park,Rathcoole,Co.Dublin,Ireland	Block 402,Greenogue Business Park,Rathcoole,Co.Dublin,Ireland
Within the Country	15 01 01	No	1594.71	paper and cardboard packaging	R3	M	Weighed	Offsite in Ireland	Oxigen Environmental Ltd,W0208-01		Lower,Clondalkin,Dublin,Ireland		
Within the Country	15 01 01	No	111.0	paper and cardboard packaging	R3	M	Weighed	Offsite in Ireland	Nurendale t/a Panda,WPR-021-02		.,Ballymount Road,Walkinstown,Dublin 12,Ireland		
Within the Country	15 01 02	No	43.34	plastic packaging	R3	M	Weighed	Offsite in Ireland	Retch Processing Ltd,WFP-CN-10-0004-01		.,IDA Business Park,Cootehill,Co.Cavan,Ireland		
Within the Country	15 01 03	No	12.76	wooden packaging	R3	M	Weighed	Offsite in Ireland	Retch Processing Ltd,WFP-CN-10-0004-01		.,IDA Business Park,Cootehill,Co.Cavan,Ireland		
Within the Country	15 01 03	No	14.14	wooden packaging	R3	M	Weighed	Offsite in Ireland	Oxigen Environmental Ltd,W0208-01		Lower,Clondalkin,Dublin,Ireland		
Within the Country	15 01 03	No	34.32	wooden packaging	R3	M	Weighed	Offsite in Ireland	Various Pallet Suppliers,N/A		.....,Ireland Unit 4 Oberstown Industrial Park,Carragh Road,Naas,Co.Kildare,Ireland		
Within the Country	15 01 07	No	443.56	glass packaging	R5	M	Weighed	Offsite in Ireland	Rehab Glassco,WFP-KE-08-0957-01		.,Ballymount Avenue,Ballymount,Dublin 22,Ireland		
Within the Country	15 01 07	No	30.08	glass packaging	R5	M	Weighed	Offsite in Ireland	Rehab Glassco,WPR004		.,Drumiskin,Dundalk,Co.Louth,Ireland		
Within the Country	16 01 03	No	4.32	end-of-life tyres mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	R3	M	Weighed	Offsite in Ireland	Crumb Rubber Ireland Ltd,W0207/01		.,Whiteriver,Dunleer,Co.Louth,Ireland		
Within the Country	17 01 07	No	25.72	01 06	R10	M	Weighed	Offsite in Ireland	Whiteriver Landfill,W060-03		Lower,Clondalkin,Dublin,Ireland		
Within the Country	17 02 01	No	7.54	wood	R3	M	Weighed	Offsite in Ireland	Oxigen Environmental Ltd,W0208-01		Beauparc Business Park,.,Navan,Co.Meath,Ireland		
Within the Country	17 02 01	No	149.42	wood	R3	M	Weighed	Offsite in Ireland	Nurendale t/a Panda,W0140-02		Lower,Clondalkin,Dublin,Ireland		
Within the Country	17 05 04	No	26.6	soil and stones other than those mentioned in 17 05 03	R13	M	Weighed	Offsite in Ireland	Oxigen Environmental Ltd,W0208-01		Lower,Clondalkin,Dublin,Ireland		
Within the Country	17 05 04	No	273.2	soil and stones other than those mentioned in 17 05 03	R10	M	Weighed	Offsite in Ireland	Various Farmers,N/A		.....Co.Louth,Ireland		
Within the Country	17 05 04	No	147.74	soil and stones other than those mentioned in 17 05 03	R10	M	Weighed	Offsite in Ireland	Whiteriver Landfill,W060-03		.,Whiteriver,Dunleer,Co.Louth,Ireland		

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility	Haz Waste : Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility	Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used							
Within the Country	17 09 04	No	7881.16	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	R12	M	Weighed	Offsite in Ireland	Oxigen Environmental Ltd,W0208-01		Merrywell Industrial Estate,Ballymount Road Lower,Clondalkin,Dublin,Ireland			
Within the Country	20 03 07	No	47.94	bulky waste other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R12	M	Weighed	Offsite in Ireland	Oxigen Environmental Ltd,W0208-01		Merrywell Industrial Estate,Ballymount Road Lower,Clondalkin,Dublin,Ireland			
Within the Country	19 12 12	No	1469.75		R13	M	Weighed	Offsite in Ireland	Oxigen Environmental Ltd,W0152-03		,Robinhood Road,Clondalkin,Dublin 22,Ireland			
Within the Country	20 01 08	No	500.62	biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	Padraig Thorntons Waste Disposal Ltd,W0195-01		Composting,..Kells,Co.Meath ,Ireland			
Within the Country	20 01 08	No	54.28	biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	O'Tooles Composting Ltd,WP 01/07		,Ballinrane,Fenagh,Co.Carlow,Ireland			
Within the Country	20 01 39	No	41.5	plastics	R3	M	Weighed	Offsite in Ireland	Retech Processing Ltd,WFP-CN-10-0004-01		Park,Cootehill,Co.Cavan,Ireland			
Within the Country	20 01 40	No	244.76	metals	R4	M	Weighed	Offsite in Ireland	Clearway Disposal Ltd,LN/05/02/A		,East Twin Road,Belfast BT39EN,Co.Antrim,Ireland			
Within the Country	20 01 40	No	133.02	metals	R4	M	Weighed	Offsite in Ireland	Multi-Metals,WFP-WW-09-0014-01		Murrough,Wicklow,Co.Wicklow,Ireland			
Within the Country	20 01 40	No	1.04	metals	R13	M	Weighed	Offsite in Ireland	Retech Processing Ltd,WFP-CN-10-0004-01		Park,Cootehill,Co.Cavan,Ireland			
Within the Country	20 03 01	No	57.54	mixed municipal waste	R12	M	Weighed	Offsite in Ireland	Oxigen Environmental Ltd,W0208-01		Merrywell Industrial Estate,Ballymount Road Lower,Clondalkin,Dublin,Ireland			
Within the Country	20 03 01	No	542.34	mixed municipal waste	R12	M	Weighed	Offsite in Ireland	Oxigen Environmental Ltd,W0208-01		Merrywell Industrial Estate,Ballymount Road Lower,Clondalkin,Dublin,Ireland			
Within the Country	20 03 01	No	14689.49	mixed municipal waste	R12	M	Weighed	Offsite in Ireland	Re-Gen Waste,LN 22/25		BT356JQ,Ireland			
Within the Country	20 03 01	No	1767.3	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Whiteriver Landfill,W060-03		,Whiteriver,Dunleer,Co.Louth,Ireland			
Within the Country	20 03 01	No	1468.06	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Bord na Mona Drehid Waste Management Facility,W0203-03		,Drehid,Carbury,Co.Kildare,Ireland			
Within the Country	20 03 01	No	2710.42	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Derryclure Landfill,W029-03		Derryclure,Killeigh Road,Tullamore,Co.Offaly,Ireland			
Within the Country	20 03 01	No	958.46	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Oxigen Environmental Ltd,W0152-03		Road,Clondalkin,Dublin 22,Ireland			
Within the Country	20 03 01	No	7592.6	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Scotch Corner Landfill,W0020-02		,Annyalla,Castleblaney,Co.Monaghan,Ireland			
Within the Country	20 03 01	No	4080.28	mixed municipal waste	D10	M	Weighed	Offsite in Ireland	Indaver Ireland,W0167-02		Carranstown,..Duleek,Co.Meath,Ireland			
Within the Country	20 01 11	No	1.8	textiles	R3	M	Weighed	Offsite in Ireland	Textile Recycling Ltd,.		,Greenogue Industrial Park,Rathcoole,Dublin 24,Ireland			

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

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility Non- Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non-Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					

[Link to previous years waste data](#)

[Link to previous years waste summary data & percentage change](#)

4.3 RELEASES TO WASTEWATER OR SEWER

[Link to previous years emissions data](#)

| PRTR# : W0144 | Facility Name : Oxygen Environmental Limited | Filename : Copy of W0144\_2011( | 07/03/2012 14:22

**SECTION A : PRTR POLLUTANTS**

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs				
POLLUTANT		METHOD			QUANTITY				
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
76	Total organic carbon (TOC) (as total C or COD/3)	M	ALT	APHA-5220-D		1009.62	1009.62	0.0	0.0

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

**SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)**

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs				
POLLUTANT		METHOD			QUANTITY				
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
303	BOD	M	ALT	APHA-5210-B		1543.58	1543.58	0.0	0.0
306	COD	M	ALT	APHA-5220-D		3028.85	3028.85	0.0	0.0
240	Suspended Solids	M	ALT	APHA-2540-B		1803.73	1803.73	0.0	0.0

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

4.1 RELEASES TO AIR

[Link to previous years emissions data](#)

| PRTR# : W0144 | Facility Name : Oxygen Environmental Limited | Filename : Copy of W0144\_2011(1).xls | Return Year : 2011 |

07/03/2012 14:22

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

RELEASERS TO AIR		METHOD				QUANTITY					
POLLUTANT		Method Used				Emission Point 1					
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	Emission Point 3	Emission Point 4	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
210	Dust	M	ALT	Bergerhoff Gauges	186.45	129.98	189.14	125.26	630.83	0.0	0.0

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

Additional Data Requested from Landfill operators

For the purposes of the National Inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methane) flared or utilised on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under T(total) KG/yr for Section A: Sector specific PRTR pollutants above. Please complete the table below:

Landfill:

Oxygen Environmental Limited

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

	T (Total) kg/Year	M/C/E	Method Used		Facility Total Capacity m3 per hour
			Method Code	Designation or Description	
Total estimated methane generation (as per site model)	0.0				N/A
Methane flared	0.0				0.0 (Total Flaring Capacity)
Methane utilised in engine/s	0.0				0.0 (Total Utilising Capacity)
Net methane emission (as reported in Section A above)	0.0				N/A

4.2 RELEASES TO WATERS

[Link to previous years emissions data](#)

| PRTR# : W0144 | Facility Name : Oxigen Environmental Limited | Filename : Copy of W0144\_2011(1).xls | Return Year : 2011 |

07/03/2012 14:23

**SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS**

Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this only concerns Releases from your facility

POLLUTANT		RELEASURES TO WATERS			Please enter all quantities in this section in KGs			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	QUANTITY		
			Method Code	Designation or Description		T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

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

**SECTION B : REMAINING PRTR POLLUTANTS**

POLLUTANT		RELEASURES TO WATERS			Please enter all quantities in this section in KGs			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	QUANTITY		
			Method Code	Designation or Description		T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	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		RELEASURES TO WATERS			Please enter all quantities in this section in KGs			
Pollutant No.	Name	M/C/E	Method Used		Emission Point 1	QUANTITY		
			Method Code	Designation or Description		T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

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