PADRAIG THORNTON WASTE DISPOSAL LTD

THORNTONS RECYCLING CENTRE

Waste Licence Reg. No W0044-02

ANNUAL ENVIRONMENTAL REPORT 2012

SUBMITTED February 2013

Prepared By:

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1 INTRODUCTION

This report is the Annual Environmental Report for Thorntons Recycling Centre. It has been prepared in compliance with Condition 11.5 of the Waste Licence (Licence Reg. No. W0044-02).

This licence was granted by the Environmental Protection Agency (EPA) to Padraig Thornton Waste Disposal Ltd (PTWDL) on the 2nd May 2003. The contents of this report are as required by Schedule F of Waste Licence W0044-02.

1.1 OPERATOR

The facility operator of licence number W0044-02 is Padraig Thornton Waste Disposal Ltd (PTWDL), T/A Thorntons Recycling. This AER relates to Thorntons Recycling Centre, Killeen Road, Dublin 10.

The address and contact details for the company headquarters are;

Thorntons Recycling,
Unit S3B Henry Road,
Park West Business Park,
Dublin 12.

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1.2 REPORTING PERIOD

The reporting period for this Annual Environment Report (AER) is 12 months between the 01/01/12 and the 31/12/12.

2 FACILITY ACTIVITIES

2.1 WASTE ACTIVITIES CARRIED OUT AT THE FACILITY

Part 1 of the current Waste Licence W0044-02 lists those activities contained in the Third and the Fourth Schedule of the Waste Management Act 1996, which are licensed to be carried out at Thorntons Recycling Centre, Killeen Road, Dublin 10. These activities are as follows:

Third Schedule

Third Schedule, Class 11: Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule

Third Schedule, Class 12: Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule

Third Schedule, Class 13: Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned was produced.

Fourth Schedule

Fourth Schedule, Class 2: Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes)

Fourth Schedule, Class 3: Recycling or reclamation of metals and metal compounds

Fourth Schedule, Class 4: Recycling or reclamation of other inorganic materials

Fourth Schedule, Class 8: Oil re-refining or other re-reuses of oil:

Fourth Schedule, Class 9: Use of any waste principally as a fuel or other means to generate energy:

Fourth Schedule, Class 11: Use of waste obtained from any activity referred to in a preceding paragraph of the Schedule:

Fourth Schedule, Class 13: Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced:

2.2 OPERATION PROCESSES - WASTE ACTIVITIES AT THE FACILITY

The following section details the operational procedure for dealing with each particular waste type which enters Thorntons Recycling Centre. (Appendix 1 displays location of each building where processes are carried out).

Process - SRF
Building Number 1

Building 1 contains the metering drum for mixing the SRF suitable residual waste from the CID skip line (building 2&5) with the SRF suitable residual waste from the MSW line (building 3). Once both materials are shredded inside building 3 the resultant SRF material is conveyed via covered conveyors into Building 1, where it passes under a magnet to remove any remaining metals before it is loaded into a compactor and pushed into a closed artic trailer from where it is consigned to its end destination. The building

also has bays to temporarily store bales of dry material which is suitable for SRF and also a storage area for a quantity of produced SRF.

Process - Household and Commercial Municipal Waste
Building Number – 3

All Municipal Solid Waste (MSW) waste is accepted using our waste acceptance procedure, weighed on our weigh bridge and recorded in our automated computer system (WIMS). All putrescible and odorous MSW waste is tipped inside Building 3 and inspected for any non-conforming waste material by a waste checker and the fuchs operator. The presence of such items are handled using procedure EP04, "Handling unacceptable wastes". Oversize materials such as mattresses and large steel are mechanically picked out by the fuchs machine and stockpiled for landfill or recycling.

Once material is accepted as suitable for processing it is loaded using the fuchs machine into the M&J 2000. Here the MSW is passed through a coarse shredder, which opens any bags and tears larger items. The material, once small enough passes out the bottom of the M&J and is brought up an incline conveyor into the 60ft trommel. A 100mm screen size on the trommel allows fines and small organic material to fall out on to a conveyor belt underneath the trommel. These organic fines are passed over a magnet, which removes small pieces of metal and are discharged into a separate bay, where they are bulked for onward transport to a facility to be stabilized.

Material larger than 100mm is tumbled along the 60ft trommel and is discharged onto a conveyor belt. A magnet over the belt removes off any large metal items before the MSW material is conveyed to the new processing line. The MSW is passed into a Nihot separator. This separates the MSW by density. The light material mostly consists of paper and plastic is blown forward in the Nihot and is discharged onto a conveyor belt. Before the light MSW material falls to the ground floor conveyor it is passed under a magnet which again removes metal. The light MSW falls on to the ground floor conveyor and is brought into the top of the Linder shredder. The material is shredded to a particle size of less than 25mm. Once the material is less than 25mm it passes through the base of the Linder shredder on to a conveyor belt and is brought under a final magnet, to remove the last remaining pieces of metal. The shredded material is passed through a flip flop screen, which enables Thorntons to produce two grades of SRF. The small particles sized material (<10mm) falls into a bay beneath the flip flop and is loaded into trailers using a loading shovel. The larger particle size material 10mm-25mm is fed into a hopper which loads a 40 foot trailer. When the trailer is full with solid recovered fuel (SRF) it is unclamped from the compactor weighed and consigned to a facility where it is used as a source of energy in the production of cement.

The Nihot separates the heavy MSW (larger than 100mm) from the light MSW (which goes on to become SRF). The heavy MSW is discharged from the back of the Nihot and is fed into a ballistic separator. The ballistic separator removes any remaining fines and discharges them into a bay, which is emptied daily and consigned to landfill. Any remaining paper or plastic is bounced along the ballistic separator and is discharged and

mixed with the light MSW that goes on to become SRF. The 3 dimensional materials, such as bottles, cans, nappies, shoes etc rolls back off the ballistic separator and are conveyed under a magnet to remove the metal. The MSW then passes through an eddie current, which removes the aluminium cans and the remaining material falls into a bay to be bulked and loaded into artic trailers and consigned to landfill

Process – Compostable Waste (Brown Bin, Source segregated and green waste).
Building Number – 3

Thorntons Recycling accepts and collects source segregated compostable waste from third parties, domestic and commercial customers. This material is tipped in Building 3 in a designated bay and is stored separately from normal household and commercial municipal waste. Waste is inspected on tipping and bulky material is removed by a grab and any non-conforming waste is removed for processing as MSW such as large black plastic bags etc. Suitable compostable waste is reloaded into artic trailers using a loading shovel, for further processing in Thorntons Recycling composting facility, Kilmainhamwood, Co Meath, waste licence W0195-01.

Process - Mixed Unsegregated Commercial/Industrial Municipal waste (CI) and Mixed Unsegregated Household waste/ Skip Waste
Building 2 and 5

All skip waste is accepted at the facility as per the waste acceptance procedure and is weighed at our weigh bridge and recorded on our automated computer system (WIMS). All skip waste is tipped in Building 2 and inspected for any non- conforming waste material, the presence of such items are handled using procedure EP04 "Handling unacceptable wastes". All skip waste is fed into a shredder (M & J Waste Reducer) where it is broken into smaller particles and fed into a slot conveyor and in turn into the long objector remover; this equipment through its action has the ability to remove long pieces of metal or timber, which are then fed back into the waste reducer to break them up.

The remaining materials then passes through the first stage of the process under an over band magnet. The over band magnet removes ferrous metal which pass onto a metal conveyor into a picking station where contaminates such as small pieces of paper or plastic which have become tied up in the metals, are manually removed. The trommel transfer conveyor then transports the remaining materials minus the ferrous metals through a trommel drum. The materials are turned in the trommel and the soil fines and small stones (<50mm in size) pass through the 50mm holes present in the trommel onto a trommel discharge conveyor which in turn passes through the back of building 2 into the construction and demolition processing area for further processing.

The remaining material is fed directly into the nihot system. Within the nihot system circulation fans 1 & 2 discharge jets of air to sort the material by weight. Drum 1 separates the stone from the rest of the materials which in turn joins the trommel discharge conveyor mentioned above and are passed through the back of building 2 to the C&D processing area. Drum 2 of the nihot then removes the timber which in turn moves

along to be further sorted. The remaining material after the stone and timber has been removed falls onto a light fraction conveyor under the nihot and is conveyed to a compactor and loaded into an artic trailer. Once the artic trailer is full, it is disconnected and tipped into building 1 where it is loaded into the metering drum for shredding to make SRF.

Timber which is separated from the nihot processing area is transported via a transfer conveyor through a picking station, where wiring, textiles and copper are removed manually. The timber then passes into a ballistic separator were contaminants such as plastic and paper are removed. The plastic and paper is conveyed under a magnet and combined eddie current to remove any small metallic and non-metallic objects before the paper and cardboard is conveyed to the compactor and loaded into an artic trailer. The remaining timber from the ballistic separator passes through a final picking station, whereby any remaining contaminants are removed before the timber falls into a trailer for transport to our wood chipping permitted facility in County Kildare for further processing.

Process – Construction and Demolition Waste (C&D)
Building - 2

Construction and Demolition waste is loaded into the M&J reducer as with the skip waste above. The soil and stones are segregated at the trommel and Nihot stages and the resultant materials pass along a conveyor in building 2 to the C&D processing area. The mixed material first passes through a 50mm trommel. Stone which is greater than 50mm in size will then pass on to a conveyor belt under an air blower and then through a picking line where contaminants are removed, before passing under a magnet to remove any ferrous metal. The stone then passes into a crusher and the final clean stone product is stored in a purpose build storage shed in Yard 2/Josies Yard, from where it is loaded and delivered to customers.

Stone <50mm, fines and soil enter into a flip flop 8mm screen. Particles/soils which are less than 8mm fall through the screen and are stored underneath in a purpose built storage bay. Small stone and remaining material which is greater than 8mm in size is conveyed into a nihot single drum separator where debris/contamination such as polystyrene etc are removed by an air blower and fall into a storage bay beneath. All small stone which is greater than 8mm and less than 50mm are conveyed via a number of conveyors to the storage area of building 4 where it is stored and then loaded into trailers for customers.

The process produces products such as small stone, crushed rubble and ferrous metals, all of which are diverted from landfill void space. The fines which are removed from the C & D process are sent to landfills for use as daily cover.

2.3 WEIGHBRIDGE CALIBRATION

Weights and measures carried out and an independent assessment on the 25th January 2011 on both bridges. Both the in and the out bridge passed and has being verified as fully compliant by Legal Metrology (DN/07/11/001 and DN/07/11/002)

3 QUANTITY AND COMPOSITION OF WASTE RECEIVED, RECOVERED AND DISPOSED OF IN 2012

3.1 WASTE HANDLED IN THORNTONS RECYCLING CENTRE

The quantities of waste received during the current AER reporting periods are summarised in *Table 1*

Table 1 Summary of total waste received in 2012

Year	Waste Tonnes in
2012	247,230

All waste is checked and documented at the weighbridge in accordance with our waste licence and our waste acceptance procedures. Waste is then inspected, segregated, processed and reloaded for either disposal at a licensed facility or bulked for delivery to an approved recycling or recovery facility for further processing. Should any non-conforming waste come to the attention of our staff it is either rejected before collection or segregated and quarantined to be disposed of by a licensed contractor, paperwork is maintained on site. Our environmental management system (EMS) which contains procedures, including our waste acceptance procedure, is certified to ISO 14001; information in relation to our EMS can be located at any of the Thorntons Recycling offices.

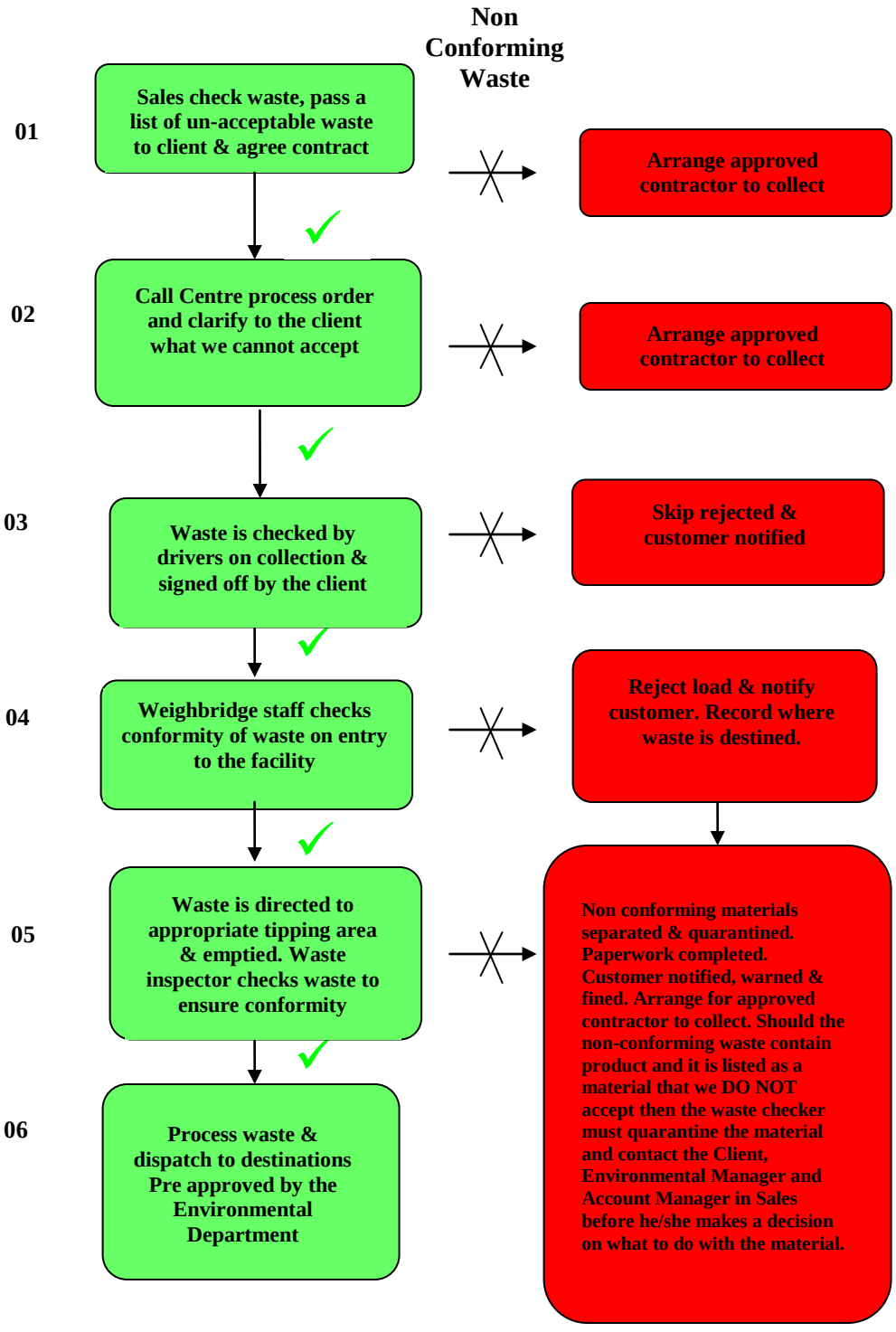
All waste destinations used by Thorntons Recycling Centre in 2012 have been approved by the Environmental Protection Agency. A register of all EPA agreed facilities for recycling, recovery or disposal of waste is maintained on site.

3.2 WASTE ACCEPTANCE

Below is a simplified diagram explaining our waste acceptance procedure at Thorntons Recycling Centre.

New staff employed by the company in 2012 received an Environmental, Health and Safety Induction which includes licence training, waste acceptance procedures, emergency procedures and environmental awareness. All staff employed at the facility are diligent in assisting in eliminating the occurrence of non-conforming wastes.

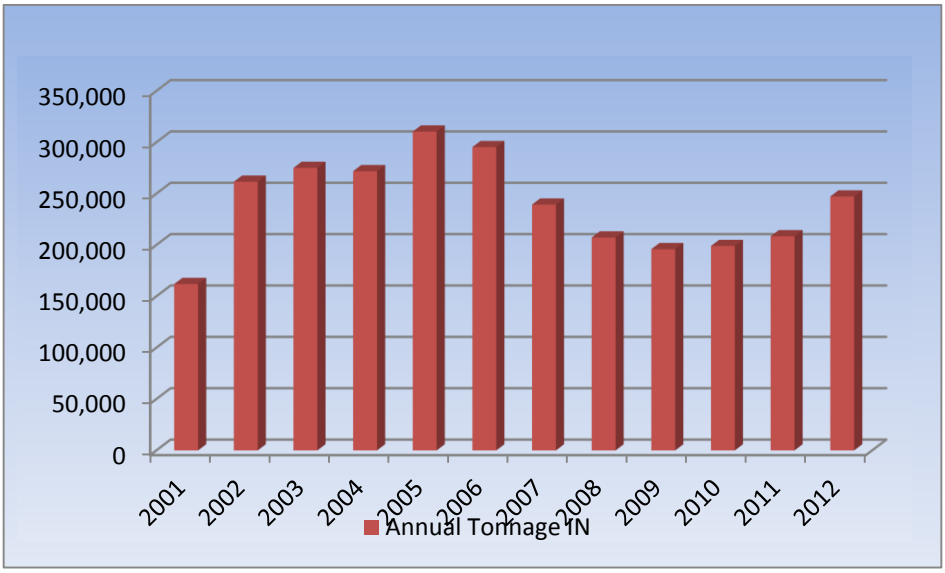
As the EPA is aware Thorntons Recycling has a certified management system for ISO14001 Environmental, ISO 9001 Quality, OHSAS 18001 Health and Safety. The Integrated Management System (IMS) is available for inspection on the IMS Drive at any of the companies' offices.


Non Conforming Waste
01
Sales check waste, pass a list of un-acceptable waste to client & agree contract
Arrange approved contractor to collect
02
Call Centre process order and clarify to the client what we cannot accept
Arrange approved contractor to collect
03
Waste is checked by drivers on collection & signed off by the client
Skip rejected & customer notified
04
Weighbridge staff checks conformity of waste on entry to the facility
Reject load & notify customer. Record where waste is destined.
05
Waste is directed to appropriate tipping area & emptied. Waste inspector checks waste to ensure conformity
Non conforming materials separated & quarantined. Paperwork completed. Customer notified, warned & fined. Arrange for approved contractor to collect. Should the non-conforming waste contain product and it is listed as a material that we DO NOT accept then the waste checker must quarantine the material and contact the Client, Environmental Manager and Account Manager in Sales before he/she makes a decision on what to do with the material.
06
Process waste & dispatch to destinations Pre approved by the Environmental Department

3.3 WASTE RECEIVED

A total of 247,230.23 tonnes of waste was received at the facility in the reporting period of 2012. Details of which are contained in Appendix 2 of this report. Figure 1 illustrates the trend in waste received at the facility between the periods 2001 to 2012.

Figure 1 Quantities of Waste received at the facility 2001-2012



3.4 WASTE CONSIGNED TO LANDFILL AND RECYCLING/RECOVERY FACILITIES

A total of 242,443.01 tonnes of waste was consigned from the facility in the reporting period of 2012. Details of which are contained in Appendix 3 of this report. Figure 2 illustrates the trend in waste consigned from the facility between the periods 2001 to 2012.

The facility displayed another increase in the recycling rate for 2012. The overall recycling/recovery rate for the facility was 86.15%, which is the highest figure recorded for the facility since operations began. This is an increase of 4.3% on the previous year and is an excellent achievement partially due to increased awareness, education and segregation of customer's wastes and also due to the expansion of the SRF to include the processing of MSW. This material is blended with the residual material from skip waste to produce a fuel that meets the specifications of the two cement kilns in Ireland. Thorntons Recycling supplies SRF to cement kilns that use this material as a substitute for coal which is a high carbon producer when burned. The use of SRF from a residual waste has enabled the cement kilns to lower their carbon footprint by using a sustainable fuel and also reduce their reliance on imported fossil fuels as a raw material in the production of cement. The SRF was tested on a weekly basis to ensure that it met the acceptance criteria for the destinations. The production of the SRF has helped Thorntons reduce the quantity of material which would otherwise have being destined for landfill. A waste characterisation survey was carried out on the SRF by independent consultants in

2011 and it was found that 30.7% of this waste could be classified as packaging waste, which is now being recovered as part of the national packaging recovery targets and diverted from landfill.

Overall since 2003, the Killeen road facility has shown a positive trend in diverting a high percentage of material away from landfill, through continuously improving the sorting techniques. The recycling rate of waste has increased from 12.14% in 2003 to 86.15% in 2012, which is a massive increase and demonstrates Thorntons commitment to increasing recycling and diversion from landfill all of which contributes to the national recycling figures (Figure 3)

Figure 2 Quantities of Waste consigned from the facility 2001-2012

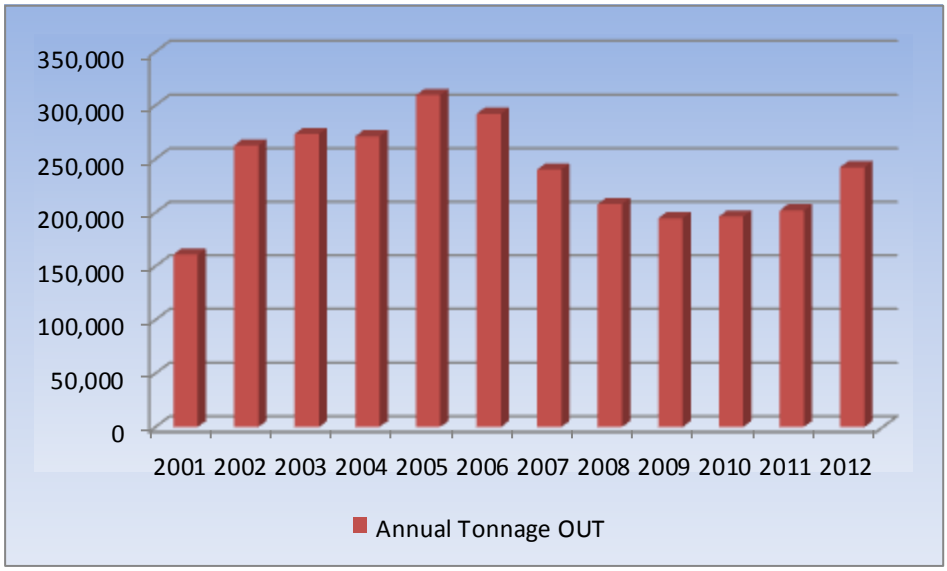


Figure 3 – Recycling rate trends for waste between 2003 to 2012

The total quantity of waste recovered or recycled has increased steadily at the facility. PTWDL process, sort and segregate all skip waste and now MSW material at Thorntons Recycling Centre, Killeen Road, Dublin 10 and strive to improve process efficiencies on a continuous basis. The main materials which are currently being recovered from skip waste include wood, ferrous metals, non-ferrous metals, hard plastic, soils and stone and a solid recovered fuel (SRF), which is used as a substitute for coal in the cement manufacturing process in Ireland. The main materials which are currently recovered from the MSW are biodegradable organic fines, steel cans, aluminium cans and SRF, with the remaining residual waste going for disposal to a licensed landfill.

It is hoped that Thorntons Recycling Centre will continue to increase its recycling and recovery rates in 2013 by;

- Continuing to work to International Standards ISO 14001 Environmental, ISO 9001 Quality and OHSAS 18001 Health and Safety with continuous development and improvement of new operational procedures.
- We have identified that the residual waste that is been consigned to landfill from the MSW line contains PET and HDPE bottles, which can be recycled. During 2012, we investigated the financial benefits of segregating these materials. In 2013, we plan to implement a process whereby PET and HDPE are segregated from the residual waste, further increasing the recycling rate of the facility.
- We have also identified that the residual waste that is being consigned to landfill from the CID line contains some recyclates such as PET, HDPE and metal cans. During 2012, we investigated the financial benefits of segregating these materials. In 2013 we plan to amend the picking stations to ensure that these materials are picked out and recycled from the residue, further increasing recycling rates.
- Continuous training and education of staff at all levels on recyclable material types and the development of new outlets for new materials.
- Business Development. Thorntons recycling have developed an on line skip service www.skip.ie .
- Thorntons Recycling offers an integrated waste management service that encourages clients to opt for different types of bins for different waste types. The company also has a tankering service division (TTS Thorntons Tankering Services), confidential shredding service and composting / brown bin service which can be offered to all our customers.
- Our licensed composting facility Kilmainhamwood Compost is approved by the Department of Agriculture (Composting Approval Number COMP/6) and also approved in line with SI 612/2006 and EC 1774/2002. The facility is the holder of the Cre Award for Best Composting Facility of the Year. We will continue to reduce biodegradable material being sent to landfill by offering a three bin service to all our customers.
- Thorntons Recycling has invested in the latest technology for confidential shredding in situ with the purchase of a state of the art shredding vehicle with CCTV camera system and developed a secure shredding facility which is permitted by Dublin City Council (WFP-DC-11-0023-01). A second shredding vehicle was purchased in 2011.

- Continued education with new and existing clients on new regulations and their obligations in relation to the law. Thorntons Recycling offer educational workshops to existing customers.
- Continue to offer reduced rates to customers who segregate their waste, for example wood, metal, dry recyclables, glass, plasterboard and compost bins.
- Continually improve on service and our after sales service.
- Offer presentations and demonstrations on our client premises and schools.
- Awareness through the publishing of newsletters, continuous development and updating of the website for Thorntons Recycling.
- Thorntons Recycling won Repak Recovery Operator of the Year Award 2008 and 2011 and 2012 and was a finalist in 2009 and 2010.
- Thorntons Recycling was a finalist in the Repak Kerbside Collection Scheme of the Year Award in 2012.
- Thorntons Recycling has entered the Dublin domestic market in 2010 and continued to increase our customer base in this area in 2012 by offering potential customers an efficient and effective three bin collection service. We plan to further increase our share of this local market during 2013.
- Thorntons Recycling has entered the domestic market in Wicklow in 2012 by completing a number of acquisitions of smaller waste companies and in 2013 plan to further increase our customer base.
- Thorntons Recycling developed a new state of the art dry recycling facility (WFP-DC-10-0021-02) in Parkwest Business Park which produces a high quality of segregated recyclates. During 2012 Thorntons Recycling were successful in its application to DCC to increase its production volume to 50,000 per annum. Thorntons Recycling plans to invest in a third optical sorting machine to further improve the quality of the output material and to increase the recycling rate.

4 CONTRIBUTION TO THE ACHIEVEMENT OF RECOVERY TARGETS

4.1 Proposal for the contribution of the facility to the achievement of targets for the reduction of Biodegradable waste to landfill as specified in the landfill Directive

Progressive targets have been set out in the Landfill Directive (1999/31/EC) to reduce the proportion of biodegradable municipal waste land filled. Biodegradable waste is waste that can undergo biological decomposition and is typically composed of food and garden waste, wood, paper, cardboard and textiles. By 16th July 2010 Ireland was restricted to land filling a maximum of 75% of the total weight of biodegradable municipal waste generated in 1995, the baseline year. This target is further reduced to 50% of the 1995 baseline by 16th July 2013 and 35% by 16th July 2016. According to the National Waste Report 2010, an estimated 1,817,983 tonnes of biodegradable municipal waste was generated in Ireland in 2010Ireland has made significant inroads into closing the gap between the EU targets and where we currently stand and Thorntons recycling is playing their part.

Thorntons Recycling own and operates an award winning compost facility in Kilmainhamwood, County Meath which is approved by the Department of Agriculture (Composting Approval Number COMP/6) and also approved in line with SI 612/2006 and EC 1774/2002. The facility currently holds the award for Cre Best Composting Facility Award in Ireland. Thorntons Recycling Centre, Killeen Road, Dublin 10 has been successfully contributing towards National Targets by using this facility as a destination and now offers all our commercial customers and a lot of our household customers the option of a brown bin for food waste/catering waste etc. The facility has developed its own segregated area for this material which is fully enclosed in an odour controlled building. We accepted approximately 29,544.06 tonnes of Green Waste and Brown Bin Waste for composting in 2012 which after any contamination was removed the remaining material was bulked at the Killeen Road facility and sent for composting in Kilmainhamwood Compost, Waste Licence W0195-01. This is an increase of 26.6 % on the previous year. Thorntons Recycling Centre diverted approximately 14,274.84 tonnes in 2012 of biodegradable waste in the form of cardboard, paper, tetrapak and wood. Thorntons Recycling Centre diverted 12,290.69 tonnes of organic fines from landfill during 2012 as a result of an increase in investment and technology to process MSW material. Thorntons Recycling Centre diverted 3,936.12 tonnes of biodegradable paper and cardboard from landfill, by producing SRF for cement kilns. In total 58,329.43 tonnes of biodegradable waste have been diverted from landfill by the facility in 2012. This represents a facility diversion rate of 63.47% of organic waste from landfill and demonstrates Thorntons Recycling ability to assist in meeting the national target for 2013. This is an increase of 6.47% on 2011 diversion levels of 57.4%.

We offer all our customers the opportunity to segregate all biodegradable waste at source and the option of a composting alternative. Kilmainhamwood Compost (Waste License W0195-01). The facility accepts non-hazardous biodegradable wastes (household and commercial waste for composting) and accepted 31,382.87 tonnes of biodegradable waste in 2012 for composting. Thorntons Recycling will aim to continue to increase the quantity of biodegradable waste that can be diverted from landfill even further and assist Ireland in achieving targets laid down by the landfill Directive (1999/31/EC). An application for a review of the current licence at Kilmainhamwood Compost has been lodged with the EPA in 2010 to increase tonnage at the facility to 40,000 tonnes. Planning for an increase in capacity was granted by An Bord Planeala in January 2011. If approval is granted for the review of the waste licence by the EPA then Thorntons Recycling will be in a better position to divert more biodegradable waste away from landfill as we will have more capacity on site for composting.

4.2 The separation of recyclable materials (paper, wood, plastic, inert materials) from the waste & the recovery of commercial waste, including cardboard, newspapers/magazines, aluminium and steel cans.

Thorntons Recycling carries out a number of operational processes on different types of waste which allows for the separation of the above materials. These are detailed in the following section:

Dry commercial, industrial and domestic skip waste which enters the facility are checked upon tipping and any large bulky items that can be recycled such as wooden furniture and metals are removed by a grab and are segregated into piles to be sent for further processing. The remaining material is then sent through a high specification plant, this consists of equipment such as a crusher, long object removers, ferrous metal remover, trommel, nihot, ballistic separator, picking lines and a shredder, the working combination of which has resulted in a significant increase in recycling and recovery rates at the facility.

Dry recycling material is no longer processed on the Killeen Road site. Dry recycling is now processed in our new facility in Parkwest Business Park. This facility operates under a waste facility permit from Dublin City Council.

Detailed quantities of material received and consigned from the facility are displayed in Appendix 2 and 3 of this report. Table 2 compares results submitted for Annual Environmental Reports for 2010 to 2012 for materials recycled at the site;

Table 2 – Comparison on recyclable material consigned 2010-2012

Total Materials Consigned	2010 Tonnes	2011 Tonnes	2012 Tonnes
Cardboard Out	4,294	2,226	11
Metals Out Packaging (Aluminium and Steel)	228	680.43	513.18
Plastics Out (Bottles, Film and Hard)	1,308	476	155
Mixed Papers	8,109	112	10
Wood Out	9,746	11,199	14,254
Mixed Metals Out (Bulky)	4,193	3,852	4,858

Packaging waste in general consigned from Thorntons Recycling Centre has decreased in 2012, due to the closure of the dry recycling processing line and its relocation to a specialised permitted facility in Parkwest Business Park.

Since March 2003, producers of packaging are obliged to segregate for recovery specified packaging waste materials at source. Thorntons Recycling has a team of account managers who educate customers on the advantages and their legal obligations for segregating packaging waste.

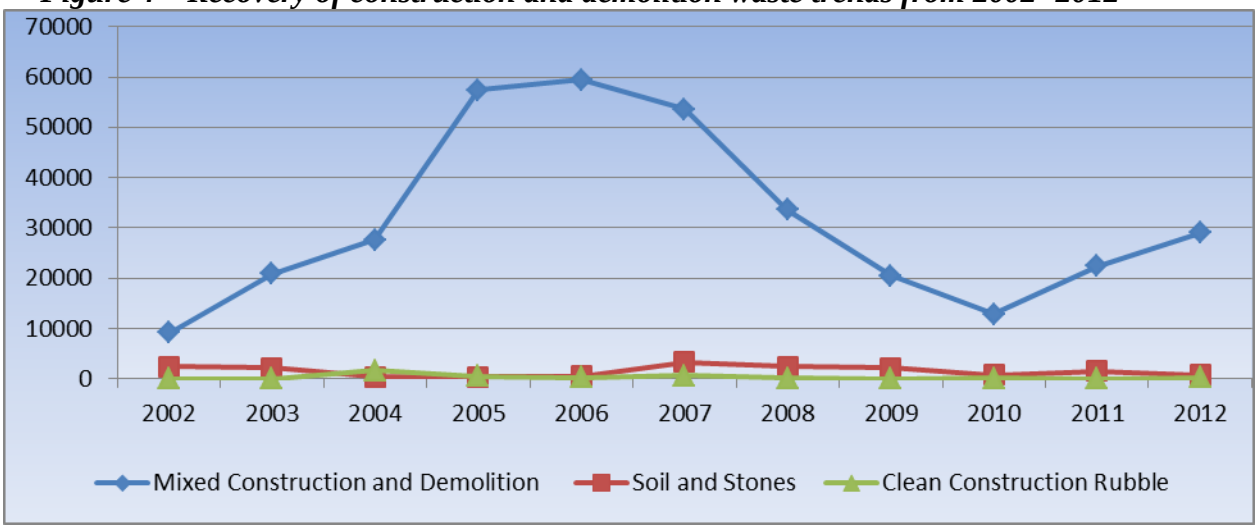
As stated in the National Waste Report 2010 published by the Environmental Protection Agency, Ireland had surpassed its 2011 target of 60% again in 2010 (74%). Thorntons recycling has played a significant part in the packaging recovery rate. During 2011 Thorntons Recycling carried out a Repak survey on the packaging content of the SRF which is used for energy generation in cement kilns. The survey carried out in 2011

found that 30.7% of the SRF is packaging waste. The production of such material on site attributes to further diversion of recyclable material from landfill

4.3 THE RECOVERY OF CONSTRUCTION AND DEMOLITION WASTE

Under National and European waste policies, Ireland is expected to recycle 85% of Construction and Demolition Waste by 2013. Mixed Construction and Demolition materials received at the facility had increased steadily between 2003 to 2006. However 2007 to 2010 showed a decrease in the quantity of this material accepted from 60,214 tonnes in 2006 13,824 tonnes in 2010. The quantity of construction and demolition material received on site in 2012 increased for the second consecutive year to 30,037 tonnes.

Figure 4 – Recovery of construction and demolition waste trends from 2002- 2012



Quite often construction and demolition material arrives at the facility as a mixture of soil, rubble and somewhat contaminated with small pieces of plastic, polystyrene, metals, wood and other materials. These are removed during processing at Thorntons Recycling Centre and segregated into individual waste streams. If incoming skips are mixed with numerous different waste types they are weighed in as mixed municipal waste, waste which originated from construction or demolition sites is weighed in as Mixed C&D waste when the skip contains construction like material.

4.4 THE RECOVERY OF METAL WASTE AND WHITE GOODS

White goods arrive at the facility mixed in with skip waste. All white goods are picked from the waste and stored in skips before being transferred to a designated facility for Waste Electrical and Electronic Equipment (WEEE). All mixed metals are stored at the facility in designated bays and sent to approved destinations in Ireland where they are further segregated into different types i.e. Copper, Aluminium etc. Quantities of metals recycled can be noted in Table 2 above. Thornton's Recycling offers a reduced price to customers who segregate metal completely.

4.5 CONVERSION OF WASTE VEGETABLE OIL INTO A BIO FUEL

Thorntons Recycling Centre does not process waste vegetable oil into bio fuel on site and have no plans to do so in the near future.

4.6 RECOVERY FACILITIES PROPOSED TO ACCEPT SHREDDED OR WHOLE TYRES

Tyres normally arrive at the facility mixed in with other materials, for example in household skips. In 2012 these were segregated and stockpiled until a sufficient pile was achieved. These were then sent to our End of Life Vehicle (ELV) Centre, Waste Permit WFP-DC- 09-0005-01, where they are bulked with other tyres from the recovery process of end of life vehicles and sent to processing facilities within Ireland for further processing into a crumb material. An annual recycling cert is maintained electronically on site for the 39.36 tonnes of tyres sent to the ELV facility in 2012 from Killeen road.

5 SUMMARY REPORT AND INTERPERTATIONS OF ENVIRONMENTAL MONITORING AND EMISSIONS DATA

In accordance with *Schedule D: Monitoring* of PTWDL waste licence W0044-02, monitoring of dust, noise, surface water and foul water must be carried out. Odour monitoring is also completed by an independent consultant bi annually. All monitoring has been completed as required for reporting period 2012. The following section details results obtained and interpretations of results for the year of 2012.

5.1 DUST

Annual Dust Monitoring was carried out at five locations D2, D3, D4, D5 and D7. Thorntons Recycling are required by Schedule D to monitor dust three times a year, results are displayed in Table 3 and Figure 6. The locations of each dust monitoring point are displayed in Figure 5.

Thorntons Recycling Centre is located in a predominately industrial area. Two busy roads i.e. the Killeen Road and Kylemore Park North form the western and northern site boundaries of the facility. Monitoring points D2 and D5 are located on these boundaries and as a result receive significant contamination from passing traffic and vehicles accessing Park West Industrial Estate and Ballyfermot.

Figure 5 - Dust Monitoring Locations

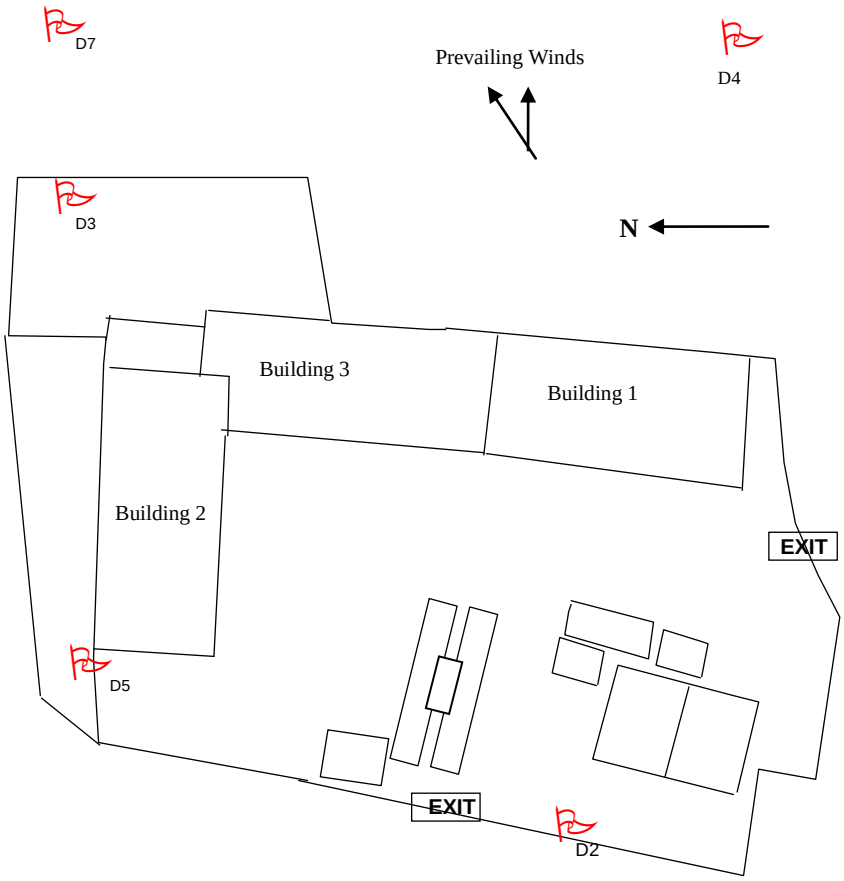


Table 3 Dust Results for 2012

Monitoring Locations	Sample 1 February-March	Sample 2 May-June	Sample 3 Sept- Oct	ELV mg/l
D2	179	156	112	350
D3	88	178	164	350
D4	69	133	109	350
D5	104	159	199	350
D7	*	122	178	350

- Sample 1, D7- the lar was cracked when collected and the sample was compromised.

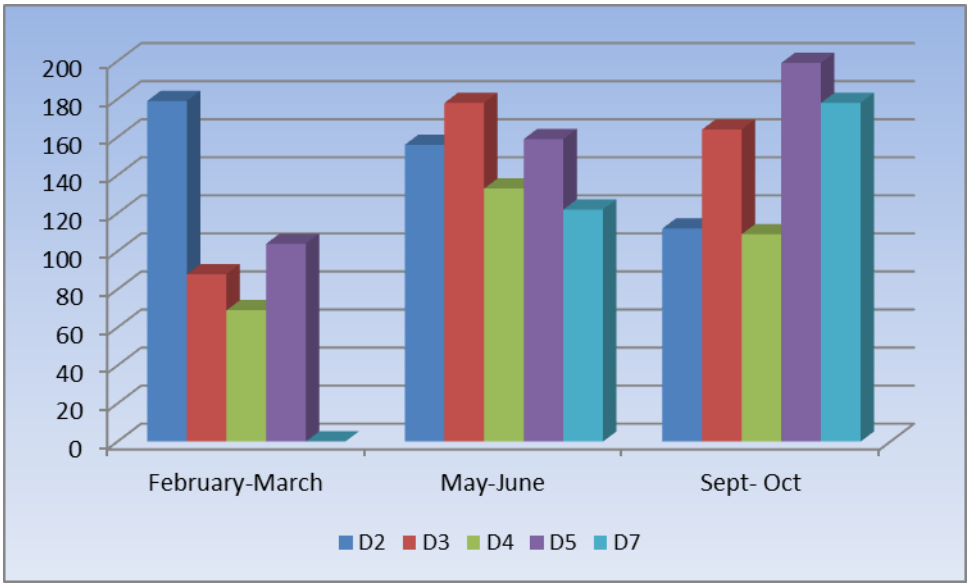
The emission limit value for dust deposition is 350mg/m^2/day. During 2012 none of the dust emission levels exceeded the emission limits (Table 3). The jar at D7 for the first sample was cracked when it was collected so the sample was compromised and could not be tested. Figure 6 shows the trends in dust deposition during the year.

Thorntons Recycling will continue to monitor dust on a regular basis. Thorntons Recycling staff use power hoses to wet down yard surfaces at the facility during dry periods, dust curtains have been fixed to entrances and exits of the buildings where dust is generated. Maintenance was carried out on these dust curtains on Building 3 and on the

CID tipping building (2), to improve their coverage over the entrances and exits. During 2010 the roof cladding was extended over the corner of building 2 on the CID building. During 2011 dust curtains were fixed to the exit of building 5 to reduce the likelihood of dust escaping from the building during the drier months. During 2012 dust curtains were fixed around the exit at the SRF compactor to reduce dust emissions from building 1. A dust suppression system is in operation in Building 2 when required. Roller doors were put on the exit from building 1 and also on an exit on building 3 to further reduce the likelihood of dust escaping from the buildings. In an effort to further reduce dust emissions Thorntons Recycling also uses a road sweeper which is used at least twice daily in the facility. This is also used on the Killeen Road and Kylemore Park North to assist in reducing dust levels due to passing traffic and upwind contributors.

PTWDL recognise the importance of maintaining dust levels below the emission limit level of 350mg/m^2/day and are fully committed to maintaining compliant emissions from the facility in 2012.

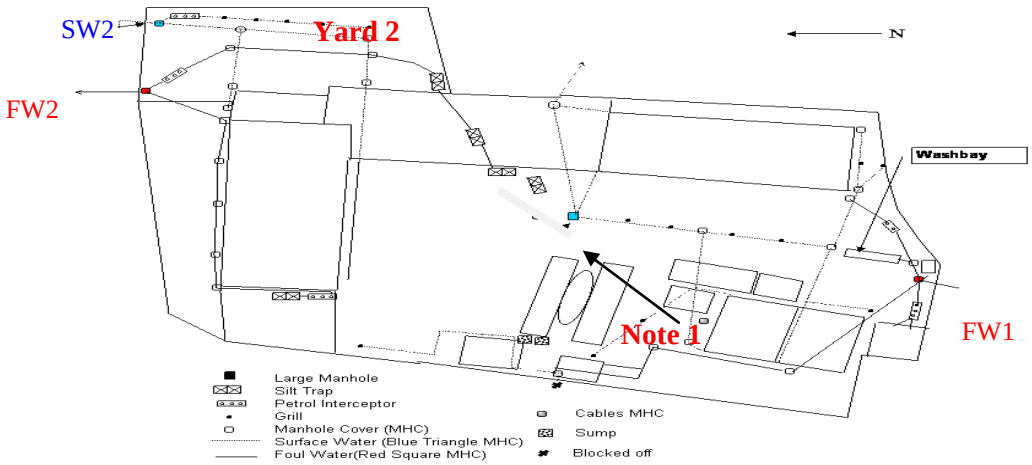
Figure 6 - Dust Monitoring Results per Monthly Sample 2012



5.2 EMISSION TO FOUL WATER AND SURFACE WATER

The monitoring points FW1 FW2 and SW1 are displayed in figure 7. Monitoring is carried out by Thorntons Recycling quarterly, as per the licence. Unannounced monitoring is also carried out by the EPA.

Figure 7 Monitoring points for the sampling of Foul Water and Surface Water Thorntons Recycling Centre



*Note 1 - SW1 was made redundant in May 2007. The line now passes through the screener in Yard 2 and passes out through FW2.

5.2.1 FOUL WATER

In accordance with Waste Licence W0044-02 Schedule D all emissions to sewer must be monitored. Emissions to sewer must be monitored on a quarterly basis. Quarterly reports for Quarter 1 (44-2/12/EPA/MA/08) Quarter 2 (44-2/12/EPA/MA/12) Quarter 3 (44-2/12/EPA/MA/34) and Quarter 4 (included as part of the AER) have been forwarded to the EPA. All of these reports detail results and interpretations of monitoring of both the surface water and foul drainage system at the facility.

EMISSIONS TO SEWER (Foul 1) F1

Table 4 Illustrates results received at FW1 monitoring location's for 2012. The results in 2012, shows that there was no exceedance in the emission limit levels as set down in licence conditions. Full detailed quarterly reports have been forwarded to the EPA as detailed in section 5.2.1.

EMISSION TO SEWER (Foul 2) FW2

Samples were also taken from Foul Sewer 2 (FW2), results are detailed in Table 5. The results show that there was no exceedance recorded during the reporting period of 2012.

Table 4 Results of sampling from FW1 in 2012

Monitoring	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Units
Parameters	07.03.12	18.04.12	19.07.12	31.10.12	mg/l
BOD	33.4	11.8	220	95.3	4000
COD	59.1	32.7	289	137	8000
Suspended Solids	12.5	5.5	170	35.5	1000
pH	8.74	7.27	7.48	8.56	6-10
Phosphate (as P)	5.54	0.213	2.41	5.91	50
Phosphate (as PO4-P)	17	0.652	7.39	18.1	50
Surfactants/Detergents	0.0978	0.0535	0.59	0.161	50
Fats, oil, grease	<1	3.17	21.3	1.26	100
Mineral Oil by GC (ug/l)	0.01	0.62	6.3	0.507	20

Table 5 Results of sampling from FW2 2012

Monitoring	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Units
Parameters	07.03.12	18.04.12	27.08.12	31.10.12	mg/l
BOD	35.2	400	2.49	461	4000
COD	47.2	889	12.4	1130	8000
Suspended Solids	12	515	4.5	770	1000
pH	7.53	6.94	7.57	7.04	6-10
Phosphate (as P)	0.081	0.142	<0.03	0.66	50
Phosphate (as PO4-P)	0.248	0.434	0.085	2.02	50
Surfactants/Detergents	0.083	0.509	0.0504	6.23	50
Fats, oil, grease	2.400	54.2	<1	86.9	100
Mineral Oil by GC (ug/l)	0.01	3.29	0.135	19.2	20

5.2.2 SURFACE WATER (SW2)

The monitoring point for surface water is displayed in figure 7 and the results for each sample are in Table 6. PTWDL re-designed the drainage system on site in 2007 to ensure compliance with waste licence W0044-02 emission limit levels. SW2 is now the only surface water monitoring point which exists at the facility. This is located in Yard 2 (Josie's Yard) where there is little activity.

The low pH level in Quarter 1 was not reported as an incident to the EPA as at the time the level was not noticed. When the low level was noted on receiving results it was too late to get the laboratory to retest the results. The remaining three tests recorded a pH of 7 and the first result is deemed to be an error in the testing lab as a pH of 2.8 would have been very acidic and nothing was noted as unusual when the sample was been taken by staff, this was also completely out of character for this monitoring point compared with historic data for the site.

PTWDL recognise the importance of maintaining emissions limits within levels set down by the licence and will continue to do their utmost to ensure compliance with these levels and that the lab results are thoroughly checked upon receipt. We will continue to carry out weekly inspections of the drains and ensure regular maintenance is carried out.

Table 6 Results of sampling from SW2 in 2012

Monitoring Parameters	Quarter 1 28.03.12	Quarter 2 01.05.12	Quarter 3 27.08.12	Quarter 4 18.12.12	Units
BOD	3.37	<2	3.06	-	25mg/l
COD	55.8	7.64	<7	20.8	mg/l
Suspended Solids	25	12	5.5	2	35mg/l
pH	2.87	7.1	7.41	7.79	6-10
Conductivity	0.86	0.03	0.0376	0.272	mS/cm
Fats, oil, grease	<1	<1	1.06	1	mg/l
Mineral Oil by GC (µg/l)	0.01	0.134	0.325	0.0602	5mg/l

5.3 NOISE

In accordance with Condition 8 and Schedule D3 of waste licence W0044-02 annual environmental noise monitoring was carried out. The day time survey was carried out on the 26th and 29th of June 2012 and the night time survey was carried out on the 19th and 25th June 2012. The results of the survey were submitted to the EPA on the 9th July 2012 (44-2/12/EPA/MA/23).

Table 7: Noise measurement results for Killeen road annual monitoring in 2012

	June 2012			ELV
Locations	LA, eq (dB)	LA 10 (dB)	LA90(dB)	(dB)
NP1	66	70	58	NA
NP2	72	75	66	NA
NP3	72	75	63	NA
NP4	71	73	61	NA
NP5	73	76	67	NA
NP6	83	88	67	NA
NP7	61	65	44	55
NP8	62	65	47	55
NP9	73	107	50	55
NP7 Night	50	50	41	45
NP8 Night	60	61	49	45
NP9 Night	70	74	58	45

Thorntons Recycling is not solely accountable for the elevated noise levels at the noise sensitive locations. The prevalent noise source at these three locations, N7, N8 and N9,

was from non-site related vehicular movements on the nearby roads. This is verified in the similarity between the L_{Aeq} readings and the LA_{10} readings at these monitoring locations during the surveys and the numerous sudden high peaks in the corresponding logging graphs. L_{A10} values are used to describe intermittent, high-energy noise events and usually are a good indicator of the level of traffic. There was audible noise from Thorntons Recycling, such as from Thorntons related traffic, the odour system and the RJP (Regerative Pulse Plant) at these locations but one could only hear these noises when there was no traffic on the roads. Thorntons Recycling is located in an industrial area and traffic is predominant on these roads with heavy-duty vehicles contributing largely to the high $L_{Aeq.}$ Also being in an industrial area, there were noises from other surrounding businesses that contributed to the noise result.

The L_{90} gives an accurate level of the noise for 90% of the monitoring period at the locations and largely excludes the effect of passing traffic. It should be noted that at N7, N8 and N9 day time noise levels are below the 55dB limit. N7 has a LA_{90} of 44dB, N8 has a LA_{90} of 47dB and N9 has a LA_{90} of 50dB. These results are representative of background noise levels present for the majority of the sampling period.

The survey concludes that the daytime noise levels at the noise sensitive locations are not being negatively impacted upon by the activities of Thorntons Recycling. From the results of the daytime noise monitoring it can be concluded that Thorntons Recycling is in compliance with its waste licence (W0044-02).

The night time noise levels were exceeded at all three noise sensitive receptors during the monitoring period. The main source of noise at these locations was from passing traffic and external sources that are not related to Thorntons Recycling. While Thorntons' activities and the odour system do add to the noise at the noise sensitive locations N7, N8 and N9 it should be noted that traffic is still a major contributor to the noise levels recorded.

There are similarities between the LA_{eq} and the LA_{10} in all three of the noise sensitive locations and reiterates that traffic is a large influencing factor at these locations. At N7 the night time noise was predominately from vehicular traffic at a distance from the monitoring location which was audible as a constant humming noise during the monitoring. At N8, 11 vehicles passed and at N9, 40 vehicles passed and this added to the noise levels. The L_{90} for N7 was recorded to be 41dB and this is considered to be representative of the night time noise levels excluding the impact of passing traffic. This is below the limit of 45dB. Both N8 and N9's L_{90} results are above the 45dB limit. However it should be noted that these areas are not in a residential area, but are within the industrial estate and traffic is still the main contributing factor and not Thorntons Recycling.

Thorntons Recycling considers that, although the noise levels at the noise sensitive locations are exceeded, Thorntons Recycling is not the primary cause of the noise at the locations. Elevated noise readings can be attributed predominately to the high levels of un-associated traffic in the area and the presence of numerous other industrial businesses

in the immediate vicinity all of which are not under the control of Thorntons Recycling. As a result it is concluded that Thorntons Recycling is not having a negative effect on night-time noise at the three noise sensitive receptors.

5.4 ODOUR

In order to assess efficiency of the odour treatment system Thorntons Recycling contracted Odour Monitoring Ireland to carry out independent monitoring of the Odour treatment system every six months in 2012 as agreed with EPA (Reference W0044-02/ak01NH.doc).

Two reports were forwarded to the EPA in 2012 for testing carried out on the 12th December 2011 (44-2/12/EPA/DD/04) and on the 1st June 2012 (44-2/12/EPA/MA/19).

Reports issued to the EPA show that the system is working effectively, using olfactometry testing and dispersion modeling.

The activated carbon used in the air treatment system was also changed on the 10th March 2012 and again on the 4th August 2012.

6 RESOURCES AND ENERGY USAGE

The following section discusses resources such as electricity, fuel and water used at Thorntons Recycling Centre in 2012.

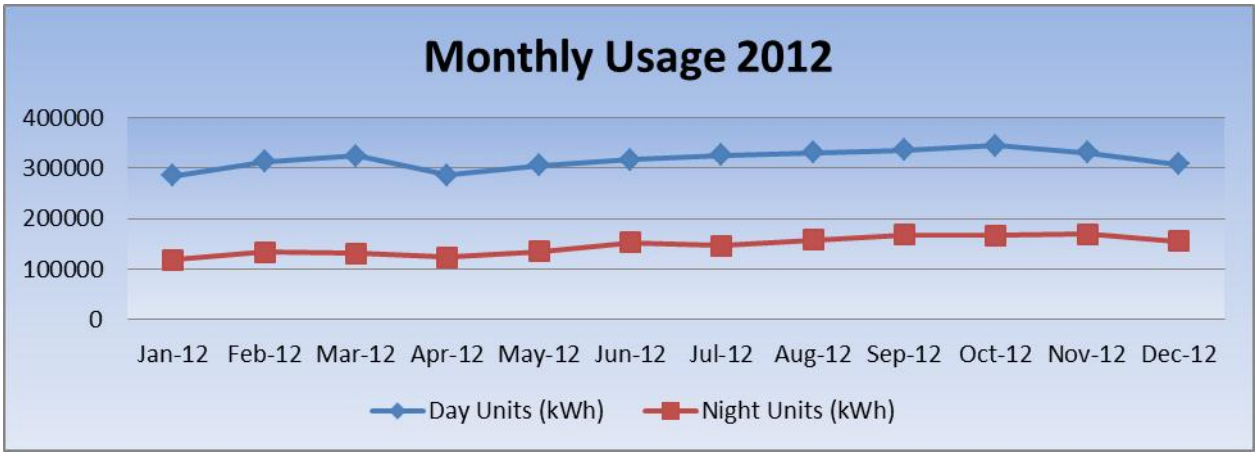
6.1 ELECTRICITY

Electricity consumption in 2012 increased from 2011 levels to 5,569,278 KW. This increase in electrical usage can be attributed to the increase in tonnes processed at the facility during 2012. The average unit used per tonne processed in 2012 is only marginally higher than that in 2011, which demonstrates that the efficiency of the facility has not decreased significantly. During 2012, a monthly report on energy usage was forwarded to managers which show the daily usage trends and also the usage per tonne processed for monthly comparisons which enable efficiency decisions to be made.

An energy register of opportunities was created which details potential energy saving opportunities on site. The register allows for all the opportunities to be ranked by cost saving, carbon dioxide saving potential, ease of implementation etc. During 2012 Thorntons Recycling completed more of the opportunities identified in the register and has highlighted new areas to focus on during 2013. The register will be reviewed annually and updated accordingly to ensure continual improvement in energy efficiency on site.

Figure 8 illustrates the monthly daily and nightly usage of electricity on site during 2012.

Figure 8 Day and Night Electricity usage by the month 2012



6.2 WATER

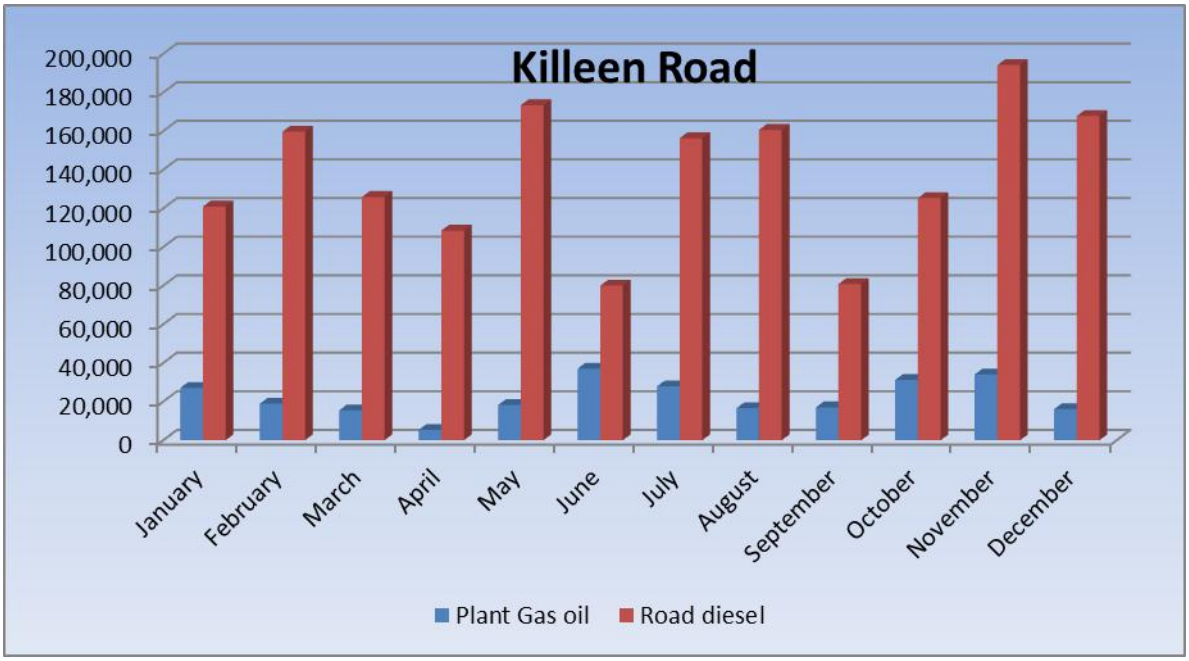
In 2012 the facility used approximately 1,700m^3 of water compared to the 2,710 m^3 in 2011. Water is used on site to dampen down dust during dry periods and to wash the floor and hard standing area and also to wash plant and vehicles. The use of water is kept to a minimum which is required to ensure a safe and clean working environment.

6.3 DIESEL

The main types of fuel used at Thorntons Recycling Centre include road diesel and machinery diesel. The breakdown of fuel consumed is detailed in Figure 9 below. In 2012 a total of 264,638 litres of plant diesel and 1,653,354 litres of road diesel were consumed. The consumption of road diesel increased by 5,347 litres from 2011's level. Plant diesel decreased by 7,318 litres from 2011's levels.

Invoices in relation to all Thorntons facilities are sent to the head office of the company at Thorntons Recycling, Unit S3B, Park west Business Park, Dublin 12. Every effort has been made to distinguish between individual facilities to ensure an accurate fuel consumption report for Thorntons Recycling Centre, waste licence W0044-02.

Figure 9: Fuel consumed by month in 2012



7 DEVELOPMENT / INFRASTRUCTURAL WORKS

7.1 SITE DEVELOPMENTS 2012

The following summarises the main developments made at the facility in 2012;

Buildings and Waste Processing Equipment

- The joints in the cladding of building 3 were re-sprayed with foam to refresh the sealing and maintain the air within the building.
- The back of building 3, behind the odour system was re- cladded to improve the air tightness of the building.
- Dust curtains were connected to the roof area around the SRF compactor in building 1. This will reduce the potential for nuisances such as litter and dust from escaping the building.
- The door into Building 1 was repaired and rewired so that it can be closed when there are no vehicles entering the building.

Training

- Staff training - ISO Training and auditing carried out
- Emergency Response Training – Fire drills

ISO

- Thorntons Recycling passed two successful surveillance audits which were carried out by Certification Europe to maintain the company standards for ISO

14001 Environmental, ISO 9001 Quality and OHSAS 18001 Health and Safety.

7.2 PROPOSED DEVELOPMENTS IN 2013

A number of developments are proposed for the forthcoming year of 2013. All developments are proposed with the intention of reducing environmental impacts of the facility and increasing waste processing efficiency at Thorntons Recycling Centre. Thorntons Recycling main aim is to reduce as much waste as possible for landfill disposal in line with national policy and further increase recycling and recovery rates at the facility.

- Extend the roofed over the yard area between building 5 & building 3.
- Spray all the cladding of building 3 with sealing foam.
- Trail a UV based system for treating odour
- Continuous Development on company procedures in line with ISO certification

Any planned infrastructural developments will be notified in advance to the EPA.

7.3 PLANT CAPACITY 2013

A detailed report on plant operating capacity, provision of adequate standby capacity and provision of contingency, backup and spares in case of breakdown is contained in Appendix 5 of this report.

Without taking into consideration the spare plant and machinery available at other Thorntons sites the report concludes that it is apparent from the information supplied that Thorntons Recycling Centre has well above the sufficient capacity required to handle waste tonnages licensed to enter the facility.

Thorntons Recycling has employed a full time maintenance manager who is responsible for ensuring there are adequate spare parts at the facility at all times. A maintenance workshop was developed off site in Park West Industrial Estate with a team of staff who are capable of carrying out repairs as needed.

An additional service bay and maintenance workshop has been maintained on site with one electrician and two maintenance men at Thorntons Recycling Centre. Plant is serviced and maintained during a night cleaning shift, which enables plant which is required during the day to operate at full capacity.

8 SCHEDULE OF ENVIRONMENTAL OBJECTIVES AND TARGETS FOR 2013 AND PROGRESS REPORT FOR 2012

Thorntons Recycling operates an Integrated Management System (IMS) which has been certified to a number of standards namely; ISO 14001 Environmental, OHSAS 18001 Health and Safety, ISO 9001 Quality.

The complete content of the IMS itself is too large to contain within the main body of this report, however the EPA can access this for inspection on a specially designated drive (X Drive or IMS Drive) at any of the companies' site offices.

A detailed report table on progress towards the achievement of the Environmental Objectives and Targets for 2012 is contained within Appendix 6 of this report. The schedule of environmental objectives and targets for 2013 has being included but may be amended and finalised after the management review. This schedule will be available for the EPA to inspect during any of their site audits in 2013 at any of our facilities.

9 SUMMARY OF PROCEDURES DEVELOPED BY THE LICENSEE IN 2012

As discussed previously with the EPA Thorntons Recycling have an IMS system to incorporate Environmental, Quality and Health and Safety and have achieved certification in ISO standards 14001, ISO 9001 and OHSAS 18001. In 2012 the system was continuously developed and improved. The company was audited twice during the year by Certification Europe and all three certificates were maintained across the whole company including the Killeen road facility.

Due to the large content of the IMS system it is not possible to include it in the main body of this report but it is available for inspection at Thorntons Recycling, Killeen Road, Dublin 10.

10 TANK, DRUM AND PIPELINE TEST

10.1 TANK BUNDING

Thorntons Recycling commissioned Geoline Ltd consultants to complete testing on the main diesel bund. The main diesel bund passed its test on the 18th-19th March 2011 and a certificate is maintained on site. The bund is not due for testing until 2014. The C & I bund was decommissioned in early 2011 and the diesel tanks were removed. The bund is still in situ but is not used. The bund will remain in place as it is a concrete structure and will be tested if it is re-commissioned in the future.

10.3 PIPELINE TESTS

Thorntons Tankering Services (TTS) completed a full CCTV drain survey at the facility during January 2013 on both the surface water drains and the foul water drains in both the main yard and in Yard 2 (Josies yard). These reports will be submitted to the EPA separately as well as a DVD of the survey in February 2013.

The integrity and water tightness of all underground pipes and tanks and their resistance to penetration will be carried out once every 3 years as per Condition 3.13.7 of the waste licence. The pipelines are due for testing in 2015.

11 SUMMARY OF INCIDENTS AND COMPLAINTS

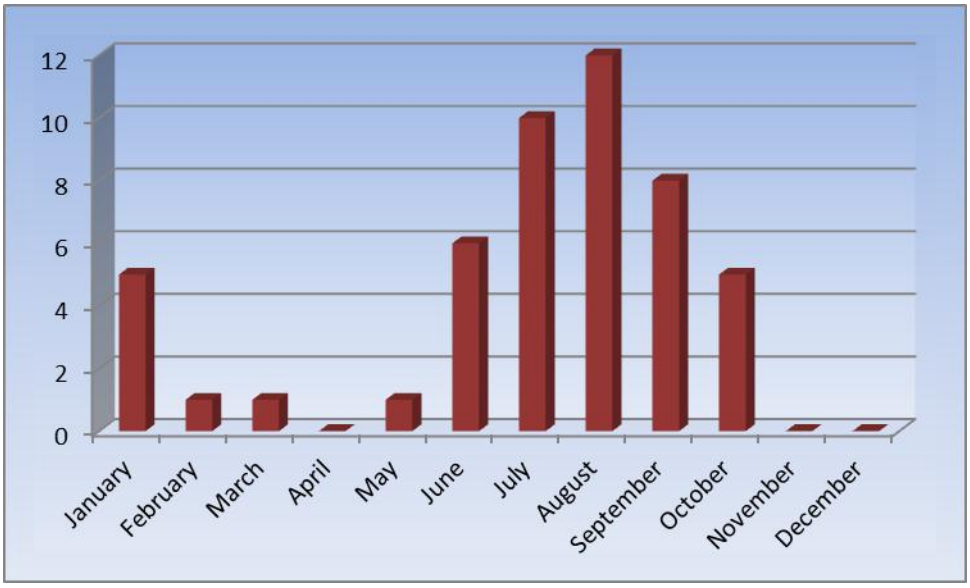
11.1 INCIDENTS

There were no incidents reported to the EPA during 2012.

11.2 COMPLAINTS

Complaints were reported either directly to the EPA or to Thorntons Recycling Centre during 2012. Figure 10 shows the breakdown of complaints by the month in 2012. There were a total of 49 complaints received during 2012.

Figure 10 Break down of all complaints 2012 by month



Analysis of the complaints during 2012 shows that 47 complaints were received in relation to odour, 1 in relation to noise and 1 in relation to seagulls. 13 complaints were received by the EPA and 36 by Thornton's. On a number of occasions during the year when complaints were made, the wind direction was blowing in the opposite direction, the sheds were empty or when the complaint was been investigated the complainant was not at home or the complaint was a general complaint with no specific times or dates given to enable it to be investigated correctly. These complaints could not be attributed to the operation of the Killeen road facility, but they are included in the reported figures as the complaint was made to the site and are tracked in our IMS.

There had been no changes to operations or management of the odour system to warrant the sudden rise in complaints, however to ensure that there was no odours offsite Thorntons Recycling doubled the number of daily odour checks that were carried out and hired an additional environmental team member to carry out 3-4 odour checks both on site and around the neighbouring estates in the evenings up until midnight. These

additional odour checks identified other potential causes of odour off site, such as the illegal dumping and burning of domestic rubbish in a grassy area on Le Fanu Road. Thorntons Recycling staff also met local representatives in their houses and circulated a newsletter which gave residents the contact numbers and correct procedure for logging complaints.

PTWDL have worked very closely with the local residents throughout the year to answer their complaints as speedily as possible and reiterate that Thorntons Recycling is committed to not allowing any odours off site. We believe that the odour abatement has been successful at the facility in 2012. Further mitigation works were completed in 2012 which included two complete changes of the activated carbon in the odour abatement system on the 10th March and the 4th August 2012. The joints of the cladding were resealed during the year to maintain the air tightness of building 3. Also during 2012 the effectiveness of the air curtain on building 3 was tested and the report concluded that the air curtain was effective at preventing odours escaping out the doorway from the building.

As discussed in section 5.4 two odours assessments by an independent body was carried out during 2012 on our odour treatment system which concluded that the system is working effectively and that Thorntons Recycling are not having any negative impact on residents and that the odour generated at the facility is being managed effectively.

Thorntons Recycling takes every complaint seriously and is committed to resolving all complaints to the facility. We feel that in 2012 we have done our utmost to be proactive in dealing with local complaints and we aim to continue this trend and have a decrease in complaints during 2013.

12 REVIEW OF NUISANCE CONTROL

Potential generic nuisances at waste transfer and recycling facilities include dust, noise, odour, litter, birds, rodents, traffic. PTWDL do their utmost to control any nuisances which may occur at the facility. Checks on nuisances are carried out daily and corrective actions are carried out as required. A procedure in line with our IMS has been designed to ensure housekeeping is maintained in all areas and is carried out by supervisors (EP08 – Housekeeping Inspections).

12.1 DUST

PTWDL are required to carry out dust monitoring three times per year. Results of the dust monitoring have being detailed in section 5.1 of this report. Thorntons Recycling staff use power hoses to wet down yard surfaces at the facility during dry periods, dust curtains have been fixed to entrances and exits of the buildings; a dust suppression system is in operation in Building 2 and a dust system RJP Pulse Plant has been installed since March 2006 to remove dust from the air extracted from Building 3. PTWDL has a road sweeper on site at Killeen Road and it is used twice daily in the facility or more frequently if deemed necessary. The sweeper is also used on the Killeen Road and

Kylemore Park North road to assist in reducing dust levels due to passing traffic and contributory factors.

12.2 NOISE

Noise monitoring surveys are conducted annually at the facility; see section 5.3 of this report.

12.3 ODOUR

Tipping of potentially odorous waste and subsequent segregation and processing occurs within the sealed building 3 which assists in preventing odours from escaping beyond the facility boundary. All putrescible waste is removed from the facility within 48 hours. An Odour Abatement System was installed in March 2005 which uses carbon filtration to extract and treat the molecules that cause odorous air. Further works such as sealing all buildings with polyutherane foam, the installation of an air curtain system and the installation of a pulse plant for dust extraction to improve operation efficiency of the odour treatment system were also carried out since this time. In 2011 a large previously open area of building 3 was closed off with a roller door and metal cladding. A roller door was installed on building 1 to further reduce emissions for the building escaping. In 2012, the carbon was changed twice to ensure a high odour removal rate from the odour system. In 2012 the air curtain was independently tested and approved as working adequately to prevent odorous air escaping from the doorway into building 3.

PTWDL have submitted odour progress reports to the Agency throughout 2012 and Thorntons Recycling will continue to maintain the system in best working practice and keep the EPA informed of same.

12.3 LITTER

Daily checks are carried out on litter within and around the site boundary any litter which may escape is cleared up as soon as is possible. All waste transportation vehicles are either enclosed or have a net which covers waste, preventing littering while waste is in transit. Thorntons Recycling owns and operates a road sweeper which sweeps inside and around the facility twice daily. Staff sweep and tidy picking areas constantly throughout the day and night and daily housekeeping checks are carried out by supervisors in all areas with further checks being carried out by the environmental department on a daily basis. All housekeeping checks are maintained on file in the Environmental Department at Thorntons Recycling Centre.

12.4 BIRDS

Constant moving machinery generally deters birds from causing any problems on site. The situation is being monitored and if necessary further action by the contracted pest control company will be arranged.

12.5 RODENTS

Complete Pest Control conduct fortnightly checks of all bait points around the facility which effectively controls rodents at the facility, all documentation for site visits and reports are maintained on site.

12.6 FLIES

Flies have not been a problem at the facility during 2012. The presence of flies is checked as part of the daily environmental checks and if required additional action will be carried out by the contracted pest control company.

12.7 TRAFFIC

Thorntons Recycling Centre is bordered to the West of the facility by the busy Killeen Road which has an access entrance into Park West Industrial Estate and is bordered to the North of the facility by Kylemore Park North, both locations receive a considerable amount of traffic.

13 FINANCIAL PROVISIONS, MANAGEMENT STRUCTURE, PROGRAMME FOR PUBLIC INFORMATION

FINANCIAL PROVISIONS

PTWDL is insured by FBD Brokers (Appendix 6). PTWDL is insured for Employers Liability, Public/Products Liability and Motor Insurance and has also taken out a Pollution Insurance Policy. PTWDL is a financially secure company which is evident from the director's report and consolidated financial statements for the year ended 31st December 2011. Thorntons Recycling is insured under public liability for €12.5 million for sudden and accidental pollution incidents.

The company also have employed environmental management staff to ensure best practice guidelines and compliance with waste licence W0044-02 is being adhered to. A comprehensive emergency plan exists for all facilities operated by the company and the company has maintained certification to Environmental Standard ISO 14001 across all its sites in 2012. Environmental risk assessments are updated as part of the impact and aspects register for ISO14001. The Environmental Aspects Register (PM01-F02) for Thorntons Recycling, Killeen Road facility is available for inspection on site. All staff are trained in Health and Safety and Environmental Awareness at Thorntons Recycling Centre.

PROGRAMME FOR PUBLIC INFORMATION

Thorntons Recycling operates an open door policy at the facility and has carried out tours with journalists, schools and businesses in 2012. The environmental team have been actively involved in carrying out recycling workshops and audits in schools, hospitals and

industrial and commercial businesses in 2012 as well as giving presentations to some of our larger commercial customers at their facilities.

All new and existing clients are brought through our waste acceptance procedures on a daily basis and are supplied with information by sales representatives or customer care staff in relation to what waste types we can accept at the facility.

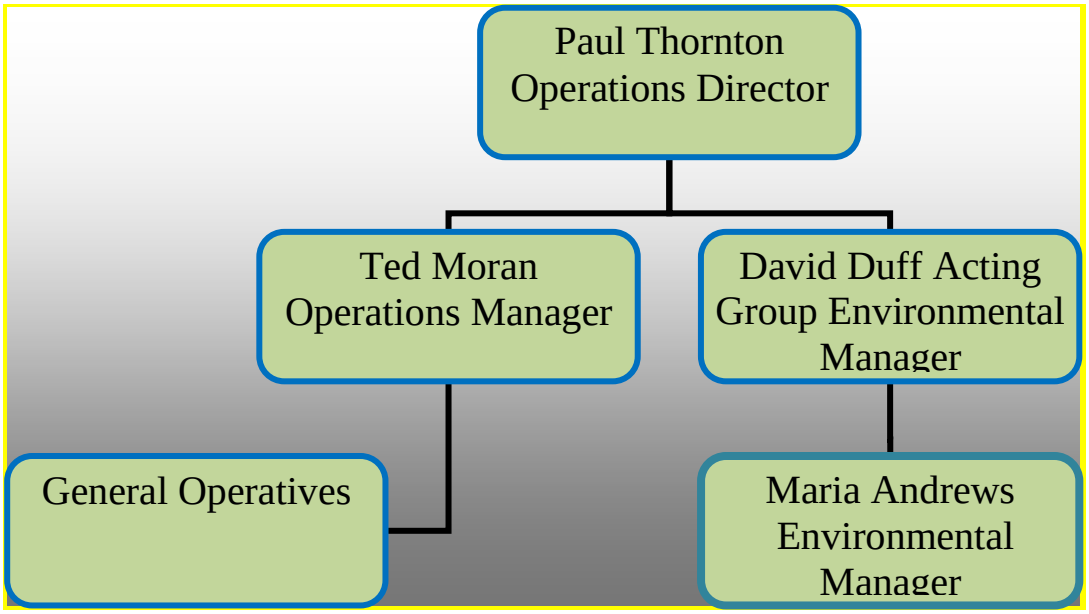
Thorntons Recycling Centre continues to upgrade its website so customers can access information such as waste collection permit numbers and facility waste licences etc. The companies on line skip service www.skip.ie provides our customers with services and information in relation to hiring a skip from Thorntons Recycling. All commercial and household customers now have a personal log in number to our website which enables them to view their waste activities including weights, collection dates and times etc.

All information relating to activities carried out at Thorntons Recycling Centre is maintained on site. Public information is accessible at the site at all times or at the Office of Environmental Enforcement. Detailed Communications Procedures (PM04-Communications and EP01 – Communications Programme) has been implemented in our Integrated Management System and are used throughout the company.

A newsletter was created in 2012 and circulated to local households in Ballyfermot and was also made available at the Killeen road site and at our head office in Parkwest Business Park, Dublin12. (Appendix 7)

MANAGEMENT STRUCTURE

The graph below detailed the 2012 management structure relating to the Killeen Road site.

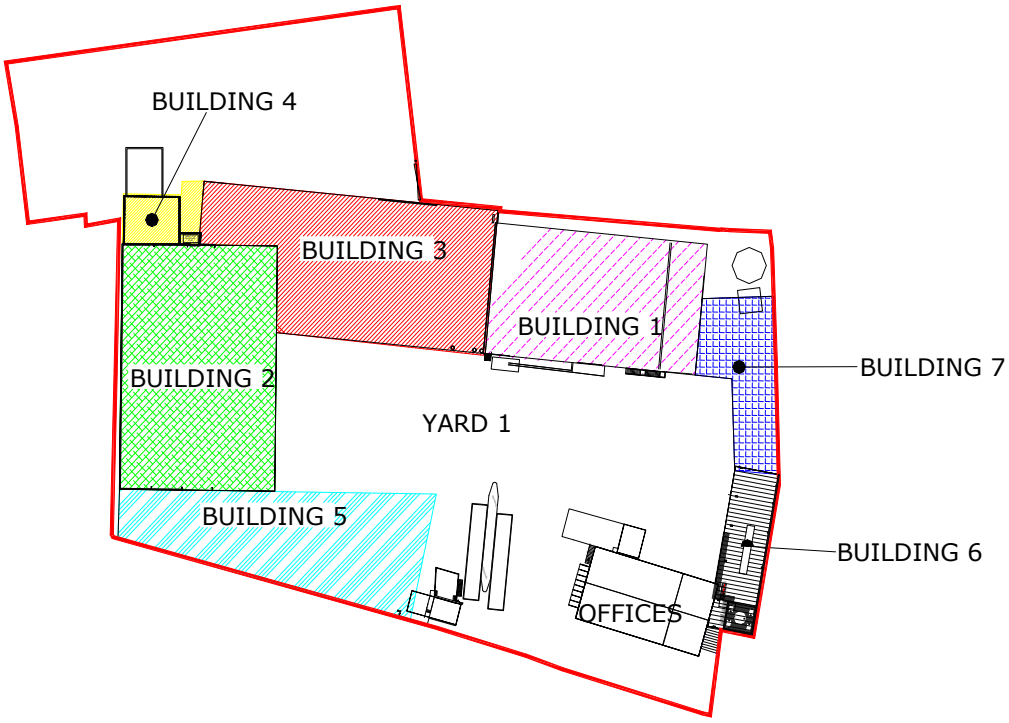


14 FOUL WATER PRODUCTION AND VOLUME OF WATER TRANSPORTED OFF SITE

Thorntons Recycling Centre are limited under schedule C4 of waste licence not to emit more than $20m^3$ per day to the sewer at emission point reference F2 which exits at the north of the facility at Kylemore Park North or $12m^3$ per day to the sewer at emission point reference F1 which exits at the south of the facility to Kylemore Industrial Estate. A daily log is maintained on site.

Both foul meters located on F1 and F2 locations are checked during daily checks at the facility and zeroed at the end of the year. A total of 1,595,924 litres was discharged from F1 during 2012 and 1,480,000 litres from F2. Both are below the max permissible annual discharge for the reporting period by 63.5% and 79.7% respectively. Thorntons Recycling Tankering Services is used for all onsite drainage maintenance and can be called in the event of an emergency if required. Approximately 69,290 litres of foul water from drain maintenance was removed by tankers from the facility in 2012. Job tickets are located in the drain maintenance file in the Environmental Department, Killeen Road, Dublin 10.

Appendix 1


BUILDING 4
BUILDING 3
BUILDING 1
BUILDING 7
BUILDING 2
YARD 1
BUILDING 5
BUILDING 6
OFFICES

Appendix 2

EWC Code	Materials Received	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total Year To Date
20 03 01	Private MMW For /Landfill/ Rounds	6681.30	7498.19	7913.91	7125.70	8458.66	9718.33	8091.46	8252.75	8550.42	9201.40	7221.20	6817.35	95530.67
20 03 01	MMW (CID)	2397.95	2919.50	1964.53	1453.79	2644.92	3339.79	2246.94	1850.66	1715.64	1743.58	3813.01	3247.73	29338.04
20 03 07	Bulky MMW	1053.96	1088.84	1249.08	1481.87	2015.61	1914.02	2639.87	2685.29	2264.20	2502.33	2343.37	1611.66	22850.10
19 12 10	Combustile waste suit SRF in	550.82	677.07	591.46	529.10	570.86	1141.06	1306.71	2229.42	2411.38	2337.29	2044.82	1404.50	15794.49
20 03 03	Street cleaning residues							850.48	1461.90	1455.52	2161.37	2209.86	1546.56	9685.69
20 03 02	Market waste	21.74				49.88	125.76	117.02	144.18	104.14		146.92		709.64
17 01 07	Clean Construction Rubble				98.64		59.70				32.00	5.38	19.42	215.14
17 09 04	Mixed C&D Waste	1985.82	2244.77	2683.94	2580.88	3211.44	2360.01	2019.26	2353.33	2253.96	2171.90	2279.41	2889.84	29034.56
17 05 04	Soil and Stones	52.76	71.22	56.76	97.50	71.42	37.56	108.58	107.50	81.62	76.14	14.04	12.20	787.30
02 06 01	Bakers Waste	33.68	42.80	47.04	50.98	54.22	41.88	40.94	36.88	73.62	31.70	39.64	51.92	545.30
18 01 04	Non Infectious Healthcare Waste	713.10	673.22	769.44	691.45	709.19	752.76	702.63	721.80	668.00	756.08	759.68	683.26	8600.61
02 03 04	Tobacco	12.72	21.74	2.70		9.66	9.40			8.78	48.46	19.22		132.68
02 05 01	Unsuitable food dairy												13.42	13.42
02 02 03	Unsuitable food animal origin												2.50	2.50
02 03 04	Unsuitable food waste	28.52	5.38	0.85	9.02	11.18		4.06	0.92	26.12		1.28	17.90	105.23
16 03 04	Products for Destruction inorganic	14.22		2.22	3.54	4.64	14.96	7.98	2.36	6.32	4.36	13.66	2.56	76.82
02 07 04	Unsuitable Alcohol and Liquid for Destruction		6.80	2.54				4.58		1.46				15.38
20 01 99	Mixed Dry Recyclables		2.20	1.20			0.64	3.95	13.52	4.82			2.42	28.75
16 01 18	Metal non ferous aluminium	6.98			1.30	3.10			0.82		0.58		0.20	12.98
17 04 01	Metal, Copper, bronze, brass											0.76		0.76
17 04 01	Metallic Packaging steel	1.28	0.78											2.06
15 01 04	Metallic Packaging Aluminium	5.80					2.22			4.14				12.16
15 01 06	Mixed Packaking (dry MMW)	6.00	4.88	6.54	6.10	16.84	22.24	2.68	5.46	4.67	4.18	2.70	5.86	88.15
20 01 36	WEEE Recycling	0.78	0.90			5.50				3.14				10.32
19 12 01	Cardboard						0.54							0.54
19 12 02	Ferrous Mixed Metal	61.64	51.80	23.14	11.90	39.10	15.62	27.50	24.94	29.32	6.12	4.44	4.08	299.60
17 04 07	Metal Mixed C & D							2.96	9.98	1.42	4.50	5.86	4.52	29.24
15 01 03	Wood Packaging	151.84	183.66	197.84	190.62	212.36	182.78	212.75	212.68	171.22	208.05	195.02	100.12	2218.94
19 12 07	Processed Wood e.g. chipped		3.34	1.68			2.42	17.98	9.50	7.66	12.00	6.78	9.98	71.34
17 02 01	C & D Waste Wood	5.32	6.46	3.90	38.08	21.10	35.16	59.68	30.74	31.56	25.22	21.62	35.26	314.10
03 01 05	Wood Waste Manufacturing	6.28	17.68	7.36	3.86	20.86	19.90	32.14	79.80	60.66	62.30	8.92	16.96	336.72
15 01 02	Mixed Plastic Film - High Grade			0.68										0.68
15 01 02	Mixed Plastic Film - Low Grade						0.84	0.80		14.46		1.37	2.58	20.05
20 01 39	Mixed Hard Plastics	13.34	3.08	3.18	5.44	4.31	1.30	2.48	26.16	6.88	1.28	1.38		68.83
16 01 20	Glass								1.96		2.66	7.30	3.72	15.64
20 01 02	Glass Other	29.60	31.00	33.10	42.80	52.20	50.86	48.88	53.86	47.12	59.64	56.22	50.46	555.74
20 01 08	Brown Bin/ Seperately collected Food Run	1434.47	1855.10	2716.35	1985.50	2783.25	3025.38	3065.34	3393.42	2473.06	2290.73	2156.56	1836.50	29015.66
20 02 01	Green Waste	185.58	5.74	7.30	2.26	82.24	22.10	16.86	46.00	18.90	99.36	38.22	3.84	528.40
20 01 11	Textiles / Clothes		0.76	5.86			7.30	3.52	12.64	9.68		4.32	1.56	45.64
16 01 03	ELV Tyres									4.86	5.48	5.74		16.08
17 08 02	Gypsum Products/Plasterboard	6.20	28.02	1.84	14.04						5.68	16.86	14.24	86.88
02 01 06	Animal Manure/straw/effluent								4.49	3.76		2.36		10.61
19 08 01	Screenings Sewage Treatment									1.34				1.34
20 01 01	Mixed Paper (Contaminated)					1.46								1.46
	TOTAL	15461.70	17444.93	18294.44	16424.37	21054.00	22904.53	21638.03	23772.96	22519.85	23854.39	23447.92	20413.12	247230.24

Appendix 3

EWC	Materials Consigned	Jan	Feb	Mar	Apr	May	June	July	August	Sept	October	Nov	Dec	Total
20 03 01	MMW (A)								16.24					16.24
20 03 01	MMW (B)				18.26									18.26
20 03 01	MMW (C.)	2489.40	1796.69	2510.87	1956.96	1684.46	3182.28	1903.38	1622.28	1871.54	945.19	1473.24	1499.05	22935.34
20 03 01	MMW (D)	398.62	399.62	443.82	842.30	892.70	785.80	297.16	41.80	257.07	382.52	216.48	713.38	5671.27
20 03 03	Street Cleaning Residues (A)							1504.24	1526.60	1331.70	2186.59	2549.36	1501.59	10600.08
19 12 10	SRF (A)	827.94	2517.91	2768.84	3403.04	3559.08	3911.48	2103.12	3850.75	4144.42	3954.64	3659.37	4314.28	39014.87
19 12 10	SRF (B)	190.80	51.62											242.42
19 12 10	SRF (C.)	853.68	682.20	693.56	274.54	779.35								3283.33
19 12 10	SRF (D)					825.08	1347.46	102.98						2275.52
19 12 10	SRF (E)											327.44	348.62	676.06
19 12 10	SRF (F)	2545.62	2501.24	921.02			1206.00	3496.82	2060.26	2250.84	2942.94	2494.58	1952.76	22372.08
19 12 12	Stone for Sale	641.40	1113.22	1277.90	559.92	463.58	289.38	142.66						4488.06
19 12 12	Stone (A)	908.80	640.66	958.24	1612.32	1588.36	2301.16	2605.88	2060.08	2543.56	2099.62	2212.44	1938.51	21469.63
19 12 12	Stone (B)									719.90	1124.64	687.09	401.84	2933.47
19 12 12	Stone (C.)					54.54								54.54
19 12 12	Stone (D)		46.42	25.40										71.82
19 12 12	Stone (E)				119.28	27.58								146.86
19 12 12	Stone (F)				765.80	679.84	78.60							1524.24
19 12 12	Organic Fines (A)	1131.72	1282.42	1187.94	726.58	1292.92	1852.14	1092.82	882.08	702.84	595.48	330.47	161.48	11238.89
19 12 12	Organic Fines (B)		327.82	391.22	195.44	137.32								1051.80
19 12 09	Trommel Fines (A)								1772.94	963.14	1365.92	736.98	53.54	4892.52
19 12 09	Trommel Fines (B)	1982.34	2357.50	2622.40	2930.90	3399.98	3670.39	4011.52	3256.41	3517.20	3654.06	4355.20	3384.19	39142.09
19 12 02	Ferrous Mixed Metals (A)	16.26	3.12	1.36	4.32		2.54	14.58	6.12		4.70		5.76	58.76
19 12 02	Ferrous Mixed Metals (B)	205.36	261.58	278.15	293.72	123.20	116.10	368.00	395.08	266.34	367.84	436.74	327.94	3440.05
19 12 02	Ferrous Mixed Metals (C.)	109.50	72.72	33.44	52.16	241.76	256.22	76.26	36.90	64.64				943.60
19 12 02	Ferrous Mixed Metals (E)	18.30	18.92	18.62	18.64		18.38							92.86
19 12 03	Non-ferrous metals (A)	16.36	17.42	17.40	27.38	28.80	26.52	27.15	28.22	25.10	34.93	30.86	17.00	297.14
19 12 03	Non-ferrous metals (B)	6.04												6.04
19 12 03	Non-ferrous metals (C.)						8.34							8.34
17 04 11	Metal cabling (A)	0.86	0.90			0.68		0.48		0.66			3.36	6.94
17 04 01	Copper and bronze (A)		0.44			0.76		1.52		1.64				4.36
20 01 40	Metallic Packaging Steel (A)									26.74	25.14	42.94	26.08	120.90
20 01 40	Metallic Packaging Steel (B)	15.46	10.00	43.82		12.52			33.66					115.46
20 01 40	Metallic Packaging Steel (C.)		3.64											3.64
15 01 04	Metallic Packaging Aluminium (A)	7.54	0.66			40.52		28.28	20.66	23.56	22.92	37.80	44.46	226.40
15 01 04	Metallic Packaging Aluminium (B)	25.74												25.74
15 01 04	Metallic Packaging Aluminium (C.)					2.52	1.40		3.58					7.50
15 01 04	Metallic Packaging Aluminium (D)		3.02	10.52										13.54
15 01 02	Plastic Bottles (A)												1.44	1.44
20 01 39	Hard Plastic (A)	17.72	10.04	12.40	9.60	14.92	9.70		12.42			5.02	16.12	107.94
20 01 39	Hard Plastic (B)									6.82	17.14	15.48	5.74	45.18
20 01 01	Mixed Dry Recycables (A)							4.96	0.50			4.66		10.12
15 01 01	Cardboard (A)				0.60			8.42	1.78					10.80
17 09 04	Mixed C&D (A)								228.82	267.18	150.92			646.92
16 02 11	WEEE Fridges (A)	3.77	0.42											4.19
16 01 03	ELV Tyres (A)	3.50	3.44	5.70	5.80	5.20	5.08	1.88	2.74	6.02				39.36
16 02 13	WEEE CRT TV's Monitors (A)									0.98				0.98
20 01 08	Compostable Food Waste (A)	849.78	1493.52	787.42	887.22	1320.64	1973.24	1956.90	2031.21	1777.31	2213.59	2083.66	1854.18	19228.67
20 01 08	Compostable Food Waste (B)		27.34	567.09	438.39	642.32	497.28		76.84	56.28	38.44			2343.98
20 01 08	Compostable Food Waste (C.)		54.38	255.44	133.94	29.06								472.82
20 01 08	Compostable Food Waste (D)	417.42	50.42	218.94				515.94	934.18	400.68	128.72	215.42	90.64	2972.36
20 01 08	Compostable Food Waste (E)			698.91	463.28	489.88	256.82	367.62	97.12	52.78		252.44		2678.85
20 02 01	Green waste (A)	75.96												75.96
20 02 01	Green waste (B)					12.22	23.90							36.12
20 02 01	Green waste (C.)	19.02												19.02
16 05 05	Gas Cylinders (A)				0.44		0.98	0.66	0.52	0.40	0.46		0.26	3.72
19 12 07	Wood (B)	1010.24	803.06	797.56	865.74	1191.74	1150.62	1408.75	1548.66	1544.37	1535.80	1306.66	1090.72	14253.92
	TOTAL	14789.15	16552.36	17547.98	16606.57	19541.53	22971.81	22041.98	22548.45	22823.71	23792.20	23474.33	19752.94	242443.01

Appendix 4

THORNTONS RECYCLING CENTRE
PLANT CAPACITY REPORT JANUARY 2013

INTRODUCTION

Thorntons Recycling Centre, Killeen Road, Dublin 10 is currently licensed under waste licence W0044-02 to accept 250,000 tonnes per annum of Domestic, Commercial, Industrial Non Hazardous and Construction Demolition Waste. To handle such large waste quantities efficiently and without significant environmental emissions, adequate plant machinery has to be in place to quickly handle and dispatch the materials delivered.

To quantify the processing capabilities of the facility this capacity report has been produced to estimate the quantities of waste the transfer station can currently accept before waste begins to accumulate and potentially effect the surrounding environment. This capacity report has identified spare plant that can be substituted for critical plant in the event of a breakdown. Furthermore, sufficient essential spare parts and staff who are capable of rectifying faults are also detailed and available to bring critical plant machinery back online after initial breakdown.

THORNTONS RECYCLING CENTRE PLANT CAPACITY

The following tables specify all plant on site and their individual capacity along with standby capacity of all substitute machinery (see tables 1, 2, 3)

Table 1 capacity of waste handling machinery

THORNTONS RECYCLING CENTRE HANDLING CAPACITY 2013					
Area	**Details**	**Machine**	**Capacity (tonnes per day)**	**Spare**	**Spare Capacity (tonnes per day)**
Waste Handling	Handling Skip Waste (B2)	Fuchs 1	1500	Fuchs 6 (PDM)	1500
Waste Handling	Loading Trailers Oversize (B2)	Fuchs 2	1500	Fuchs 7 (Dunboyne)	1500
Waste Handling	Loading MSW line (B3)	Fuchs 3	1500	CAT Fuchs	1200
Waste Handling	Unloading trailers in the yard	Fork lift 1 (7 Tonne)	1000	Forklift 3 &5 MDR centre	2000
Waste Handling	Moving full and empty waste trailers	Shunter 1	1200 (* Based on 100 tonnes per hour for 12 hours)	Forklift 4 ELV centre	1000
Waste Handling	Moving waste in Building 3	Shovel 10 - Volvo L120G	2000	Teleporter 1&2 in MDR	2000
Waste Handling	Moving waste in Building 1	Shovel 5 - Volvo L120E	2000	Shovel 5 & 1 L90C (Dunboyne & Kilmainhamwood)	4000
Waste Handling	Moving waste in Building 1	Cat 360B Teleporter	1000	Shovel 2 - JCB loading shovel 456	2000
Waste Handling	Moving full and empty waste trailers	Shunter 2	1200 (* Based on 100 tonnes per hour for	Shovel 3 & 4 Cat (PDM x 1,	4000

			12 hours)		
			12,900		**19,200**

Table 2: Current Capacity of Waste Processing Machinery.

THORNTONS RECYCLING CENTRE CURRENT DAILY PROCESSING CAPACITY 2013						
Area	**Details**	**Machine**	**Capacity (tonnes per day) Based on 14 hr day**	**Spare**	**Spare Capacity**	**Emergency Spare Parts In Store**
Processing	C.I.D line- crusher, 2 x trommels, 2 x Nihots, flip flop and picking lines (14 hr day)	C.I.D line	490	Diversion of waste to another facility or work a longer shift	Yes	Yes Motors, Belts and rollers
Processing	MSW line- crusher, trammel and Nihots (14 hour day)	MSW line	476	Bulking material and consigning to landfill	Yes	Yes Motors, Belts and rollers
			966			

Table 3 Current Capacity of Waste Transportation

THORNTONS RECYCLING CENTRE CURRENT TRANSPORT CAPACITY 2013					
Area	**Details**	**Machine**	**Capacity (tonnes per day)**	**Spare Capacity**	**Emergency Spare Parts In Store**
Transport	Moving waste to landfill - Loose Waste	7 Open Brown Trailers	(2 driver, 5 lds * 25t per ld) **125**	Yes	Yes
Transport	Moving SRF to outlet	6 Closed trailers and 3 walking floor trainers	(2 driver, 12ld 24t per ld) **288**	Yes	Yes
Transport	Moving Compostable waste	3 Aluminium trailers	(2 driver, 4lds 25t per day) **100**	Yes	N/A
Transport	Moving Wood to PDM	1 Open top Bulker	(1 drivers,3 lds * 25t per ld) **75**	Yes	N/A
Transport	Moving mixed metals	1 Open top bulker	(1 drivers,2 lds * 16t per ld) **32**	Yes	N/A

Transport	Moving Organic Fines	1 rigid tipper trucks	(1 drivers,2 lds * 25t per ld) **50**	Yes	N/A
Transport	Moving Trommel Fines and Stones	5 rigid tipper trucks	(2 drivers,9lds*22t per ld) **198**	N/A	Yes
			868		

As can be seen from Tables 1, 2 and 3 Thorntons Recycling has sufficient plant capacity to process above the current licence quantity of 250,000 tonnes per annum. Table 2 and 3 display current capacity of waste processing machinery and current capacity in transport, should the facility be required to handle more than that displayed in Table 2 and 3, hours of processing can be increased as the facility is licenced to operate under a twenty four hour licence and extra drivers and trailers can be hired to accommodate transport of materials. The trailers and lorries are able to transport a number of different types of waste streams so trailer types are interchangeable to transport material off site as required.

PTWDL operates other facilities such as Thorntons Recycling PDM, Thorntons Recycling Dunboyne, Kilmainhamwood Composting, Thorntons Recycling ELV, Thorntons Recycling Security Shredding and Thorntons Recycling MDR. All these facilities have similar mobile plant on site which can be used at Thorntons Recycling Centre Killeen Road if required.

PTWDL employs a maintenance team who are responsible for ordering and cataloguing all essential spare parts. The team consists of qualified fitters and electricians, who have their own maintenance workshop and service bay onsite at the Killeen Road facility. A garage has been developed in Park West Industrial Estate where a team of 11 are employed. The garage is equipped with all necessary specialized equipment and an emergency service vehicle for call out or to fix mechanical breakdowns. PTWDL have 24 hour access to Hose Doctor who can be on site within the hour to replace any damaged hydraulic fittings.

CONCLUSION

It is apparent from the information supplied that the facility and its workings have sufficient capacity to handle the current tonnages permitted to enter the facility and indeed could handle an increase in tonnage if required.

Appendix 5

PM03- F01 Management Programme 2012								
COMPLETED		CARRIED FORWARD FROM 2011			ON HOLD			
Ref Numb	Date	Type	Objective and Target	Location	Responsibili	Method	Time Frame	Status
EP 07	Feb-12	Environmental	Export SRF	Killeen Road	DD	1. Feasibility update on export of SRF	Dec-12	**On Hold- Potential outlets found.**
EP 08	Feb-12	Environmental	Store SRF	Killeen Road/ Dunboyne	MA/DD	1. Feasiblity study on possible locations, in particular Dunboyne	Dec-12	**Started** - MA wrote to EPA on 9th May 2012 to inform them of us storing SRF at Dunboyne. EPA visit to Dunboyne re: SRF storage on 6th June, issued letter stating approval request needed. Letter sent July 2012, approval not received yet. Greyhound to remove all SRF by end of September, original date 13th August pushed out. Irish Cement may take. Most SRF gone to Irish Cement now (Nov 2012), some gone to Lagan also. NH visited site and verbally said a bond would need to be in place to store SRF and fire detection system also. MK sent a second letter seeking approval from EPA for generic storgar on 18.12.12
EP 09	Feb-12	Environmental	Healthcare Project	Killeen road	JL	Tonnages, Collections, Exports, Processing, logistics, Players, Markets = Business Plan	Dec-12	**Completed** - Julie started on 10th April. Completed and presented to senior management.
EP 10	Feb-12	Environmental	Monitoring and measurement - Calibration Register	All Sites	MA	Domestic Lorries etc to be updated on register	Dec-12	**Completed-** Started 20th March - MA updated register & asked Mark Conroy to update TTS tab. Ongoing as new equipment comes onboard
EP 11	Jun-12	Environmental	Environmental Guidance File for all Staff - Legal register	All Sites	MK	1. Complete Environmental Review of Guidance files and Environmental Legal Register - Required for Internal communications and ISO14001 register	Dec-12	**Not Started** - Carried from 2011, Start in Q4
EP 12	Feb-12	Environmental	MSW residual survey	Killeen Road	DD/JL	1. Characterisation survey on 300kg of residual waste and create a summary report and P&L	Jun-12	**Completed** - Julie conducted survey and produced report on revenue opportunities in further picking the MSW residual. GB has requested costs are included of equipment etc needed to further pick this residual. DD requested costs from TM. Costs and space prohibitive
EP 13	Feb-12	Environmental	CID hand picked residual survey	Killeen Road	DD/JL	1. Characterisation survey on 300kg of residual waste and create a summary report and P&L	Jun-12	**Completed** - Julie conducted survey and produced report on revenue opportunities in further picking the CID residual. GB has requested costs are included of equipment etc needed to further pick this residual. DD requested costs from TM. Costs and space prohibitive
EP 14	Sep-12	Environmental	Odour abatement	Killeen Road	TM/DD	UV/ozone odour treatment systems to be installed in Building 3, Killeen Road for a one month trial	Dec-12	**Work in Progress** - Consultant hired to check feasibility of this. Feedback was that this system wouldn't work in Building 3. MA to contact OMI and arrange meeting with GB/PT/TM. BS bringing in machine trial to be organised for early 2013.

PM03- F01 Management Programme 2013

COMPLETED		CARRIED FORWARD FROM 2012			ON HOLD			
Ref Numb	**Date**	**Type**	**Objective and Target**	**Location**	**Responsibility**	**Method**	**Time Frame**	**Status**
EP 04	Feb-12	Environmental	Export SRF	Killeen Road	DD	1. Feasibility update on export of SRF	Dec-12	**On Hold-** Potential outlets found.
EP 07	Sep-12	Environmental	Odour abatement	Killeen Road	TM/MK	UV/ozone odour treatment systems to be installed in Building 3, Killeen Road for a one month trial	Dec-12	**Work in Progress** - Consultant hired to check feasibility of this. Feedback was that this system wouldn't work in Building 3. MA to contact OMI and arrange meeting with GB/PT/TM. BS bringing in machine trial to be organised for early 2013. OMI setting up a trail system in Joises to test the technology
EP08	Jan-13	Environmental	New Extention	Killeen Road	TM/MK	1. Obtain permission from the EPA. 2. Agree and design proposed roof. 3. Get professional drawings 4. Obtain planning. 5. Construction	May-13	**Work in Progress -** Permission granted by the EPA. Awaiting for roof design to be agreed and planning drawings.
EP09	Jan-13	Environmental	Reseal Building 3	Killeen Road	TM/MK	1. Obtain quotes from potential contractors. Seal building 3.	May-13	**Work in Progress-** In discussions with contractors and getting quotes for review.
EP10	Jan-13	Environmental	Recycling of PET from MSW line	Killeen Road	DD	1. Plan with Paul a trial to confrim the report conducted in 2012. 2. Set up a temporary picking station after the ballistic and have a cage for the PET to be dropped in to. 3. Have a 35 cubic yard skip by the wash bay for temporary bulking	Jun-13	**Not Started**

Appendix 6

FBD Brokers
Corporate Insurance Brokers

FBD House
Bluebell
Dublin 12
Ireland

Tel +353 1 4093201
Fax +353 1 4783108
www.jlt.ie
www.fbdbrokers.ie

JLT

18 July, 2012

Re: ***Padraig Thornton Waste Disposal Ltd and Thornton Recycling Centre Ltd***

To Whom It May Concern:

This is to confirm that we act as Insurance Brokers for the above client and that we currently hold the following covers in place on their behalf:-

Employers Liability:
Covering the legal liability of the Insured to employees for death or bodily injury or disease arising out of and in the course of their employment by the Insured in the business as described **(Waste Collection, Recycling and Disposal and Property Owners)** during the period of Insurance.

Insurers: FBD plc and QBE Insurance (Excess Layer)
Policy No.: 00433053/04/01 & Y039364QBE0210A
Renewal Date: 1st July 2013

Limit of Indemnity:
€20,000,000 any one occurrence inclusive of all costs and expenses.

Public / Products Liability:
Covering the legal liability of the Insured for accidental bodily injury to third party persons or accidental damage to third party material property arising in connection with the business and subject to the limit of indemnity specified. Including legal liability arising out of goods sold or supplied.

Insurers: FBD plc and QBE Insurance (Excess Layer)
Policy No.: 00433053/04/01 & Y039364QBE0210A
Renewal Date: 1st July 2013

Limit of Indemnity:
Public Liability €12,500,000 any one accident
Products Liability €12,500,000 any one period

Motor Insurance
Covers the Insured's Liability to Third Parties for vehicles being used in connection with the insured's business. Personal Injury cover is unlimited and Third Party Property Damage limit is €6,500,000 and €30,000,000 for private cars.

Insurers: FBD Insurance Plc and QBE Insurance (Excess Layer on MTTPD)
Policy No: 00433053/22/01 & Y039361QBE0210A
Renewal Date: 1st July 2013

All policies include Indemnity to Principals Clause applies to all policies.

We trust that this is in order but if you require further details, please do not hesitate to contact the undersigned.

Yours sincerely

Fergal Britton
Service Executive
FBD Brokers

Appendix 7

THE RECYCLER

Welcome to the latest edition of Recycler your complete update on what is happening at Thorntons Recycling in your community.

Thorntons recycling

Issue 9 September 2012

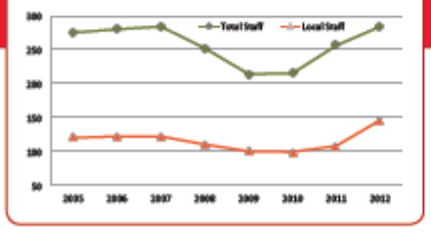
GREEN STREETS COMPETITION 2012

Congratulations to Clover Hill Road, who won the Green Streets Competition organised by Dublin City Council and sponsored by Thorntons Recycling. The award was presented by the Lord Mayor of Dublin, Andrew Montague, and was accepted by Patricia Williams on behalf of Clover Hill Road on the 29th May 2012 at the Cherry Orchard Community Centre. Thorntons sponsorship funded the purchase of 97 floral hanging baskets, one for each resident on Clover Hill Road, and the awards plaque in recognition of the effort and commitment of all those on the winning street.

THORNTONS COMMITMENT TO THE LOCAL COMMUNITY AND PROVIDING JOBS

Thorntons Recycling is proud to employ local people and support local business. In addition, we are delighted to support local fundraisers such as the Senior Citizens Christmas Party, schools sports events and school plays, The West Dublin Community Festival and the Green Streets Competition. Thorntons Recycling currently employs over 300 employees of which more than 50% are from the local area. Local staff is employed at our various sites in Dublin, on our collection fleet and at our maintenance and repair garage. Thorntons Recycling is committed to continuing to create sustainable jobs into the future. We do this by upgrading current systems and practises to incorporate advances in technology and equipment so that we are constantly improving our facilities and surrounding environment.

Local & Total Staff Chart



This chart shows the numbers of local employment since 2005.

RECOVERY OPERATOR OF THE YEAR 2012

Thorntons Recycling, one of Ireland's most progressive and successful recycling companies, has been named Recovery Operator of the Year at the annual Repak Recycling Awards 2012, held on the 4th October 2012 in Croke Park, Dublin. The awards were presided over by Minister Phil Hogan TD, for the Environment Community and Local Government, which saw other high profile companies recognised for major recycling achievements.

These awards acknowledge outstanding performance in the area of packaging minimisation and recycling and winners of the Recovery Operator of the Year title must demonstrate excellence in every area of waste management.

Pictured above are: Dr Andrew Hetherington - CEO Repak Ireland, Mr Gary Brady, Managing Director Thorntons Recycling, Mr Phil Hogan TD - Minister for Department of the Environment, Heritage and Local Government, Mr David Duff, Environmental Manager at Thorntons Recycling and Mr Cathal MacDonagh of KPMG (Sponsor)

Telephone: 01 801 3640 / 01 623 5133 Email: info@thorntons-recycling.ie www.thorntons-recycling.ie

NEW GREEN BIN PROCESSING FACILITY

Thorntons Recycling has invested €3.5 million in a new processing facility in Parkwest Business Park in 2011. The facility is specifically designed and built to accept mixed dry recycling materials. The facility will segregate the incoming green bin material into cardboard, paper, aluminium cans, steel cans, mineral bottles, milk bottles and plastic films. The segregated material will be sent to various recycling facilities in Europe and Asia to complete the recycling process.

The facility is fully secured and monitored 24 hours with CCTV. All materials are handled in compliance with the waste facility permit.

The facility incorporates some of the best technology to identify and sort plastic by the different types using near infra-red technology. This has meant that we can improve the segregated quality of the material which basically means much better recycling. The non recyclable fraction or residue is taken to Thorntons Killeen road facility where it is processed to make a solid recovered fuel.

THORNTONS RECYCLING SPONSORS WEST DUBLIN COMMUNITY FESTIVAL

Thorntons Recycling was proud to be a sponsor of the West Dublin Community Festival 2012, an outdoor concert which took place on Sunday 19th August from 1pm - 6pm at the Ballyfermot Road Park beside the Ballyfermot Community Civic Centre.

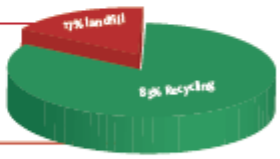
The concert had been put together by the Ballyfermot RAPID Area Programme and by the local community radio station West Dublin Access Radio. The event was to showcase local talent, community spirit and to create a positive atmosphere in the area.

As well as sponsoring the catering at the event Thorntons provided the waste bins. This was only the festival's second year running and was really successful with everyone have a really enjoyable time. Congratulations to the organising team.

Pictured are Keith McLoughlin, Event Organiser & Maria Andrews, Thorntons Environmental Manager

THORNTONS RECYCLING RATE 2011

The Thorntons 2011 group recycling rate was an impressive 83%, with only 17% of material going to landfill. Thorntons will continue to look at innovative ways to reduce the amount of waste going to landfill in order to help Ireland achieve its waste diversion targets.



ODOUR REPORTS AND UPDATE

Thorntons Recycling takes all complaints seriously and carries out a detailed investigation of each complaint and records them for the EPA. Complaints during work hours Monday to Friday can be made to 01 603 8444 and after work hours to 086 8285987. A member of the environmental team will respond to each complaint received. We ask for residents support and patience in dealing with complaints. Complaints should be made when an odour is detected so that we can immediately investigate and determine the cause of the complaint.

In 2012, Thorntons Recycling has carried out a number of regular maintenance checks on the odour control system as well as additional ones, these included a second change of the carbon, installation of new dust curtains and doors, a third party check on the air curtains, temporary installation of two mobile tanks spraying an odour neutraliser, a review of work practices to ensure lorries are tipped within the buildings as quick as possible and updated training for supervisors and staff on site.

Thorntons Recycling are investigating an additional odour treatment unit which if successful will operate in conjunction with the existing carbon based odour treatment unit which was installed in 2006. All of these actions are taken to ensure that there is no detectable odour beyond the boundary of the facility.

There has been an increase in the number of complaints in 2012 despite Thorntons investment in the above mitigation measures. However Thorntons Recycling is committed to preventing odours and reducing complaints and will work with local neighbours to ensure a mutual benefit.

Telephone: 01 801 3640 / 01 623 5133 Email: info@thorntons-recycling.ie www.thorntons-recycling.ie

Appendix 8

Sheet : Facility ID Activities | AER Returns Workbook | 12/2/2013 9:29

| PRTR# : W0044 | Facility Name : Thornton's Recycling Centre | Filename : W0044_2012 PRTR.xls | Return Year : 2012 |

Environmental Protection Agency

Guidance to completing the PRTR workbook

AER Returns Workbook

Version 1.1.15

REFERENCE YEAR	2012

1. FACILITY IDENTIFICATION

Parent Company Name	Padraig Thornton Waste Disposal Limited
Facility Name	Thornton's Recycling Centre
PRTR Identification Number	W0044
Licence Number	W0044-02

Waste or IPPC Classes of Activity

No.	class_name
3.13	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.
3.11	Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.12	Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.
4.11	Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule.
4.13	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.
4.2	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
4.3	Recycling or reclamation of metals and metal compounds.
4.4	Recycling or reclamation of other inorganic materials.
4.8	Oil re-refining or other re-uses of oil.
4.9	Use of any waste principally as a fuel or other means to generate energy.
Address 1	Killeen Road
Address 2	Ballyfermot
Address 3	Dublin 10
Address 4	
	Dublin
Country	Ireland
Coordinates of Location	-6.35373 53.3348
River Basin District	IEEA
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	David Duff
AER Returns Contact Email Address	dduff@thorntons-recycling.ie
AER Returns Contact Position	Environmental Manager
AER Returns Contact Telephone Number	01 603 8444
AER Returns Contact Mobile Phone Number	086 8371959
AER Returns Contact Fax Number	01 6235133
Production Volume	250000.0
Production Volume Units	Tonnes
Number of Installations	3
Number of Operating Hours in Year	8000
Number of Employees	40
User Feedback/Comments	
Web Address	www.thorntons-recycling.ie

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
5(c)	Installations for the disposal of non-hazardous waste
5(c) 50.1	Installations for the disposal of non-hazardous waste General

3. SOLVENTS REGULATIONS (S.I. No. 543 of 2002)

Is it applicable?	No
Have you been granted an exemption ?	No
If applicable which activity class applies (as per Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being used ?	

4. WASTE IMPORTED/ACCEPTED ONTO SITE

Guidance on waste imported/accepted onto site

Do you import/accept waste onto your site for on-site treatment (either recovery or disposal activities) ?	

4.1 RELEASES TO AIR Link to previous years emissions data

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING PRTR POLLUTANTS

RELEASES TO AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION C : REMAINING POLLUTANT EMISSIONS (As required in your Licence)

RELEASES TO AIR					Please enter all quantities in this section in KGs							
POLLUTANT		METHOD			D2	D3	D4	D5	D7	QUANTITY		
			Method Used									
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	Emission Point 3	Emission Point 4	Emission Point 5	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
210	Dust	M	OTH	30 Composite sample measured in mg/m2/day using Standard Method VDI2119	0.05	0.05	0.05	0.05	0.05	0.25	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

Additional Data Requested from Landfill operators

For the purposes of the National Inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methane) flared or utilised on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under T(total) KG/yr for Section A Sector specific PRTR pollutants above. Please complete the table below:

Landfill: Thornton's Recycling Centre

Please enter summary data on the quantities of methane flared and / or utilised	T (Total) kg/Year	M/C/E	Method Used: Method Code	Method Used: Designation or Description	Facility Total Capacity m3 per hour	
Total estimated methane generation (as per site model)	0.0				N/A	
Methane flared	0.0				0.0	(Total Flaring Capacity)
Methane utilised in engine/s	0.0				0.0	(Total Utilising Capacity)
Net methane emission (as reported in Section A above)	0.0				N/A	

4 2 RELEASES TO WATERS Link to previous years emissions data

| PRTR# : W0044 | Facility Name : Thornton's Recycling Centre | Filename : W0044_2012 PRTR.xls | Return Year : 2012 |

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this only c

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT						QUANTITY		
No. Annex II	Name	M/C/E	Method Used Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING PRTR POLLUTANTS

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT						QUANTITY		
No. Annex II	Name	M/C/E	Method Used Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION C : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT						QUANTITY		
Pollutant No.	Name	M/C/E	Method Used Method Code	Designation or Description	SW2 Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
303	BOD	M	OTH	Standards Methods for the examination of waster and wastewater. APHA 20th Ed	0.001	0.001	0.0	0.0
306	COD	M	OTH	Standards Methods for the examination of waster and wastewater. APHA 20th Ed	0.008	0.008	0.0	0.0
314	Fats, Oils and Greases	M	OTH	Standards Methods for the examination of waster and wastewater. APHA 20th Ed	0.0003	0.0003	0.0	0.0
324	Mineral oils	M	OTH	Standards Methods for the examination of waster and wastewater. APHA 20th Ed	0.0004	0.0004	0.0	0.0
240	Suspended Solids	M	OTH	Standards Methods for the examination of waster and wastewater. APHA 20th Ed	0.004	0.004	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

4.3 RELEASES TO WASTEWATER OR SEWER

Link to previous years emissions data

SECTION A : PRTR POLLUTANTS

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs				
POLLUTANT		METHOD			QUANTITY				
			Method Used		FW1	FW2			
Pollutant No	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
303	BOD	M	OTH	Standard method for the examination of water and wastewater APHA20th Ed	143.8	332.5	476.3	0.0	0.0
306	COD	M	OTH	Standard method for the examination of water and wastewater APHA20th Ed	206.5	769.0	975.5	0.0	0.0
308	Detergents (as MBAS)	M	OTH	Standard method for the examination of water and wastewater APHA20th Ed	0.36	2.54	2.9	0.0	0.0
314	Fats, Oils and Greases	M	OTH	Standard method for the examination of water and wastewater APHA20th Ed	10.66	53.46	64.12	0.0	0.0
324	Mineral oils	M	OTH	Standard method for the examination of water and wastewater APHA20th Ed	2.96	8.37	11.33	0.0	0.0
332	Ortho-phosphate (as PO4)	M	OTH	Standard method for the examination of water and wastewater APHA20th Ed	17.21	1.03	18.24	0.0	0.0
240	**Suspended Solids**	M	OTH	Standard method for the examination of water and wastewater APHA20th Ed	89.1	481.5	570 6	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

5 ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

Please enter all quantities on this sheet in Tonnes

55

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used M/C/E	Method Used	Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility Non Haz Waste Name and Licence/Permit No of Recover/Disposer	Haz Waste Address of Next Destination Facility Non Haz Waste Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
Within the Country	15 01 01	No	10.8	paper and cardboard packaging	R13	M	Weighed	Offsite in Ireland	PTWDL T/A Thorntons Recycling MDR,WFP-DC-10-0021-02	Unit 51 Henry Road,Parkwest Business Park,Dublin ,12,Ireland		
Within the Country	15 01 02	No	1.44	plastic packaging	R13	M	Weighed	Offsite in Ireland	PTWDL T/A Thorntons Recycling MDR,WFP-DC-10-0021-02	Unit 51 Henry Road,Parkwest Business Park,Dublin ,12,Ireland		
Within the Country	15 01 04	No	234.74	metallic packaging	R13	M	Weighed	Offsite in Ireland	PTWDL T/A Thorntons Recycling MDR,WFP-DC-10-0021-02	Unit 51 Henry Road,Parkwest Business Park,Dublin ,12,Ireland		
To Other Countries	15 01 04	No	25.74	metallic packaging	R13	M	Weighed	Abroad	WRC Recycling,N/A	Auchans Farm,Johnstone,Renfrewshire,PA6 7EE,United Kingdom		
Within the Country	15 01 04	No	13.54	metallic packaging	R13	M	Weighed	Offsite in Ireland	Green Dragon Recycling Ltd,WFP-CK-10-0060-02	Corbally North,Caherlag,Glanmire,Co Cork,Ireland		
Within the Country	16 01 03	No	39.36	end-of-life tyres	R13	M	Weighed	Offsite in Ireland	PTWDL T/A Thorntons Recycling ELV,WFP-DC-09-0005-01	Kylemore Park West,..Dublin,10,Ireland		
Within the Country	16 02 11	Yes	4.19	discarded equipment containing chlorofluorocarbons, HCFC, HFC	R13	M	Weighed	Offsite in Ireland	Rehab Ltd,WFP-DS-10-0008-03	Unit 77 Broomhill Road,Tallaght,Dublin,24,Ireland	Rehab Ltd,WFP-DS-10-0008-03,Unit 77,Broomhill Road,Tallaght,Dublin 24,Ireland	Unit 77,Broomhill Road,Tallaght,Dublin 24,Ireland
Within the Country	16 05 05	No	3.72	gases in pressure containers other than those mentioned in 16 05 04	R13	M	Weighed	Offsite in Ireland	Calor Gas,N/A	Long Mile Road,..Dublin,12,Ireland		
Within the Country	19 12 03	No	297.14	non-ferrous metal	R4	M	Weighed	Offsite in Ireland	Cummins/ National Recycling ,WFP-DS-10-0005-01	Station Road,Clondalkin,Dublin,22,Ireland		
Within the Country	19 12 03	No	6.04	non-ferrous metal	R4	M	Weighed	Offsite in Ireland	Wilton Waste Recycling Ltd,WFP-CN-10-0005-01	Kiffagh,Crosserlough,Ballyjamesduff,Co Cavan,Ireland		
Within the Country	20 01 39	No	45.18	plastics	R3	M	Weighed	Offsite in Ireland	Retech Processing Ltd,WFP-CN-10-0004-01	IDA Industrial Estate,Cavan road,Cootehill,Co Cavan,Ireland		
Within the Country	20 01 39	No	107.94	plastics	R3	M	Weighed	Offsite in Ireland	Polymer Recovery,WFP-LS-09-0007-01	Portarlington Industrial Estate,East Canal Road,Portarlington ,Co. Laois,Ireland		
Within the Country	17 04 01	No	4.36	copper, bronze, brass	R4	M	Weighed	Offsite in Ireland	Cummins/ National Recycling ,WFP-DS-10-0005-01	Station Road,Clondalkin,Dublin,22,Ireland		
Within the Country	17 04 11	No	6.94	cables other than those mentioned in 17 04 10	R4	M	Weighed	Offsite in Ireland	Cummins/ National Recycling ,WFP-DS-10-0005-01	Station Road,Clondalkin,Dublin,22,Ireland		
Within the Country	17 09 04	No	646.92	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	R13	M	Weighed	Offsite in Ireland	Oxigen Environmental Ltd,W0205-01	Ballymount Industrial Estate,Clondalkin,Dublin,22,Ireland		
Within the Country	19 12 02	No	92.86	ferrous metal	R4	M	Weighed	Offsite in Ireland	Wilton Waste Recycling Ltd,WFP-CN-10-0005-01	Kiffagh,Crosserlough,Ballyjamesduff,Co Cavan,Ireland		
Within the Country	19 12 02	No	58.76	ferrous metal	R4	M	Weighed	Offsite in Ireland	Cummins/ National Recycling ,WFP-DS-10-0005-01	Station Road,Clondalkin,Dublin,22,Ireland		
Within the Country	19 12 02	No	3440.05	ferrous metal	R4	M	Weighed	Offsite in Ireland	Hammond Lane,WP 98107	Pigeon House Road,Ringsend,Dublin,4,Ireland		
Within the Country	19 12 02	No	943.6	ferrous metal	R4	M	Weighed	Offsite in Ireland	Multimetals,WFP-WW-09-0014-01	Blessington,..Co. Wicklow,..Ireland		

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	19 12 09	No	39142.09	minerals (for example sand, stones)	R5	M	Weighed	Offsite in Ireland	Bord na Mona Drehid landfill,W0201-01	Carbury,,,Co. Kildare,,,Ireland		
Within the Country	19 12 09	No	4892.52	minerals (for example sand, stones)	R5	M	Weighed	Offsite in Ireland	Arthurstown Landfill,W0004-03	Kill,,,Co. Kildare,,,Ireland		
Within the Country	19 12 07	No	14253.92	wood other than that mentioned in 19 12 06	R3	M	Weighed	Offsite in Ireland	PTWDL T/A Thorntons Recycling Woodchipping,WFP-KE-10-0061-01	PDM,Kill,Co. Kildare,,,Ireland		
Within the Country	19 12 12	No	2933.47	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R5	M	Weighed	Offsite in Ireland	Arthurstown Landfill,W0004-03	Kill,,,Co. Kildare,,,Ireland		
Within the Country	19 12 12	No	21469.63	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R5	M	Weighed	Offsite in Ireland	Bord na Mona Drehid landfill,W0201-01	Carbury,,,Co. Kildare,,,Ireland		
Within the Country	19 12 10	No	2275.52	combustible waste (refuse derived fuel)	R13	M	Weighed	Offsite in Ireland	Panda Waste Services,WO39-02	Ballymount Cross,Tallaght,,,Dublin 24,Ireland		
Within the Country	19 12 10	No	676.06	combustible waste (refuse derived fuel)	R13	M	Weighed	Offsite in Ireland	PTWDL T/A Thorntons Recycling Dunboyne,W0206-01	Dunboyne,,,Co. Meath,,,Ireland		
Within the Country	19 12 10	No	39014.87	combustible waste (refuse derived fuel)	R1	M	Weighed	Offsite in Ireland	Lagan Cement,P0487-05	Kinnegad,,,Co. Meath,,,Ireland		
Within the Country	19 12 10	No	242.42	combustible waste (refuse derived fuel)	R13	M	Weighed	Offsite in Ireland	Oxigen Environmental Ltd,W0205-01	Ballymount Industrial Estate,Clondalkin,Dublin,22,Ireland		
Within the Country	19 12 10	No	22372.08	combustible waste (refuse derived fuel)	R1	M	Weighed	Offsite in Ireland	Irish Cement Ltd,P0030-04	Drogheda,,,Co. Louth,,,Ireland		
Within the Country	19 12 10	No	3283.33	combustible waste (refuse derived fuel)	R13	M	Weighed	Offsite in Ireland	Greyhound Waste Recycling,W0205-01	Craig Avenue,Clondalkin Industrial Estate,Dublin,22,Ireland		
Within the Country	19 12 12	No	1051.8	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R3	M	Weighed	Offsite in Ireland	Cleary Composting & Shredding,WFP-KE-10-0064-01	Larch Hill,,,,Kildare,Ireland		
Within the Country	19 12 12	No	11238.89	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	R3	M	Weighed	Offsite in Ireland	Enrich Environmental Ltd,WFP-MH-08-0004-01	Newtown,Rathganley,Kilcock ,Co. Meath,Ireland		
Within the Country	20 01 01	No	10.12	paper and cardboard	R13	M	Weighed	Offsite in Ireland	PTWDL T/A Thorntons Recycling MDR,WFP-DC-10-0021-02	Unit 51 Henry Road,Parkwest Business Park,Dublin ,12,Ireland		
Within the Country	20 01 08	No	19228.67	biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	PTWDL T/A Thorntons Recycling Kilamainhamwood,W0195-01	Ballynalurgan,Nobber,Co. Meath,,,Ireland		
Within the Country	20 01 08	No	2343.98	biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	Waddock Composting Ltd,WFP-CW-11-05-01	Kilamaster,,,Co. Carlow,,,Ireland		
Within the Country	20 01 08	No	472.82	biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	O' Toole Composting,WFP-CW-10-0003-01	Ballintrane,Fenagh,Co. Carlow,,,Ireland		
Within the Country	20 01 40	No	115.46	metals	R4	M	Weighed	Offsite in Ireland	Multimetals,WFP-WW-09-0014-01	Blessington,,,Co. Wicklow,,,Ireland		
Within the Country	20 01 40	No	3.64	metals	R13	M	Weighed	Offsite in Ireland	PTWDL T/A Thorntons Recycling MDR,WFP-DC-10-0021-02	Unit 51 Henry Road,Parkwest Business Park,Dublin ,12,Ireland		
Within the Country	20 01 40	No	120.9	metals	R13	M	Weighed	Offsite in Ireland	Wilton Waste Recycling Ltd,WFP-CN-10-0005-01	Kilfagh,Crosserlough,Ballyjamesduff,Co Cavan,Ireland		

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	20 02 01	No	36.12	biodegradable waste	R3	M	Weighed	Offsite in Ireland	Enrich Environmental Ltd,WFP-MH-08-0004-01	Newtown,Rathganley,Kilcock ,Co. Meath,Ireland		
Within the Country	20 02 01	No	19.02	biodegradable waste	R3	M	Weighed	Offsite in Ireland	PTWDL T/A Thorntons Recycling Kilamainhamwood,W0195-01	Ballynalurgan,Nobber,Co. Meath,,,Ireland		
Within the Country	20 03 01	No	18.26	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Clonmel Waste Disposal,WFP-TS-11-0001-01	Lawlesstown,Clonmel ,,,Tipperary,Ireland		
Within the Country	20 03 01	No	5671.27	mixed municipal waste	D10	M	Weighed	Offsite in Ireland	Indaver,W0167-02	Carranstown,Duleek,Co. Meath,,,Ireland		
Within the Country	20 03 01	No	16.24	mixed municipal waste	R13	M	Weighed	Offsite in Ireland	Oxigen Environmental Ltd,W0205-01	Ballymount Industrial Estate,Clondalkin,Dublin ,22,Ireland		
Within the Country	20 03 01	No	22935.34	mixed municipal waste	D5	M	Weighed	Offsite in Ireland	Bord na Mona Drehid landfill,W0201-01	Carbury,,,Co. Kildare,,,Ireland		
Within the Country	20 03 03	No	10600.08	street-cleaning residues	D5	M	Weighed	Offsite in Ireland	Bord na Mona Drehid landfill,W0201-01	Carbury,,,Co. Kildare,,,Ireland		
Within the Country	20 01 08	No	2972.36	biodegradable kitchen and canteen waste	R13	M	Weighed	Offsite in Ireland	Bord na Mona PLC- Kilberry Compost,WO198-01	Kilberry facility,,,,,Kildare,Ireland		
Within the Country	20 01 08	No	2678.85	biodegradable kitchen and canteen waste	R13	M	Weighed	Offsite in Ireland	Acorn Recycling (Ballybeg Composting Facility),WO249-01	Ballybeg,Littleton,,,Co Tipperary,Ireland		
Within the Country	20 02 01	No	75.96	biodegradable waste	R13	M	Weighed	Offsite in Ireland	PTWDL T/A Thorntons Recycling Woodchipping,WFP-KE-10-0061-01	PDM,Kill,Co. Kildare,,,Ireland		
Within the Country	**20 01 36**	**No**	0.98	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	R13	M	Weighed	Offsite in Ireland	Rehab Enterprices Ltd,WFP-DS-10-0008-01	Unit 77,Broomhill Road,Tallaght,Dublin 24,Ireland	Rehab Ltd,WFP-DS-10-0008-03,Unit 77,Broomhill Road,Tallaght,Dublin 24,Ireland	Unit 77,Broomhill Road,Tallaght,Dublin 24,Ireland
Within the Country	19 12 12	No	4488.06	discarded equipment containing hazardous components (16) other than those mentioned in 16 02 09 to 16 02 13	R5	M	Weighed	Offsite in Ireland	Various farmers,.	.,,,,,,,Ireland		
Within the Country	19 12 12	No	54.54	discarded equipment containing hazardous components (16) other than those mentioned in 16 02 09 to 16 02 14	R5	M	Weighed	Offsite in Ireland	Cleary Composting & Shredding,WFP-KE-10-0064-01	Larch Hill,,,,Kildare,Ireland		
Within the Country	19 12 12	No	71.82	discarded equipment containing hazardous components (16) other than those mentioned in 16 02 09 to 16 02 15	R5	M	Weighed	Offsite in Ireland	PTWDL T/A Thorntons Recycling Woodchipping,WFP-KE-10-0061-01	PDM,Kill,Co. Kildare,,,Ireland		
Within the Country	19 12 12	No	146.86	discarded equipment containing hazardous components (16) other than those mentioned in 16 02 09 to 16 02 16	R5	M	Weighed	Offsite in Ireland	Kiernan Sand and Gravel Ltd,WMP2007/22	Foxtown,Summerhill,Co. Meath,,,Ireland		
Within the Country	19 12 12	No	1524.24	discarded equipment containing hazardous components (16) other than those mentioned in 16 02 09 to 16 02 17	R5	M	Weighed	Offsite in Ireland	PTWDL T/A Thorntons Recycling Kilamainhamwood,W0195-01	Ballynalurgan,Nobber,Co. Meath,,,Ireland		
Within the Country	15 01 04	No	7.5	discarded equipment containing hazardous components (16) other than those mentioned in 16 02 09 to 16 02 18	R13	M	Weighed	Offsite in Ireland	Cummins/ National Recycling ,WFP-DS-10-0005-01	Station Road,Clondalkin,Dublin,22,Ireland		