Oxigen working for a cleaner environment

Oxigen Environmental Ltd.

Waste Licensing
Waste Recovery/Disposal Activities
(Other than Landfill Sites)

Section A

Non-Technical Summary

Oxigen Environmental Ltd. propose to develop a waste recycling and processing facility at Ballymount Industrial Estate, Clondalkin, Dublin 22, which it is anticipated will be operational by October 2004. The proposed waste recycling and processing facility will provide the size and type of facility required to continue the successful 'green bin' initiative, which Oxigen Environmental Ltd. operates on behalf of the four Dublin Local Authorities. The existing green bin operation currently operates from a leased facility in Clonshaugh, Dublin 17. The proposed waste recycling and processing facility will incorporate the best available technologies with regard to 'dry' recyclables in an attempt to expand the number of current waste streams incorporated within the scheme i.e. tetra pak etc.. The facility will initially be operated in compliance with the conditions of Waste Permit (reference WPR 041), which has been obtained from South Dublin County Council in March 2004. Oxigen Environmental Ltd have applied to South Dublin County Council for 'change of use' planning permission, which was submitted in May 2004 (SD04A/0354), which was granted permission on the 13th July 2004.

It is intended to upgrade the existing waste permit to a Waste Licence in order to allow for expansion of the green bin initiative in both the waste type and in the number of households, while allowing Oxigen Environmental Ltd. to expand their current waste management customer base within the Dublin region, through its skip hire and collection business.

The site had been operated as a steel works by Corus Steel (formerly The Steel Company of Ireland) until December 2003, when it was purchased by Oxigen Environmental Ltd.. Six acres of the original eighteen acre site was subsequently sold to Dublin City Council for the operation of the green bin 'dry' recyclable scheme, which is operated throughout the four Local Authorities by Oxigen Environmental Ltd. Therefore, the entire eighteen acre site shall be under the management of and operated by Oxigen Environmental Ltd.

The site is located in the administrative area of South Dublin County Council and is zoned "E – *To provide for industrial and related uses*" under the existing County Development Plan, 1998, and is zoned "*E – to provide for enterprise, employment and related uses*" under the draft County Development Plan 2004 - 2010.

The site is located within the sub-catchment River Camac which is a tributary of the River Liffey. Surface water from the facility will discharge into the South Dublin County Council surface water sewer, which serves the Ballymount Industrial Estate, via an oil interceptor and silt trap. This sewer discharges into the Ballymount Stream, which in turn discharges into the Camac River.

Quaternary sediments underlying the site are glacial in nature, which consist of firm to stiff sandy gravely clays with clast present. The site is underlain by Lower Carboniferous rock consisting of the Calp Limestones (CD). These have been provisionally classified by the GSI as a *Bedrock Aquifer which is moderately productive only in local zones (Ll).* Using GSI criteria for groundwater vulnerability the site has a high - moderate vulnerability rating.

The topography of the area in general is generally flat, located within an industrialised area. The site is at an elevation of approximately 60 m OD. The site is bordered on all four sides by roads, the two main ones being Ballymount Road Lower and Turnpike Road. The nearest residential dwelling is located approximately 180 m north west of the facility.

Site operations will consist of the receipt of segregated household, commercial, industrial and construction/demolition waste, which will be inspected and deposited to the appropriate recycling/transfer building. It is proposed to operate the green bin waste processing primarily from this waste recycling and processing facility and therefore, it is considered that the primary activity on-site is recycling/recovery of waste and as such, under the Fourth Schedule the principal activity involves 'Recycling or reclamation of other inorganic materials'

The relevant waste disposal and waste recovery activities, as per the Third and Fourth Schedules of the Waste Management Act 1996, to which this application relates are:

Third Schedule - Waste Disposal Activities: Activities that occur onsite relevant to the Third Schedule are – 'S urface impoundment, including placement of liquid or sludge discards into pits, ponds or lagoons', 'Physico chemical treatment not referred to elsewhere in this Schedule (including evaporation, drying and calcination), which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 10 of this Schedule (including evaporation, drying and calcination)' 'Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule', 'Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule', and, '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'.

Fourth Schedule - Waste Recovery Activities: Activities that occur on site relevant to the Fourth Schedule include - 'Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)', 'Recycling or reclamation of metals and metal compounds', 'Recycling or reclamation

of other inorganic materials', 'Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule', 'Exchange of waste for submission to any activity referred to in a preceding paragraph of this Schedule', and, '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'.

Review of On-site Operations:

Oxigen Environmental Ltd waste recycling and processing facility will operate 24 hrs a day seven days a week, with the majority of the traffic movements to and from the site between 06:00 and 22:00 Monday to Sunday, with limited movements occurring outside these hours. The operation of mechanical devices on site shall be restricted to between 06:30 to 23:30. 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 bulk traffic movements to the site (i.e. between 06:00 and 22:00), the gate will be closed and access is only permitted by the key personnel (i.e. site manager, recycling building staff etc).

The waste that will be accepted at the site may be characterised as follows:

- Domestic household waste
- Commercial
- Industrial
- Construction and Demolition

These waste classifications, subsequent to inspection, can be further categorised as being either for recycling, for transfer (i.e. suitable for recovery off-site) or for disposal to off-site authorised disposal facilities. All other wastes that are deemed to be in non-compliance with the relevant permit/licence, upon inspection, are returned to source (if determinable) or stored within the bunded quarantine area prior to authorised disposal off-site.

A dual weighbridge currently exists at the facility, which will be linked to an automated software system, that will record all data regarding incoming waste. It is anticipated that under the Waste Permit the site will initially accept approximately 70,000 tonnes of waste into the facility per annum. It is emphasised that these quantities of waste do not represent the overall capacity of the recycling plant. It is envisaged that on receipt of a Waste Licence from the Environmental Protection Agency that the volume of waste accepted will increase to 350,000 tonnes per annum.

All wastes accepted at the facility will be subject to waste acceptance measures, which will be approved by the EPA.

Skip waste / Transfer Waste Material

Oxigen Environmental Ltd will require waste producers to characterise the waste prior to acceptance by vehicle operators. The producer/holder of the waste must, if requested, provide documentation that the waste meets the Oxigen Environmental Ltd. specification. The waste skip is visually inspected by the vehicle operator, and waste not conforming to the specification will not to be accepted by the vehicle operator.

Green bin waste

Oxigen Environmental Ltd have employed dedicated waste inspectors for the green bin collection. Waste inspectors shall accompany the collection of the green bins, refusing any non-conforming bins. Waste inspectors will accompany different routes every week, covering each route at least once a year.

Wastes (namely skip waste, transfer waste and green bin waste) will be delivered by Oxigen Environmental Ltd employees and permitted/licence waste contractors only. Prior to gaining access to the site the vehicle operator will be required to enter the required job number, waste type, source of the waste, vehicle type, vehicle tag number and drivers name into the weighbridge software. The load will be required to the verified by the computer system prior to the barrier being raised.

The driver will be directed to the appropriate recycling/transfer building where the waste will be tipped onto the floor. The load is inspected with non-conforming waste being removed. Non-conforming waste (as detailed within the Waste Licence) will be immediately removed to the waste quarantine area. The waste will be 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.

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

The categories of waste deemed suitable for segregation and subsequent recycling is very much dependant on available markets for such materials. As such, market forces will dictate the feasibility or otherwise of segregating other waste types. It is estimated

that approximately 80 – 90 % of all waste accepted will be segregated for recovery or recycling.

Raw materials used on-site for plant equipment and for vehicles will be stored in a bunded tank on-site. This fuel will be stored in the existing tanks subsequent to the tanks and the bund being integrity tested to known construction standards (namely BS8007:1987). In the event that the tanks do not pass the integrity test they will be fully upgraded prior to any fuel being stored on site.

Emissions

Oxigen Environmental Ltd. will ensure that recovery of waste at the Ballymount Industrial Estate site will be carried out in a safe and environmentally sound manner, such that:

- Emissions from on-site recovery activities will not result in the contravention of any relevant standard, including any standard for an environmental medium, or any relevant emission limit value, prescribed under any other enactment.

- On-site recovery activities will be carried out in accordance with such conditions as may be attached to the Waste Licence, and not cause environmental pollution.

- BAT technologies will be used, if practicable, to prevent/eliminate or, where this may be deemed not practicable, limit/abate/reduce emissions of environmental concern resulting from on-site disposal and recovery activities.

In order to predict the impacts of on-site operations on the existing site and its environs an appropriate environmental baseline monitoring programme was developed. Bord na Mona were commissioned to conduct all required assessments.

Potential air emissions are examined under two separate headings:

i. Traffic Emissions
ii. Dust

Traffic Emissions: Atmospheric emissions relating to the movement of traffic were monitored at the facility. This assessment identified that the predicted emissions from traffic would be negligible and as such did not present an

environmental impact. A predictive model of the potential impacts also revealed that the atmospheric emissions in ten years (i.e. 2013) that would be as a result of traffic movements associated with the facility would be negligible.

Dust: The monitoring of the dust levels at the facility indicated that the predicted impact from dust generation on site would be negligible due to all waste handling activities would be undertaken within large buildings.

Surface water run-off from all hardstanding areas is in a northern eastern direction towards the site entrance. Drainage water is then directed towards a silt trap and oil interceptor prior to discharge to the adjacent surface water sewer system that discharges into the Ballymount Stream.

The results of the surface water investigation conducted at the Oxigen Ltd. site indicated that due to the proposed stringent operational practises on site and the separate collection of all leachate generated at the site, the impact that the facility will have on the local surface water will be negligible.

All foul wastewater, process wastewater and leachate generated on site will be separately collected and discharged into the South Dublin County Council foul sewer system that serves the Ballymount Industrial Estate. This foul wastewater will be treated at the Ringsend Wastewater Treatment facility.

A preliminary investigation of the Cultural Heritage of the site and surrounding environs was carried out. Due to the fact that the site is located within a heavily industrialised area, and that nearest historical site is located over 500m from the facility, it is anticipated that the operation of the waste recycling and processing facility will not impact on the Cultural Heritage of the area.

A baseline ecological survey was conducted at the site. As all the species identified within the site are common throughout the Irish countryside and that neither the site nor its surrounds are designated as a conservation area, it is deemed that the site is of low conservation value. Species composition in the area is relatively common and as such on-site activities would not be expected to impact in any way on current habitat conditions. The existing environment is not designated as a Natural Heritage Area or a Special Protection Area under the Birds Directive or as a Special Conservation Area in accordance with the Habitats Directive, nor, is it designated under any of the other nature conservation designations currently used.

A noise survey was conducted at the Oxigen Environmental Ltd. site incorporating both day time and night time baseline noise levels. Predictions of the contribution arising from site operations to the noise levels at the nearest noise sensitive location (approximately 180 m to the north east of the facility) indicated that the impact of the facility would be minimal. The predicted noise levels were well below the current baseline noise level (contributed mainly by the heavy traffic movements.)

It is considered that the Oxigen Environmental Limited site does not visually impact on the surrounding areas. The site is located within an industrial estate, with the buildings on site being of similar nature and structure of the other buildings on site.

The activities do not appear to have impacted on changes in land use activity. Furthermore, current procedures e.g. continued enclosure/covering of waste material; efficient/immediate sorting and recycling ensure that potential nuisances from e.g. odours, dust and pests are not likely.

Contingency arrangements at the site are considered sufficient to deal with any unexpected/uncontrolled event. If a situation arises that has not been foreseen in the above, then the appropriate arrangements and actions will be decided by the Facility Manager at the time of the occurrence. Furthermore, the preparation of an emergency response plan is being proposed for the site, as part of an overall Environmental Management System. This plan shall list contact names and telephone numbers of key people in the organisation and key external organisations to deal quickly and efficiently with any emergency on-site.

The function of the Oxigen Environmental Ltd. plant will develop such that the maximum recycling/recovery potential of all waste coming onsite will be assessed. The operation of this site in Ballymount is important both for the continued success and expansion of the green bin initiative throughout the household within Dublin city, but is also required to help all four Local Authorities achieve their targets as set out in the Dublin Waste Management Plan.