

**SECTION 2**

**DESCRIPTION OF THE PROPOSED BALING  
FACILITY**

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## 2.1 PROPOSED OPERATIONS

### 2.1.1 General overview

Oxigen Environmental Ltd. propose to change their existing waste transfer facility at Robinhood Industrial Estate from a multi treatment waste facility (waste segregation, recycling etc.) for industrial, commercial, household and construction and demolition waste to a single treatment waste facility (i.e. baling station) for municipal and commercial waste only. It is proposed to also seek a review in the volume of waste that can be accepted at the facility from twenty four thousand and six hundred tonnes per annum to one hundred and sixty thousand tonnes per annum. It is proposed that this review of on site operations will provide the necessary **infrastructure** required for the treatment of non-recyclable or non-recoverable waste prior to the disposal to landfill. The existing waste transfer facility is currently operated in line with the conditions of the waste **licence** Register No. 152-1, which was granted by the Environmental Protection Agency in December 2001.

### 2.1.2 Site Design

The existing site layout is shown on Drawing No. D.1, **Site Infrastructure** in Appendix 2, which also denoted the proposed additional site entrance (currently awaiting planning permission from South Dublin County Council; Reference No. SD04A/0488). The site is accessed via Robinhood Road, which runs along the northern boundary of the site. Entry onto the site will be restricted to employees of Oxigen Environmental Ltd. or suitably **permitted/licenced** waste contractors (inc Local Authority waste collection vehicles) at all times during the operation of the facility. There is an existing entrance, which is located at the north western boundary. It is proposed to install a second entrance, which will be located to the west of the existing entrance. This entrance allow for vehicles to enter the site through the north western entrance only and to exit via the north eastern entrance.

The site is serviced by electricity from the national grid, which is regulated by the on-site ESB sub station. The site has an existing telecommunications network servicing the main office building and the weighbridge office.

The existing site is serviced by the South Dublin County Council water main. The water main connection will be sufficient to cater for the peak demands of the proposed change in facility operations. This connection will not impact on the water supply in the locality.

The proposed development will connect to the existing foul sewer within the Robinhood Industrial Estate. This sewer discharges to the Dublin trunk sewer system and outfalls finally into the Ringsend Treatment Works. Leachate containment provisions ensure that waters that have come in contact with the waste is not discharged into the surface water system, but discharged into the existing foul water system. The foul sewer drainage network is completely

separated from the existing surface water drainage system. Drawing No. D.1: Site Infrastructure in Appendix 2.

Surface water run-off from the hardstanding areas is collected within the drainage channels that are located across the site, and transports the surface water towards the north eastern section on the site. All surface water drainage will be discharged, via a silt trap and an oil interceptor, to the storm sewer which serves the Robinhood Industrial Estate. This storm sewer collects surface water run-off from the adjacent industrial properties, and ultimately discharges to the River Camac, which is a tributary of the River Liffey.

For details of plant sheds, garages and equipment compounds please see Drawing D.1: Site Infrastructure. An office building houses all administrative activities, and staff facilities (i.e. canteen, toilets etc.).

There is currently an Avery (flush with road) weighbridge located at the entrance of the facility. This weighbridge is connected to the Gensys (Precia Molen) software recording system, which is controlled by the weighbridge operator. It is proposed to install a second weighbridge as part of the additional entrance development.

The general public will not have access to the facility at any time.

## 2.2 WASTE ACCEPTANCE AND HANDLING

All wastes accepted at the facility will be in line with the existing waste acceptance procedures as developed in line with the conditions of the waste licence Register No. 152-1 (see Appendix 4). Waste is delivered to the facility by Oxigen Environmental Ltd employees, Local Authority employees or by suitably permitted/licenced waste contractors.

Waste containers are visually inspected prior to its acceptance by the vehicle operator to ensure that the waste type is allowed to be accepted under the requirements of the waste licence. Prior to gaining access to the site the vehicle operator is required to provide the necessary information, such as the waste type, source of the waste, vehicle type, vehicle operators name, and any other relevant information deemed necessary by the weighbridge operator. The load will be required to be verified by the computer system prior to the barrier being raised.

The vehicle operator is directed to the appropriate waste tipping area using a traffic light system. The vehicle operator will reverse into the required waste tipping area, where its load is deposited. If on initial inspection the load contains non conforming waste streams, the vehicle operator will be required to remove the entire load from the facility, prior to exiting the site.

Once the waste has been tipped on the floor it is visually inspected prior to being transported to the on-site baler. This is to ensure that all non-conforming, or dangerous (i.e. gaseous cylinders), are removed from the waste load, and is immediately removed to the waste quarantine area. The waste is stored in the quarantine area pending its removal off site by the waste producer. In the event of the producer refusing to remove the waste, or the source of the waste is unknown, Oxigen Environmental Ltd will ensure that it is removed off site and disposed of at an appropriate facility as soon as possible. Oxigen Environmental Ltd. will maintain records of the waste type, quantity, and ultimate disposal/treatment facility.

The baler that is located on site is the Harris Waste Baler HHRB 45D, which can bale a maximum of 60 tonnes of waste per hour for municipal waste streams, and produces a bale size of 1.6, x 1.6m x 1m. The power consumption for the baler is estimated at approximately 320 kw per average waste load.

There is sufficient capacity within the baler to process one hundred and sixty thousand tonnes of waste per annum. As the baler can process 60 tonnes of waste per hour, that would allow a capacity of 257,040 tonnes of waste per annum. Taking into account shut-down, maintenance downtime etc. it is anticipated that the actual throughput of the baler will be approximately 189,000 tonnes per annum, which is greater than the anticipated 160,000 tonnes proposed within this review.

Outside waste acceptance hours the security gate is closed and access is only permitted by the key personnel (i.e. site manager, baling staff etc).

### 2.3 WASTE QUANTITIES

Oxigen Environmental Ltd. purchased the site located within Robinhood Industrial Estate from South Dublin County Council in 1999. The site was initially operated under a waste permit as obtained from South Dublin County Council, until they received a waste licence (Register No. 152-1) from the Environmental Protection Agency in 2001. Waste that is permitted under the conditions of this licence are commercial, industrial, household and construction and demolition, up to a maximum of twenty four thousand and six hundred tonnes per annum.

Under the conditions of the waste license hazardous waste is not accepted at the facility. Given the nature of the waste (i.e. municipal and commercial) and the method of collection (i.e. skips and commercial wheelie bins) hazardous waste may inadvertently be admitted to the site. Waste that enters the site is tipped within the waste building and inspected for hazardous waste. Hazardous waste, such as fluorescent lights, paints, batteries will be segregated into designated banded storage units within the facility and subsequently forwarded to an

authorised disposal agent. Any other hazardous waste that may be found within a load is segregated and stored within the banded quarantine area until either it can be returned to source (if determinable) or until an authorised disposal agent can be sourced. Other waste that will be removed includes potentially dangerous waste such as gas cylinders etc..

There is a weighbridge located at the entrance; see Drawing D.1: Site Infrastructure in Appendix 2, which has been operational since 2002. Therefore accurate waste figures are available for the facility, which are detailed in Table 2.3: Waste Quantities Accepted at the facility below.

<b>Year</b>	<b>Volume</b>
2002	16645.22
2003	32,633
2004 to date	2,341 <sup>Note 1</sup>

Note 1: The facility has not been operational between February and September 2004.

The categories of waste deemed suitable for baling and subsequent disposal at landfill is very much dependent on available recovery/recycling markets, and on other factors such as planning permissions, and pressure on the capacity of receiving landfill facilities. As such, market forces will dictate the feasibility or otherwise of segregating other waste types.

## 2.4 OPERATIONAL DETAILS

Currently the existing Oxigen Environmental Ltd waste transfer facility operates and accepts waste between 06:00 and 20:00 Monday to Saturday inclusive. Entry onto the site is restricted to employees of Oxigen Environmental Ltd. and permitted/licenced waste contractors at all times during the operation of the facility. Outside the hours of operation at the site, the gate will be closed and access is only permitted by the key personnel (i.e. facility manager, baling staff etc). A list of all relevant employees and their respective duties and responsibilities are detailed in Table 1.4 below.

<b>TABLE 2.1/1: MANAGEMENT STRUCTURE AT THE OXIGEN ENVIRONMENTAL LTD BALING STATION, ROBINHOOD ROAD, CLONDALKIN, DUBLIN 22.</b>			
<b>Title</b>	<b>Staff Member</b>	<b>Qualification</b>	<b>Responsibility</b>
Managing Directors	Sean Doyle & Sean Rooney	10 years experience in the waste industry	Overall responsibility of the management of the site and maintenance of the licence. Delegation of authority and responsibility to ensure the effective management of the facility
General Manager	Peter McLoughlin	10 years experience in business management	Day to day supervision of operations as directed by the Managing Director.
Operations Manager	Patrick Mongey	15 years experience in engineering	Management of operations as directed by the General Manager.
Health & Safety Officer	Derek Rosarius	10 years experience	Maintain H & S procedures
Mr. David O'Quigley	Facility Manager	Day to day responsibility of the operation of the facility, ensuring compliance with all relevant licences and planning permissions	MSc. Materials Sciences, 4 years experience in environmental management and ten years experience in heavy engineering environments. FAS Waste Management course completed
MS. Sinead Courtney	Assistant Facility Manager (No. 1)	Day to day operational responsibility of the Facility ensuring compliance with all licences and planning permissions	8 years experience in the Waste Industry as an Operations Supervisor and reporting to the Environmental Protection Agency and Local Authorities on a number of waste facilities. Has completed the Waste Management Course.
Mr. David Duff	Assistant Facility Manager (No. 2)	Licence and permit data collection and compliance for 'green bin' initiative	BSc. Environmental Science; Currently enrolled in FAS Waste Management Course
Mr. Robert Brooks	Mechanical Maintenance Engineer	Overall responsibility for maintenance of all facility machinery on site	Class 1, Grade 1 Supervisor; Engineer/Fitter; 27 years experience Training with Harris USA with regard to baling machinery
Weighbridge operator	To be appointed, Details to be provided to Agency.		
Yard Operatives			
Machine Drivers			

## 2.5 RAW MATERIALS/ENERGY/PLANT

It is proposed that the main requirements for fuel on site will be green diesel, marked gas oils and central heating oil. As detailed in the previous section fuels will be stored on site in appropriately banded, integrity tested tanks, which will allow for safe and contained dispensing of the fuel.

It is estimated that the following energy and raw materials would be required for the operation of the baling facility:

<b>Resource</b>	<b>Quantities</b>
Diesel Oil (MGO)	30,000 litres
Hydraulic Oil (ISO 32)	500 litres
Washing Detergent	250 litres
Engine Oil (1540)	100 litres
Gear Oil	50 litres
Electricity	1,000,000kWh
Water	712.8 m <sup>3</sup>

The following plant will be used within the baling facility:

- Weighbridge – Avery J105, specification attached
- Harris waste baler (HRB 45D), manufacturers specifications attached
- Sennebogen 821 waste loader
- Terberg shunter tractor
- Loadall Teleporter

## 2.6 ENVIRONMENTAL NUISANCES

The following measures will be undertaken at the facility to reduce the potential for nuisances arising from on-site activities:

- Waste operations on site will ensure that waste (i.e. either in sealed containers or covered) is never exposed and as such no food source will be readily available for localised bird populations.
- A daily litter patrol of the site perimeter and access road will be undertaken. Where the escape of litter has occurred it is immediately collected and returned to the site
- All waste operations shall be undertaken within the waste processing building, which shall have the shutters closed at all times, except when vehicles are unloading. When the

vehicles are unloading the rotary atomisers shall be activated to prevent odours being generated.

- During the routine inspections for litter, an inspection of the access road and the facility will be inspected for mud deposition, especially during periods of wet weather. Any mud will be removed through the washing of the area.
- All movements on-and off the site will be controlled by the facility manager/weighbridge operator
- Pest control measures undertaken at the facility will consist of setting of poison by an independent specialist pest control company, throughout the site. Fly nuisance will be minimised by the rapid removal of degradable waste off-site, the washing of the floor of each of the operations buildings with disinfectant, the covering of all compacted waste and ensuring all skips stored outside are kept empty and clean.

## 2.7 DECOMMISSIONING AND AFTERCARE

Oxigen Environmental Ltd. have set out plans in the unlikely event of facility shut down, or a planned cessation for a period of greater than six months of all or part of the site involved in the licensed activity. Should either of the above conditions occur Oxigen Environmental Ltd. will decommission, render safe or remove for disposal/recovery, all materials, waste, ground, plant and equipment that may result in environmental pollution, in accordance with the existing Decommissioning Plan for the facility. This plan will be reviewed by Oxigen Environmental Ltd. in the event of any material change to the operation or in the volume of waste to be accepted at the facility.

Following implementation of the plan, Oxigen Environmental Ltd. will produce a validation report that demonstrates its successful implementation. This report will confirm that there is no continuing risk of environmental pollution to the environment from the site.

This report shall address: -

1. Disposal of raw materials,
2. Disposal of wastes,
3. Decommissioning of plant and equipment,
4. Disposal of obsolete equipment,
5. Results of monitoring and testing,
6. The need for ongoing monitoring or investigations.

This report will be submitted to the Agency within three months of execution of the Plan.