

# **Appendix No. 1**

## **Certificate of Incorporation**

For inspection purposes only.  
Consent of copyright owner required for any other use.

Number  
**329846**

## Certificate of Incorporation

I hereby certify that

**TED O'DONOGHUE & SONS LIMITED**

is this day incorporated under  
the Companies Acts 1963 to 1999  
and that the company is limited.

Given under my hand at **Dublin**, this  
**Thursday, the 6th day of July, 2000**



for Registrar of Companies

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# **Appendix No. 2**

## **Planning Permission S/01/0384**

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CORK COUNTY COUNCIL

LOCAL GOVERNMENT (PLANNING & DEVELOPMENT) ACTS, 1963-1993

NOTIFICATION OF DECISION TO GRANT PERMISSION (with conditions)

Reference No. in Planning Register  
S/01/0384

TED O'DONOGHUE  
c/o Pat O'Halloran,  
Corbally,  
Ballinora,  
Waterfall

In pursuance of the powers conferred upon them by the above mentioned

Acts, the Council of the County of Cork have by Order dated

decided to GRANT PERMISSION for the development of land namely;

Construction of enclosed structure to house a waste  
transfer & recovery station

AT: KNOCKPOGE, WATERFALL

in accordance with the plans and particulars submitted by the applicant

On: 02/02/01

& as amended by drawings & revised documentation on 02/07/01  
and 07/09/01

and subject to the conditions (11 No.) set out in column 1 of the  
Schedule attached hereto. The reasons for the imposition of the  
said conditions are set out in column 2 of the Schedule.

An appeal against a decision of the Planning Authority may be made to  
An Bord Pleanála by any person before the EXPIRATION of the period of  
ONE MONTH beginning on the day of the giving (i.e. Date of Order) of  
the decision of the Planning Authority. (SEE NOTES ATTACHED)

If there is no appeal against the said decision, a grant of PERMISSION  
in accordance with the decision will be issued after the expiration of  
the period within which an appeal may be made to An Bord Pleanála.

It should be noted that until a grant of PERMISSION has been issued, the  
development in question is NOT AUTHORISED.

Planning Department,

County Hall,

Cork.

Signed on behalf of the said Council

DATE:

SEE NOTES ATTACHED

5 NOV 2001

SCHEDULE

no. in Planning  
01/0384

Column 1 - Conditions

Column 2 - Reason

(1)

The proposed development shall be carried out in accordance with plans and particulars lodged with the Planning Authority on 07/09/01 save where amended by the conditions herein.

In the interests of the proper development of the site.

(2)

Use of the overall premises and site shall be restricted to those uses specified in the documentation lodged with the Planning Authority and any change of use, whether within the use class for exempted development of the Local Government (Planning and Development) Regulations, 1994, as amended, or otherwise, shall be subject to the prior Approval of the Planning Authority.

In the interests of orderly development and because it is considered that any change of use would warrant the making of an application for and the Grant of Approval.

(3)

The external cladding to be used on the enclosed structure shall be coloured dark green.

To ensure that the development will be in visual harmony with the traditional pattern of development in the area.

(4)

The proposed entrance shall be as per the plans and particulars submitted to the Planning Authority 02/07/01.

To provide proper sight distance for emerging traffic in the interests of road safety.

Any new roadside boundary walls, side walls and piers shall be constructed in natural stone and shall be splayed at an angle of 45 dgs. and walls and piers shall not exceed a height of 1m over the level of the adjoining public road.

(5)

Sight distance of 80 m to the

To provide proper sight

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Column 1 - Conditions

Column 2 - Reason

north and 80 m to the south shall be provided from centre point of entrance 3 m back from public road edge. No vegetation or structure shall exceed 1m in height within the sight distance triangle.

distance for emerging traffic in the interests of road safety.

(6)

The site shall be landscaped in accordance with the scheme of landscaping submitted to the Planning Authority  
2/07/01.

In the interests of visual amenity.

(7)

All planting to comply with the specifications of the landscaping scheme agreed shall be maintained by the developer and if any plant should die it shall be replaced within the next planting season.

In the interests of visual amenity.

(8)

All planting agreed under condition no. 6 shall be carried out within 6 months of the date of this order.

In the interests of visual amenity.

(9)

On-site parking area shall be provided to the Planning Authority's satisfaction for all vehicles using the site.

To prevent parking on the public road in the interests of road safety.

(10)

The workshop shall be used solely to store house equipment and materials necessary for servicing the trucks.

To safeguard the amenities of the area.

The workshop shall be ancillary to the waste transfer and recovery station and no retail use,



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Column 1 - Conditions

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manufacturing or other process  
shall be carried on therein.

(11)

Within a period of one month prior to the date of commencement of the development, but no later than such date, the developer shall pay to Cork County Council a sum of £3,000 updated in accordance with the Consumer Price Index from the date of grant of Permission/Approval to the value pertaining at the time of payment, as a contribution towards the expenditure proposed to be incurred by the Council in the provision of road improvement works which will facilitate the proposed development. The payment of the said contribution shall be subject to the following:- (a) Where the proposed works are, within a period of 7 years from the date of payment of the full contribution or final instalment payment thereof, not commenced, the return of the contribution or the instalments thereof, paid during that period. (b) Where the proposed works are, within a period of 7 years from the date of payment of the full contribution or final instalment payment thereof, carried out in part only, or in such a manner as to facilitate the proposed development to a lesser extent, the return of a proportionate part of the contribution or the instalments thereof paid during that period. (c) Payment of interest at the prevailing interest rate payable by the Council's Treasurer on the Council's General Account on the

It is considered appropriate that the developer should contribute towards the expenditure to be incurred by the Council in respect of these works which will facilitate the proposed development.

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Column 1 - Conditions

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contribution or any instalments thereof that have been paid, so long as and in so far as it is or they are retained unexpended by the Council.

No development shall take place until the monies have been paid to the Council.

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# **Appendix No. 3**

## **Site Waste Management**

### **Permit 01/00**

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Cork County Council

**WASTE MANAGEMENT ACT, 1996 (NO. 10 1996)  
AND  
WASTE MANAGEMENT (PERMIT) REGULATIONS, 1998  
(S.I. NO. 165 OF 1998)**

**PERMIT**

**LOCAL AUTHORITY:**

Cork County Council

**PERMIT REFERENCE NUMBER:**

01/00

**PERMIT HOLDER:**

Ted O'Donoghue.

**PRINCIPAL PLACE OF BUSINESS:**

Knockpogue, Waterfall, Co. Cork

The County Council of Cork, in accordance with the Waste Management (Permit) Regulations, 1998 hereby grants a permit to Ted O'Donoghue for a facility located at Knockpogue, Waterfall, County Cork for the period ending 31<sup>st</sup>, December, 2004, in accordance with plans and particulars furnished with application received 17<sup>th</sup>, April, 2000, to engage in the following activities:

Repackaging of waste prior to submission to a waste disposal facility; storage of waste intended for submission to a waste disposal facility; blending or mixture of waste prior to submission to a waste disposal facility activity; recycling or reclamation of organic substances (excluding composting or other biological processes); recycling or reclamation of metals and metal compounds; recycling or reclamation of other inorganic materials; storage of waste intended for submission to a waste recovery facility; subject to the following conditions:-

1. The Permit Holder shall use BATNEEC (Best Available Technology Not Entailing Excessive Cost) in the recovery of waste brought on site.
2. Comprehensive written operating instructions and procedures shall be prepared in respect of waste control to assist personnel with responsibilities in this area. These procedures shall be made available to the Permitting Authority on request.
3. Employees with responsibilities in the waste control area shall receive training adequate to enable them to execute their tasks in relation to pollution control.

## Cork County Council

4. The Permit Holder shall keep a record of quantity, nature, origin, destination, frequency of collection, mode of transport and treatment of all waste managed on site. The waste shall be categorised in accordance with the European Waste Catalogue.

5. The surface water discharging from the site shall be tested for the parameters indicated below. The tested parameters shall not exceed the limit values indicated as follows:-

C.O.D.	125 mg/l
Total Suspended Solids	30 mg/l
Mineral oils and hydrocarbons of petroleum origin	5 mg/l
Heavy Metals	0.1mg/l
pH	Range 6 to 9

The frequency of testing for all parameters shall be six-monthly.

6 The Permit Holder shall provide a sampling point on the discharge for the use of any Statutory Body having responsibility for Water Pollution Control. The Permit Holder shall ensure that direct access to the sampling point is available at all times.

7. The Permit Holder shall carry out a daily visual inspection of the surface water from roofs and hardstanding areas to discharge points and any abnormalities in water quality shall be noted. In the event of any such abnormalities, the Permit Holder shall immediately notify Cork County Council and initiate an investigation into the possible cause of the abnormalities.

8. All storage tank areas and drum storage areas shall be rendered impervious to the materials stored therein. In addition, storage tank areas shall be bunded to a volume of 110% of the largest tank within each individual bunded area. Drum storage areas shall be bunded to a volume equal to 110% of the sum of the volumes of the largest ten drums likely to be stored therein.

9. The integrity and watertightness of all the bunded structures and their resistance to penetration by water or other materials stored therein shall be tested and demonstrated by the Permit Holder to the satisfaction of the Permitting Authority.

10. The Permit Holder shall ensure that all operations on-site shall be carried out in a manner such that air emissions including dust and/or odours do not result in impairment of or significant interference with amenities or the environment beyond the site boundary.

11. Dust deposition arising out of activities on site shall not exceed 250 mg/m<sup>2</sup>/day at the site boundary averaged over 30 days. The method of measurement and interpretation shall be as specified by the Permitting Authority.

12. Activities on site shall not give rise to noise levels off site at noise sensitive locations which exceed the following sound pressure limit (Leq, 15 min).

## Cork County Council

## During Permitted Operating Hours

55 dBA

There shall be no clearly audible tonal component or impulsive component in the noise emission from the activity at any noise sensitive location.

13. The volume of all wastes managed on site shall be recorded by the Permit Holder. All such wastes shall be detailed as to source, route and type of recycling or disposal, final destination and classification under the European Waste Catalogue. This information shall be included in the annual summary report which must be returned to the Permitting Authority under the terms of this permit.

14. All paper/cardboard, glass, plastic, metals, wooden pallets, oil and batteries shall be recycled or recovered in so far as is practicable. All waste management options utilised shall be agreed in advance with the Permitting Authority. Residual wastes shall be disposed of only to permitted or licensed facilities.

15. While awaiting disposal, all wastes for recycling/recovery and by-products/residual wastes for disposal shall be collected and stored in designated areas protected against spillage and leachate run-off. Skips containing residual wastes shall be covered when not actively in use. A maximum of three skips shall be used for the retention of residual wastes.

16. All residual waste delivered to site between Monday and Thursday of any week shall be removed off site within 24 hours.

17. Waste shall be cleared from all vehicles retained on-site overnight and vehicles shall be parked in an orderly fashion in a designated area.

18. The Permit Holder shall establish procedures to ensure that corrective action is taken should the specified requirements of this permit not be fulfilled. The responsibility and authority for initiating further investigation and corrective action in the event of a reported non-conformity with this permit shall be defined.

19. The Permit Holder shall ensure that a person in charge shall be available on-site to meet with authorised persons of the Permitting Authority at all reasonable times.

20. The Permit Holder shall put in place a programme to ensure that members of the public can obtain information concerning the environmental performance of the Permit Holder at all reasonable times.

21. The Permit Holder shall maintain sufficient and continuous vermin control at the site.

22. The permitted hours of operation shall be 07.00 to 19.30 hours Monday to Saturday unless otherwise agreed with the Permitting Authority.

23. The annual intake of wastes to be consigned to landfill from the facility shall not exceed 5,000 tonnes.



*Cork County Council*

24. The granting of this permit does not exempt any development from complying with the requirements of the Planning Acts or with other pieces of legislation.

25. The Permit Holder is legally responsible for all aspects of the operation and maintenance of the site. Nothing in the granting of this permit in anyway reduces the legal liabilities of the site owner.

26. The Permit Holder will be responsible for the control of litter in the vicinity of the site.

27. The Permit Holder shall grant immediate and unhindered access to the site, including sewers and pipes to any authorised personnel representing any Statutory Body having responsibility for environmental pollution control at all reasonable times to carry out such inspections, monitoring and investigations as the body deems necessary.

28. The Permit Holder shall keep records of all monitoring carried out and shall retain such records for a minimum period of three years. These records shall be available for inspection by authorised personnel representing any Statutory Body involved in water pollution control at all reasonable times. Any non-compliance with the terms of the permit shall be highlighted and the reason(s) why such non-compliance occurred shall be stated. The measures taken to ensure full compliance shall be stated. The percentage compliance with permit values for each parameter shall also be indicated.

29. Before January 15th. of each calendar year, the Permit Holder shall submit a summary of all monitoring carried out in the previous year. This report shall evaluate the operation of the facilities available on site to minimise environmental impacts in the light of the results achieved in the previous year. The report shall also outline the intentions of the Permit holder with regard to the upgrading of site facilities where warranted. All reports shall be certified accurate and representative by the Permit Holder.

30. Adequate Fire Extinguishers and emergency response equipment shall be maintained on site.

31. Fires shall not be permitted on the site. Any outbreak of fire shall be considered an emergency and a notifiable incident. If a fire occurs, the Permit Holder shall immediately arrange to have it extinguished. If the fire (or emission of smoke) continues for longer than 30 minutes, the Permit Holder shall arrange to have it extinguished by the Local Authority Fire Brigade at the expense of the Permit Holder.

32. The site shall be adequately fenced at all times in order to prevent unauthorised access outside of operating hours.

33. In the event of any incident which may result in water, soil or air pollution, the Permit Holder shall immediately report the incident to Cork County Council by telephone or telefax and shall confirm the communication in writing within twenty-four hours. The Permit Holder shall take all possible steps to ensure that emissions

*Cork County Council*

discharges not in accordance with the provisions of this permit do not occur and shall consult with Cork County Council on the best practicable means of rectification.

34. The Permit Holder shall notify Cork County Council within seven days of-

(i) the imposition of any requirement on the permit holder by order under section 57 or 58 of the Waste Management Act, 1996, or

(ii) any conviction of the permit holder for an offence prescribed under section 34(5) or 40(7) of the Waste Management Act, 1996.

35. The permit holder shall hold a copy of the permit at all times at the principal place of business and at the facility to which the permit applies.

36. The Permit Holder shall pay to Cork County Council the sum of £200 in respect of this permit. The Permit Holder shall also pay such annual contributions towards the cost of monitoring the site operations as Cork County Council considers necessary for the performance of its duties under the Waste Management Act taking account of the actual costs of monitoring as incurred.

37. The permit is valid from the date of issue until the 31<sup>st</sup>. December, 2004.

  
Authorised Officer

14/2/2  
Date

CTO Environmental Solutions Ltd., Waste Permit



**Appendix No. 4**  
**Waste Collection Permit**  
**CK WMC 47/01**

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# Waste Management (Collection Permit) Regulations, 2001

## WASTE COLLECTION PERMIT

**CK WMC 47/01**

**Cork County Council** being a nominated authority under Section 34(1)(aa) of the Waste Management Act, 1996 (as amended), hereby grants a waste collection permit CK WMC 47/01 to:

**Ted O'Donoghue & Sons Ltd**, hereinafter called the permit holder

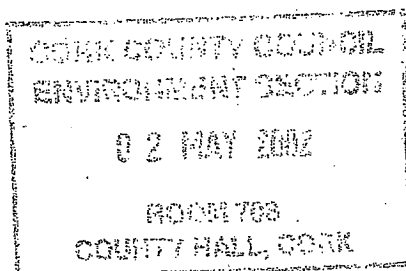
of

**Mountain View House, Waterfall, Cork**

subject to the attached schedule of conditions.

The permit holder is authorised by this permit to collect specified waste type(s) in the following local authority areas only:

**Cork County Council  
Cork City Council**



## CONDITIONS

### 1 Scope of Permit

- 1.1 The permit holder may collect wastes specified in condition 1.2 in the following local authority areas:  
**Cork County Council**  
**Cork City Council**
- 1.2 The permit holder may collect the following waste types only:  
**Household Waste**  
**Municipal Waste**  
**Commercial Waste**  
**Industrial Waste**  
**C&D Waste**  
**All are non hazardous waste.**
- 1.3 The conditions of this permit are based upon the information provided by the applicant during the application process. The permit holder shall notify **Cork County Council** in writing of any changes in the information furnished within two weeks of any such change arising.
- 1.4 **Cork County Council** may at any time review, and subsequently amend the conditions of, or revoke this permit. This permit shall expires, either
- (i) if the permit is reviewed by **Cork County Council** on the date of the issue of the reviewed permit, or
  - (ii) if the permit is reviewed by **Cork County Council** on the date that the permit holder is notified by the council of the revocation, or
  - (iii) two years from the date of grant of the permit.
- 1.5 This waste collection permit and any condition imposed therein shall not relieve the permit holder of his/her statutory obligations under any other enactment whatsoever.
- 1.6 This permit is non-transferable.
- 1.7 No person other than the permit holder or the permit holder's employees are permitted to collect waste with this permit.
- 1.8 Only vehicles registered to the permit holder are permitted to collect waste under this permit.

## 2. Management of the Waste Collection Activity

- 2.1 The Permit holder shall ensure that all waste collected under this permit is transferred to a facility for the purpose of a recovery or disposal activity for which
- (i) there is in force a waste licence or a waste permit in relation to the carrying on of the activity concerned at that facility, or
  - (ii) an application for such licence or permit has been made to, and is under consideration by, the Agency or relevant local authority and the activity concerned may be lawfully carried on pending a decision in relation to the said application.
- 2.2 The permit holder shall carry or cause to be carried a full copy of this permit at all times on each vehicle which is used for the purposes of the activity to which the permit relates.
- 2.3 The permit holder shall not export waste from the State unless such export is fully in compliance with the requirements of Council Regulation (EEC) No. 259/93 of 1 February, 1993 (as amended) on the supervision and control of shipments of waste within, into and out of the European Community and Waste Management (Trans Frontier Shipment of Waste) Regulations, S.I. No.149 of 1998.
- 2.4 The permit holder shall be familiar with the requirements placed on holders of household and commercial waste arising from any bye-laws made under section 35 of the Waste Management Act, 1996 by the local authorities in whose area the collection activity is being carried out, and shall keep a copy of all such bye-laws at the address of the principal place of business.
- 2.5 Where bye-laws referred to in condition 2.4 have been made by one or more of the relevant local authorities, the permit holder shall not collect waste from holders unless it has been presented in accordance with the requirements of the bye-laws in force in a particular local authority area.
- 2.6 The permit holder shall identify all hazards associated with the waste being collected, and shall be familiar with best practices regarding its safe movement and handling and shall adopt all necessary, reasonable and practicable measures so as to minimise the risks of contamination to all environmental media or endangerment to the general public or their health.
- 2.7 The permit holder shall submit as part of the first Annual Environmental Report a documented '*Emergency Response Procedure*', which shall address any emergency situation which may arise. This procedure shall include for

any emergency response unit, replacement vehicles, clean-up equipment etc that may be necessary in order to minimise the effects of the emergency on the environment.

- 2.8 The permit holder shall ensure that all its employees in the waste collection activity are familiar with the conditions of this permit, and that they are trained to such a standard in the performance of their duties as to ensure that the activity is carried out safely and without causing environmental pollution. Appropriate records of training shall be maintained by the permit holder.
- 2.9 Any spillage of waste which occurs in the course of the collection operation shall be cleaned up immediately in a manner which will not cause environmental pollution and at the latest within an hour of the spillage occurring.
- 2.10 The permit holder shall carry an emergency spillage kit on the vehicle, at all times, to deal with minor spillages.
- 2.11 The permit holder will be subject to the following conditions as regards any Atmospheric Emissions, which may result from the waste collection activity.
- (a) All consignments of waste being transported by skips, lorries, trucks and tipper trucks should be adequately secured to prevent spillage, litter or nuisance of any kind arising during collection or transport. The collection permit holder should note that in most situations the use of a cover might be the most appropriate way to ensure compliance with this condition.
  - (b) All vehicles used for transporting waste which are subject to soiling are to be washed down as necessary in order that they be maintained in a clean condition such as not to cause nuisance or objection and such that their markings or reflective panels are not obscured from view.
  - (c) All dry/dusty wastes to be dampened down prior to transit.
  - (d) All organic wastes including food to be transported in containers designated and designed for that specific purpose.
  - (e) All other practicable precautions shall be taken to prevent nuisance.
- 2.12 The permit holder will be subject to the following conditions as regards any Noise Emissions, which may result from the waste collection activity.
- (a) The rated noise from the operation of waste transit processes (defined as LAeq 1 hour) shall not exceed the background noise level (as defined in B.S. 4142. Method for rating industrial noise affecting mixed residential and industrial areas.) by 10 db or more.
  - (b) Noise levels should not be so loud, so continuous, so repeated, of such duration or pitch or occurring at such times as to give reasonable cause for

- 7- Estimated time frame to complete work
  - 8- Working hours
  - 9- Confirmation of the security provisions at the site to prevent unauthorised access by other parties or the disposal of unauthorised waste material
  - 10- Contact details (name, numbers, etc.) of the waste collector who may be contacted by Cork County Council in relation to this disposal activity if different from those on the original application form
  - 11- Confirmation if a fee has been received by the owner of the disposal facility.
- (e) Builders' rubble shall be segregated and transported for recycling.
- (f) The permit holder should ensure that no recyclables or other waste types are allowed to contaminate the load. Segregation to prevent contamination of the waste should be done at source if at all possible or transferred to a licensed/permited facility where the segregation can be carried out.
- (g) The permit holder shall not collect soil containing hydrocarbons, unless specifically permitted in accordance with condition 1.2.
- (h) All consignments of waste being transported by skips, lorries, trucks and tippers shall be covered during transit.
- (i) All vehicles used for transporting waste shall be washed down on at least on a weekly basis or more frequently if the vehicle is subject to gross soiling.
- (j) All dry or dusty wastes shall be dampened down prior to transit.
- (k) All other practicable precautions shall be taken to prevent nuisance.
- (l) The permit holder shall ensure that no soil is deposited on the public road during the collection, transportation or gathering of waste.
- (m) Only permit holders who indicated on their original application that they collected or proposed to collect hazardous construction and demolition waste are permitted to do so subject to the conditions attached to hazardous waste.
- (n) All complaints must be recorded at the place of business. Details must include:
- Name, address of complainant
  - Time and date of complaint
  - Nature of complaint
  - Measures taken by Permit Holder to address complaint
- and shall be made available to any authorised officer of **Cork County Council** or **Cork City Council** on demand.



### 3 Vehicles, Skips and Receptacles

- 3.1 All vehicles used by the permit holder for the collection and transportation of waste shall be fit for the purpose and maintained in accordance with the manufacturers recommendations
- 3.2 All vehicles used by the permit holder for the collection of municipal waste shall be rear-end loaded, equipped with a receptacle lifting device, and comply with standard EN 1501-1:1998.
- 3.3 All wheeled bins used in the collection of municipal waste shall comply with Standard EN 840 Parts 1 to 6.
- 3.4 All vehicles shall have the name and contact telephone number(s) of the permit holder clearly displayed on the outside in letters a minimum of 40 mm tall, along with the Permit register number.
- 3.5 Each skip which is used for the purposes of the activity to which the permit relates shall be marked on at least two sides with the following information in clearly legible indelible lettering at least 125 millimetres high:
- (a) name of the permit holder
  - (b) address of principal place of business,
  - (c) telephone number
  - (d) waste collection permit number, or, where provided for in bye-laws made under Section 72 of the Roads Act, 1993, the licence number of the skip operator.
- 3.6 Each skip which is used for the purposes of the activity to which the permit relates and which is placed or left on a public road shall:
- (a) have permanently attached horizontal markings of a type clearly visible to road users which are at least 150 millimetres high and extend along the full length of all sides, approximately halfway between the top and bottom of the skip.
  - (b) not be painted in any colour likely to decrease visibility at night.
- 3.7 The permit holder shall ensure that that each skip is provided with a suitable cover so as to prevent spillage or litter arising during collection and transport.
- 3.8 The permit holder shall provide, in a written agreement with the hirer,
- (a) that no skip shall be loaded higher than a point 1 metre above its upper edge,
  - (b) that no skip is used for the disposal of hazardous waste,
  - (c) that each skip will be removed within 24 hours of it being fully loaded.

## 4 Notification and Record Keeping

- 4.1 The permit holder shall notify **Cork County Council** in relation to any conviction for an offence prescribed under article 19 of the Waste Management (Collection Permit) Regulations, 2001 or any requirement of an order under sections 57 or 58 of the Waste Management Act, 1996, within fourteen days of such conviction or the imposition of such a requirement.
- 4.2 The permit holder shall notify the relevant local authority (i.e. the authority in whose area the incident occurs) as soon as practicable after the occurrence of any incident connected with the waste collection activity which caused or has the potential to cause environmental pollution or a threat to human health. The initial notification should be telephone/fax to the relevant local authority to be followed up by formal written notification. The permit holder shall include as part of the notification the date and time of the incident, details of the occurrence, and steps taken to avoid recurrence. A written record of the incident will also be sent to the **Cork County Council**.
- 4.3 The permit holder shall maintain records at the address of the principal place of business of the weight of each consignment of waste collected, its origin and destination, and from this maintain up-to-date monthly records of waste collected which shall include (quantity to be in tonnes):
- The quantity of household waste collected in each local authority area
  - The quantity of commercial waste collected in each local authority area
  - The quantity of industrial waste (specify) collected in each local authority area
  - The quantity of waste delivered to each recovery facility used
  - The quantity of waste delivered to each disposal facility used
  - The quantity of waste delivered to each transfer facility used
  - The quantity of waste directly exported for recovery and its destination
  - The quantity of waste directly exported for disposal and its destination
  - Details of any waste consignment rejected by any facility, and its eventual disposal route
  - Details of commercial/industrial waste producers from whom waste was collected
- 4.4 The permit holder shall, not later than 28<sup>th</sup> February in each year furnish to **Cork County Council** summary information in relation to the nature and quantities (in tonnes) of wastes collected in the preceding calendar year or part thereof, as specified in condition 4.3. This information is to be provided in electronic format (Microsoft Excel or Access or in a format which can be readily imported into these applications).

- 4.5 The permit holder shall not compile information that is false or misleading, and will maintain the records in accordance with condition 4.3 for a period of three years.
- 4.6 The records maintained by the permit holder in accordance with condition 4.3 shall be made available for inspection by an authorised person of any of the relevant local authorities at the address of the principal place of business during normal office hours.
- 4.7 In cases where the permit holder directly charges fees to householders for the provision of waste collection facilities, the permit holder must notify **Cork County Council** in advance of any proposal to increase the level of fees charged.
- 4.8 The permit holder shall keep and ensure that their employees keep in all vehicles in which waste is collected under this permit details of all waste collected in that vehicle for every day. Such details shall be updated every time a load is picked up or added to and shall include details of:
- (a) the driver or drivers of the vehicle,
  - (b) the source of the waste,
  - (c) the amount of the waste,
  - (d) in the case of a domestic collection the town-lands in which the waste was collected and the number of houses collected from, and
  - (e) the destination of waste.

These details shall be made available to any authorised officer of **Cork County Council** or **Cork City Council** upon demand.

## 5 Charges and Financial Provisions

- 5.1 Costs incurred by **Cork County Council** in the ongoing monitoring of compliance with this collection permit including the costs of inspections, investigations and analyses of waste samples will be recovered periodically on foot of notices in writing to the permit holder.

5.2 The permit holder shall ensure the provision of the following insurance policies;

- (i) A Public Liability Policy in relation to waste collection, but extended to indemnify **Cork County Council**. The limit of cover on any one accident shall be adequate to cover all waste collection activities carried out by the permit holder and shall be not less than six million and four hundred thousand Euro (€ 6,400,000).
- (ii) An Employer Liability Policy in the name of the permit holder, but extended to indemnify **Cork County Council**. The limit of cover on any one accident shall be adequate to cover all waste collection activities carried out by the permit holder and shall be not less than twelve million and eight hundred thousand Euro (€ 12,800,000).
- (iii) A Third Party Motor Insurance Policy on vehicles belonging to, under the control of, or acting on behalf of the permit holder at the permitted facility, but extended to indemnify **Cork County Council**. The limit of indemnity on any one accident, incident or occurrence shall be adequate to cover all waste collection activities carried out by the permit holder and shall be not less than six million and four hundred thousand Euro (€ 6,400,000).

5.3 The permit holder shall submit copies of the above insurance policies to **Cork County Council** within two weeks of the permit being issued and also within two weeks of the policy being amended in any way. The permit will be automatically revoked if any part of the insurance is either removed or not renewed.

# Comhairle Chontae Chorcaí Cork County Council

County Hall,  
Cork, Ireland.

Tel. No: (021) 4276891

Fax No: (021) 4276321



Ted O'Donoghue & Sons Ltd.

Web: <http://www.corkcoco.com/>

Mountain View House,  
Waterfall  
Co Cork

14 April 2004

A Chara

Cork County Council has amended Condition 1.4 of your waste collection permit, Ref. No. CK WMC 47/01, under Section 34(6) of the Waste Management Act, 1996, as follows:

**Cork County Council may at any time review, and subsequently amend the conditions of, or revoke this permit.**

**In any case, the Local Authority shall review this permit at least once in each period of two years after the date on which this permit was granted or last reviewed as the case may be.**

This letter should be attached to the waste collection permit issued to you on the 02/05/2002

Mise le meas

*Carol Conway*

Staff Officer  
ENVIRONMENT DEPARTMENT

Consent of copyright owner required for any other use.



**Appendix No. 5**  
**Skip Licence Number**  
**SOL/007/04**

for inspection purposes only.  
Consent of copyright owner required for any other use.



**COMHAIRLE CATHRACH CHORCAÍ**  
**CORK CITY COUNCIL**



**Roads and Transportation Directorate – Roads Control Division**  
**Tel: 021-4924166**

**Applicant Ref.**

**Licence No: SOL/007/04**

**LICENCE TO PROVIDE SKIPS FOR HIRE , FOR USE ON PUBLIC ROADS**

Cork City Council hereby grants to: Ted O'Donoghue & Sons Ltd.

Of: Mountain View House, Waterfall, Near Cork.

A licence to provide skips for hire , for use on public roads within the administrative area of Cork City Council , subject to the prohibitions , restrictions and conditions relating to the Siting of Skips on Public Roads , as stated overleaf

For the 12 month period From: 01/01/2004

To: 31/12/2004

In accordance with details submitted on 17<sup>th</sup> February 2004

Designated Contact Person: TED or MARTIN O'DONOGHUE Mobile Telephone No: 087-2111616  
Telephone No. Night : 086-3736979

In accordance with Section 72 of the Roads Act 1993 and Cork City Council Bye-Laws for the Regulation and Control of Skips 2000 , Cork City Council direct that the placement of a skip on a Public Road be carried out subject to the conditions specified overleaf

Failure to comply with such conditions constitutes an offence which is subject on summary conviction to a fine not exceeding €1,270.00 or at the discretion of the Court , to an imprisonment for a term not exceeding six months , or to both such fine and imprisonment

A Licence valid for skips only as set out in the schedule below

Identification No	Capacity	Identification	Capacity	Identification	Capacity
TOD weld MINI	3 CU YD				
TOD weld MED	6 CU YD				
TOD weld LGE	12 CU YD				

**UNDERTAKING BY LICENSEE**

Having read the Conditions of this Licence I do accept and undertake to be bound by same.

Date: 14 / May / 2004

Signed by Licensee:

Witnessed on behalf of Cork City Council:

Dated this 07 day of April 2004

Signed :

Authorised Officer

**A COPY OF THIS LICENCE IS TO BE RETAINED ON COMPANY PREMISES FOR INSPECTION BY CORK CITY COUNCIL OR A MEMBER OF AN GARDA SIOCHANA**

# **Appendix 6**

## **Proprietary Treatment Unit Details**

For inspection purposes only  
Consent of copyright owner required for any other use.

Pr EN 12566-3  
DIN4261-1:2002

**Cork Waste Water™**  
Cloverhill, Ballymartle,  
Riverstick, Co. Cork

**Tel 021/4771000 Fax 021/4771015**

**Euroblo Achieves Today the Cleaning Standard of Tomorrow**

**Under The Building Regulations (Statutory Instrument 497 of 1997 to 2004) states  
in Part D1 Materials and Workmanship**

*All work carried out by CWW Cork Waste Water under The Building Regulation  
shall be carried out with proper materials and in a workmanlike manner.*

**Also comply Part D2 under The Building Regulations (B&C)**

**Cork Waste Water has an appropriate harmonized standard with European  
Technical approval DIN 4261-1:2002 and European Standard, Pr EN 12566.-3**

***DIN standard is a name known World-Wide.***

***The DIN is highly regarded for its independence, neutrality, competence and  
long experience in the field.***

*Standards are indispensable instruments in ensuring safety technology, in  
protecting health, the environment, and customer interests, generally. They play a  
vital part in the national economy and lay the foundations of free exchange of goods  
and services.*

## **EuroBio Achieves Today the Cleaning Standard of Tomorrow**

### **Product Description**

**This product described for max number of persons for**

<b>4 Persons</b>	<b>6 Persons,</b>	<b>8 Persons,</b>
<b>10 Persons</b>	<b>12 Persons</b>	<b>16 Persons,</b>
<b>20 Persons</b>	<b>24 Persons</b>	<b>26 Persons,</b>
<b>28 Persons</b>	<b>34 Persons</b>	<b>42 Persons,</b>
	<b>50Persons,</b>	

**SBR (Sequential Batch Reactor) Sewage Treatment System for 4 persons up to 50 people's under the Pr En 12566. The EuroBio Treatment system combined aerobic/anaerobic plant which provides treatment domestic waste water. The system consists of Precast Polypropylene Fibre Reinforced Concrete. The capacity of the Sewage Treatment System is designed in accordance to the number of litres per head per day subject to each individual case.**

### **Usage**

**The Products is for the use in Sewage Treatment System and for Sewage Collection Systems.**

### **Special Regulations and usage**

**Permission articles are small waste water treatment units with waste water diffusion made of concrete to be built in. They have different sizes for 4 to 52 people. These sewage treatment units clean biologically household waste water or industrial waste water which is comparable to private waste water. They are produced as new units including all components. Existing tanks can also be upgraded. The permission to upgrade existing tanks must be approved by local authorities.**

### **Manufacture and Marketing**

The product components for the inside of the concrete tank will all come with CE marked on the products. The Precast Polypropylene Fibre Reinforced Concrete is manufactured in Ireland. The units will be assembled in Cork for a New Treatment System and for the upgrading will be assembled on site. The marketing will be carried out by Cork Waste Water.

### **General process description:**

EuroBio is a SBR small treatment plant, which, in principle is divided into two stages. The division depends on the set minimum volumes independent of the available surface.

The first mechanical pre-stage serves the following purposes:

Waste water can flow in by gravity. Coarse materials are allowed to sediment in a specially large dimensioned stage and stored together with the secondary sludge from the SBR reactor in the sludge storage section.

The pre-storage section is adapted to the cycle volume of the SBR reactor, increased by an additional safety storage section for the cycle's sedimentation and clear water removal

In its basic version no moving electrical components are used in the plant. The necessary filling and removal of water is carried out via pneumatically operated lifting plants. Alternatively, with unfavorable height levels waste water resistant electrical waste water pumps can be used.

Via a pneumatically operated feed device the biological stage is gush-flooded in a very short time with pre-treated waste in a defined minimum amount (cycle volume). Compressed air percolation ensures agitation and oxygen supply for the breakdown of the hazardous material.

The agitation and oxygen supply is carried out at timed intervals with rest periods. The nitrification and de-nitrification phases is followed – with relevant loading – by a sedimentation phase, during which a clear water layer and a sludge layer are formed. The clear water layer is removed into the outlet via a compressed air lifting device.

- Excess sludge is moved to the pre-stage and stored there together with the primary sludge.

- With insufficient loads, the sedimentation phase is automatically replaced by *holiday mode* or energy conservation program, which is only interrupted when the required filling level in the pre-stage is reached.

1) Cycle strategy:

The waste treatment control system differentiates between the operational modes

- Normal Cycle
- or
- Energy conservation cycle

The cycle control is automatically and requirement-dependently governed by the waste water supply - load dependently up to 3 cycles per day are processed.

The time or phase sequence within a cycle governed by a factory-set time schedule which is a password protected and stored in the control unit.

A compressor which is sized in accordance with the relevant hydraulic loads, including its control unit, is fitted in a separate control cabinet outside the waste water.

2.1 Energy conservation cycle:

The cycle duration is not limited time-wise.

To reduce the operating costs and to ensure the minimum waste water amounts in the individual fill charges, the cycle selection is requirement orientated via a fill level monitoring in the first stage.

This is set to a minimum supply volume to correspond with the cycle volume in the reactor. As long as the population-dependent waste eater amount is not available the control system operates for an unlimited duration in the energy conservation mode.

The filled reactor is periodically agitated. Via the excess sludge lifter cleaned water is also supplied at regular intervals to and mixed into the pre-stage (recirculation). As long as no additional hydraulic water loading is encountered (holidays) the process is run in circulation without clear water removal. The pre-stage reaches the fill level  $H_{SPmax}$  (maximum height) after a maximum of 2 days in energy conservation mode (or earlier when new waste water is added) whereby the circle is immediately interrupted.

A normal load circle with sedimentation phase is started.



#### **2.1.2 Normal load cycle:**

The cycle duration is factory-set to 7 hours. Only after reaching the fill level  $H_{SPmax}$  (maximum height) in the pre-stage the cycles starts with the sedimentation phase

#### **2.1.3 Sedimentation phase.**

During the 1 hour rest period the reactor contents is horizontally separated into a sludge zone and a clear water zone. Incoming waste water is buffered in the safety storage section (SSP). The permanently set sedimentation duration of 60 minutes is followed by the clear water removal phase:

#### **2.1.4 Clear water removal phase.**

Limited in height ( $h_{min}$ ) (minimum) by a vertical open-top lifting pipe of the compressed air lifter the cleaned water is removed to the outlet of the waste water treatment plant. This phase is immediately followed by the sludge removal phase:

#### **2.1.5 Sludge removal.**

The phase duration is permanently set in dependence of the lifting height compressed air lifter transport the sludge for storage in the pre-stage. The removal area is by design limited to the removal opening. Without delay the cycle continues with the filling phase:

#### **2.1.6 Filling phase.**

The special compressed air filling device (patent applied for by utp) allows the energy-optimised filling of the SBR reactor at free level.

Via special submerged filling orifices waste water is safely removed from the pre - stage to the zone between the sedimented and the suspended sludge. The complete gush-like filling process takes 2 minutes and is repeated after 60 minutes. During this filling phase by agitating the reactor contents via the fine bubble ventilation the next phase already begins with agitation and reaction phase.

#### **2.1.7 Agitation and Reaction phase.**

Via a membrane plate mounted in the middle of the reactor floor, air is introduced at regular intervals. The ventilation durations vary during the cycle and last maximum 8 min with 2 minutes off-time.

The rising air bubbles create a water current which mixes the reactor contents of active sludge and waste water.

In addition, the reactor contents is saturated with oxygen required for the break-down of hazardous components. After a pre-set phase duration the normal load cycle ends.

## **2.2 Regulations for the product**

### **2.2.1 Characteristics and Demand**

### **2.2.2 Characteristics**

**the small waste water treatment units with diffusion were tested on a testing field according to prEN 12 556-**

**Requirements, measured at the outlet of the small waste water treatment unit:**

- **Controls and tests to be carried out at the final product:**
  - **The relevant measurements of the product**
  - **The diameters and the heights of In and Out**
  - **The depth of installment and the level above ground water level of pipe and wall**

**are to be controlled in accordance with the regulations of this common permission**

### **2.2.3 Kits for existing tanks**

**The confirmation of the agreement of the upgraded tanks with the regulations of the common permission must be followed by an agreement proof of the firm providing the kit:**

**The firm must control that the unit and all its parts are complete. The results and the tests must be recorded and evaluated. The records must contain the following:**

- **type of the unit and the tank and its parts**
- **type of control or test**
- **result of the control**
- **signature of the controller**

### **3. Regulations for the installation**

#### **3.1 Installation manual**

**The EuroBio will provide an installation manual.**

#### **3.2 Units completely produced in the firm**

**Only the producer or authorized firms are allowed to install small waste water treatment units.**

**There has to be a manual for the correct installation**

### **Installation Procedure**

**Cork Waste Water provides a service for the design, site survey and installation of the EurBio Treatment. They will also advise clients of the installation requirements, or provide supervision of installations carried out by others.**

**Electrical connections to the EuroBio System from the control box must be carried out by a competent qualified person using material suitable for the person.**

**Electrical connections must be in strict accordance with the manufacturers instructions and must comply with The National Rules for Electrical Installations (ETCI), published by the 'Electro-Technical Council of Ireland (Document No. ET101 : 2000).**

**The electrical control panel is located in the dwelling served by the unit. Cables must be protected from accidental damage by a suitable conduit or other means of protection. The EuroBio System must not be installed in areas liable to localized flooding without adequate protection as specified by the manufacturers. Also storm water drainage from the dwelling must be excluded from the unit. It is essential to take precautions to prevent damage by site traffic.**

**Superimposed loads from vehicles etc. should not be permitted within a distance equal to the depth of excavation, unless suitable structural reinforcement is provided. A suitable fence should be erected to prevent vehicles and farm animals from approaching too close to the unit.**

**The EuroBio Unit may be installed buried up to 2m below ground level (modular risers are available when the unit is installed at depths below 1.1m). The excavation must be large enough for easy placement of unit, to permit subsequent backfilling and to allow timbering and sheeting as required to meet The Safety, Health and Welfare at Work Act, 1989.**

**The units may be bedded on firm excavated ground or where necessary onto concrete, which is haunched up around the base of the unit. The concrete must be of sufficient thickness (minimum 150mm) and grade 25N to ensure that the unit is adequately supported with due regard to sub-soil conditions and loads imposed by the EuroBio Systems when full. (Care must be taken at the removal of the excavation before installation of the unit. When installed the top flange must be level.**

**The backfill must be carefully consolidated around the EuroBioTreatment Unit with all large stones/boulders removed to ensure even transfer of ground loads and to prevent localised stress concentrations. The EuroBio Treatment Systems should be ballasted while backfilling with water keeping the water level just above the backfill level as work progresses.**

#### **Pipe Connections**

**The tank is connected to 110mm PVC-U pipes as required at the inlet and outlet. For other types of pipe such as vitrified clayware etc, suitable adapters are used with short lengths of PVC-U pipe as necessary. A short length of pipe with flexible joints must be used adjacent to the EuroBio Treatment System, to allow for differential movement between the tank unit and adjacent pipe runs.**

#### **Location**

**The EuroBio Treatment System location should be chosen so that adequate access is available for site installation and subsequent maintenance and desludging of the unit. Desludging should be carried out by the means of a desludging tanker which requires access to within 10m of the unit, whilst maintaining appropriate separation distances from the EuroBio Treatment System unit and the effluent percolation system given below. Ventilation must be provided in accordance with the Building Regulations 1997 to 2000**

**Minimum Separation Distance in Metres**  
**EuroBio Treatments Systems for up to 10 people in house**

<b>Type of System</b>	<b>Watercourse Stream</b>	<b>Wells/ Springs*</b>	<b>Any Dwelling</b>	<b>Site boundary</b>	<b>Road</b>	<b>Slope break/cuts</b>
<b>Cork Waste Water Treatment System</b>	<b>10</b>	<b>10</b>	<b>7</b>	<b>3</b>	<b>4</b>	<b>4</b>
<b>Percolation Area</b>	<b>10</b>	<b>30</b>	<b>10</b>	<b>3</b>	<b>4</b>	<b>4</b>

\*This applies to wells down-gradient or where flow direction is unknown. For more information on wells alongside or up-gradient consult DELG/EPA/GSI ground water protection scheme <sup>1</sup> and GSI webpage.

**Wells**

**Wells should be considered as targets at risk. The groundwater flow direction, where it can be inferred; the number of wells; the presence of any wetlands, and presence of any karst features should be noted.**

**The depth of excavation to accommodate the EuroBio unit must be taken into account when determining this distance. The separation distance should be such that the excavation does not undermine adjacent buildings, roads or walls. This distance should be not less than 1.5 times the excavation depth.**

**The minimum separation distances that should be used in the visual assessment are set out in the table above. However, where the site permits, percolation areas should be located at greater distances from the dwelling. Also where practicable on sloping sites the percolation area should slope from dwelling.**

**Guidance for sizing of percolation area  
(In linear meters of percolation pipe)  
Percolation Value ("T" Value)**

Population Served	Required length of trench (m)	
	T/P values 21-50* Loading at 25 l/m <sup>2</sup> per day	T/P values 5 - 20† Loading at 50 l/m <sup>2</sup> per day
	Trench width 450mm (pipe & stone)	Trench width 450mm (pipe & stone)
4	64m	32m
6	96m	48m
8	128m	64m

† For percolation values "T" <5

\* For percolation values "T" >50

### 1) Intermittent Sand Filters

Provide advanced secondary treatment of effluent. They consist of a lined e.g. (impervious PVC liner on sand bedding) filled with uniform washed sand that is placed over and underdrain system on to the surface of the sand through a distribution network and allowed to percolate through underdrain system. ISF filter are simple in design and relatively easy to operate are particularly suited to smaller areas. The life expectancy of ISF is 15-20 years they can be easily be replenished after this date.

Number of People	4	6	8	10	20	50
Size of Sand Bed	12m <sup>2</sup>	18m <sup>2</sup>	24m <sup>2</sup>	30m <sup>2</sup>	60m <sup>2</sup>	150m <sup>2</sup>

**\*Figures calculated taking an average of 180/l /per day/per person with a BOD load of 60/l day.**



## **2) Soil Polishing Filter Bed**

**Comprising of soil with a "T" and "P" value in the range 1-50.  
We highly recommend using a soil polishing bed. Where the  
percolation results are  $T \leq 1$  and  $T \geq 50$**

### **"T" Value $\leq 5$**

<b>Number of people</b>	<b>1-4</b>	<b>5</b>	<b>6</b>	<b>8</b>
<b>Soil Polishing Bed m<sup>2</sup></b>	<b>40m<sup>2</sup></b>	<b>50m<sup>2</sup></b>	<b>60m<sup>2</sup></b>	<b>80m<sup>2</sup></b>

### **"T" Value $\geq 50$**

<b>Number of people</b>	<b>4</b>	<b>6</b>	<b>8</b>	<b>10</b>
<b>Soil Polishing Bed m<sup>2</sup></b>	<b>80m<sup>2</sup></b>	<b>120m<sup>2</sup></b>	<b>160m<sup>2</sup></b>	<b>200m<sup>2</sup></b>

**\*These are used as guidelines**

**General Principles treatment water, (BOD  $< 20$ , Suspended Solids 30), which is more easily absorbed into soil strata than septic tank effluent.**

Biochemical Qxygen Demand(BOD)	20mg/l
Chemical Oxygen Demand (COD)	100mg/l
Total Nitrogen	5mg/l
Total Phosphorus	2mg/l
Total Suspended Solids	30mg/l
Ortho Phosphate	1mg/l
Ammonia	5mg/l
Fat Oil & Grease	Less than 10mg/l

**\* Higher standards can be achieved with a different programme**

**The EuroBio Treatment System for Single Dwelling produces fully  
There are three possible methods for disposal of treatment  
wastewater:**

- a) Sub-Surface irrigation, or**
- b) Raised percolation bed, or**
- c) Discharge to surface water, either directly or following a  
polishing filter. (A discharge license must be obtained from  
the local authority if this option is chosen).**

**In the event of the site failing the "T" test and "P" it will be  
necessary to construct a raised percolation area.**

**In any event a site suitability report including a detailed visual  
inspection of the site, inspection of a trial hole for soil profile,  
depth of water table, and percolation value, should be carried out  
together with local knowledge as appropriate. This report should  
be used to ascertain the size and type of percolation required.**

**The results of this assessment will enable the selection of the  
most suitable method for disposing of the final treated effluent,  
having regard to soil type, percolation characteristics, water  
table level and other factors. The disposal method will be either  
to sub-surface percolation, raised percolation area or direct to  
surface waters by license, which should be obtained from the  
local authority.**

**Guidance for sizing of the sub – surface or raised bed percolation areas is set in Table 3. The treated wastewater is discharged from the EuroBio Treatment System by pumping.**

**a) Sub-Surface percolation**

**The treated waste eater discharges, by pump, into a network of perforated 110mm diameter pipes laid in stone filled trenches. The objective is to spread the effluent as evenly as possible over the required land area, thus minimizing the possibility of the ground becoming over-saturated.**

**The discharge from the EuroBio Treatment System has minimal suspended solids and is therefore, much more readily absorbed than septic tank effluent. The extent of the irrigation system must be determined by the site assessment, taking into account the soil type and percolation test results, as well as the population to be served: (See Table 3). These values are given for guidance only and should be discussed in detail with the site surveyor.**

**The percolation area will be equivalent to the linear pipe length as shown in Table 3 (assuming 450 mm wide trenches).**

**Trenches are generally 450-1000mm wide with the pipes laid on 250mm of clean 15-25mm stone and covered with a polyethylene or geo-textile soil barrier. Layout of the trenches will be determined by site topography, the overall fall of the pipes should be not more than 1 in 200. the pipes should be at least 1 metre above the highest water table level or fissured rock strata.**

**b) Raised percolation bed**

**Where the irrigation pipes have to be above existing ground level: e.g. thin topsoils and/or rock or water table close to surface, a raised or banked-up irrigation system may be suitable. The percolation pipes should be at least 1 metre**

**above the highest water table level or fissured rock strata. It is however, generally similar to subsurface percolation.**

**c) Discharge to a watercourse**

**Where poor soil percolation or other factors make a subsurface irrigation system impractical: discharge to a watercourse may be considered. This will require a discharge license from the local authority, setting the minimum acceptable discharge quality.**

**The treated wastewater is filtered through a layer of sand or topsoil before passing to the watercourse.**

**Access to all effluent percolation systems should be provided at the end of each irrigation or filter trench via a suitably constructed inspection chamber.**

**In respect of sizing of percolation areas and minimum separation distances, the recommendations of the EPA Waste Water Treatment Manuals should also be considered.**

**The larger units percolation area and guidelines of the set back distance will be carried out as per EPA manual because each application will be assessed individually.**

**Please contact the office for further details.**

## AVERAGE SEWAGE VOLUMES AND B.O.D LOADINGS

<b>Situation</b>	<b>Source</b>	<b>Flow litres/day per person</b>	<b>BOD<sub>5</sub> grams/day per person</b>
<b>Industrial</b>	<b>Office and/or factory without canteen</b>	<b>30</b>	<b>20</b>
	<b>Office and/or factory with canteen</b>	<b>60</b>	<b>30</b>
	<b>Open industrial site e.g. quarry (excluding canteen)</b>	<b>40</b>	<b>25</b>
<b>Schools</b>	<b>Non-residential with cooking on-site</b>	<b>60</b>	<b>30</b>
	<b>Non-residential with no canteen</b>	<b>40</b>	<b>20</b>
	<b>Boarding school:</b>		
	<b>(1) residents</b>	<b>180</b>	<b>60</b>
	<b>(11) day staff (includes mid-day meal)</b>	<b>60</b>	<b>30</b>
<b>Hotels</b>	<b>Guests</b>	<b>250</b>	<b>75</b>
	<b>Guests (no meal)</b>	<b>180</b>	<b>45</b>
	<b>Resident staff</b>	<b>180</b>	<b>60</b>
	<b>Day Staff</b>	<b>60</b>	<b>30</b>
	<b>Conference</b>	<b>40</b>	<b>20</b>
	<b>Restaurant full meals:</b>		
	<b>(I) luxury catering</b>	<b>25</b>	<b>25</b>
	<b>(II) prepared cooking</b>	<b>15</b>	<b>15</b>
	<b>(III) snack bars</b>	<b>10</b>	<b>10</b>
	<b>(IV) function rooms incl. Buffets</b>	<b>10</b>	<b>10</b>
	<b>(V) fast food</b>	<b>10</b>	<b>10</b>

<b>Pubs &amp; Clubs</b>	<b>Residents</b>	<b>200</b>	<b>60</b>
	<b>Day Staff</b>	<b>60</b>	<b>30</b>
	<b>Bar drinkers</b>	<b>10</b>	<b>10</b>
	<b>Bar meals</b>	<b>10</b>	<b>10</b>
<b>Amenity sites</b>	<b>Restaurants</b>	<b>15</b>	<b>15</b>
	<b>Function rooms</b>	<b>10</b>	<b>10</b>
	<b>Toilet block (per use)</b>	<b>5</b>	<b>10</b>
	<b>Toilet blocks (long stay car parks)</b>	<b>10</b>	<b>15</b>
	<b>Golf clubs</b>	<b>20</b>	<b>10</b>
	<b>Squash, with club house</b>	<b>25</b>	<b>15</b>
	<b>Swimming</b>	<b>10</b>	<b>10</b>
	<b>Football Club</b>	<b>30</b>	<b>20</b>
	<b>Caravan Sites</b>		
	(I) Touring	50	35
	(II) Static not serviced	75	35
	(III) Static fully serviced	150	55
	(IV) Tents sites	50	35
<b>Hospitals</b>	<b>Residential elderly people</b>	<b>250</b>	<b>60</b>
	<b>Residential elderly people plus nursing</b>	<b>300</b>	<b>65</b>
	<b>Nursing homes (convalescent)</b>	<b>350</b>	<b>75</b>

### **Design Data**

#### **General**

**The effluent resulting from the sewage treated by the EuroBio Treatment System will normally be within Royal Commission Standard (i.e. suspended solids content less than 30mg per litre and Biochemical Oxygen Demand (BOD) less than 20mg per litre) provided that the hydraulic and BOD loadings are within the limits recommended by the manufacturer for the unit installed (180 litres per head per day and 60 grammes per head per day, respectively). Under certain unusual conditions the resulting effluent may not be within Royal Commission Standards. This is normal for any biological sewage treatment process, and can be caused by unusual hydraulic or BOD loading, weather conditions, contamination by excessive quantities of (a) offal and grease, (b) household disinfectants, (c) detergents or poisoning of microbiological flora or fauna by other chemical.**



**A short period of acclimatisation must be allowed after commissioning of the unit before a full level of treatment can be expected. This period is generally a few weeks and is normal for any biological treatment plant. Recommended Minimum Distances From Treatment Systems**

<b>System size p.e.</b>	<b>Approximate number of houses served</b>	<b>Distance from existing development (m)</b>
<b>10-40</b>	<b>2-10</b>	<b>28</b>
<b>41-60</b>	<b>11-15</b>	<b>31</b>
<b>61-80</b>	<b>16-20</b>	<b>34</b>
<b>81-100</b>	<b>21-25</b>	<b>37</b>
<b>101-120</b>	<b>26-30</b>	<b>40</b>
<b>121-140</b>	<b>31-35</b>	<b>43</b>
<b>141-160</b>	<b>36-40</b>	<b>46</b>
<b>&gt;161</b>	<b>&gt;41</b>	<b>50</b>

#### **Introduction to the Larger Units**

**Domestic Wastewater is sewage only and not included in runoff.**

**The Environmental Protection Agency Act 1992 (Urban Waste Waster Treatment) Regulations, 1994 (S.I 419 of 1994 were made in December, 1994 to transpose into Irish Law.**

**The EU Directive 91/271 EU "Concerning Urban Wastewater Treatment" set down on the effluent standards to be achieved in member countries for treatment of wastewater. The Biological treatment is by far the most common treatment process for municipal and industrial waste waster.**

## **EuroBio supplies sewage treatment units for**

**Schools  
Restaurants  
Office/Factories  
Publics Houses  
Residential Caravans sites  
Golf Clubs  
Large/Small Housing Estates**

**This tank is called A Sequencing Batch Reactor (SBR) a waste water treatment system in which aeration, settlement and decanting occur in one or more tanks and several cycles over a 24 hour period. The SBR is a complex mix activated sludge system. The mixed liquor remains in the reactor during all cycles thus eliminating the need for secondary sedimentation tank. The most common biological treatment process is activated sludge which the SBR system is a continuous process with the growth decay of mirco-organism**

### **The Advantages**

**The SBR system there is no need for Sludge period.**

**It is reliable, ideally suited to wide flow variations.**

**High quality wastewater achievable**

**Require less operational attention**

**High operational flexibility**

**Denitrification and Phosphorus removal**

**For Further Information Contact 021/4771000**

# **Appendix 7**

# **Newspaper Notice**

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# **Appendix 8**

## **Letter From Mulleadys**

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# MULLEADY'S LTD

## WASTE MANAGEMENT DIVISION

CLOONAUGH, DRUMLISH, CO. LONGFORD, EIRE  
Telephone: (043) 24128 / 24145 / 24731 • Fax: (043) 24264  
Email: wastemanagement@mulleadys.com



Recycling

WE SPECIALISE IN

Recycling

Mr. Ted O'Donoghue,  
Ted O'Donoghue & Sons Ltd.,  
Mountain View House,  
Waterfall,  
Co. Cork.

April 20<sup>th</sup> 2004

### Re: Waste Processing - Mulleady's Ltd.

Dear Mr. O'Donoghue,

We wish to confirm that the mixed municipal waste accepted from your facility is treated using a three stage recycling process as follows:

1. Primary sorting carried out manually to remove large recyclable material such as timber, metal, plastics and cardboard. This material is recycled in the standard way for such materials.
2. Second stage sorting which includes shredding and trommelling where the organic fraction is removed from the oversize material. The oversize material from week beginning April 19<sup>th</sup> 2004 which consists of cardboard, paper and plastics will be sent to a waste to energy plant where the waste will be recovered. The organic fraction / fines is sent off-site for composting.
3. The organic material is composted off-site to a minimum standard that meets the "Stabilised Biowaste" criteria. Any material that is screened off at the end of the composting process is re-introduced in to fresh incoming organic fines where they are used as a bulking agent in the composting process.

Yours Faithfully

Edel Hughes M.Sc.B.Sc.  
Environmental Manager

MUNICIPAL VEHICLES FOR SALE AND HIRE

MUNICIPAL VEHICLES FOR SALE AND HIRE



# **Appendix 9**

# **Bund Integrity Test**

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*Pat O'Halloran*, BE

**CONSULTING ENGINEER**

Corbally, Ballinora, Waterfall, Cork

Tel.: (021) 4876605 Mobile: (086) 8033613

Fax: (021) 4877846 email: pohal@hotmail.com

Our ref: POH/TOD

Your ref:

24 March 2004

TO: Mr Ted O'Donoghue,  
Knockpogue,  
Waterfall,  
Nr Cork

**SUBJECT: Waste Transfer and Recovery Station at Knockpogue, Waterfall, Nr Cork.**

**RE: Certification of water tightness in residue collection sump and in bund tank structure under diesel oil storage tank.**

Dear Ted,

I advise that with respect to both tanks referred to above:

● Residue collection sump (under the floor within the main building).

- Tank size is 3.1 m wide x 3.5 m long x 1.8 m deep, 225 mm reinforced concrete walls, 300 mm reinforced concrete floor and 300 mm reinforce concrete roof.
- Before the tank was put in use 18 months ago, it was filled to the top with water and having examined same after 48 hours, I observed that there was no decrease in water level.

● Bund Tank structure under diesel oil storage tank.

- Tank size is 4.5 m wide x 13 m long x 1.5 m deep of which 300 mm is under ground level, 225 mm reinforced concrete walls with open top.
- Since the tank was put in use 18 months ago, I have overseen a water test within the tank every 6 months, the most recent test being the 10<sup>th</sup> March 2004. On each occasion, having filled the tank to the top with water I observed that there was no decrease in water level after 48 hours.

Yours sincerely,

  
Pat O'Halloran B.E.