

INSPECTORS REPORT

Waste Licence Register Number:	44-2
Facility:	Thorntons Recycling Centre, Killeen Road, Ballyfermot, Dublin 10.
Applicant:	Padraig Thornton Waste Disposal Limited (PTWDL)
Inspectors Recommendation:	A Revised Waste Licence be granted subject to conditions.

(1) Introduction:

This report relates to an application by Padraig Thornton Waste Disposal Limited, (PTWDL) for a review of the existing Waste Licence (Reg. No. WL 44-1 licensed on the 03/12/'99). The facility consists of a waste transfer and recycling station located within the Kylemore Industrial Estate. The nearest residential properties are in Ballyfermot, 100 metres north west of the facility, on the opposite side of the Dublin-Kildare railway line. Refer to Appendix 1 Figure No. B.2.1 (Revision A) Site Location.

The facility is licensed to accept municipal solid waste. Non-recyclable waste is baled and subsequently transported off-site for disposal at landfill. Recyclable wastes (construction & demolition waste, timber, metal, plastic, paper and cardboard) are segregated for recovery off-site.

The proposed review specifically relates to:

- extension of the licensed area (of 1.4 ha by 0.39 ha), incorporating a new facility entrance/exit from Kylemore Park North.
- increase in the licensed annual tonnage of waste processed from 150,000 to 250,000 tonnes /annum.
- extension of the current opening hours (8am-7pm Mon-Sat) to 24 hours per day, 7 days per week, excluding bank holidays.
- extension of the roofed area for construction and demolition waste recovery (building 5) and a baled cardboard storage area (building 7).
- handling of liquid beverage waste and non-infectious liquid healthcare products.
- recycling of waste vegetable oil to produce biofuel for reuse by facility vehicles.
- operation of a civic waste facility for waste electrical goods, 1000 tonnes of hazardous waste per annum.

Refer to Appendix 1 Figure No. D.2.2 (Revision A) Waste Processing Locations.

This report details the proposed amendments and the Inspector's recommendations.

The classes of activities for which the applicant has applied for are those licensed under the existing Waste Licence (Third Schedule Class 11 and 13, Fourth Schedule 2, 3, 4, 13,) with the addition of Third Schedule Class 12, and Fourth Schedule Class 8, 9, and 11.

Quantity of waste (tpa)	250,000 tonnes of waste / annum.
Environmental Impact Statement Required	Yes. I have assessed the EIS in accordance with the European Communities (Environmental Impact Assessment) Regulations 1999 and it complies with these regulations.
Number of Submissions Received	2

FACILITY VISITS:

DATE	PURPOSE	PERSONNEL	OBSERVATIONS
23/08/'01	Site notice check	Breege Rooney	Query over site notice as an EIS had not been submitted at the time.
19/04/'02	Site notice re-check and site visit.	Breege Rooney Helen Maher	Site Notice compliant with Regulations (SI No. 185 of 2000).
16/12/'02	Site Visit	Helen Maher	Site Visit

Fit & Proper Person

In April 2001 Padraig Thornton Waste Disposal Limited was prosecuted under the Waste Management Act 1996, for 19 non-compliances with the existing waste licence (Reg. No. WL 44-1). The fines and costs amounted to £11,080 (€ 14,069). The majority of the non-compliances related to the fact that a number of reports required by the licence were not submitted, but these reports were subsequently submitted. In addition some of the amendments applied for in this review application were not allowed under the existing licence, and the applicant was prosecuted for further non-compliances resulting from carrying out waste activities outside the scope of the existing licence. The Agency received one complaint with respect to odours from this facility in 2002. The applicant is proposing to upgrade the infrastructure, processes and systems, to ensure future compliance. A review of the Financial Statements to 31/12/2001, indicate that the applicant has not made any provision to cover the cost of site closure, decommissioning and aftercare. However under Condition 12.2 the

applicant shall make a proposal for Financial Provision within nine months, to the Agency for its agreement, to cover a fully costed Environmental Liabilities Risk Assessment of the facility.

(2) Reasons for the Review

The amendments requested by the licensee to conditions of the existing licence are detailed below.

- 1. Extension to licensed Area:** The applicant now owns two plots of developed land to the east (Yard 2 and 3) and to the south of the facility (building No. 7) and has applied to include these in the licensed area. Refer to Appendix 1 Figure No. A. 1 (Revision B) Existing and Proposed Site Plan. Security at the facility (CCTV) shall be adapted to reflect the new facility boundary. (Condition 3.4.1)
- 2. New Facility Entrance/Exit:** Existing access to the facility is from the Killeen Road and the applicant has applied for a second facility entrance/exit from Kylemore Park North (also know as Kylemore Road) to yards 2 and 3. The second entrance/exit will allow access to the proposed civic waste facility, to the beverage container recycling area (building No. 9), and the waste vegetable oil recycling area (building No. 4). Yard 2 will serve as a loading area for compacted waste from Building No. 3 and a night parking area for facility vehicles. Containers loaded with baled waste will leave the facility from this second exit. Condition 3.8 provides for a weighbridge at all facility entrance/exits, and all vehicles exiting onto the public roads will pass through a wheelwash. (Condition 7.5.3)
- 3. Increase in Annual Volume of Waste to be Processed:** This review application includes a proposal to increase the licensed tonnage from 150,000 to 250,000 tonnes of waste per annum. Condition 1.4 and Schedule A: Waste Acceptance, limits the licensed quantity of waste to be accepted to 250,000 tonnes per annum. Condition 3.10 of the PD requires the applicant to have duty and standby capacity for critical waste handling and processing equipment. Within three months a report detailing the duty and standby capacities is required based on the increased waste intake. The floor of the waste transfer buildings handling putrescible waste, (buildings No. 1 and 3) must be cleaned down and cleared of all waste at least once every 24 hours, (Condition 5.7) with written records kept. In addition under Condition 7.5 the applicant is required to carry out an odour assessment within three months of the date of the grant of this licence, to quantify significant odour releases from the facility.
- 4. Extension of Opening times:** The facility currently operates between 8:00am and 7:00pm, Monday to Saturday and the applicant has applied to extend the opening hours to 24 hours per day, 7 days per week. Waste shall not be accepted or the facility operated on Bank Holidays. (Condition 1.8) The nearest residential properties (N7 noise sensitive monitoring location) are on Le Fanu Road, 100

metres north-west of the facility. Noise monitoring has been restricted to sensitive locations, and the frequency has been amended to include night-time operations (Schedule D Table D.3.1).

- 5. Extension of Roofed Area:** The existing facility consists of 4 (No.) buildings dedicated to waste handling. This review includes a proposal for the use of five new buildings for waste activities (buildings No. 5, 6, 7, 8 & 9). Building No. 5 will extend the existing construction and demolition waste handling and processing area (building No. 2). Building No. 6 (constructed already) will be a tyre store and fitting area for on-site vehicles, a bunded fuel storage area, a vehicle wash bay, a vehicle refuelling bay, on the ground level, and a new canteen/wash room at first floor level. It is proposed to extend Building No. 1 to connect to with building No. 6, via building No 7 (constructed already) as a baled cardboard waste storage area. Building 8 (constructed already) is a security hut and building 9 (constructed already) is a metals recovery area. Refer to Appendix 1 Figure No. D.2.2 (Revision A) Waste Processing Locations. The additional buildings will reduce the potential for noise and dust emissions, and ensure that all waste is handled under cover. Planning permission for infrastructural changes were applied for on the 22nd of June 2001, but had not yet been granted at the time of writing this report.
- 6. Recycling of Waste Vegetable Oil:** It is proposed that waste vegetable oil be collected from various food producers and catering outlets. The waste oil will be transported to the facility in sealed containers and processed (10,000 litre capacity) in a bunded area (building No. 4). The main product will be bio-fuel, used to fuel on site plant and machinery, (Condition 3.14) and the secondary product, soap will be used as a replacement to conventional detergents for cleaning of PTWDL vehicles. There is no internal drainage associated with Building 4. The bund integrity test for building No. 4 has not been completed but under condition 3.11, the integrity of all bunds shall be confirmed by the licensee and reported to the Agency within three months of the date of grant of this licence.
- 7. Handling of Liquid:** The applicant has applied to accept non-hazardous liquid wastes at the facility. These include containers with out of date beverages; waste beer, wine, soft drinks, whiskey and non-infectious liquid healthcare products consisting of saline and dextrose solutions. The beverage containers (cans, glass bottles, plastic) will be unloaded onto a conveyor outside building No. 4 and conveyed to a purpose built shredder contained within the bund (Condition 3.11). The shredded material will be collected for recycling and all liquid waste from the containers will flow to a sump below the shredder. The liquid in the sump will be pumped to a bunded storage tank and the contents taken to a licensed treatment facility. The licensed facility for the treatment of liquid waste has not yet been agreed. The PD requires the applicant (Condition 5.8) to submit a proposal to the Agency, with regard to the waste contractor and appropriate facility employed for off-site recovery and disposal prior to acceptance of any liquid waste.

- 8. Civic Waste Facility:** It is proposed to provide a Civic Waste Facility in yard 3, for public and small scale commercial waste electronic goods (1000 tonnes of hazardous waste per annum). Materials to be collected include: cookers, fridges, freezers, washing machines, tumble dryers, microwaves, computers, computer monitors and televisions This collection area (4m x 10m) will be supervised and serviced daily. (Condition 3.16) The materials collected in the public drop off point are loaded into shipping containers (yard 2) within 24 hours of its arrival at the facility. This should ensure that there is adequate space at the public drop-off point for waste electrical goods at all times. (Condition 3.16) The PD allows for a bunded impermeable concreted area, surrounded by fencing and lockable access. (Condition 3.16) Waste electrical and electronic goods can only be stored outside the collection area in appropriate containers on impermeable concrete. The electronic waste will be shipped to Germany for recycling in partnership with Cara Environmental. The applicant did not submit details of the facilities proposed to accept waste refrigeration equipment but is required to do so under condition 5.8.
- 9. Metal Recovery:** It is proposed to operate metal recycling in the extension to building 9. This operation will consist of the manual breakdown and segregation of waste metal into constituent metal types. It is expected that approximately 1,500 tonnes of waste metal will be handled annually. The various metals, such as brass, will be sent to metal recyclers for reprocessing. Any residual non-recyclable material from this operation will be diverted to landfill via the main transfer station.
- 10. Dry Recyclables Recovery:** It is proposed to install a new sorting area to recover dry recyclables from domestic and commercial waste in building 1. This operation will be in addition to the existing picking line. The operation will be manual/mechanical (magnets) operation to recover such materials as light cardboard, aluminium, steel cans, newspapers and magazines.
- 11. Reorganisation/Relocation of Site Process:** The applicant has applied to reorganise and/or relocate, within the facility, the various operational processes from time to time subject to agreement of the Agency. The PD requires under Condition 5.6 that the licensee submit a written proposal to the Agency for agreement prior to any proposed relocation of waste processing operations.

(3) Facility Development

Type & Quantities of Waste

The application for review refers to the following changes to the types of waste to be accepted at the facility;

- handling of liquid beverage waste and non-infectious healthcare products.

- recycling of waste vegetable oils.
- operation of a civic waste facility for waste electronic goods.
- acceptance of green waste at the facility.
- acceptance of tyres at the facility.
- discontinue accepting street cleaning and gully waste from Dublin City Council.

The application for review also requests an increase in the licensed tonnage from 150,000 tonnes to 250,000 tonnes per annum. However on the basis of a recent examination of waste records (as per site visit on the 16/12/'02) the existing tonnage (up to and including the month of November) for the year 2002 was 242,335 tonnes. Therefore the facility is operating above the licensed tonnage (150,000 tonnes/annum). Condition 1.4 and Schedule A Waste Acceptance limit the maximum quantities of waste to be accepted at the facility to 250,000 tonnes per annum. The PD allows for all of the above changes in waste types and quantities to be accepted at the facility. The majority of the waste to be accepted at the facility will be household waste (115,000 tonnes) and Industrial waste (74,000).

Infrastructure

The PD requires that a separate Waste Inspection Area and Waste Quarantine Area be installed south of the main door to building 3. (Condition 3.7) If a waste load enters the facility and is found to be unacceptable it is immediately sent to the waste quarantine area. (Condition 5.6)

A weighbridge at the Killeen Road entrance/exit was installed at the facility in January 2001. The accuracy of this weighbridge has not yet been verified but all weighbridges must be maintained in such condition as to accurately measure the weight of all vehicles exiting the facility. (Condition 3.8) A wheelwash proposal has been approved and is due to be installed at the Killeen Road entrance/exit to the facility, within three months of the date of the grant of this licence (Condition 3.9). The PD requires that a weighbridge and wheelwash be installed at the second facility entrance at Kylemore Park North. (Condition 3.8, & Condition 3.9) The entire facility must be impermeable hardstanding within six months from the date of the grant of a licence (Condition 3.5).

(4) Emissions to Air

Dust

All construction and demolition waste shall be handled indoors. No waste shall be allowed to accumulate in yard areas. (Condition 5.2 & Condition 5.9). Condition 7.1 requires the control of inherent dust nuisances and requires the facility to be maintained in a mud-free manner so as to alleviate fugitive dust emissions. Condition 8.1 requires the continuation of the dust deposition monitoring regime. An additional dust monitoring location is proposed for the north west corner of the facility adjacent to the proposed construction & demolition waste recovery area extension (building No 5). The results of the current dust monitoring programme indicate that the highest levels of dust are recorded at locations (D 2) adjacent to the Killeen road (Refer to Appendix 1 Figure No. A.7 (Revision B) Monitoring Locations). This would indicate contributions from passing traffic rather in addition to dust from the facility itself. The prevailing wind also blows dust into the monitoring area, from other activities nearby, namely a concrete factory. Dust extraction and water spray systems have been installed at the facility (building 2 and 3) in line with BATNEEC, and will be extended under condition 7.4 and Schedule B Specified Engineering Works, to buildings Number 5 and 7. Thus existing and proposed sources of dust emissions will be controlled by this licence.

Odours

Odours are minimised by transporting malodorous (Condition 5.3) waste to landfill within forty eight hours of its arrival at the facility. The PD also requires that that the floor of waste transfer buildings 1 and 3 be cleaned down and cleared of all waste at least once every 24 working hours, and written records be kept. (Condition 5.7). All waste processing occurs indoors, and an odour suppression system has been installed in the buildings where putrescible waste are handled. Condition 6.2 stipulates that there shall be no significant interference with amenities or the environment beyond the facility boundary due to odours. Under Conditions 7.5 the licensee is required to submit to the Agency within three months of the date of grant of this licence, an odour assessment of the entire facility in order to determine the effectiveness of measures to minimise odours. This odour assessment shall include identification of all significant odour releases during the 24 hour operation of the facility. The licensee is required to install within nine months measures for the control of odours emissions from the facility.(Condition 7.4) The Agency received one complaint with respect to odours from this facility in 2002. No odour problems are anticipated at this facility given that the tonnage accepted (up to and including the month of November) for the year 2002 was 242,335 tonnes.

Noise

This facility is located in an industrial area. The nearest sensitive receptors, are located approximately 100 metres north of the facility. Schedule C Emission Limits sets boundary day and night noise emission limits. The day-time and the night-time emission limit values are exceeded at the noise sensitive locations. Day-time noise levels at these noise sensitive locations range from 63dB(A) at N7 (residential location) to 69dB(A) at N9 (industrial location). Noise levels are generally high due to traffic in the vicinity.

Results from background night-time noise monitoring carried out by the applicant, showed noise levels at noise sensitive locations range from 45dB(A) at N7 (residential location) to 57dB(A) at N9 (industrial location). Houses on Le Fanu road are subject to high noise levels from passing traffic on the adjacent Le Fanu Road and the main Dublin-Kildare railway line. A night-time noise survey with a number of on-site noise sources operating, was also undertaken. Only some of the plant and machinery were operated to simulate typical proposed night time operations at the facility. The trommel and the shredders will only operate during daytime hours (Condition 1.8). The on-site LAeq noise was measured at 66dB(A) N6, while noise sensitive receptors ranged from 53dB(A) at N7 (residential location) to 67 dB(A) at N9 (industrial location). The industrial receptors do only operate during the day-time and would not be susceptible to night time noise from the facility. Noise levels during the night-time hours are likely to exceed the 45 dB(A) night-time emission limit value due to traffic noise alone at N7 (residential location). Noise sources from the facility are likely to have minor impact at N7 due to other contributory noise sources.

Condition 7.1 provides that noise emissions do not give rise to nuisance in the immediate area of the facility. Condition 7.6 requires the applicant to carry out within three months of the date of the grant of this licence, a noise assessment to quantify the significant noise from the facility during day-time and night-time operation. This condition also requires a review of the effectiveness of mitigation measures for noise sensitive locations. Schedule D Monitoring requires noise monitoring at the noise sensitive locations only. However, in light of developments at the facility, noise monitoring points will require revision and the submission of new boundary monitoring points as appropriate (yards 2 and 3) are required by Condition 11.4.

(5) Emissions to Surface Water

Surface water discharges from this facility are directed to storm drains, which discharge to the Cammock River and subsequently to the River Liffey just upstream of Heuston railway station. Currently there are two main surface water drainage systems on-site, one serves the northern part of the facility while the other serves the southern portion. Refer to Appendix 1 Figure No. D.1.3a Existing Surface Drainage System.

Redirection of Surface Water Drainage to Foul Sewer:

The quality of the surface water discharge has been poor, with high COD, BOD, suspended solids, oil content and accumulation of organic material in yard 1 and gullies during low rainfall periods. In light these poor surface water monitoring results it has been proposed to collect the main yard drainage (Yard 1), and redirect this surface water drainage to the foul sewer for discharge at F2. The roof runoff from Building 1 and all other general/maintenance buildings in the southern portion of the facility shall continue to drain to the existing surface water systems at SW1. The remaining surface water run-off from yards 2 and 3 , roof run-off from buildings 2, 3 and 5 will drain via an oil separator (Pi5) to the surface water drain SW2, at the north eastern boundary of the facility. Condition 3.13 requires a surfacewater drainage cut-off valve (Co3) downstream of the oil separator. Condition 8.1 and Schedule D Monitoring requires monthly monitoring at SW2 of parameters that will highlight any pollution if it exists. Refer to Appendix 1 Figure No. D.1.3 b Proposed Surface Drainage System.

(6) Emissions to Sewer

Existing Sewer System

The existing sewer system on-site is divided into two systems:

F1 System Southern Facility

- a) This system collects wastewater from Building 1 via a two chamber oil interceptor (Pi4) and a sewer cut off valve (Co1) before exiting to the main sewer at F1. The site offices and maintenance garages, including the toilets and canteen in Building 6 also drain to F1. The vehicle wash bay and the designated area vehicle fuelling area (building 6) also drain to F1 via a three chamber oil interceptor (Pi1). The bund integrity for the fuel storage area has not been completed but all bunds shall be confirmed by the licensee within three months. (Condition 3.11) Refer to Appendix 1 Figure No. C.9.1.c Existing Foul Drainage System.

F2 System Northern Facility

- b) This system collects wastewater from building 2, the floor of Building 3, run off from the baler, and passes through a series of silt traps (3) and a three chamber interceptor (Pi2) before discharging at F2. An electric/manual sewer cut off valve (Co2) has been installed on this system.

Proposed Foul Sewer System

The proposed sewer system will now incorporate surface water run-off from the southern portion of the facility. The main yard drainage (Yard 1), will collect in a central sump and will be pumped via three silt traps and a three chamber oil

interceptor (Pi2) before discharging at F2. The pumping system will restrict the flow to a maximum flow of 5 litres/sec. Drainage from the wheel wash will be diverted to the sewer system via a three chamber reinforced above ground interceptor prior to exiting the facility at F1. (Refer to Appendix 1 Figure No. C.9.1d Proposed Foul Drainage System).

Condition 3.13 stipulates installing and labelling all cut-off valves within six months. (Condition 3.14) Monitoring of the emission points SW2, F1 and F2 are stipulated by Condition 8.1 and Scheduel D Monitoring, while emission limits are set by Condition 6.1, and Schedule C Emission Limits. A Section 52 letter was issued to the Sanitary Authority under Section 52 of the Waste Management Act 1996 in relation the discharge from the facility to the sewer. A response was received on the 4th of October 2002. All the consent conditions of the Section 52 Notice issued by Dublin City Council have been incorporated into the PD. Condition 6.6 also requires the licensee to submit monitoring results to the Sanitary Authority (Dublin City Council) on an annual basis and Condition 11.2 requires notification of the Sanitary Authority in the event of any incident which relates to sewer discharges.

(7) Waste Management, Air Quality and Water Quality Plans

1. The Water Quality Management Plan for the Liffey Catchment only relates to the Liffey catchment upstream of Islandbridge. The relevant plan is the Dublin Bay Water Quality Management Plan. Other than noting that the Cammock river is supportive of fish life whilst being eutrophic, no water quality objectives are set for it. Condition 6 states that there shall be no impairment to the environment beyond the facility boundary.
2. There is an Air Quality Management Plan for Dublin. The only target of relevance to this application is that for PM₁₀ particulates. As the recovery of C&D waste occurs indoors, emissions of PM₁₀ particulates, are not expected.

(8) Submissions

Two submissions have been received in connection with this application. They are summarised below:

1. The Heritage Service, Duchas. No archaeological objections to the granting of this licence.
2. Dublin City Council Issues raised were subsequently incorporated into the Section 52 response received from the same body and are conditioned in the PD.

(9) Recommendation

It is recommended that a revised waste licence be granted in accordance with the conditions of the recommended Proposed Decision.

Signed: _____

Dated: _____

Helen Maher
Inspector,
Environmental Management and Planning.

APPENDIX 1

Figures

APPENDIX 2
SUBMISSIONS