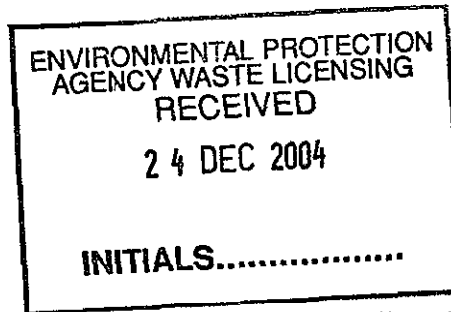


BORD NA MÓNA

BORD NA MÓNA ENVIRONMENTAL LIMITED

Administration,
Office of Licensing & Guidance,
Environmental Protection Agency,
Headquarters,
P.O. Box 3000,
Johnstown Castle Estate,
Co. Wexford.



22nd December 2004

Reg. No.: 208-1

Re: Response to the Article 14(2)(b)(ii) of the Waste Management (Licensing) Regulations

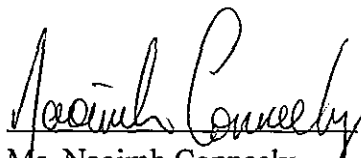
Dear Ms. Cooney,

Please find attached the following information as requested by the Agency in accordance with the Article 14(2)(b)(ii) of the Waste Management (Licensing) Regulations:

1. An original and 2 No. Copies of the Article 12 Compliance Information
2. An original and 2 No. Copies of the Article 13 Compliance Information

If you have any queries please do not hesitate to contact me.

Yours sincerely,



Ms. Naoimh Conneely
Bord na Móna Environmental Ltd.

On behalf of Oxigen Environmental Ltd

MAIN STREET, NEWBRIDGE, CO. KILDARE, IRELAND.
TELEPHONE: (045) 431201. INT: +353-45-431201. FAX: (045) 434207. INT: +353-45-434207.

REGISTERED OFFICE: MAIN STREET, NEWBRIDGE, CO. KILDARE.
REGISTERED IN IRELAND NUMBER: 303313

**OXIGEN ENVIRONMENTAL LTD.,
(WASTE LICENCE REGISTER NO. 208-1)
WASTE TRANSFER STATION,
BALLYMOUNT ROAD LOWER,
CLONDALKIN,
DUBLIN 22.**

ARTICLE 12 COMPLIANCE INFORMATION

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ENVIRONMENTAL PROTECTION
AGENCY WASTE LICENSING
RECEIVED
24 DEC 2004
INITIALS.....

A Submission by Bord na Móna Environmental Ltd.
on behalf of Oxigen Environmental Ltd.

Detailed below is the information required for the Article 12 as requested in the correspondence received by the Environmental Protection Agency on the 3rd November 2004.

A.1 Non Technical Summary

A revised non-technical summary for the Waste Licence Application accompanies this response (see Attachment A).

D.2 & D.3 Facility Operation & Materials Management

A breakdown of the waste types is given in Attachment B, with the waste handling procedure for both the dry recyclables and the skip waste detailed in Attachment C. In Attachment D there is a map indicating the layout of the C & D waste building, and the proposed processes within. A description from the manufacturer is also included in this attachment.

Handling and bulking of hazardous waste

All hazardous waste brought on site shall be handled in an appropriate, environmentally sound manner, following all relevant guidelines, operating procedures and Material Safety Data Sheets as required. All methods shall be agreed in advance with the Agency prior to the accepting of any hazardous waste type on site. It is proposed that the processing of hazardous waste on site shall be undertaken solely within a separate, specially designed Hazardous Waste Transfer building. The design and construction specifications shall be supplied to the Agency at pre-planning stage for consultation. All buildings shall be constructed in line with the relevant planning conditions as imposed at the time.

All waste collected shall be collected by specifically designed vehicles using appropriate collections methods. Each collection vehicle will have an appropriate collection permit from the relevant county council. On arrival at the clients facility, each load will be inspected to ensure that it meets the criteria as detailed by the client. The waste will then be either accepted or rejected by the driver. Waste is then brought to the Ballymount facility and is subjected to further inspection at the waste inspection area of the building. In the event that unacceptable waste is identified it shall be brought to the quarantine area where it will be stored until such time as it can be returned to the source or taken off site for appropriate disposal.

Once a waste has passed inspection it will be taken to the storage area, clearly labelled for the waste type (inc EWC code), the source client and the date of acceptance.

The storage area shall be segregated into a number of dedicated areas to ensure that waste types cannot be mixed and shall be of appropriate design for the particular waste type. For example WEEE will be stored in a lockable metal container which when full can be lifted off site and replaced with an empty one. Any liquid material will be stored in clearly labelled UN approved containers on pallets in an appropriately bunded area. This bund will have sufficient containment level.

All personnel working in the hazardous waste transfer facility will be fully trained in dealing with all possible hazards associated with the waste types being accepted. All safety and environmental operating procedures will be designed to take account of these hazards and will be implemented subject to approval by the Agency.

Some waste types will require to be transported off site for recycling/recovery in a single EWC code load while in other cases mixed loads will be required. At all times the appropriate documentation including MSDS, Hazchem data sheets, waste permits will accompany each load.

All recycling recovery operations will be audited in advance by qualified personnel to ensure that BAT is being used. Before hazardous waste operations commence, the waste types and maximum quantities will be agreed with the Agency (subject to this being in accordance with the existing waste licence).

It should be noted that the above description deals solely with the hazardous waste that is actively collected to be processed on site. This procedure however does not deal with hazardous waste that may inadvertently be accepted within loads and only identified at the waste inspection stage. This waste shall be handled as detailed in the original application.

Washing of plastics

Through the research of the existing infrastructure required for the washing of plastics, in line with the predicted environmental impacts and customer demands, it has been decided at this time that this operation will not be undertaken at the facility. It is therefore not required to be assessed as part of the waste licence application.

Drying of road sweepings to include the proposed disposal/recovery methods for the solid fraction

Oxygen Environmental Ltd. are currently evaluating methods for the processing of road sweepings.

The solution to this waste disposal problem is to economically process these materials to remove contaminating litter and organics, and to separate the mineral constituents into specified size fractions (i.e. fine sand, coarse sand and gravel) to produce marketable end products. The solution also requires including a selection of a processing technology that is economical and environmentally compatible for this approach to be viable.

With BAT reference notes currently in preparation a final decision will be made in line with recommendations. However in the meantime a number of technologies have been evaluated.

Liquid separation: The basic principle here is that in a water bath or float tank heavy material e.g. stone will sink and light material e.g. plastic will float. Complications arise when saturated wood sinks along with the rock. Various methods have been devised to increase the floatability of the wood usually by use of upstream currents or jets.

Vibratory separation: Material on a vibrating conveyor is said to be 'alive' and moves independently of the conveying medium. This characteristic provides a solution to many difficult materials handling and processing applications with highly varied materials, including street waste solids.

In addition to conveying materials the vibratory action has the effect of stratifying the materials into layers, wherein the materials with greater density 'sift' to the bottom and the lighter density materials 'float' to the top. To a lesser degree, the vibratory action also sorts by size, wherein two materials with roughly the same density will sort out with the finer material beneath the coarser.

Air Separation: Air separation systems take advantage of differences in material density, particle size and aerodynamic characteristics to separate mixed materials into component parts. A steady stream of air combined with vibration, has been used to stratify the material in preparation for separation. This is followed by a high pressure, linear stream of air from a device commonly known as an air knife. This type of vibrating/pneumatic classification equipment is used extensively in waste recovery industries to process various materials including bio-mass fuels, auto shredder fluff, construction/demolition waste, scrap processing and tyre recycling.

Mechanical screening: (Preferred option) Mechanical screening is another common method of classifying materials, primarily by size. Screening systems rely on gravity for the flow of material, and can consist of single screens or sets of multiple screens with varying opening sizes. In all cases coarser material is retained on the screen as finer material passes through the screen. The separated material typically exits the screen at different points and is conveyed away from the equipment for separate discharge and handling.

There are numerous types and configurations of screens, with the three main types being the vibratory deck screen, the trammel screen and the disc screen. The vibratory deck screen typically consists of a feed hopper that meters the material onto a conveyor that in turn feeds a uniform stream of material onto the vibrating set of screens. The feed hopper is commonly equipped with a multiple set of parallel bars designed to separate the very large material. A vibratory deck screen commonly separates materials into three or four size components.

Vibrating deck screens that use 'cascading fingers' are somewhat more effective than a grid screen but still will not remove adhered fines effectively nor will they break up agglomerated particles. The fingers will collect organic strings at the end of the runs and need to be shut down and cleaned periodically as these strings build up.

A trommel screen consists of a gently sloping screen that rotates. The material is fed into the trammel using a metered feed hopper and conveyor similar to the vibratory deck screen. As the material is tossed across the screen surface, the fines pass through onto a return conveyor for side discharge, and the coarse materials exit the end of the screen. Some trammels have two screen sizes, with the larger screen located near the discharge end. In this case, the two screened materials are generally allowed to fall into separate bins beneath the screen for removal.

The trommel is probably the most effective piece of screening equipment that can process and condition wet material for further separation. With lifting flights installed in the screen, material will be lifted, turned and dropped onto the effective screen surface, breaking agglomerated chunks and jarring free adhered particles. Chains have been installed in the screening chamber to further break up and break free agglomerated and adhered particles into free particulates for clean size separation. The trammel slope can be easily adjusted so as to increase retention and exposure to the screen surface, thus cleaning the oversize waste material. The trommel is the recommended sizing and preconditioning screen for use with street sweepings.

Disc screens or star screens are also effective for separating organic laden and somewhat cohesive materials. Rapidly rotating discs lift and drop materials with an aggressive rolling action that breaks up cemented or adhered materials. This violent action exposes more surface to the screening aspect, and since every disc is rotating, it is self cleaning.

The disc screen is commonly used in the waste industry, as it has better production rates than a trommel. The oversize, which is usually the waste, is cleaner with little 'lost product'. The star screen is usually equipped with polyurethane discs that would be subject to excessive wear with the aggregate materials. The star screen is very effective with organic materials where the medium is not as abrasive. The disc screen is not as simple mechanically as a trommel, therefore maintenance can be considerably higher.

The material recovered namely soil and sand would be (subject to analyses and subsequent approval by the EPA) sent for inert landfill to an approved site or sent to landfill for use as daily cover. The large fraction containing contaminants would be sent to landfill.

Shredding of wood, to include the proposed methods of segregation to ensure that C&D wood waste is not supplied as boiler fuel

Timber will be shredded using a Tub Grinder model Moorbark 1100 or equivalent. (see attachment E for specification) this machine has a 650 HP engine and variable screen size. It can shred approximately 50 – 60 m³/hr.

All wood waste delivered to the machine will have been pre-sorted either directly on site or prior to delivery from outside sites. Only material from other Oxigen Environmental Ltd. sites will be taken directly to the shredder as they will have been instructed as to the quality requirements. All other material from third parties will be taken to a pre-sort area for segregation prior to shredding.

All directions from the EPA with regard to the handling and processing of C & D wood waste will be incorporated into our operating procedures.

The finished product will be used as raw material in the production of chipboard. Contracts with a number of these manufacturers are already in place from our other facilities and can be extended to include the Ballymount facility.

This machine has a noise output level of 75dB at 100 feet and 66dB at 300 feet. All shredding will be carried out indoors and the area soundproofed if deemed necessary. Rotary probe atomisers will be used for dust suppression and the shredding area will be a self contained area. A dust extraction system to conform with EU specifications will be installed if deemed necessary.

Conversion of clean aggregate into a product for use off site, to include details of any C&D waste crushing to be carried out on site.

Details of the operations of the C & D waste is detailed in Attachment D, with a drawing indicating each section of the Bollegraf. The manufacturers recommendations have also been included and shall be implemented by Oxigen Environmental Ltd as part of the required BAT approach.

E.2 Proposed waste types and quantities

Below is a revised Table E.2.1 indicating the quantity of industrial sludges that will be accepted on site per annum.

TABLE E.2.1 WASTE TYPES AND QUANTITIES

WASTE TYPE	TONNES PER ANNUM	TOTAL (over life of site) tonnes
Household waste collected by or on behalf of the local authority	100,000	-
Household waste delivered to civic waste facilities and other bring facilities	10,000	-
Other household waste	70,000	-
Commercial Waste	40,000	-
Sewage Sludges	-	-
Construction and Demolition Waste	80,000	-
Industrial Sludges	1,000	-
Industrial waste not elsewhere specified	19,000	-
Hazardous Waste	30,000	-

It is not proposed at this time to accept asbestos waste at the Ballymount Waste Transfer Facility, and therefore the EWC codes 17 06 01* - insulation materials containing asbestos and 17 06 05* - construction materials containing asbestos have been removed from the list of materials accepted on site as listed in Attachment B.

E.5 Raw materials & Handling

The predicted electricity and water usage per annum are detailed below:

Resource	Quantities
Electricity	500,000 kWhr
Water	2,800 m ³

H.1 Air – impacts and mitigation

Give details and an assessment of the dust emissions associated with the operation of the wood shredder and processing of C&D waste and proposed abatement measures

Dust will arise from the processing of C&D waste at the facility, with the majority of dust created in the tipping hall. It is emphasised that the operation will take place in an enclosed building, of which the doors will be kept closed as far as possible. This will ensure that dust from the process cannot enter the atmosphere in significant quantities. In addition, provision is

made to reduce the dust created by the process and a dust suppression system is proposed to be installed (see below).

The C&D sorting system features a built-in dust prevention system. By discharging approximately 20% air from the blowing section to the dust filter, the circulating air is cleaned continuously and creates the under pressure at the sifter point and in the screen housing, and eliminates dust production from the screen and the sifter unit. In addition, at three of the screening components where waste is sorted, provision is made to reduce dust generation. The 0-200 to 400mm (variable by speed rotation) screen is completely enclosed in order to prevent dust coming out of the screen. The 0-40/60mm (variable by speed variation) screen; in order to prevent dust coming out of the screen, has covers with hinges on the top of the screen. The 0-16mm minus (variable by speed variation) screen also has top covers with hinges to prevent dust coming out of the screen. As such, hardly any dust will be created within the screens, and what is created will be caught by dust filters in the air separation units to a maximum of 3mg/m³ circulated.

The Wood Shredder to be installed is the Morbark Tub Grinder Model 1100. The main dust emission from this will be wood dust, which will be created in the screening and the movement of the shredded material. A standard feature of this model is the tub cover, which contains debris, including dust, within the machine. This, along with the dust suppression system described below, will ensure that dust emissions from this process are not significant.

Give details and an assessment of the dust emissions arising from dust extractor units referred to in Section J.4 of the application

Once approved by the Agency, it is planned to install a wide area dust suppression system rather than dust extractor units. The wide area dust suppression system will utilize probe atomizing technology, designed for building head space suppression of dust. At the tipping area, fine water sprinklers are proposed to be used to suppress dust. In addition, a local point dust suppression system using Zyclone Mini-atomisers close to the emission sources where equipment is partially enclosed (e.g. the screens as described above). The mini-atomisers are designed to spray into the head space eliminating dust at source without wetting the product. The Zyclone system operates by evaporative cooling, created by water droplets entering the air. This reduces the possibility of combustion through friction during operation of the screens.

As detailed above, the building will be completely enclosed with doors closed as far as possible, reducing the emission of dust to external areas.

Give details of the abatement measures to be employed on the dust extraction units referred to in Section J.4 of the application

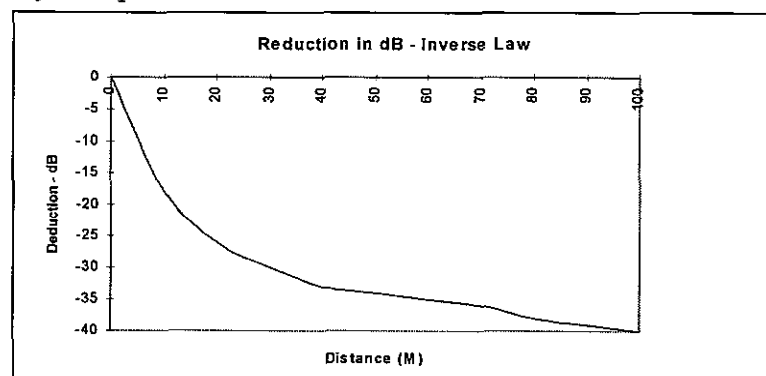
As detailed above, it is planned to utilise a dust suppression system rather than a dust extraction unit. This will remove the need for abatement measures on the dust extraction units as dust will be contained within the process building. Additional built-in abatement measures are described above. Excess dust will be disposed of with normal sweepings and cleaning lines in compliance with the relevant Waste Management Legislation.

H.8 Noise – impacts and mitigation

Table 1.1 below shows the predicted noise impact at the nearest sensitive receptor from the sound pressure reference levels for the proposed equipment likely to be used during normal operations of the C & D facility. These predictions account for the normal hours of operation from 06:00 to 22:00. Table 1.2 below shows the predicted noise impact from the operation of the wood shredder at the nearest sensitive receptor from the sound pressure reference levels for the proposed equipment – Morbark Model 1100 Tub Grinder.

To predict the noise level of identified on-site noise sources at the noise sensitive locations the sound pressure reference level of each source was obtained at a reference distance within its near field, usually 1m. This reference level is in most cases provided by the manufacturer of specific items of equipment and in other cases was obtained by actual noise measurements for operating equipment in similar composting scenarios. Predictions shall be carried out by employing the inverse square law, which is a “rule-of-thumb” used to calculate the expected reduction in noise levels as one moves away from the source. Generally, as one doubles the distance from the source, a reduction of 6 dB is expected. Within a confined space, however, this rule does not apply due to reflection where a diffuse field is set up at a level higher than that expected from this law. The graph below indicates the expected reduction in sound level as one moves away from the source. The curve flattens out as the distance increases due to the logarithmic function that determines the noise level at a particular distance.

Graphically this may be represented as follows overleaf:



The Inverse Square law is defined as.

$$L_{p2} = L_{p1} - 20 \text{ Log } (R2/R1)$$

L_{p2} is the calculated sound pressure level at R2 meters towards the receiver location

L_{p1} is the measured reference sound pressure level at R1 meters from the source

Table 1.1: Sound Pressure Reference levels for the proposed equipment to be employed at the waste recycling and processing facility and their predicted noise impact– C & D Building

Proposed Equipment	SPL Ref. dB A	Distance (m) of Noise Source(s) to Noise Sensitive Location(s) (Approx.) <small>note 1</small>	Predicted Noise Levels (dB A) At the Noise Sensitive Locations
		NSL1	NSL1
Screening Machine	76@20m	300	52.5
Truck Delivering	90@1m	300	40.5
Forklift operating	78.6@1m	300	29.1
Volvo Loader	90@1m	300	40.5
Skid Steer Loader	84@1m	300	34.5
<i>Accumulative Noise when working in unison</i>	-	-	53.1
<i>Accumulative Noise when working in unison taking into account building / barrier attenuation of at least 5 dB(A)</i>	-	-	48.1

Table 1.2 Sound Pressure Reference levels for the proposed equipment to be employed at the waste recycling and processing facility and their predicted noise impact- C & D Building

Proposed Equipment	SPL Ref. dB A	Distance (m) of Noise Source(s) to Noise Sensitive Location(s) (Approx.) ^{note 1}	Predicted Noise Levels (dB A) At the Noise Sensitive Locations
		NSL1	NSL1
Wood Shredder	75@30.5m*	300	55.1
<i>Accumulative Noise when working in unison taking into account building / barrier attenuation of at least 5 dB(A)</i>	-	-	50.1

* - This noise level is for the 650 HP engine for the Morbark wood shredder, however the model to be used on the site is the 575 HP engine which will have reduced noise emissions and as such the predicted level at the NSL is an over estimation of the actual levels.

Abatement Systems:

The main noise sources listed above are not likely to be operating continuously during the day and therefore, any impact will not be of a continuous nature. Also, it is proposed that all operations concerning sorting / recycling of material will take place indoors and thus further reducing the potential impact from noise sources. There are several mitigation measures that can be put in place to further reduce noise levels impacting on the receiving environment.

These include:

- Proper maintenance of vehicles and equipment, including the conveyors, screening equipment, shovel loaders and compacting machinery.
- Monitoring of site noise levels to ensure compliance and implementation of cost effective control measures.
- The control of on-site activities through the implementation of good management practices will combine to ensure that the noise generated at the site will not have any undesirable effects on the existing neighbouring environment.
- Selection of plant with low inherent potential for generation of noise and / or vibration
- The closure of all doors on the main plant building.

H.10 Discharges to Sewer

A revision of Table H.10 is given below which details an estimate of the volume of water that will be discharged from the site.

Table H.10: DETAILS OF DISCHARGES TO SEWER
(ONE TABLE PER EMISSION POINT)

Emission Point Ref. N^o:	SE-1		
Name of emission point:	Emissions to Foul Sewer		
Source of emission:	Process waste water		
Location of sewer connection:	Ballymount Road Lower		
Grid Ref. (12 digit, 6E, 6N):	E309600, N230736		
Date of commencement:	Not known		
Name of sewer undertaker:	South Dublin County Council		
Periods of emission (avg.):	60 min/hr	24 hr/day	351 day/yr
Volume to be emitted:	Average/day:		8m ³ /d
	Maximum rate/hour:		2m ³ /h
	Maximum rate/day:		10m ³ /d
Name of receiving water:	Not Applicable		
Flow rate in receiving water:m ³ .sec ⁻¹ Dry Weather Flow		
m ³ .sec ⁻¹ 95%ile flow		
Available waste assimilative capacity:	kg/day		

Floor washings in the skip waste, dry recyclables and waste transfer buildings

It is proposed that due to the dry nature of the waste that the waste transfer buildings shall be primarily swept as opposed to be washed on a regular basis. The floors will be washed when deemed necessary by the Facility Manager, but at a minimum once a month. It is therefore proposed that a maximum contribution that will have originated from the floor washings will be $<10 \text{ m}^3/\text{month}$

Dust and odour suppression systems

These units will use minimal volumes of water and will be primarily absorbed by dust and dirt within the buildings. These systems shall only be operational when required and not used continuously. The volume of water that will be contributed to the discharge from these systems will be $<1 \text{ m}^3/\text{day}$.

Washings of plastics

As detailed above it is not proposed to undertake this activity on site.

Any vehicle washing to take place on site

Vehicle and primarily bin washings shall take place on site, within the designated area. The volume of water that will be contributed to the discharge from this activity shall be $<5 \text{ m}^3/\text{day}$

K.1 Contingency Arrangements

The 'newly installed leachate containment provisions' are the drains that will be installed into all the waste transfer buildings for the collection of leachate. Details of this drainage have been detailed in Drawing D.1, as provided in the original application.

Attachment A
Revised Non-Technical Summary

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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 (LI)*. 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 – 'Surface 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, which 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 be 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