

Environmental Protection
Agency
Waste Licensing
Received - 9 DEC 2004
Initials _____

ATTACHMENT G
RESOURCES USE & ENERGY EFFICIENCY

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G.1 Raw Materials, Substances, Preparations and Energy

The following Table G.1 lists the raw materials used on site and indicates the amount stored and the annual usage.

Table G.1 Details of Process related Raw Materials, Intermediates, Products, etc., used or generated on the site

Ref. No or Code	Material / Substance ⁽¹⁾	CAS Number	Danger ⁽²⁾ Category	Amount Stored (Tonnes)	Annual Usage (Tonnes)	Nature of Use	R ⁽³⁾ - Phrase	S ⁽³⁾ - Phrase
GDI	Green Diesel	68476-30-2 68476-31-3	Flammable	4.546	11.365	Fuel for on-site waste handling equipment and electricity generators	R 40 R 65	S2 S24 S 36/37 S43 S62
WDI	White Diesel	68334-30-5	Flammable	22.73	125.000	Fuel for waste collection vehicles	R 40 R 65	S2 S24 S 36/37 S43 S62
HOil	Hydraulic Oil	Not Found	None	0.400	1.200	To power the hydraulic rams for on-site waste handling equipment and waste collection vehicles	Not Found	Not Found
AF1	Antifreeze	203-473-3	Harmful	0.050	0.050	To prevent cooling water freezing in the engines of on-site waste handling equipment and waste collection vehicles	R 22	S 2 S 13 S 24/25 S 43/16 S 46 S 56
Gse1	Grease	Not Found	None	0.045	0.136	Lubricating mechanical moving parts on plant and vehicles to minimise wear and tear	R 40	S 24
GO1	Gear Oil	Not Found	None	0.045	0.136	For use waste collection and handling vehicles	Not Found	Not Found
RP1	Rat Poison	Not Found	Not Found	0.0005	0.0005	Used as poison on site to control nuisance associated with vermin	Not Found	Not Found
Pt1	Paint	64742-95-6 95-63-6	Flammable Marine Pollutant	0.045	0.045	For Painting Skips, Plant and Vehicles	R 10 R 36/37/38 R 51/53	S 29 S 16 S 23 S 36/37/39

Ref. No or Code	Material / Substance ⁽¹⁾	CAS Number	Danger ⁽²⁾ Category	Amount Stored (Tonnes)	Annual Usage (Tonnes)	Nature of Use	R ⁽³⁾ - Phrase	S ⁽³⁾ -Phrase
Trs1	Thinners	64742-82-1 95-63-6 8052-41-3	Flammable Marine Pollutant	0.023	0.023	For Painting Skips, Plant and Vehicles	R 10 R 51/53	S 29 S 16 S 23 S 51
AG1	Acetylene Gas	74-86-2	Flammable Gas	0.100	0.600	For Cutting and Heating Metal	R 5/6/12	S 9 S 16 S 33A
OG1	Oxygen Gas	7782-44-7	Oxidant	0.100	0.600	For Cutting and Heating Metal	R 8A	S 9 S 17A

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G.2 Energy Efficiency

It is estimated that material usage at the Facility and for the haulage vehicles is estimated to be 15% for the Plant and 85% for haulage vehicles. Therefore most of the energy usage will be subsumed by the waste collection vehicles.

The amount of material usage by the waste collection vehicles will be minimized through the implementation of a regular maintenance programme and by regularly updating the fleet with modern equipment which will use less material.

The amount of material used by the plant on site will also be minimized through regular maintenance. Plant such as the trommel, picking station, timber shredder and the baler will only be turned on intermittently during each working day when sufficient volumes of material are available to process. This will further reduce the volume of material used on site and thus reduce energy consumption. The three phase power generators will only be used when the plant on site is required to process waste.

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ATTACHMENT H
MATERIALS HANDLING

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H.1 Waste Types and Quantities - Existing & Proposed

H.1(b) Annual Quantities and Nature of Waste

The following Table H.1(B) indicates the annual quantity of non-hazardous waste to be handled over the next five years.

Table H.1(B) Annual Quantities and Nature of Waste

Year	Non-hazardous waste (tonnes per annum)	Hazardous waste (tonnes per annum)	Total annual quantity of waste (tonnes per annum)
2005	15,000	None	15,000
2006	17,500	None	17,500
2007	19,000	None	19,000
2008	21,000	None	21,000
2009	23,000	None	23,000

H.1(c) Waste Types and Quantities

The main types of waste to be accepted on site are (1) Household, (2) Commercial, (3) Construction and Demolition, and (4) Industrial Non-hazardous Solids. The EWC codes which describe these wastes best are as follows:

- **17-09-04:** Mixed Construction and Demolition Wastes Other than those mentioned in 17-09-01, 17-09-02 and 17-09-03.
- **20-03-01:** Mixed Municipal Waste

From time to time other EWC codes may be used to describe each of the four main waste types accepted at the facility. For example if commercial cardboard packaging is separately collected from customers sites for baling at the facility then the EWC code to describe this would be **15-01-01:** Paper and Cardboard Packaging. A list of EWC codes, of possible waste streams to be accepted at the facility, is included in Appendix 17.

H.2 Waste Acceptance Procedures

The following are the procedures to be employed for waste acceptance on site.

Off-Site Waste Profiling Procedure:

Customers

- The Managing Director and Facility Manager are responsible for the 'off-site waste profiling' of new customers. The procedure is as follows:
- When a new customer (commercial only) contacts Ted O'Donoghue & Sons Ltd for a waste service, the Managing Director or Facility Manager arranges a meeting with the customer.
- The company representative will explore the following environmental criteria from the meeting :
 - The waste types to be collected.
 - The waste quantities and regularity of collections required from the customers.
 - Waste segregation at source (if possible).
 - The Ted O'Donoghue & Sons Ltd representative will inform the new customer of the list of 'unacceptable waste types' and also of the company's commitments to their Waste Permit and Environmental Policy.
- Upon agreement of the above conditions between the customer and Ted O'Donoghue & Sons Ltd, a contract is then drawn up or agreed verbally in some cases.

Other Waste Collectors

- Prior to accepting waste from other waste collectors a copy of their waste collection permit is requested and a copy maintained on the files on site.
- The Managing Director or Facility Manager arranges a meeting with the waste collector.
- The company representative will explore the following environmental criteria from the meeting :
 - The waste types to be delivered.
 - The waste quantities and regularity of deliveries required from the waste collector.
 - The Ted O'Donoghue & Sons Ltd representative will inform the waste collector of the list of 'unacceptable waste types' and also of the company's commitments to their Waste Permit and Environmental Policy.
- Upon agreement of the above conditions between the waste collector and Ted O'Donoghue & Sons Ltd, a contract is then drawn up or agreed verbally in some cases.

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- The waste collector arranges for his drivers to meet with the facility manager so that they can be instructed on how to properly record the details of each waste load delivered to the site on the Munster Weighbridge Software, "**Industrial Weighbridge Waste Management Software.**" The drivers will be instructed to print a docket of each load delivered which will record details such as Waste Type, EWC Code, Time, Weight, Vehicle Registration and Customer Name. A copy of the weighbridge docket can be viewed in Appendix 15. The drivers will also be shown where each waste load should be tipped on site.

Drivers Procedure

- When a drivers collects waste from a customers premises he will carry out a quick visual check to identify any unacceptable wastes.
- If unacceptable wastes are identified then the driver will either remove the unacceptable items or inform the customer to remove the items before the remaining wastes can be collected.
- When the unacceptable wastes have been removed the driver then collects the waste bound for the waste transfer station.
- When a driver arrives on site the vehicle is driven onto the weighbridge.
- The driver gets out of the cab of the truck and walks over to the weighbridge cabin which stores the on board computer and weighbridge dockets.
- The driver records the type of waste, the customer details and the vehicle registration number on the computer system and enters in the recorded weight i.e. the first weight, of the truck and its contents. The driver then walks back to the truck.
- The driver drives the vehicle off the weighbridge towards the transfer station building. The vehicle is reversed into the transfer station building and the load is tipped onto the floor as directed by the site operatives.
- The driver drives the vehicle back over the weighbridge, parks and gets out of the cab of the truck and walks over to the weighbridge cabin.
- The driver then records the weight of the vehicle i.e. the second weight, and the computer system records the nett weight of the waste delivered to the facility. The driver then prints out the details on a weighbridge docket and places a copy in the docket storage area in the weighbridge cabin.
- At the end of each day the facility manager prints out a record of all incoming and outgoing waste transactions from the computer system and files this in the on-site office. A copy of the daily transaction report is included in Appendix 14.

Site Operatives Procedure:

- When the driver of the waste vehicle arrives on-site the site operatives direct the driver to the waste tipping area.
- When the waste load is tipped out onto the floor of the transfer station building it is inspected for any unacceptable wastes. The 360⁰ Excavator is sometimes used to disperse the load to properly examine the contents for any unacceptable wastes.
- If any unacceptable wastes are identified in the waste load the site operatives will determine whether or not to accept the waste load. The site operatives will discuss this with the facility manager who will then decide to accept the waste load or not.
- If the load is not accepted and is rejected then the facility manager will contact the customer and arrange to have the load:
 - Returned to the Producer, or
 - Arrange Alternative Disposal
- If the load is accepted then the unacceptable wastes will be quarantined in the suitable quarantine areas.

The procedures outlined above will form part of the environmental management system for the site. As part of the procedures a list of unacceptable wastes will be drawn up and issued to all staff of Ted O'Donoghue & Sons Ltd, waste collectors delivering waste to the facility and all customers. All relevant staff of Ted O'Donoghue & Sons Ltd and those working for other waste collectors delivering waste to the facility will be trained up in the use of the waste acceptance procedures.

H.3 Waste Handling

The waste handling and operating procedures will be as described in Section D.2 Facility Operation.

ATTACHMENT I.1
EXISTING ENVIRONMENT & IMPACT OF THE ACTIVITY – ATMOSPHERIC
EMISSIONS

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I.1 Assessment of Atmospheric Emissions

The only potential environmentally significant effects on air quality from Ted O'Donoghue and Sons Ltd Waste Disposal's proposed operations are dust, odours and noise. Existing dust and odour emissions at the site are dealt with separately below. Existing noise emissions are dealt with in section I.6 of this licence application

I.1.1 Dust

Due to the quantity and nature of waste that is proposed to be handled at the site, there is the potential for dust generation, especially in dry weather through waste unloading, sorting and vehicle movements. Background dust deposition monitoring has been carried out at the site at the following five site boundary locations (Map I.1.1).

- A2-1 site entrance
- A2-2 site boundary
- A2-3 site boundary
- A2-4 site boundary

Dust deposition was monitored over a 30day period from 29th July 2004 to the 26th August 2004 during normal site operations. The monitors were collected at the end of this period.

The dust measurements are below :

Table I.1.1 Dust deposition results

Ref	Dust Monitor Location	Dust Deposition (g/m ² /d)
A2-1	site entrance	3.900
A2-2	site boundary	0.144
A2-3	site boundary	0.281
A2-4	site boundary	0.144

The EPA landfill Monitoring Manual states that a soiling rate of 10 mg/m²/hr can pose a nuisance. TA Luft limits suggest a figure of 0.35g/m²/d (14.6mg/m²/hr) to protect against considerable disadvantage or substantial impairment from dust deposition.

The above results show that all the dust monitoring locations were lower than both the EPA and TA Luft dust deposition limits with the exception of A2-1. This high dust result was due to slight contamination with some debris (small beetles bits of leaves) which led to elevated results. This was seen as an abnormal event.

A review of dust deposition rates at similar sites handling larger quantities of construction and demolition waste indicate dust deposition rates of between 4 and 172 mg/m²/hr without causing nuisance conditions or complaints from neighbours.

Proposed dust mitigation measures and dust monitoring programmes are discussed in Sections F.1 of this application.

I.1.2 Odour

The proposed waste facility is situated in a rural and agricultural setting. Existing odour emissions in the area are consistent with typical farming activities.

Odour problems from waste facilities are usually caused by the decomposition of readily degradable organic waste. Ted O'Donoghue and Sons Ltd Waste Disposal currently handle domestic waste at the facility which contain approximately 40% organic waste.

Ted O'Donoghue and Sons Ltd Waste Disposal also accepts and handles dry, solid, non hazardous commercial, industrial, construction and demolition and dry household waste at the waste transfer and recycling facility. These waste streams usually contain very little biodegradable material, and hence odours are generally not an issue with these wastes.

The three nearest residential properties to the site are summarised below:

Residential Dwelling name	Distance from site boundary
O'Connor	88 west of the site
Mc Carthy	103 west of the site
Ford	188 north-west of the site

Therefore the nearest residential property to the site is approximately 88 metres away from the facility boundary. Odour from the facility operations should not cause nuisance conditions at these nearby sensitive locations. There were no detectable odours discovered at the nearest residential dwelling during site monitoring. Further odour mitigation measures and odour monitoring are discussed in Sections F.1 of this application.

ATTACHMENT L2
EXISTING ENVIRONMENT & IMPACT OF THE ACTIVITY – SURFACE WATER

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I.2.1 Assessment of Impacts of Surface Water Discharges on the Receiving Water.

The present surface of the Ted O'Donoghue and Sons Ltd Waste Disposal site is primarily a hardstanding area, with parts concreted (primarily the areas under roof). It is the intention of the applicant to further extend the concrete areas so that an improved and regulated site drainage can be achieved. All surface water run-off from the site will be handled as follows:

- Surface water runoff from the proposed concreted site yard will flow via gullies which direct the flow into a 180 m³ retention tank before discharge to an open land drain in the direction of the south-east corner of the site. A Class 1 interceptor unit (oil separator and sludge trap, capacity of 2 m³) will be present between the retention tank and the land drain to treat the water discharge for oils and silts.
- Roof rainwater from the transfer station building will be directed to a 45,500 litre capacity holding tank (acting as a reservoir for washing water and fire water). Any subsequent overflow from this holding tank will be diverted to soak-away in the direction of the south-east corner of the site.
- Roof rainwater run-off from the proposed administration building and the repair workshop will be directed separately to their own soak-away systems.
- A waste water treatment system is proposed on site to deal with domestic sewage. The effluent from this plant is then subject to release to a percolation area (soak-away) in the direction of the west boundary of the site (left of the site entrance).
- All effluent generated at the truck wash bay will be treated by a 3 stage interceptor unit (oil separator and sludge trap) prior to discharged to soak-away in the direction of south-east corner of the site.
- All internal wash down liquids and any potential spills inside the transfer station will be collected in a blind sump area. These liquids can be pumped out at required intervals and sent off-site for treatment at a licensed treatment facility.

The proposed surface water drainage system is shown in Drawing 1100-03 attached to this section.

It was not possible to establish baseline water quality data for the existing land drain due to the fact that during on-site work the weather was dry and the land drain had effectively dried up.

I.2.2 Surface Water Drainage from Site (outside yard area only)

The volume and rate of surface water discharged from the site is dependent on rainfall. The total area of the site will be approximately 3.362 acres (13,606m²). The average annual rainfall in the area (mean of 2003 and 2004) is 900 mm. Assuming 100% run-off, the maximum quantity of surface water draining from the area of the site is 12,245m³/annum. All treated surface water run-off from the site will flow to the land drain which in turn flows into the Curraheen River.

I.2.3 Water Quality Management Plan

At present there is no Water Quality Management Plan for the Waterfall or Ballinhassig area of County Cork. The South West River Basin Management Plan is currently been drafted which will incorporate some of the rivers in this area. Runoff from the Knockpoge area, due to topographical considerations, drains to the south where it joins the Owenboy (also known as Owenabue River) and the Curraheen River. The Owenboy River is currently managed under the phosphate regulations and has both phosphorous and biological monitoring. The closest monitoring point to the Ted O'Donoghue and Sons Ltd site is 190010200 on the Owenboy River Bridge Southwest of Ballinphellic House (OS ref. W 569 631). This site has no phosphorous data at present, but has indicated the river at this point is polluted with an unsatisfactory water quality (Q3). EPA results from 2001 – 03 have shown an improvement in the Owenboy River quality to Q4, been unpolluted with a satisfactory water quality.

Background data for the Curraheen River is not available. Cork County Council confirmed that there is no public water supply in the Knockpoge area, thus the vast majority of residents operate a private well. Information concerning the quality of water in private wells is not readily available. Map I.2 illustrates the closest surface water courses to the waste management site.

It is not seen as likely that the Ted O'Donoghue and Sons Ltd. site will have any significant impact on the quality of the surface or ground waters in the region.

ATTACHMENT I.3
EXISTING ENVIRONMENT & IMPACT OF THE ACTIVITY – RECEIVING
SEWER

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I.3.1 Assessment of Impact on Receiving Sewer.

There will be no discharge from the waste management facility to any sewerage works and hence this section of the waste license application is not applicable.

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**ATTACHMENT I.4
EXISTING ENVIRONMENT & IMPACT OF THE ACTIVITY – GROUNDWATER
AND SOILS**

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I.4 Hydrogeology

There have been no detailed site investigations carried out at Ted O'Donoghue and Sons Ltd Waste Disposal site as part of this Waste Licence application. However, the following account is based upon a desk review of existing literature and discussions held with the Geological Survey of Ireland (GSI) and the results of geological/hydrological investigations carried out near the site.

I.4.1 Geology

I.4.1.1 Regional Geology.

The topography of South Cork has a pronounced 'grain' to it, with elongated ENE – WSW valleys separated by intervening ridges. Carboniferous Limestone floors the valleys in the east, which passes into mudstone and sandstone dominant sequences of similar age westwards. In general the geology of this region of South Cork region consists of sandstones and mudstones of the older Devonian 'Old Red Sandstones' with the ridges and valleys mirroring the underlying geological structure.

I.4.1.2 Local Geology

The underlying geology consists of Ballytrasna Formation, a purple mudstone with some sandstone. The geological formation extends in an east-west direction across the site. The Geological Survey of Ireland has not identified any major bedrock aquifers in the Waterfall area. Map I.4 illustrates the geology of the immediate site and surrounding area.

I.4.1.3 Local Soil Character

There was no actual site examination of the soil surrounding or underneath the site. At present most of the site is covered in concrete with the remainder being hardcore surfaced.

I.4.2 Hydrogeology

The Ted O'Donoghue and Sons Ltd Waste Disposal site is not located over a regionally or locally classed aquifer. All residences in the area are served by private wells. Ted O'Donoghue and Sons Ltd Waste Disposal are presently served by a private well.

The closest private wells in the area within a 500metre radius of the site are listed below and shown on Map 1.4.2 attached to this application:

Table I.4.1 Private wells within 500m of Ted O'Donoghue and Sons Ltd Waste Disposal's site.

Map Ref.	Location / and distance from site
1	O'Donoghues Dwelling, 100m
2	Mc Carthy Residence, 103m
3	O'Connor Residence, 88m
4	Ford Residence, 188m
5	Rodgers Residence, 355m
6	Quaid Residence, 366m
7	Cussen Residence, 345m
8	Walsh Residence, 411m
9	Downey Residence, 230m
10	Murphy (Senior) Residence, 263m
11	Murphy (Esquire) Residence, 288m
12	Conway Residence, 300m
13	O'Mahony Residence, 477m

These groundwater wells were installed for private use and are currently used for drinking water.

The existing facility and proposed future developments to the facility are considered to have a low risk to groundwater. Only solid, dry and non-hazardous waste will be handled at the facility and all of the areas of the facility where waste will be handled and stored will be either indoors or outside areas surfaced with concrete. This will effectively protect the underlying soil and groundwater.

As part of the future site developments, the new facility will also include a series of water pollution control measures as follows:

- an upgrade to the existing storm water drainage system
- a separate treatment system for the effluent of the wash bay
- on-site collection and treatment of the leachate and washings from the transfer station and recycling buildings

Detailed descriptions of this water pollution control measures are given in Attachment F.

On site groundwater sampling occurred on 29th July 2004 to assess the present quality of the underlying groundwater to the site. The results can be seen below in Table I.4.2. Under the guidance of Best Practice, the sample was compared to the new, stringent guidelines as laid out in the EPA in their Interim Report titled 'Towards Setting Guideline Values for the Protection of Groundwater in Ireland'.

As can be seen in table I.4.0, the vast majority of parameters are well below these guideline values. The exception to this are:

Table I.4.0 – parameters outside of EPA Interim Guideline Values

Parameter	Significance
pH	Measurement of the acidic or alkaline nature of water, based on an inverse logarithmic scale
Nitrate	Mostly originating from waste discharges and artificial fertilisers. Though not a direct toxin it can be converted to Nitrite.
Orthophosphate as PO ₄	A specific form of phosphorous and may be indicative of contamination by sewage, fertilisers and/or detergents.

It is possible that these elevations may be due to increased use of fertilisers in the area mixed with the naturally acidic soils inefficiency at binding these nutrients. This may need further investigation by Local Authorities and the formation of nutrient plans to protect the groundwater from further degradation.

Table I.4.2 Groundwater Monitoring Data for Ted O'Donoghue & Sons Ltd.

List I or List II Substances	Physiochemical – Microbiological	Interim Guideline Values	Ted O'Donoghue and Sons Ltd Site Well (mg/l)
N/A	BOD	NG	<2
N/A	Electrical Conductivity	1000 µS/cm	183.0
N/A	Total Organic Carbon	No abnormal Change	<2
N/A	Total Suspended Solids	NG	<10
N/A	COD settled	NG	<15
N/A	pH (H ion concentration)	≥ 6.5 and ≤ 9.5	5.5
	Inorganic		
N/A	Alkalinity	No abnormal Change	80
II	Ammonia (as ammonium)	0.15 mg/l	<0.2
N/A	Barium	0.1 mg/l	<0.5
N/A	Calcium	200 mg/l	13.49
N/A	Chloride	30 mg/l	13
I	Cyanide	0.01 mg/l	<0.05
II	Fluoride	1.0 mg/l	<0.1
N/A	Hardness as CaCO ₃	200 mg/l	80
N/A	Iron	0.2 mg/l	0.006

N/A	Magnesium	50 mg/l	4.47
N/A	Nitrate	25 mg/l	85.3
N/A	Orthophosphate	0.03 mg/l	0.04
N/A	Potassium	5 mg/l	0.2
N/A	Selenium	NG	<0.002
N/A	Sodium	150 mg/l	7.9
N/A	Sulphate	200 mg/	18
	Metals		
N/A	Aluminium	0.2 mg/l	<0.05
II	Arsenic	0.01 mg/l	<0.002
II	Boron	1.0 mg/l	<0.05
I	Cadmium	0.005 mg/l	<0.0004
II	Chromium	0.03 mg/l	<0.001
II	Copper	0.03 mg/l	0.024
II	Lead	0.01 mg/l	<0.005
I	Mercury	0.001 mg/l	<0.00005

Table I.4.2 Groundwater Monitoring Data for Ted O'Donoghue & Sons Ltd.

List I or List II Substances	Physiochemical – Microbiological	Interim Guideline Values	Ted O'Donoghue and Sons Ltd Site Well (mg/l)
	Metals (cont.)		
II	Nickel	0.02 mg/l	<0.01
N/A	Silver	NG	<0.01
N/A	Tin	NG	<0.005
II	Zinc	0.1 mg/l	0.053
	Organics		
N/A	Total Organic Nitrogen	No abnormal Change	6.4
I	Total Hydrocarbons to include mineral oil by GC*	0.01 mg/l	<0.01
N/A	Diesel Range Organics	NG	<0.01
N/A	Petrol Range Organics	NG	<0.01
II	Total Phenols	0.0005 mg/l	<0.01
N/A	BTEX	0.01 mg/l	<10

NG The EPA Interim Guidelines have not stipulated a guideline value.

N/A = not applicable

It can be seen from Table I.4.0 there were no Class I or II substances detected in the groundwater in excess of the EPA Interim Guideline Values. The laboratory limit of detection for ammonia is marginally higher than the limit allowed, though it is deemed that less than 0.2 mg/l is sufficient to comply with this guideline value.

The acidity of the water can be assumed to be a derivative of the nature of the surrounding rocks and soils to which the water has travelled. The low levels of solids in the water and of conductivity may indicate that the water has a low buffering capacity and could be subject to large fluctuations in pH depending upon present external circumstances.

The increased levels of orthophosphate and nitrate in the groundwater, both of which are utilised in the fertilising of crops may be indicative of over fertilisation leading to increased run-off. From observing the remaining parameters of the analysis there is no indication of industrial pollution or evidence to suggest that these elevated values are due to on-site activities.

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ATTACHMENT I.5
EXISTING ENVIRONMENT & IMPACT OF THE ACTIVITY – GROUND AND/OR
GROUNDWATER CONTAMINATION

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I.5.1 Ground Contamination

There have been no detailed site investigations carried out at Ted O'Donoghue and Sons Ltd Waste Disposal site as part of this Waste Licence application. However, the following account is the brief history of the site:

The waste management site has been in operation for the past 15 years. During site development, all topsoil stripped was used to construct the soil berms which are used to screen the site from the west and north. Upon approval for planning permission the existing waste transfer station was constructed and used for waste acceptance and handling. The existing waste transfer station is in operation for approximately the past 2 years.

Prior to the construction of the transfer station, the site was used for recovery of primarily construction and demolition waste (typically builders skip waste only) and some commercial waste. All waste accepted at the site was and is currently non-hazardous. Only since the operation of the transfer station has domestic waste been accepted at the site.

I.5.2 Groundwater Contamination

This section has been adequately covered in Attachment I.4 of this waste license application.

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ATTACHMENT L6
EXISTING ENVIRONMENT & IMPACT OF THE ACTIVITY – NOISE

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I.6 Existing Environment – Noise

To assess the current noise impact of O'Donoghue Waste operations within the surrounding locality, a noise survey was carried out at the waste management site on the 29th of July 2004 between 8am and 4pm. Noise monitoring was carried out to the International Standard ISO 1996/1 'Acoustics – Description & measurement of environmental noise', using a Larson Davis Model 812 Sound Level Meter with outdoor equipment. The monitoring equipment was manned and regularly calibrated throughout the sampling period and comments/notes taken to assist the interpretation and assessment of results.

Noise survey results are attached, and summarised in Table I.6.1 below. Sampling was carried out at the following locations (Map I.6.1);

- N1 – site entrance
- N2 – south-east corner of site
- N3 – north-west corner of site (inside soil berms)
- N4 – near east boundary of site (inside soil berms)
- N5 – in field between McCarthy and O'Connors residence
- N6 - near to Downey's residence at side of public road and south-west of site
- N7 – in field (5 metres off public road) and beside Ford's farmyard.

The main potential noise sources from the O'Donoghue Waste operations include;

- Waste vehicle movements in and out of the site.
- Waste processing and handling (mechanical sorting of waste, baling, shredding and trommeling of waste where required)

Table I.6.1 Noise Levels Recorded at the Site Boundary.

Ref	Description	Time	Duration	LA _{eq}	Comments
N1	Site Entrance	8.22	30 min	57.1	Noise sources included, a skip truck entered and left the site during measurements. There were some waste handling inside transfer station Background noise sources were dog barking few minutes and bird song. Passing traffic on the country road includes: 4 cars and 1 lorries
N2	South-east corner of site	9.05	30 min	47.5	Noise sources were as follows: manual and mechanical sorting of waste in transfer station building. Some background noise from bird song.
N3	North-west corner of site	9.45	30 min	59.2	Audible noise sources included some metal cutting at a skip bin beside the weighbridge. There was also a skip unloading a waste load inside the transfer station.
N4	Near east boundary of site	10.45	30 min	72.6	Noise sources were; skip truck unloading skip containing soil approximately 6metres from noise meter. The tromell was in use for 15mins processing some commercial mixed waste.
N2	South-east corner of site	12.35	30 min	54.2	REL unloaded waste in transfer station. Some manual sorting of waste. Excavator loaded waste to ejector trailer. Some background noise from cattle in field to rear of transfer station.
N3	North-west corner of site	13.25	30 min	58.3	Audible noise sources included some manual sorting of waste. Excavator loading waste to ejector trailer. 2 x skip loads tipped inside transfer station for processing. No background noise.

Table I.6.1 Noise Levels Recorded at Noise Sensitive Locations (NSL's)

Ref	Description	Time	Duration	LA _{eq}	Comments
N5	In field between McCarthy and O'Connor residence	11.52	30 min	43.2	Audible noise from metal cutting at skip bins on site. A skip truck entered site, unloaded in transfer station and left again. Some mechanical sorting of waste was evident also. Background noise from birdsong, and passing traffic. Traffic on road included: 2 cars, and a tractor with trailer. A plane passed overhead.
N6	Near to Downey's residence at side of public road and south-west of site	14.42	20 min	63.0	No audible noise from waste activities on-site. Background noise from passing traffic (5 cars and 2 tractors with trailers). A plane passed overhead.
N7	In field (5 metres off public road) and beside Ford's farmyard	15.08	20 min	48.3	No audible noise from waste activities on-site. Background noise from passing traffic (5 cars and 1 van). Also trees rustling and some bird song.

The above results show that the main noise sources at the boundary locations come from site vehicle movements and site operations in the transfer station. At the noise sensitive locations (NSL'S) traffic on the country road becomes more persistent with the irregular movements of heavy vehicles only noticed.

There are currently no statutory limits for the control of environmental noise in Ireland. The EPA have issued a separate BATNEEC Guidance Note relating to noise from industrial sites. This states that;

'Ideally , the total noise level from all sources is taken into account, the noise level at sensitive locations should be kept below an L_{A,T} value of 55dB(A) by daytime. At night, to avoid disturbance, the noise level at noise sensitive locations should not exceed an L_{AeqT} value of 45dB(A). In some particularly quiet areas, such as pastoral, rural settings, where the background noise levels are very low, lower noise limits may be more appropriate.'

These results show that some measurements taken at the boundary locations were above the stipulated guidance notes of the EPA. The noise monitoring location at the site entrance (N1 Laeq 57.1 dBA) was heavily influenced by the passage of traffic on the main road. Due to the fact that this location was the furthest boundary location from the transfer station and the site yard, it is concluded that the majority of noise at this location was due to background noise from passing traffic. It was observed that during the survey period of 30mins a total of 4cars and 1 lorry passed by between 8.25 and 9.00am.

Location N2 had the lowest Laeq at 47.5dBA and 54.2dBA. This monitoring location was situated at the south-west corner of the site. During both monitoring events at this location there was typical site activity inside the transfer station (waste tipping, sorting and loading) and usual site vehicle movements. The transfer station effectively reduces the noise coming from the activities inside and this is reflected in the monitoring results. There was minimal background noises experienced at this location (cattle lowing in neighbouring field).

Location N3 had noise levels above the EPA guidelines (Laeq of 59.2dBA and 58.3dBA respectively). This noise measurement location was near the site boundary and inside the high berms. There was full exposure at this location to any noises that were occurring in the waste management site yard. At this location there were no background noise.

The highest noise levels recorded at the site was at N4 (Laeq of 72.6 dBA). This location was in the direct line of sight of the open roller shutter door of the waste transfer station. There was commercial waste tromeeling taking place at the time of measurements and a skip truck tipped some soil in a heap a few meters distance from the noise meter during the sampling event. This noise location is at the north east part of the site inside the boundary berms.

Of the NSL's only one location was recorded as having an elevated reading. This was found at N6 near to Downey's residence at side of public road and south-west of site, where a reading of 63.0dBA was given. It was noted that this location was slightly lower in land gradient to the waste management site and was flanked on either sides by mature hedgerows over 6 feet high. Subsequently, at this location there was no audible noise from the operational waste management site. During the survey there was much background noise (5 cars and 2 tractors with trailers passed by). There was also a commercial plane passing over head possibly on route to Cork airport (approximately 7.5km from the site). In summary the noise levels experienced at this location can be attributed to background noise sources only.

Of the remaining NSL's there were no results above 55dBA Laeq. All sites were chosen due to both direction from the site and proximity. All sites were within 500 meters of the site boundary. The highest result 48.3dBA Laeq was obtained near the dwelling north-northwest of the site (near Fords farmhouse approximately 240metres distance from the centre of the waste management site). This location had a visual command onto the top part of the transfer station only. During monitoring background noise sources included passing traffic (5 cars and a van), some bird song and trees rustling in the wind.

The lowest noise sensitive reading was for N5 in the field between the McCarthy and O'Connor residences (43.2dBA Laeq). This location was the nearest NSL to the site (120metres from the centre of the site). Audible noises from the site included the following; a skip truck tipped a load inside the transfer station, mechanical and manual sorting was waste in the same building and there was some metal cutting at a skip bin near to the weighbridge (a rare occurrence). There was also background noise from passing traffic on the Country road (2 cars and a tractor with trailer).

It is concluded that Ted O'Donoghue and Sons Ltd Waste Disposal operations do not have a significant impact on noise levels in the surrounding area especially at noise sensitive locations such as the immediate local dwellings (the McCarthy and O'Connor residences). The noise reading at this location was below the EPA guidelines of 55dBA Laeq.

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ATTACHMENT J
ACCIDENT PREVENTION & EMERGENCY RESPONSE

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J.1 Accident Prevention and Emergency Response

The following is a description of accident prevention and emergency response on the site of Ted O'Donoghue and Sons Ltd.

J.1.a Accident Prevention

There are a number of structures in place or proposed to be put in place to minimize the impact on the environment of an accidental emission or spillage. These are as follows:

- All Fuel Oils are Stored in a 19,000 gallon bunded area which has been certified by a chartered engineer. Refer to attachment D.1.g for further details.
- All effluent from the site offices and staff amenities will pass through a proprietary treatment system and then to percolation. Refer to attachment D.1.k for further details.
- All waste is tipped in the waste transfer building first. The waste transfer building has a 4300 gallon holding tank for storing run-off from the tipped waste. Refer to attachment D.1.k for further details.
- All surface water will pass through an interceptor tank before passing into a holding tank at the rear of the facility and then onto a local stream at the south east end of the facility. Refer to attachment D.1.k for further details.
- All roof water passes into a 10,000 gallon Storage tank at the rear of the facility and then to a local stream. Refer to attachment D.1.k for further details.

J.1.b Emergency Response

The following emergency response procedures are to be implemented on the site of Ted O'Donoghue and Sons Ltd.

Emergency Fire Response Procedure

The following section outlines the emergency response procedure and individual responsibilities in the event of a fire at the facility.

- **Finder**
 - On discovering an emergency situation the finder should;
 - Raise the alarm by 'call out' and inform the reception of the location and nature of the emergency.
 - If appropriate, attempt to tackle the emergency with the available emergency equipment, e.g. fire extinguishers, if trained to do so.
 - If the finder considers the emergency to be beyond control, to leave immediately by the nearest fire exit and proceed to the designated assembly point at the front of the site outside the front gates.

- **Reception**

- If evidence of a fire exists, dial 999 immediately and give whatever information available.
- Keep telephone lines clear for emergency calls.
- Take roll call for visitors/representatives and inform the Facility Manager or Managing Director of the headcount status.
- On the instructions of the Facility Manager or Managing Director, inform employees to leave the site.
- Prevent incoming traffic except for outside emergency services.
- Direct outside emergency services to the site of the emergency on arrival.

- **Facility Manager or Managing Director**

- The role of the Facility Manager or in his absence, the Managing Director on hearing the alarm is as follows:
 - Proceed directly to the emergency location.
 - Liaise with reception.
 - Give instructions to contact outside emergency services, as required, providing information on the nature of the emergency.
 - Give instructions to have all employees removed off site depending on the nature of the emergency.
 - Give the all clear.
 - Receive information on any missing employees.
 - Instruct first aiders to proceed to the site of the emergency (if safe to do so).
 - To initiate a search and rescue for missing employees, if deemed safe to do so.
 - Hand over control of the emergency to outside emergency services on their arrival and provide any information/assistance as required.

- **First Aiders**

- On hearing the alarm they should;
 - Leave immediately via the nearest available exit and proceed to the assembly point outside the front gates.
 - Proceed to the emergency site if requested to do so by the Facility Manager or Managing Director.
 - Remain at the assembly point until further notice by the Facility Manager or Managing Director.

- **Employees/Contractors/Temporary Staff/Visitors/Representatives**

- On hearing the alarm should;
- Leave immediately via the nearest available exit and proceed to the assembly point outside the front gates.

Emergency Accident Response Procedure

- On discovering an accident situation the finder should;
- Inform the Facility Manager or Managing Director of the location and nature of the accident.
- If appropriate, attempt to deal with the accident with available first aid equipment, if trained to do so.
- The Facility Manager or Managing Director will assess the accident situation and give instructions to first aiders to proceed to the accident.
- In the event of a serious accident, the Facility Manager or Managing Director will contact outside emergency services and provide information on the nature of the accident.

Emergency Spill Response Procedure

- The sources of likely spills on site are from diesel use and chemical handling by Ted O'Donoghue and Sons Ltd Waste Disposal employees.
- Due to the nature of materials handled at the facility, potential spills are a rare occurrence.
 - If a spill does occur then quickly mop it up using rags provided or absorbent from the spill kit situated in the transfer station building.
 - Inform the immediate workers in the area of the spill to ensure no further accidents by slipping.
 - In the event of a significant spill of material, the Facility Manager is informed immediately.

A. Personal Protection Equipment Checklist

EYES	HANDS	GENERAL BODY PROTECTION
Visors	Gloves	Rainwear
Goggles	Barrier Creams	Overalls (Close fitting)
Safety glasses		Safety Helmut
Welding mask		Safety Boots (Anti Slip)
Welding Goggles		
VDU spectacles		

B. Fire fighting equipment

- 1 Portable fire extinguishers

C. Spillage Kits

- 1 Absorbent material
- 2 Saw dust.
- 3 Wiping cloths

D. First Aid Equipment

- 1 First aid boxes



E. Emergency information

- 1 Emergency contact/phone numbers are posted around the facility. Refer to Figure 1 Emergency Site Response Notice.
- 2 Site maps showing the approximate locations of fire extinguishers, first aid boxes and the emergency assembly point are located in the site office.

F. Vehicle Emergency equipment.

- 1 All Ted O'Donoghue and Sons Ltd waste vehicles have portable first aid boxes and fire extinguishers installed.

Figure 1: Ted O'Donoghue & Sons Ltd - Site Emergency Response Notice

TED O' DONOGHUE & SONS LTD.		
		
..... WASTE DISPOSAL & TRANSPORT		
IN CASE OF EMERGENCY		
FOR THE ATTENTION OF ALL PERSONELL		
Below find a list of important telephone numbers you should contact in the event of an emergency i.e. personal injury, fire etc.		
Local GP	Dr Fraher	48770725
Ambulance		999 or 112*
Fire Brigade		999 or 112*
Gardai		999 or 112*
*Please give location and address of where help is needed and be as precise as possible.		
Local Gardai	Bishopstown	4541012
	Ballincollig	4871222
ESB		1850 372999
HSA	Local Office	4964900
In case of spillage or discovery of Hazardous Materials please contact:		
Cork County Council	Environmental Dept.	4352700
Cara Environmental		01 2601199
Lehane Environmental		7331202
Always wear and use protective equipment provide and be aware of you surroundings.		
Signed:		Date: 5 th Nov 2003
	Martin O' Donoghue Director	
.....		
A complete Waste Disposal Service	Ph.: 021-4544004 - Ph/Fax.: 021-4544848 - Mobile 087-2111616 - E-mail: tedodonoghueandsons@eircom.net MOUNTAIN VIEW HOUSE, WATERFALL, near CORC.	Radio Controlled Trucks Foot-Lift
• Industrial • Commercial • Domestic		

J.1.c Contingency Arrangements

There are 4 contingencies that must be allowed for when operating a Solid Waste Transfer Facility:

1. Operational failure of plant and equipment;
2. Breakdown of transfer/transport system;
3. Industrial action by operational staff; and
4. Fire in the Facility.

Contingencies 1 to 3

In the event of any of these contingencies occurring any possible environmental effects will be prevented by the immediate diversion of waste directly to landfill if necessary. Under no circumstances will a situation arise, whereby waste will be accepted into the facility when the means to transfer the waste, after a period not exceeding 60hrs, is not available.

In the situation whereby the Transfer/Recycling Facility is not operational, and therefore ceases to act as the waste acceptance point for the landfill, the procedures for applying waste acceptance criteria will be undertaken at the landfill itself.

The details of each contingency are dealt with in more detail below.

Operational Failure of Plant and Equipment

It is the responsibility of the Facility Supervisor to inspect the plant and equipment each day and ensure that it is operational. In the event of operational failure the Facility Supervisor will contact the Facility Manager, Mr. Martin O'Donoghue and inform him of the status of the plant and equipment. In the event of operational failure of the plant and machinery it is the responsibility of Mr. Martin O'Donoghue to arrange for immediate repair or replacement of equipment.

The trommel and picking line equipment will affect the construction and demolition waste only. Most of this material can be manually picked from the floor of the transfer station until the equipment is back in operation.

The shredder is only used for timber shredding and any timber can be temporarily stored until the shredder is fully operational.

The 360⁰ Rubber Tyre Excavator is the main piece of equipment used to load the ejector trailers with residual waste for transfer to Mulleadys in Longford or to Landfill. Should this require repair then a back-up excavator is maintained on site to load the residual waste so that the transfer station is kept clear at all times.

Breakdown of Transfer/Transport System

As outlined in the previous section, "Operational Failure of Plant and Equipment," the only breakdown of the transfer / transport system is if the 360⁰ Rubber Tyre Excavator requires maintenance. A second excavator is maintained on site at all times and excavators can be hired in should there be a requirement to do so. The 40 foot ejector trailers being used are supplied by the haulage company to transfer the residual waste from the site. Ted O'Donoghue and Sons Ltd Waste Disposal have two ejector trailers of their own which they can use and also have tractor units to pull these trailers if required to do so.

Industrial Action by Operational Staff

In the event of industrial action by operational staff at the facility, waste will be diverted direct to landfill and will not be accepted into the facility when the means to transfer the waste, after a period not exceeding 60hrs, is not available.

Contingency 4

The main fire risks associated with the operation of the Waste Transfer Facility are as follows:

- Within a waste haulage truck;
- In the waste inspection area;
- In the waste in the waste processing machinery;
- Due to electrical fire within the waste processing machinery.

In the event of a localised fire on-site, the fire will be controlled as per the Fire Requirements in the Fire Regulations. For a major fire on-site, the local fire-fighting emergency service will be called to control the fire, and the Waste Transfer Facility will remain closed until it has been deemed that it is safe to operate again. The fire water produced from fire-fighting activities will be collected through the surface water drainage systems and will be directed into the holding tank at the southern end of the facility.

ATTACHMENT K
REMEDATION, DECOMMISSIONING, RESTORATION & AFTERCARE

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K.1 Remediation, Decommissioning, Restoration and Aftercare

There will be no requirements to remediate the site as all of the site will be covered in hardstand concrete and fuel / oil bunds will be maintained to prevent any emissions to ground. Surface water will pass through an interceptor tank, which will be periodically cleaned and inspected, and any run-off from the tipping activities in the transfer station will be captured in an underground tank under the floor of the transfer station.

It is the intention that the Waste Transfer Facility will continue in operation for the foreseeable future but should part of the activity cease to operate then Ted O'Donoghue and Sons Ltd will enter into a review of the waste licence with the Environmental Protection Agency to reflect the change in activities on the site. Any equipment associated with the activity to be decommissioned will be removed from the site and all waste associated with the activity will also be removed from the site to an appropriate disposal or recovery activity.

Should all of the activity cease to operate, Ted O'Donoghue and Sons Ltd will again enter into a review of the waste licence in order to surrender the waste licence. The following will be carried out in order to ensure that the site is free of contamination and free from continuing emissions.

- All recovered soil will be removed from the external storage bays and deposited in permitted land reclamation activities.
- All recovered stone and rubble will be crushed and removed from the external bays and transferred to permitted land reclamation activities.
- All timber will be shredded and transferred to permitted or licensed wood recyclers.
- All bottle glass and plate glass stored in bays and skips on site will be removed to permitted or licensed glass recycling facilities.
- All scrap metal will be removed from the site.
- All baled cardboard, mixed paper and plastic will be loaded onto a 40 foot curtain side trailer and transferred to an authorised recycler.
- All quarantined materials i.e. Batteries, Fluorescent Tubes, Electrical Items, Gas Bottles and Tyres will be removed from the site by authorised companies.
- All waste receptacles i.e. skips, wheeled bins, refuse collection vehicles, skip eaters and trailers will be examined for any remaining residual waste which will be removed and placed into the 40 foot ejector trailers along with any remaining residual waste left on site. This will then be delivered to licensed landfills for disposal or Transfer Facilities for further processing.
- All Waste Handling and storage equipment and vehicles will be removed from the site either by selling them and / or dismantling them and recovering them by an approved metal recycler.
- The Fuel / Oil bund will be examined by a chartered engineer and any liquid waste cleaned out by an approved liquid waste contractor.
- The underground tank in the waste transfer station building will be examined by an engineer and any remaining liquid waste removed by an approved contractor.

-
- The interceptor trap and holding tank will be examined and cleaned out by approved contractors.
 - The gates to the facility will be locked and security measures implemented to prevent scavenging on site after it is decommissioned.

This decommissioning process outlined will result in no residual environmental pollution; therefore no aftercare will be required. The site was a Greenfield site before it was used as a waste transfer activity approximately fifteen years ago and the resulting decommissioning process will restore the site to a commercial activity.

Any decommissioning procedures will be agreed with the Environmental Protection Agency in advance should all or part of the activity cease to operate.

In order to financially underwrite the decommissioning of the activities on the site an appropriate bond will be set by Ted O'Donoghue and Sons Ltd with an approved insurance company or banking facility. The details and value of the bond will be agreed with the Environmental Protection Agency in advance of the waste licence being issued.

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**ATTACHMENT I
STATUTORY REQUIREMENTS**

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L.1 Section 40(4) WMA

The following is a summary of how Ted O'Donoghue and Sons Ltd will meet all of the requirements of Section 40(4)[(a) to (i)] of the Waste Management Acts 1996 to 2003:

- (a) **Any emissions from the recovery or disposal activity in question (“the activity concerned”) will not result in the contravention of any relevant standard, including any standard for an environmental medium, or any relevant emission limit value, prescribed under any other enactment,**

The emissions described in Attachment E “*Emissions*,” i.e. noise, dust, water, odours, from the activity of Ted O'Donoghue and Sons Ltd will not result in the contravention of any relevant standard. Controls will be put in place as described in Attachment F “*Control and Monitoring*,” to limit or eliminate the emissions and regular monitoring will be carried out to ensure that these control measures are working effectively.

- (b) **The activity concerned, carried on in accordance with such conditions as may be attached to the licence, will not cause environmental pollution,**

If the activity concerned involves the landfill of waste, the activity, carried out in accordance with such conditions as may be attached to the licence, will comply with Council Directive 1999/31/EC on the landfill of waste,

The activity concerned will not cause environmental pollution for the following reasons:

- All tipping of waste will be carried out indoors, therefore any liquid wastes emanating from the tipped waste will be captured in the blind sump in the floor of the transfer station. Any unacceptable wastes identified in the tipped waste will be appropriately quarantined.
- All fuel and oil storage will be in a bund located at the western end of the facility.
- All domestic and wash effluent from the site offices and canteens will pass through a proprietary treatment system before being discharged to percolation.
- All surface water will pass through a class one interceptor tank to remove items such as hydrocarbons and suspended solids, and then will pass into a holding tank before being discharged to a local stream at the south east corner of the facility.
- Other emissions such as noise, dust and odours will be controlled and monitored as outlined in Attachment F “*Control and Monitoring*.”

- (c) **The best available technology not entailing excessive costs will be used to prevent or eliminate or, where that it is not practicable, to limit, abate or reduce an emission from the activity concerned,**

The activity concerned is consistent with the objectives of the relevant waste management plan or the hazardous waste management plan, as the case may be, and will not prejudice measures taken or to be taken by the relevant local authority or authorities for the purpose of the implementation of any such plan,

The technology used to prevent, eliminate and control emissions from the activity concerned is described in Attachments F.1.1 to F1.5.

The activity concerned is consistent with the objectives of the relevant waste management plan as described in Attachment F.1.7 "*Cultural Heritage.*"

- (d) **If the applicant is not a local authority, the corporation of a borough that is not a county borough, or the council of an urban district, subject to subsection (8), he or she is a fit and proper person to hold a waste licence,**

Ted O'Donoghue and Sons Ltd are fit and proper to hold a waste licence as described in Attachment L.2 "*Fit and Proper Person.*"

- (e) **The applicant has complied with any requirements under section 53,**

In the event that Ted O'Donoghue and Sons Ltd will decommission the activity then in order to follow through on the procedures as outlined in ***Attachment K.1 Remediation, Decommissioning, Restoration and Aftercare***, a financial bond will be agreed with the agency in advance of the licence being granted.

Details of the companies previous two years audited accounts are also included with this application in an envelope marked confidential. This outlines the financial position of Ted O'Donoghue and Sons Ltd and indicates their ability, financially, to meet any commitments or liabilities incurred through the carrying out of the activity.

(f) Energy will be used efficiently in the carrying on of the activity concerned,

Energy consumption is estimated to be 85% for the vehicles operating from the activity and 15% from the plant on site. Vehicles and equipment will be regularly maintained so as to prevent wear and tear which could lead to higher energy consumption. Further information on energy efficiency is described in Attachment G2.

(g) Any noise from the activity will comply with, or will not result in the contravention of, any regulations under section 106 of the Act of 1992,

Details of noise emissions from the site are described in Attachment F.1.3 "Noise."

(h) Necessary measures will be taken to prevent accidents in the carrying on of the activity concerned and, where an accident occurs, to limit its consequences for the environment,

As described in Attachment J.1.a "Accident Prevention," there are a number of structures on site to prevent accidents occurring which will have an effect on the environment. In the event of an accident occurring there are procedures to be followed in order to limit the consequences on the environment of any accident. These are outlined in Attachment J.1.b "Emergency Response."

There are also 4 contingencies that must be allowed for when operating a Solid Waste Transfer Facility:

1. Operational failure of plant and equipment;
2. Breakdown of transfer/transport system;
3. Industrial action by operational staff; and
4. Fire in the Facility.

The details of each contingency are dealt with in more detail in Attachment J.1.c "Contingency Arrangements,"

(i) Necessary measures will be taken upon the permanent cessation of the activity concerned (including such a cessation resulting from the abandonment of the activity) to avoid any risk of environmental pollution and return the site of the activity to a satisfactory state.

Measures to decommission the site in the event of the cessation of all or part of the activity are described in Attachment K.1 "Remediation, Decommissioning, Restoration and Aftercare."

L.2 FIT AND PROPER PERSON

Ted O'Donoghue and Sons Ltd have not been convicted of any offence under the Waste Management Acts 1996 to 2003, the EPA Act 1992 and 2003, the Local Government (Water Pollution) Acts 1977 and 1990, or the Air Pollution Act 1987.

Details of the technical knowledge and qualifications of the staff of Ted O'Donoghue and Sons Ltd can be viewed in Attachment C.1 "*Technical Competence and Site Management.*"

In the event that operations at the facility are to cease the facility will be decommissioned as indicated in Attachment K.1 "*Remediation, Decommissioning, Restoration and Aftercare.*" Final details of the decommissioning process will be agreed with the Environmental Protection Agency in advance of the process taking place. An appropriate bond will be set up by Ted O'Donoghue and Sons Ltd with an approved insurance company or financial facility to ensure that the decommissioning process can be implemented. The details and value of the bond will be agreed with the Environmental Protection Agency in advance of the waste licence being issued.

Attached in a separate envelope marked confidential are details of the last two years financial accounts of Ted O'Donoghue and Sons Ltd along with a letter from the company accountant stating that the company is in a good financial position to meet any financial commitments or liabilities that may have been or will be entered into or incurred in carrying on the activity to which this application relates.