OXIGEN ENVIRONMENTAL LIMITED

Oxigen

working for a cleaner environment

Annual Environmental Report 2010 W0208-01 For Materials Recovery Facility At Merrywell Industrial Estate Ballymount Road Lower Dublin 22

March 2011

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CONTENTS

Appendices

1 Introduction

Oxigen Environmental Ltd. (Oxigen) was granted waste licence W208-01 in March 2006 and began operating under this licence on 1st July 2006.
Oxigen operate a dry recycling, C&D and general skip waste recovery facility at Merrywell Industrial Estate, Ballymount, Dublin 22. Oxigen also operate as a transfer station for Hazardous Waste, mainly asbestos.
In accordance with the requirements of Condition 11.8 of the waste licence, an Annual Environmental Report (AER) for the facility must be submitted to the Environmental Protection Agency (The Agency).

This is the fifth AER for the facility, covering the period from 1st January 2010 to 31st December 2010.

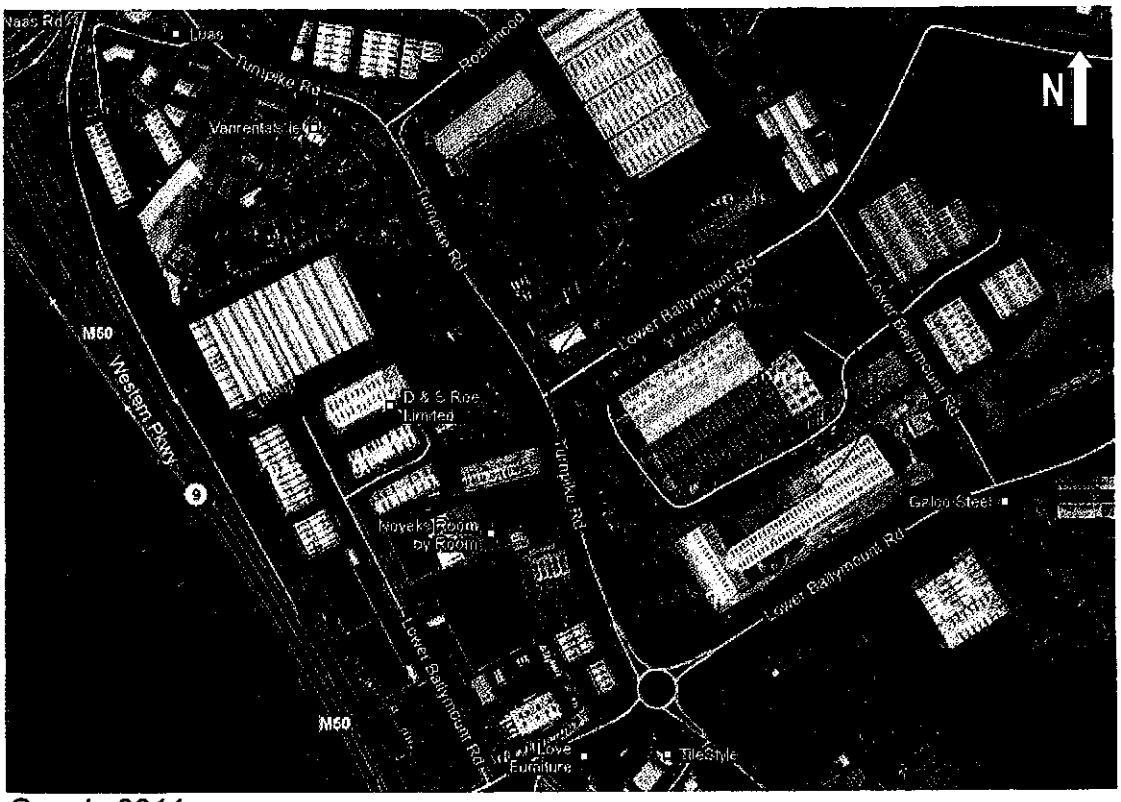
The Facility is located at:-

Oxigen Environmental Ltd,
Merrywell Industrial Estate,
Ballymount Road,
Ballymount,
Dublin 22.

Tel: (01) 4263118 Fax: (01) 4567192

The National Grid co-ordinates for the location of the facility are: E309627 N230736.

Figure 1.1 Location Map



Google 2011

1.1 Description of the Site

The site was historically used as a steel works operated by Corus Steel (formerly The Irish Steel Company), until 2003 when it was purchased by Oxigen. The site then operated under Waste Facility Permit number W041 issued by South Dublin County Council.

The total area of the site is thirteen acres. A technical amendment to the licence was granted in May 2008 to reduce the waste acceptance quantities by 100,000 tonnes and to reduce the site boundary.

The facility is part of the overall Ballymount Industrial Estate and is surrounded on all four sides by commercial/industrial units. Three roads border the site, the Turnpike Road, the other two roads are unnamed internal estate roads. The main entrance to the site is located to the northeast of the facility off one of the internal estate roads. The nearest residential dwelling is located approximately 180m north -west of the facility.

The site is zoned "E – to provide for enterprise, employment and related uses" under the County Development Plan 2004 – 2010.

The site is located within the River Liffey catchment, in the sub-catchment of the River Camac, via the Robinhood Stream. The bedrock consists of Calp Limestone and is overlaid by glacial till, which consists of firm to stiff sandy gravely clays with clasts present. The site is predominantly flat, with earth mound along the southern and western boundaries. The topographical level ranges from 59.27m OD to 64.48m OD, with the buildings heights being 72.97m OD.

The licensed waste handling activities, permitted under the Third and Fourth Schedule of the Waste Management Acts 1996 to 2005 are detailed below:

1.2 Waste Licensed Activities

Class 7 Physico-chemical treatment not referred to elsewhere in this schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 5 paragraphs 8 to 10 of this schedule (including evaporation, drying and calcination)

Class 11 Blending or mixture prior to submission to any activity referred to in a preceding paragraph

Class 12 Repackaging prior to submission to any activity referred to in a preceding paragraph of this schedule

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

1.3 Waste Recovery Activities

Class 2 Recycling or reclamation of organic substances which are not used as solvents (including and or biological processes)

Class 3 Recycling or reclamation of metals and metal compounds

Class 4 Recycling or reclamation of other inorganic materials

Class 11 Use of waste obtained from any activity referred to in a preceeded paragraph of this schedule

Class 12 Exchange of waste for submission to any activity referred to in a preceding paragraph of this 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

2 Emissions from the Facility

All emissions from the Facility in 2010 were monitored by BHP Laboratories Ltd. Foul water, surface water and dust were all monitored in 2010. The results of all monitoring have been summarised in the tables below. The full monitoring reports are available for inspection at the facility. There is a high level of compliance with the standards set in the licence.

2.1 Noise Monitoring Summary

Noise monitoring was carried out on the 9th June 2009. The noise contribution made by operations at Oxigen did not exceed the daytime background limit by more than 10dB. The night time limit of 45dB was not breached by Oxigen's operations. There was no evidence of a tonal or impulsive component to the noise attributable to the plant operations.

2.2 Foul Water Monthly Monitoring Results Summary 2010

Parameter	Units	ELV	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temperature	*C	42	9	9.9	12.4	14.2	18.2	22.5	18.9	17.5	15.9	15.8	Dry	Dry
pH	pH Units	6-10	6.27	7.18	8.56	8.93	7.76	8.28	7.34	7.1	7.07	7.69	Dry	Dry
BOD	mg/l	1000	266	83	78	162	100	121	180	10	535	125	Dry	Dry
COD	mg/l	3000	740	106	440	1300	280	246	420	126	1185	350	Dry	Dry
Total Suspended Solids	mg/l	1000	952	72	112	130	23	68	51	23	307	117	Dry	Dry
Sulphates (as SO4)	mg/l	1000	77.1	46.8	29.6	39.5	56.2	27.4	46.5	56.2	41	66.3	Dry	Dry
Oils, Fats & Grease	mg/l	100	16	1	19	30.9	12	9.2	60	5	26	30	Dry	Dry
Mineral Oils	mg/l	10	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	0.017	Dry	Dry
Detergents	mg/l	100	0.068	<0.001	0.355	1.81	0.284	0.64	2.18	0.01	0.085	0.31	Dry	Dry
Zinc	mg/l	5	0.014	0	<0.001	0.01	0.016	0.01	0.01	0.005	0.003	0.006	Dry	Dry
Copper	mg/l	5	0.006	0	0.013	0	0.086	0.02	0.01	0.008	0.021	0.037	Dry	Dry
Flow	m3/hr	5	0.16			0.26				0.34		0.24		

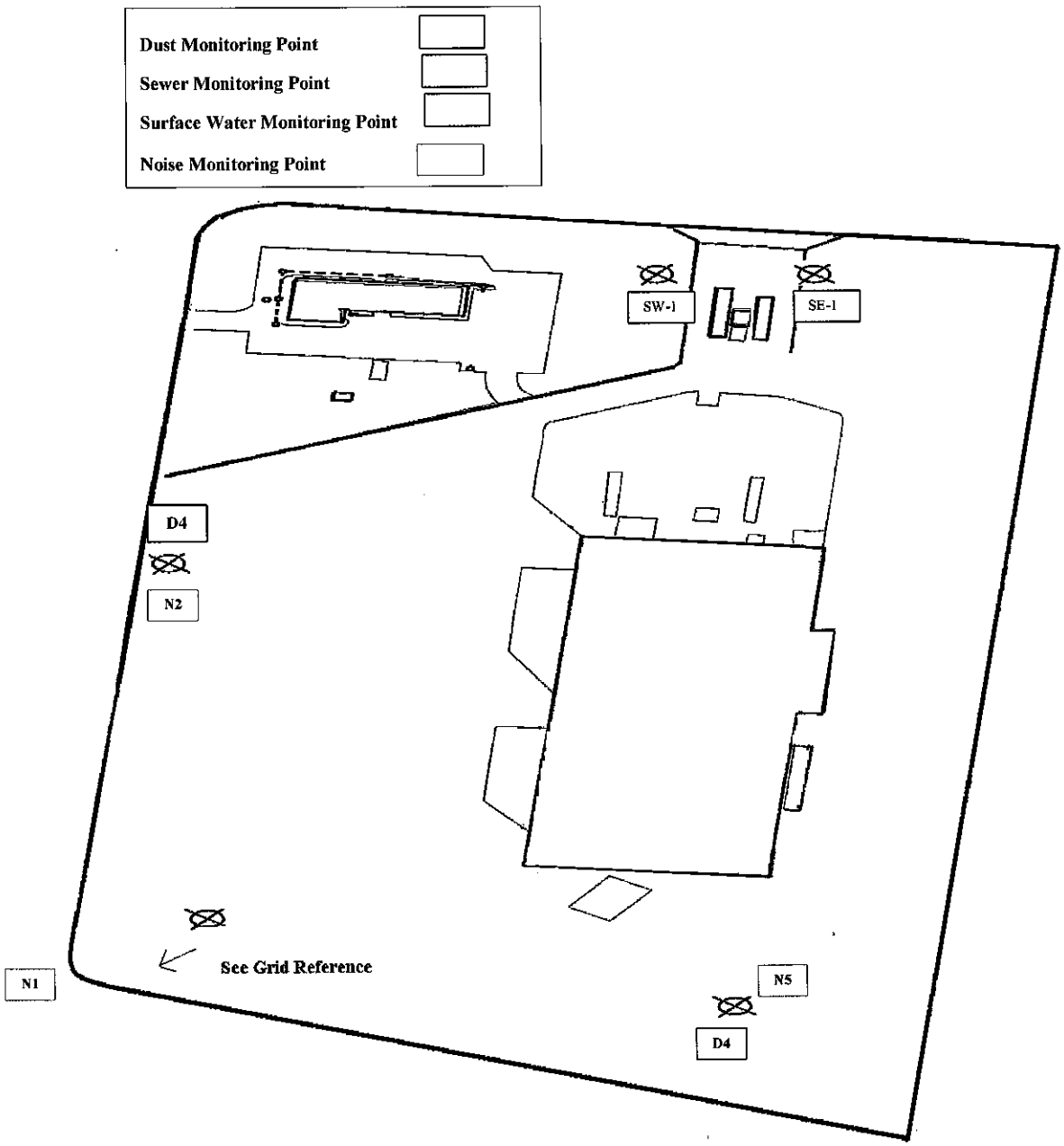
2.3 Quarterly Surface Water Monitoring Results Summary

Parameters	Units	February	May	September	November
Temperature	*C	5.2	7.6	8.9	7.9
pH	pH units	7.16	7.13	7.4	8.2
Conductivity	uScm - 1	1011	785	650	675
BOD	mg/l	37	17	7	<1
COD	mg/l	95	38	27	4
Suspended Solids	mg/l	460	24	5.3	1
Ammonia (as N)	mg/l	0.3	0.48	0.32	0.04
Mineral Oils	mg/l	<0.01	0.01	<0.01	<0.01

2.4 Bi annual Dust Monitoring Results Summary

	Units	ELV	D1	D2	D3
Results 1 (March)	**mg/m2/day**	**350**	203.9	255	142.8
Results 2 (May)	**mg/m2/day**	**350**	185.6	257.3	186.4

Figure 3. Oxigen Ballymount Monitoring Locations



3 Waste Management Record

Oxigen Environmental Ballymount create various waste streams arising from the running of the facility, mostly attributed to staff activity and maintenance. Oxigen ensure that recycling of each waste stream is promoted, through provision of facilities and through staff education.

3.1 Maintenance

The waste arising from the mechanics shed consists of oily solid waste, waste oil, waste coolant, break fluid and lead acid batteries collected by an approved contractor for recycling.

3.2 Office paper

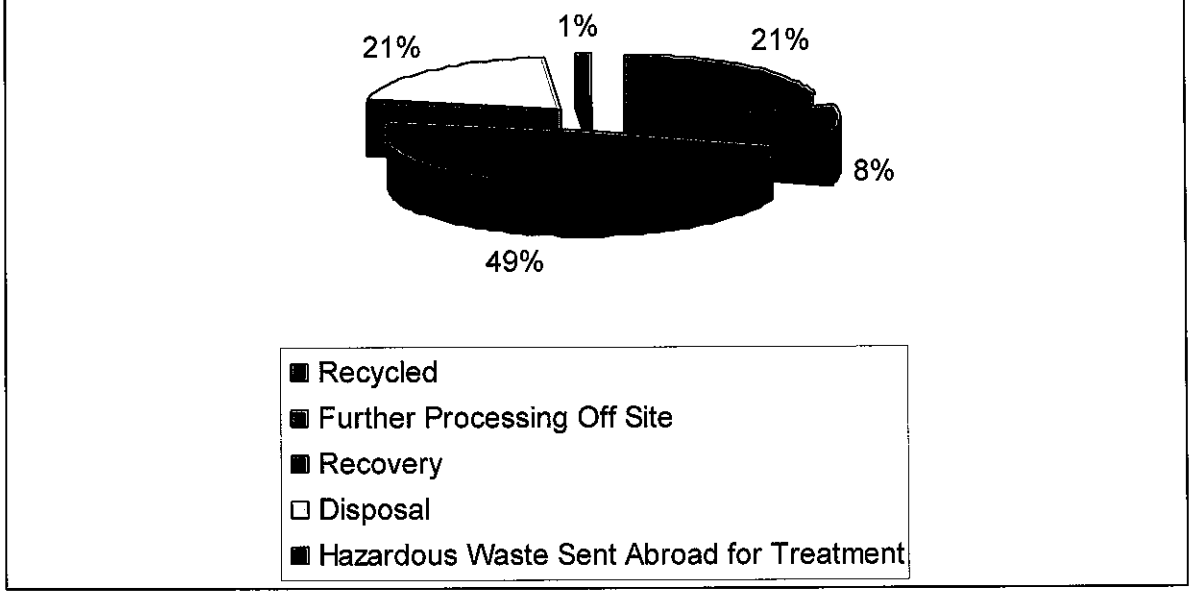
The office paper waste arising in the office building is shredded and placed in the green recycling bins provided in each office. Bins are collected as part of a larger dry recyclables collection route carried out by Oxigen, and deposited at the Oxigen Ballymount Facility for segregation and recycling.

3.3 Canteen Waste

Canteen waste which arises from the office building and the canteen in the processing shed is collected as part of a larger municipal waste collection route carried out by Oxigen and transferred to Oxigen, Robinhood facility. Green bins are also provided for recyclable canteen waste.

4. Quantity and Composition of Waste Recovered, Received and Disposed of During 2010

Figure 4 Percentage of Material Recycled, Recovered & Disposed Of 2010



4.1 Tonnage of Waste Received at Oxigen Ballymount for the period of 1st January to 31st December 2010

Table 4.1.1 Total Mixed Waste Received 2010.

Waste Type	EWC Code	Tonnage
Street Sweeping	20 03 03	4,265.04
Dry Recycling	20 03 01	25,861.40
Bullky	20 03 07	58,352.47
C&D	17 09 04	32,915.66
Total		**121,394.57**

Table 4.1.2 Total Source Segregated Waste Received 2010.

Waste Type	EWC Code	Tonnage
Metal	17 04 07	730.20
Wood	17 02 01	2,879.42
Rubble	17 01 07	217.92
Soil & Stones	17 05 04	199.78
Cable	17 04 11	19.32
Plasterboard	17 08 02	42.26
Green	20 02 01	1,933.78
Polystyrene	15 01 02	0.22
Mixed WEEE	20 01 36	9.88
Garden & Park Waste	20 02 01	799.82
Seawater Filtrate	10 01 26	0.90
Glass	15 01 07	1,235.28
Card	15 01 01	5,661.87
Aluminium	15 01 04	7.50
Hard Plastic	17 02 03	16.68
Steel Cans	15 01 04	6.60
TetraPak	15 01 05	56.68
Shredded Paper	20 01 01	33.66
Plastic Packaging	15 01 02	601.76
Total		**14,453.53**

Table 4.1.3 Total Hazardous Waste Received 2010.

Waste Type	EWC Code	Tonnage
Fluorescent tubes & other mercury-containing waste	20 01 21*	0.32
Mixed batteries from municipal sources	20 01 33*	0.71
Insulation material from C&D waste containing asbestos	17 06 01*	86.42
Construction materials containing asbestos	17 06 05*	1,466.83
Aqueous washing liquids and mother liquids	07 05 01*	23.88
Other organic solvents, washing liquids and mother liquors	07 05 04*	0.13
Sludges from on-site effluent treatment containing dangerous substances	07 05 11*	0.38
Solid wastes containing dangerous substances	07 05 13*	4.62
Other engine, gear and lubricating oils	13 02 08*	0.01
Packaging containing residues of or contaminated by dangerous substances	15 01 10*	0.71
Absorbents, filter materials, wiping cloths, protective clothing contaminated by dangerous substances	15 02 02*	0.57
Gases in pressure continers contining dangerous substances	16 05 04*	3.14
Discarded organic chemiclas consisting of or containing dangerous substances	16 05 08*	0.34
Sharps	18 01 01*	0.16
Wastes whose collection and disposal is subject to special requirements in order to prevent infection	18 01 03*	0.00
Other wastes from mechanical treatment of waste containing dangerous substances	19 12 11*	1.31
Solvents	20 02 13*	45.77
Pesticides	20 01 19*	0.46
Oil and fat other than those mentioned in 20 01 25	20 01 26*	6.21
Paint, inks, adhesives and resins containing dangerous substances	20 01 27*	204.90
Detergents containing dangerous substances	20 01 29*	0.03
Batteries and accumulators other than those mentioned in 20 01 33	20 01 34	0.22
Discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components	20 01 35*	0.02
Discarded electricla and electronic equipment	20 01 36	0.06
Total		**1,847.16**

4.2 Tonnage of Waste Recovered, Recycled and Disposed of at Oxigen Ballymount for the period of 1st January to 31st December 2010

Table 4.2.1 Tonnage of Waste Recycled 2010

Waste Type	EWC Code	Tonnage
Hard Plastic	17 02 03	33.60
Wood	19 12 07	7,453.50
Steel Cans	15 01 04	163.92
TetraPak	15 01 05	43.32
Mixed WEEE	20 01 36	23.18
Tyres	16 01 03	45.66
Cardboard	15 01 01	6,506.10
Gas Cyclinders	15 01 11*	3.10
Lead Batteries	20 01 33*	3.90
Aluminium	15 01 04	56.68
Glass	15 01 07	1,288.38
Plastic Packaging	15 02 02	592.20
Paper	20 01 01	7,553.42
Metal	20 01 40	3,355.58
Plasterboard	17 08 02	18.20
Total		**27,140.74**

Table 4.2.2 Tonnage of Waste Recovered 2010

Waste Type	EWC Code	Tonnage
Green Waste	20 02 01	2,409.84
C&D Fines	19 12 12	36,476.48
SRF	19 12 10	3,931.72
Rubble	19 12 12	19,378.66
Total		**62,196.70**

Table 4.2.3 Tonnage of Waste Disposed 2010

Waste Type	EWC Code	Tonnage
Bulky	20 03 07	2,529.98
Residue	19 12 12	24,256.70
Total		**26,786.68**

Table 4.2.4 Tonnage of Waste sent Off Site for Further Processing 2010

Waste Type	EWC Code	Tonnage
C&D	17 09 04	610.92
Dry Recycling	20 03 01	10,309.42
Total		**10,920.34**

Table 4.2.5 Tonnage of Hazardous Waste sent Abroad for Treatment 2010

Waste Type	EWC Code	Tonnage
Paint and Paint Related	20 01 27*	130.50
Aqueous washings	07 05 01*	25.50
Mixed Waste	19 12 11*	1.00
Solvents	20 01 13*	55.00
Asbestos (Bonded)	17 06 05*	1,575.00
Asbestos (Unbonded)	17 06 01*	40.25
Total		**1,827.25**

5 Procedures Developed in 2010

5.1 Environmental Management System Procedures Log

In compliance with the conditions of licence no. W0208-01, and in order to achieve the objectives and targets set out in the Oxigen Ballymount Facility Environmental Management System, procedures were developed by Oxigen in 2006. In order to improve the Environmental Management System (EMS) and to achieve ISO 14001 Standard Certification, the EMS was reviewed and amended in 2008. In May 2009, Oxigen was independently assessed and certified to the ISO14001 Standard by Certification Europe. Some amendments were made to the EMS. A full procedure list was then submitted in the AER for 2009. The full title and written summary of each new procedure developed in 2010 is detailed below. All the procedures are available for inspection at the facility.

OXEP 31 Incident/Release Reporting and Investigation Procedure
This is the Procedure for the investigation and reporting of Environmental Incidents and Releases at Oxigen Ballymount. The procedure was written in conjunction with correspondence received from the EPA in relation to incident reporting.

OXEHP 01 Hazardous Waste Acceptance Procedure
This is the procedure for the acceptance of hazardous waste from customer, through to the storage of that waste at the facility.

OXEHP 02 Asbestos Acceptance and Handling Procedure
The purpose of this procedure is to ensure that no exposure to asbestos is experienced while under the control of Oxigen.

OXEHP 03 Controlled Substances Acceptance Procedure
This is the procedure for the acceptance of controlled substances for disposal from the first point of customer contact, through to the disposal of the waste at a designated, approved and licensed disposal site.

OXEHP 04 Hazardous Waste Transport Procedure
The purpose of this procedure is to outline the correct actions to be taken in the event of an incident/accident during the transport of hazardous waste.

OXEHP 05 Procedure for Working in Confined Spaces with Inert or Toxic Atmospheres
This procedure outlines actions that must be taken to ensure that every precaution is taken to protect the health and well being of personnel working with or entering confined spaces or areas in which hazardous atmospheres may be present.

OXEHP 06 Off-Site Spillage Procedure
This procedure details the steps to be taken when any spillage occurs off-site.

OXEHP 07 External Site Audit Procedure
This procedure sets out the manner in which external audits are to be carried out at customer and supplier sites.

6. Review of Nuisance Controls

Eastern Pest Control (EPC) carried out the pest control at the facility in 2010. Their annual report which outlines the controls, level of activity and observations is attached in Appendix I.

Daily and weekly inspections are carried out by the facility manager and the compliance officer on site, which highlight any nuisances on site, such as litter, pests, noise, flies, odour or dust. Should any such nuisances be recorded, then appropriate measures are undertaken. There are procedures in place to deal with any such nuisances at the facility.

In 2010, EPC visited the site 22 times to spray for flies, this was mainly in early spring and summer. Oxigen also sourced a safe spray that staff could use in a knapsack should an infested load enter the facility. Stock levels were kept as low as possible and the floor of the processing shed was cleared and cleaned regularly. EPC visited the site 8 times to monitor rodent activity onsite. Bait boxes were placed in strategic locations and were topped up as needed. Nuisance control measures currently in place are found to be adequate.

7 Resource Consumption Summary

Oxigen Ballymount use gas oil, electricity and water in the operation of the facility. Waste processing operations on site do not require water. The main uses of water are for dust control, bin washing and truck washing.

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

Table 7 Summary of resource consumption for the reporting period

Site Resource Usage Jan to Dec 2010	Quantity	Units
Gasoil	306,443	Litres
Electricity	1,241,384	kWh
Water	2,427,000	Litres

Table 7.1 Summary of Electricity Usage for the Reporting Period

Month	KwH
January	94,521
February	96,832
March	104,760
April	89,243
May	99,718
June	105,956
July	109,767
August	107,133
September	106,361
October	108,572
November	117,988
December	100,533

Figure 7.1 Electricity Usage per Tonne Processed 2009 and 2010

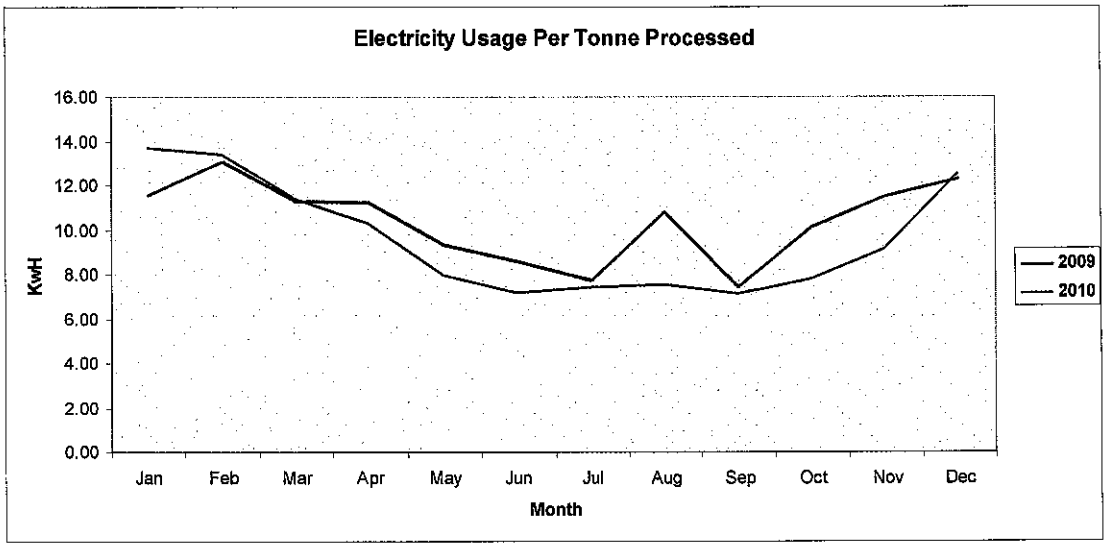
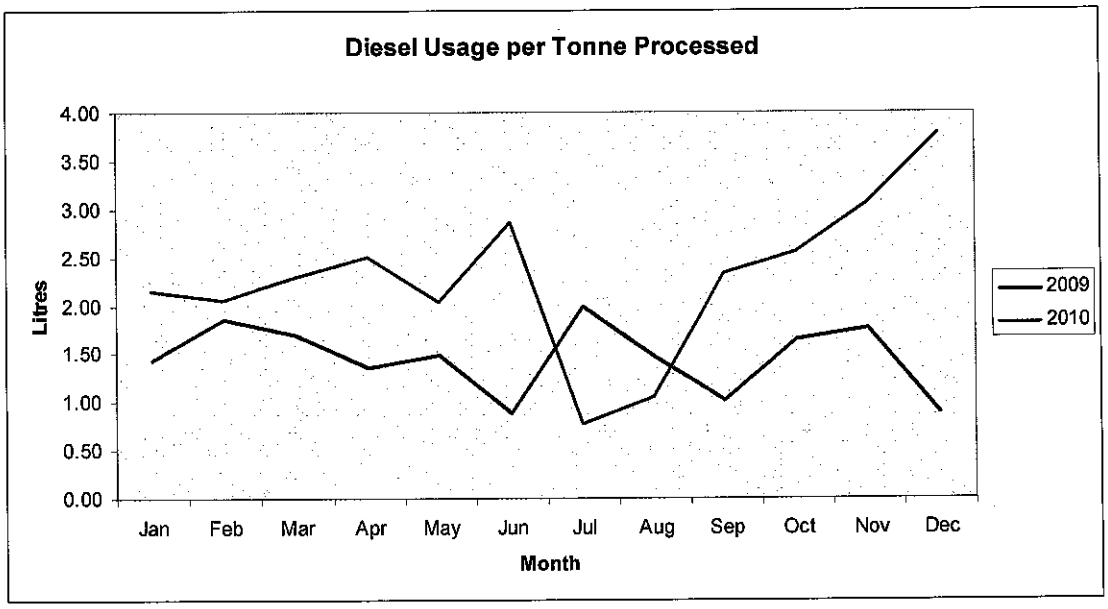


Table 7.2 Summary of Diesel usage (litres) for the reporting period

Month	Litres Used
January	14,865
February	14,826
March	20,930
April	21,686
May	25,427
June	42,326
July	11,548
August	14,753
September	34,839
October	35,416
November	39,412
December	30,415
Total	**306,443**

Figure 7.2 Graph showing diesel usage per tonne processed for 2009 and 2010



8 Energy Efficiency Audit Report Summary

Figure 7.1 shows that the electricity usage per tonne processed at the facility decreased in 2010 compared to 2009. However, Figure 7.2 shows that this was the reverse in terms of diesel usage per tonne processed. Operations at the facility relied more on diesel than electricity from the second half of the year onwards. Two diesel generators are used on site to power the Construction and Demolition (C&D) line shredder and the new Solid Recovered Fuel (SRF) plant. The generator powering the C&D shredder is a 500Kva generator while the one powering the SRF plant is a 1200Kva generator. Both these generators run on diesel.

There is a pronounced peak on graph 7.2 in June for diesel usage per tonne processed. Material that was stock piled at the facility from the previous month was put through the SRF plant in June. This was a commissioning phase of the plant. From August to the end of the year, the SRF plant was producing a product that was meeting required standard specifications and was dispatched to cement kilns for use as fuel.

Oxigen are committed to reducing the energy usage per tonne at the facility and are always looking for ways to reduce their drain on natural resources. In 2011, the possibility of harvesting rain water from each of the processing shed roofs will be explored. This water will be recycled and used for dust control around the site. Oxigen use the electricity company Airtricity, where over 65% of the electricity comes from renewable sources. In the coming year, Oxigen will no longer be using the two diesel powered generators currently on site. Oxigen have applied to the ESB to increase Maximum Import Capacity. A planning application has been lodged for a substation to switch to medium voltage (20,000 volts). This will mean that electricity will be used to run the C&D shredder and the SRF plant instead of diesel.

Early in 2010, speed drives were set up on all the conveyors of both the C&D and Dry Recycling plant. This means that the speed of the belt is altered according to needs at any particular time. Therefore, at times when there is not a lot of material being processed, electricity can be saved. The Facility Manager arranged for three companies to audit the processing machinery to investigate if they could make the process more energy efficient. They suggested that some of the motors could be reaching a greater efficiency. It would not be cost effective to change these motors while they are still in perfect working order. However, when they cease to work, they will be replaced by more energy efficient motors.

Lighting in the processing and mechanics sheds has been changed from 400W to 250W bulbs. Only energy efficient bulbs will be used on site going forward.

In July 2009, Oxigen employed the services of Sustainable Energy Ireland (SEI) to independently assess and audit energy usage at this facility. A full copy of this

report was submitted in the AER for the 2009 reporting period. The purpose of this exercise was to identify the main areas of high energy consumption during working and non-working hours, to identify ways in which energy usage can be reduced and the steps required to meet these objectives. One of the areas that was highlighted as having a poor energy efficiency rating was the boiler and office heating system. The old boiler was a 130Kw gas boiler with an efficiency of 65% and the radiators were a low output column radiator. The old boiler was replaced with a Viesmann 200 v-crossal high efficiency gas condensing boiler. The boiler is 98% efficient with 110 net Kw output. The old radiators were replaced with high efficiency compact radiators fitted with pegler thermostatic radiator valves. The boiler was fully insulated and all radiators were set on a timer at the same temperature.

9 Complaints summary

All the issues relating to the complaints summarised below were rectified and closed out. The detailed complaints record is available for inspection at the facility.

Number	Date	Communication Method	Issue
1	21.05.2010	Email from EPA	Flies
2	21.05.2010	Telephone call from EPA	Flies
3	20.05.2010	Telephone call direct from complainant	Flies
4	08.06.2010	Fax from EPA	Flies
5	25.06.2010	Telephone call from EPA	Flies
6	28.06.2010	Telephone call from EPA	Flies
7	30.06.2010	Fax from EPA	Flies & Odour
8	13.08.2010	Fax from EPA	Dust

10 Reported Incidents Summary

There were no environmental incidents reported to the EPA during 2010.

11. Schedule of Environmental Objectives & Targets

Oxigen Environmental began operating under Licence 208-1 in July 2006. A schedule of environmental objectives & targets were submitted to the Agency under condition 2.2.2. (See Environmental Management Programme) as part of the facility's overall Environmental Management System. These objectives and targets have been reviewed as part of the Facility AER for 2009 and updated for 2010.

11.1.0 Purpose

Under condition 2.2.2.2 of Waste License W0208-01, Oxigen Environmental Ltd. are required to propose a schedule of Objectives and Targets to ensure that the process of continual improvement of the facility's environmental performance is formalised and clearly set out. This schedule shall address a five-year period as a minimum.

The Objectives and Targets are set taking into account the significant environmental aspects and will be reviewed continually according to the Methodology for Review of Objectives and Targets to assess the compliance of the company with them. Upon review, new Objectives and Targets will be set and any modifications to those previously set will be made.

Objectives and Targets are set within the timescale of one year. Appropriate time-scales within the year are applied to each target.

The Schedules of Objectives and Targets over a five year period are displayed below.

Table 11.1 *Summary of Objectives and Targets for W0208-01, 2007*

Objective	Description	Target
1	Improvement of yard infrastructure.	1Interceptor/silt-trap installation 1.1 1.1Development of outdoor storage bays 1.2 1.2Truck wash 1.3Drainage from glass bays 1.4Development of new dry-recycling plant
2	To increase recycling figures	2.1 Installation of additional waste processing equipment 2.2 Achieve annual recycling targets 2.3 Improve recovery of office material
3	Training	3.1 Training of all relevant personnel in environmental issues 3.2 Provide awareness and training programmes for relevant staff
4	Continually improve the EMS	4.1 Review on an annual basis
5	Improved quality	5.1 Develop quality oriented processing 5.2 Use of better technologies 5.3 Stricter standards
6	Cleaner technology	5.1 Cleaner technology & cleaner production systems
7	Energy Efficiency	6.1 Conduct an energy audit on the office and improve efficiency 6.2 Improve energy efficiency rates in the processing shed

Table 11.2 *Summary of Objectives and Targets for W0208-01, 2008*

Objective	Description	Target
1	Improvement of yard infrastructure.	1.1 Install silt Trap and interceptor on surface water drain 1.2 Improve C&D Recycling Plant 1.3 Install Truck Wash
2	To increase recycling figures	2.1 C&D 2.2 Bulky Skip Waste 2.3 Packaging
3	Training	3.1 Continue Training Programme
4	Continually improve the EMS	4.1 Review on an annual basis
5	Improved quality	5.1 Develop quality oriented processing 5.2 Use of better technologies 5.3 Stricter standards
6	Cleaner technology	6.1 Cleaner technology & cleaner production systems
7	Energy Efficiency	7.1 Conduct an energy audit & improve efficiency 7.2 Improve energy efficiency rates in the processing shed

Table 11.3 *Summary of Objectives and Targets for W0208-01, 2009*

Objective	Description	Target
1	Reduction of tonnage to landfill to 18% from 20% in 2008	1.1 Commission new C&D plant. 1.2 Install wind shifter.
2	Training	2.1 W.A.M.I.T.A.B 2.2 On site training in use of spill kits. 2.3 Continued environmental training as per training schedule and individual training programs as per new Environmental Training Procedure
3	Site Upgrade	3.1 Assess and upgrade concrete hardstand – schedule for submission to EPA 3.2 Screen site. 3.3 Signage on site
4	Site Security Programme	4.1 Install CCTV 4.2 Upgrade site fencing
5	New Pest Control System	5.1 Install 3 probes in Dry recycling shed for controlled application of insecticides over in feed and loading bags.

Table 11.4 *Summary of Objectives and Targets for W0208-01, 2010*

Objective	Description	Target
1	Training	1.1 Update Training Schedule
2	Site Upgrade	2.1 Screen Site
3	Energy Use Reduction	3.1 Identify potential reductions from SEI Report 3.2 Implement changes
4	Provision of CA Site	4.1 Obtain Planning to follow EPA approval 4.2 Construct
5	Upgrade Office Recycling System	5.1 Identify requirements & source equipment 5.2 Implement system and awareness program
6	Integrate Hazardous Waste Procedures into EMS	6.1 Produce draft Hazardous Waste Procedures 6.1 Implement and number as part of overall ISO14001 system

Table 11.5 ***Summary of Objectives and Targets for W0208-01, 2011***

Objective	Description	Target
1	Reduce risk of Surface Water Pollution on Site	1.1 Install protective barrier at diesel tank. 1.2 Set up large static spill kit at diesel tank. 1.3 Divert surface water drainage from under processing shed and install drainage system at wood bay that will prevent blockages occurring. 1.4 Carry out extensive drain survey
2	Pest Control	2.1 Flies. Look into redesigning MRF to increase capacity to process dry recyclables more quickly. Increase to 28 tonnes per hour from 14. 2.2 Rodents. 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.
3	Reduce Water Usage	3.1 Investigate feasibility of harvesting rain water from processing shed roofs for use on site.
4	Dust Control	4.1 Install sprinkler systems at corner of processing sheds to damp down site roadways in dry weather.
5	Reduce waste produced and tonnage of waste to landfill	5.1 Divert all suitable residue to SRF Plant 5.2 Upgrade Dry Recycling plant to reduce quantity of residue produced by 5%. 5.3 Introduce tyre pressure and maintenance programme to increase life of tyres and reduce the quantity of waste tyres produced.
6	Reduce Diesel Consumption	6.1 Increase Maximum Import Capacity-switch to medium voltage and remove diesel generators. 6.2 Reduce road diesel consumption by 5% by managing tyre pressure in waste collection vehicles.

12. Environmental Management Programme

12.1– Report for previous year.

A summary report on the EMP set out for 2010 is outlined below.

Objectives and Targets Schedule for 2010

Objective	Description	Target
1	Training	1.1 Update Training Schedule
2	Site Upgrade	2.1 Screen Site
3	Energy Use Reduction	3.1 Identify potential reductions from SEI Report 3.2 Implement changes
4	Provision of CA Site	4.1 Obtain Planning to follow EPA approval 4.2 Construct
5	Upgrade Office Recycling System	5.1 Identify requirements & source equipment 5.2 Implement system and awareness program
6	Integrate Hazardous Waste Procedures into EMS	6.1 Produce draft Hazardous Waste Procedures 6.1 Implement and number as part of overall ISO14001 system

OBJECTIVE 1: TRAINING

Target 1.1: Update Training Schedule for 2010	
Reason:	To ensure all staff are identified and training needs assessed
Target:	Complete by end May 2010
Project Summary	
Task 1- Identify new and existing staff and update any changes COMPLETE **Task 2-** Assess need for training COMPLETE	
Designation of Responsibility:	Environmental Compliance Officer

Target 1.2: Provide Necessary Training	
Reason:	To ensure all staff are adequately trained to carry out their duties in compliance with W0208-01
Target:	Complete by end May 2010
Project Summary	
Task 1- Produce Training Schedule COMPLETE **Task 2-** Carry out training COMPLETE	
Designation of Responsibility:	Environmental Compliance Officer

Review 26/06/2010 Environmental Training for Dry Recycling and C&D Staff completed.
Review 23/10/2010 All Environmental Training Completed.

OBJECTIVE 2: SITE UPGRADE

Target 2.1: Screen Site	
Reason:	To improve the aesthetic quality of the facility and act as a buffer between the site main road
Target:	Complete by end August 2010
Project Summary	
Task 1- Assess suitable screening types COMPLETE **Task 2** – Erect screening COMPLETE	
Designation of Responsibility:	Facility Manager and Environmental Compliance Manager

Review 23/03/2010 Clay bank has been erected as a buffer.
Review 26/06/2010 Site no longer visible from the road due to growth of plants.

OBJECTIVE 3: ENERGY USE REDUCTION

Target 3.1: Identify and implement potential reductions from SEI Report	
Reason:	To reduce energy consumption and increase efficiencies.
Target:	Complete by end December 2010
Project Summary	
Task 1- Identify potential reductions from SEI Report by end June 2010 COMPLETE **Task 2** – Implement changes by end December 2010 COMPLETE	
Designation of Responsibility:	Facility Manager and Project Manager

Review 23/03/2010 The old office boiler was a 130kw gas boiler with an efficiency of 65%. The radiators were a low output column radiator which meant the boiler would never cut out as the radiators would never heat offices to required temperature. The old boiler was replaced with a Viesmann 200 v-crossal high efficiency gas condensing boiler. The boiler is 98% efficient with 110 net kw output. The old radiators were replaced by high efficiency compact radiators fitted with pegler thermostatic radiator valves. The boiler was fully insulated and all radiators were set on a timer at the same temperature.
Review 26/06/2010 Harp Electric set up speed drives on all conveyors of plant so that the speed of the belt can be altered according to needs at a particular time of the day. This means that at times where there is not a lot of material being processed, electricity can be saved. The Facility Manager arranged for three companies to come and see if they could make the process more energy efficient and they could not. When the current motors cease to work, they will be replaced by energy efficient motors.
Review 23/10/2010 Lighting in sheds has been changed from 400W to 250W bulbs. Only energy efficient bulbs will now be used on site. Oxigen applied to the ESB to increase Maximum Import Capacity. A planning application has also been lodged for a substation to switch to medium voltage (20,000 volts).

OBJECTIVE 4: PROVISION OF CA SITE

Target 4: Provision of CA Site	
Reason:	To provide public recycling facility
Target:	Complete by end December 2010
Project Summary	
Task 1- Obtain Planning Permission by end April 2010 **Task 2** – Construct Site by end December 2010	
Designation of Responsibility:	Facility Manager and Facility Development and Planning Officer

Review 23/03/2010 Work has commenced on the landscaping of the CA Site and construction of concrete hardstand has also started.
Review 26/06/2010 The CA Site is now fully operational.

OBJECTIVE 5: UPGRADE OFFICE RECYCLING SYSTEM

Target 5: Upgrade Office Recycling System	
Reason:	To encourage recycling of all office supplies
Target:	Complete by end April 2010
Project Summary	
Task 1 - Identify requirements & source equipment COMPLETE **Task 2** - Implement system and awareness programme – communicate to all staff COMPLETE	
Designation of Responsibility:	Environmental Compliance Officer

Review 23/03/2010 The requirements have been identified and the equipment sourced by the Marketing Officer.
Review 26/06/2010 The recycling system was implemented and communicated to all staff. Posters were put up at the printers and photocopiers to remind staff to print double sided and reduce the amount of paper waste from the office.
Review 23/10/2010 The recycling system is running successfully.

OBJECTIVE 6: INTEGRATE HAZARDOUS WASTE PROCEDURES INTO EMS

Target 6: Integrate Hazardous Waste Procedures into EMS	
Reason:	To ensure all new procedures are an integral part of ISO14001 EMS
Target:	Complete by end May 2010
Project Summary	
Task 1 - Produce draft Hazardous Waste Procedures by end February 2010 COMPLETE **Task 2** - Implement and number as part of overall ISO14001 system by end March 2010 COMPLETE	
Designation of Responsibility:	International Hazardous Waste Manager Environmental Compliance Officer

Review 23/03/2010 Draft Procedures have been produced and circulated by the Hazardous Waste Manager and the Environmental Compliance Officer.
Review 26/06/2010 Procedures have been approved and drawn into the EMS.

12.2– Proposal for Current Year.

Table 12.2 1 Summary of Objectives and Targets for W0208-01, 2011

Objective	Description	Aspect	Target	Person Responsible	Completion Date
1	Reduce risk of Surface Water Pollution on Site	Discharges to Water	1.1 Install protective barrier at diesel tank. 1.2 Set up large static spill kit at diesel tank. 1.3 Divert surface water drainage from under processing shed and install drainage system at wood bay that will prevent blockages occurring. 1.4 Carry out extensive drain survey	Facility Manager Compliance Officer Operations Director Compliance Officer	30/06/2011 31/03/2011 31/12/2011 31/12/2011
2	Pest Control	Flies & Rodents	2.1 Flies. Look into redesigning MRF to increase capacity to process dry recyclables more quickly. Increase to 28 tonnes per hour from 14. 2.2 Rodents. 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.	Facility Manager/Operations Director Compliance Officer	31/07/2011 31/03/2011
3	Reduce Water Usage	Natural Resources	3.1 Investigate feasibility of harvesting rain water from processing shed roofs for use on site.	Compliance Officer/ Facility Manager	31/12/2011
4	Dust Control	Dust	4.1 Install sprinkler systems at corner of processing sheds to damp down site roadways in dry weather.	Facility Manager	30/06/2011
5	Reduce waste produced and tonnage of waste to landfill	Releases to Land/Natural Resources	5.1 Divert all suitable residue to SRF Plant 5.2 Upgrade Dry Recycling plant to reduce quantity of residue produced by 5%. 5.3 Introduce tyre pressure and maintenance programme to increase life of tyres and reduce the quantity of waste tyres produced.	Facility Manager Facility Manager/Operations Director Purchasing Manager/Facility Manager	31/03/2011 31/12/2011 30/06/2011
6	Reduce Diesel Consumption	Natural Resources	6.1 Increase Maximum Import Capacity- switch to medium voltage and remove diesel generators. 6.2 Reduce road diesel consumption by 5% by managing tyre pressure in waste collection vehicles.	Facility Manager Purchasing Manager/Facility Manager	30/06/2011 31/12/2011

13. Development Works

13.1 Development Works 2010

In 2009, approval was received from the Agency for the development of a Civic Amenity Site at the facility to provide recycling facilities to the public. The project received planning permission and was constructed during 2010.

In May 2010, an SEW (Specified Engineering Works) was submitted to the Agency seeking approval for the installation and operation of a Solid Recovered Fuel (SRF) Plant at the Facility. In August 2010, Oxigen received approval from the Agency for this.

13.2 Development Works 2011

There are currently no Specified Engineering Works applied for in 2011.

Any proposed development of the facility will be submitted in writing to the Agency during the course of the year as required.

14. Financial Provision

Oxigen have Pollution Liability insurance of €13 million. See Appendix II for details of insurance cover.

15. 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 03 Procedure for Testing of Bunded Areas'. All tests were recorded on EMS Log Sheet 'OXEP106 Testing of Bunded Area Log Sheet'. These log sheets are kept on file along with original certificates.

16. Programme for Public Information

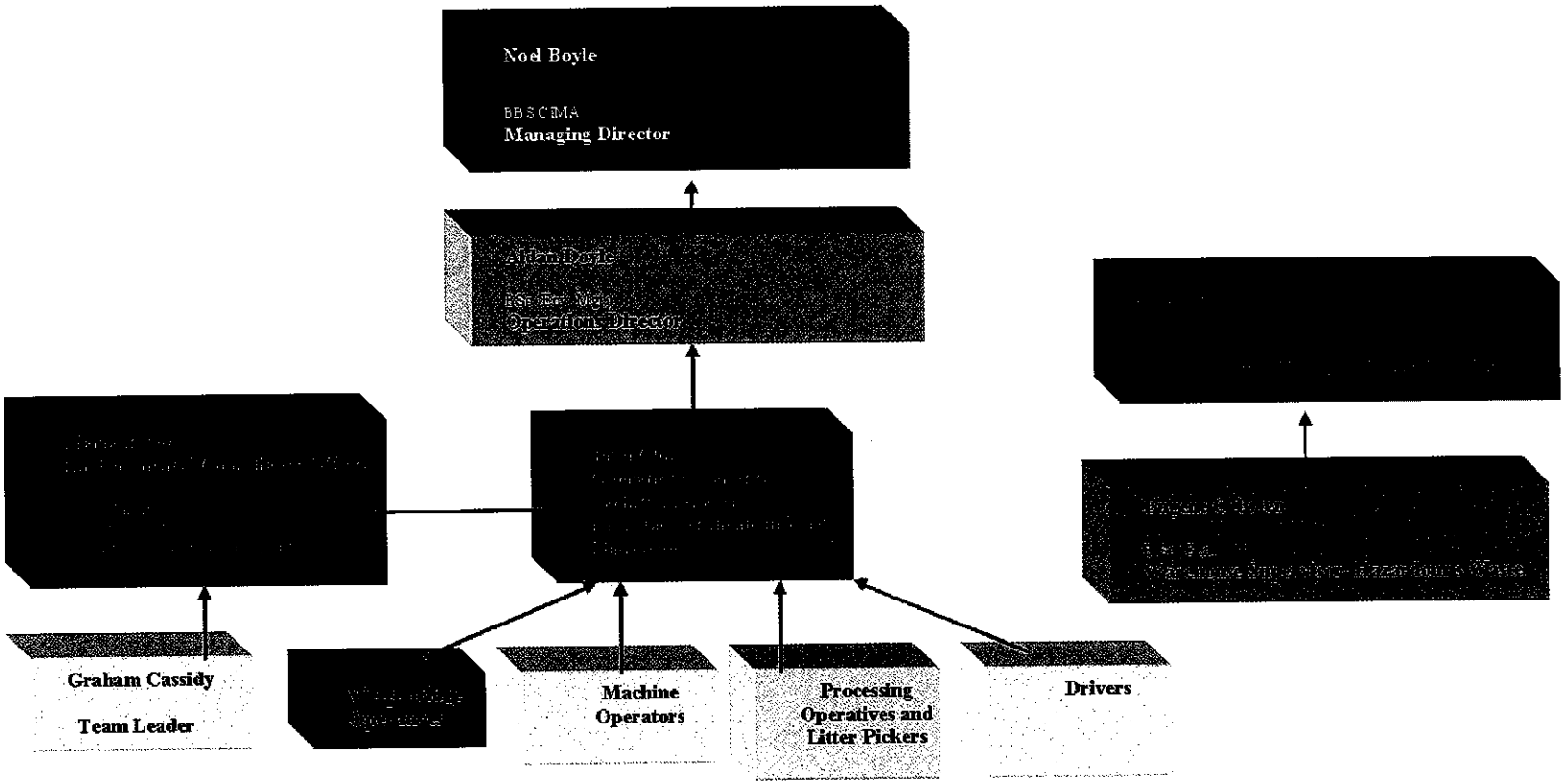
A program for public information is in place at the facility. During the reporting period there were no requests from the public to inspect any of the records and files listed in the submission.

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

- Waste Licence W0208-01
- 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 2.2.2.7.

17. Management and Staffing Structure at the Facility



18. Closure and Decommissioning Management Plan

The Residuals Management Plan was submitted with the previous AER for the 2009 reporting period. No changes were made to the plan in 2010.

APPENDIX I – EPC Pest Control Report 2010

Eastern Pest Control

Rathfeigh House, Rathfeigh, Tara, Co. Meath
Tel: 041-9825105 or 01-8351444 Fax: 041-9825623

Date: 07 February 2011

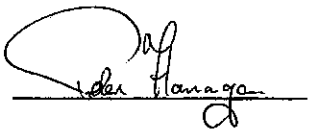
Pest Control Summary Report for 2010

Area covered:	Ballymount & Robinhood facilities
Number of visits per year:	Eight
Level of activity:	Similar to last year, level of activity was minimal. At Ballymount facility the level of activity has remained low but some activity was noted by delivery driver late at night, this was dealt with accordingly. In the Robinhood facility no problems were noted and there were no sightings reported. However there continues to be a problem with bait boxes being damaged by machinery in the Ballymount site.
Observations:	Due to the warmer than normal summer the fly levels built up quickly on both sites from about mid May. This meant that fly spraying was carried out weekly and sometime more often across the summer period in Ballymount. Extra spraying was also carried out in Robinhood but at no stage did the problem become excessive.
Map:	Due to the fact that all the maps will shortly be put up on the on-line system, this will necessitate re-drawing and marking the position of TRB's on all existing maps for all the sites. This will make the existing maps redundant.

PPS On-Line:

The on-line system is a web based application and runs on a web browser. This will shortly be implemented once all the bait points have barcodes added and maps re-drawn. This will allow viewing of all reports on-line and will overcome problems with reports being misfiled etc. The system will give an interactive view of the bait points and by, for example clicking on a bait point a history of any activity can be seen. There are many detailed audit reports available all of which can be printed out.

Yours sincerely,



Director of EPC

APPENDIX II - Certificate and Details of Insurance

Bermingham Hooper Dolan INSURANCES

Unit 4, First Floor
Riverfront Building
Howley's Quay
Limerick

T: +353 (0) 61 312737
F: +353 (0) 61 312726
info@bhdi.ie
www.hooperdolan.ie

24th March 2010

TO WHOM IT MAY CONCERN

RE: EMPLOYERS/PUBLIC & PRODUCTS LIABILITY & MOTOR FLEET INSURANCES
Oxigen Environmental Limited & Oxigen Commercial Ltd T/A Bambi Bins.

We act as Insurance Brokers for the above named.

We confirm that Employers and Public/Products Liability Insurances are effected with Brit Insurance Company and Motor Fleet with Quinn Insurance and the details are as follows:

Business Description:
Refuse Collectors, Recycling Contractors, Wheel Bin Operators, Skip Hirers, Road Sweepers, Vehicle Maintenance and Repair, Gully Cleaners, Landfill Operators, Operators of Civic Amenity Sites, Document Destruction Shredding and Property Owners. Toxic / Hazardous Waste Warehousing and Chemical Transfer Station including cover from point of collection until final destruction and including preparation of waste for collection.

Liability Policy No:	**A2602620/35136**
(a) Employers Liability Limit of Indemnity: any on period	€13 million any one occurrence/unlimited
Period of Cover:	20th March 2010 – 31st March 2011
(b) Public/Products Liability Limits of Indemnity:	
Public Liability:	€13M any one occurrence/unlimited during the period
Products Liability:	€13M during the period.
Pollution Liability:	€13M during the period.
Period of Cover:	20th March 2010 – 31st March 2011
Indemnity to Principles:	General Indemnity to Principles Clause applies.
Conditions:	Policy automatically extends to note a Specific Indemnity to any Local Authority who engages the Insured but only in respect Of the Insured's legal liabilities.

Bermingham
Hooper Dolan INSURANCES

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Limerick

T: +353 (0) 61 312737
F: +353 (0) 61 312726
info@bhdi.ie
www.hooperdolan.ie

Motor Fleet Policy No:	**GEI/QMV/004450133**
Cover:	Comprehensive & Third Party
Vehicles:	Any vehicle owned and registered in the name of the Policyholder or hired, leased or lent to the Policyholder.
Drivers:	25 to 70 Years
Limit of Liability:	€6.5m Third Party Property Damage
Period of Cover:	20th March 2010 – 31st March 2011

I trust you find the above in order and should you require any further information please do not hesitate to contact the undersigned.

Yours Sincerely,

Shane Bermingham BA
Managing Director
Bermingham Hooper Dolan Insurances