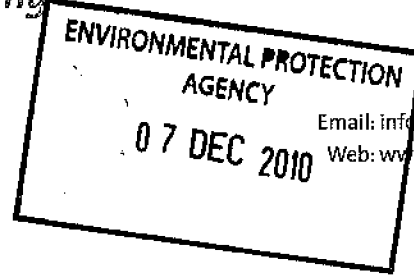


Unit S3B
Henry Road
Parkwest Business Park
Dublin 12

Tel: (01) 623 5133
Fax: (01) 623 5131

Email: info@thorntons-recycling.ie
Web: www.thorntons-recycling.ie



Mr Brian Meaney,
Environmental Licensing Programme,
EPA,
PO Box 3000,
Johnstown Castle Estate,
Co. Wexford

6th December 2010 Waste Licence W0044-02

**Re: Request for Technical Amendment – Further Information
Our Reference 44-2/10/EPA/DDMK/04**

Dear Mr. Meaney,

Following on from our request for a technical amendment dated the 30th July 2010, I would like to submit some additional information;

Thorntons Recycling currently operates a number of processes within the Killeen Road site for sorting and segregating waste and increasing recycling and recovery rates. The following is a summary of our current infrastructure and operations in each building on the site;

Current

Building 2 and 5 – Skip waste processing (dry non putrescible waste) and production of Solid Recovered Fuel (SRF) using a Linder Shredder

Building 3 – Baling and Bulking for landfill.

Previously processing of municipal waste was previously carried out in this building from 2003 to 2006 with full agreement of the EPA under the conditions of the existing licence W0044-02. Thorntons suspended this operation as it was no longer economically viable due to decline in landfill prices, increasing production costs and the unavailability of a suitable outlet. The infrastructure is still in place for this process in Building 3, this includes a shredder, 60 foot trommel, magnets and conveyor belts at a height across the back wall of building 3. This building has an odour control system and dust control system in the form of a carbon filtration system and a Regenerative Pulse Plant (RJP) in place.

Building 1 – Mixed Dry Recyclables Processing

Proposed Changes

Building 2 and 5 – It is proposed that the process of sorting/segregating skip waste will remain the same in building 2 and 5. The only change will be the relocation of the Linder shredder and the loading conveyors to Building 3 and the relocation of the enclosed loading compactor to Building 1.

Building 3 – The baler and associated loading conveyors will be removed (due to the closure of Arthurstown Landfill) and moving in its place the Linder Shredder, associated conveyors, a Nihot (air separation system and dust system) and magnets for the production of SRF. The existing infrastructure in Building 3 to process municipal waste

as mentioned above will be used once again and connected to the proposed process for SRF production (Loading will occur indoors, previously carried outside).

Building 1 - We are proposing to remove all the mixed dry recyclables processing, with the exception of the baler, from the site to a facility in Park West under a waste permit from Dublin City Council. This will lead to increased efficiencies due to a greater space and improved sorting technology to improve recycling into more streams such as mixed plastic bottles into PET and HDPE plastics etc.

It is proposed that this building will be used for storage and loading of SRF. Conveyors will be relocated within the building to consign material from the linder shredder (Building 3) into trailers for transport (Building 1). There will be an opening between the buildings to allow the conveyor to pass between the buildings or loading. There will be no environmental emissions from this proposed process as the conveyor will lead directly to an enclosed compactor into an enclosed trailer.

Environmental Emissions

There are no significant environmental emissions from the relocation of equipment and infrastructural changes on site. In the design of the plant environmental emissions such as dust and odour were considered in full and planned for accordingly. In fact we think that environmental emissions will be further reduced due to the following;

1. **Cladding/ Roofing** – Currently there is a large open area in front of the baler which was necessary for loading of white boxes of baled waste for Arthurstown landfill (Plate 1). This will be closed off with doors which will reduce the possibility of any leakage of odorous air from this building.
The main door on Building 1 which historically had not been closed due to traffic movements can now be closed during loading of SRF. The design of the conveyor for loading between the adjoining buildings of 3 and 1 will pass through a minimal space so as not to affect working of the dust filtration or odour abatement system. No further changes to cladding or roofing will take place as all other changes will take place internally within the building.
2. **Air curtain** – Thorntons Recycling currently have an air curtain in place over the opening of building 3. This effectively creates a wall of air from the top of the building to the ground which minimises the possibility of emissions of odorous airs. This will remain in place and will further reduce emissions. It is turned on continuously and maintenance service this weekly to ensure adequate air pressure.
3. **Odour Control System (Plate 2)** – This system was designed originally to include processing of municipal waste within the whole area of building 3. We are not increasing the air space of which the odour system has to extract air from in fact we will be closing a large open area in front of the baler as detailed in point 1 above which will further increase the efficiency of odour abatement system. The odour system is designed to extract 105,000m³/hour of air from the building and cleans this air through a dual carbon filtration system before it exhausts through a 3 metre high stack located on the roof of building 3. Odour assessments are carried out daily at the facility which includes monitoring pressure and eight sniff ports on the odour abatement system to ensure the system is working effectively. Weekly checks are also carried out on the pressure at various points on the odour

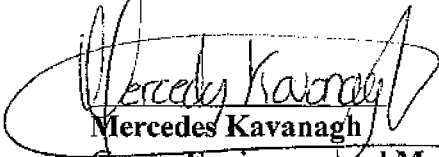
abatement system to ensure adequate air extraction from within the building. An independent consultant from Odour Monitoring Ireland assesses the system twice yearly and full detailed reports are forwarded to the EPA.

4. **Dust Filtration System (RJP)** - There is four dust emissions points at the facility and no incidents have been reported in relation to dust since we started producing Solid Recovered Fuel (SRF) in August of 2009. Thorntons Recycling have a Regenerative Pulse Plant system (RJP) which removes all dust from building 3 through the system (Plate 2) into eight sealed blue containers. The relocation of the Linder shredder from Building 5 to Building 3 will ensure that dust from the shredding process will be captured in this dust filtration system currently in place. As an additional precaution Thorntons Recycling will install a Nihot with a dust extraction system, this will also be connected to the Linder shredder which will ensure that no dust escapes from the process.
5. **Environmental Management System** – Thorntons Recycling has an integrated management system (IMS) which incorporates all aspects of environmental, health and safety and quality management system for the Killeen Road site. This has been approved for certification to international standards in ISO14001, OHSAS18001 and ISO9001. As part of this system Thorntons Recycling maintains an aspects register of all environmental risks relating to the site. This details existing and planned controls in place to prevent any environmental emissions from the site. Should an environmental risk assessment give a risk rating above what is detailed in the procedure then an environmental objective and target is created to implement measures to reduce the risk (Appendix 1 – Aspects Procedure). Thorntons Recycling will fully evaluate the proposed changes and ensure that the risk rating of this proposal is applied to the aspects register.
6. **Complaints** – Complaints have dramatically reduced to the facility by over 85% since 2004. Thorntons Recycling have improved operations and developed Best Available Techniques (BAT) for all plant and equipment on site to control emissions. Thorntons Recycling remains dedicated to ensuring that there are no significant environmental emissions beyond the site boundary.
7. **Environmental Personnel** – Thorntons Recycling employ a full time qualified environmental manager who is based at the Killeen Road facility, Mr David Duff tracks, and monitors and records all aspects of the waste licence and reports to the EPA. He carries out daily checks which include dust, litter, odour, drains etc and ensure corrective actions are carried out if required.
8. **Loading** – All loading of putrescible material from the processing of MMW will occur indoors, when this operation was carried out previously loading occurred into trailers in Josie's yard (Yard 2). This will further mitigate against any possible emissions.

We hope that the above additional information will enable the EPA to grant the technical amendment as requested on the 30th July 2010. We have enclosed a sketch which summaries current and proposed changes on site.

Should the EPA have any queries on the above please do not hesitate to contact the undersigned on 01-6235133.

Yours sincerely,


Mercedes Kavanagh
Group Environmental Manager

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

Plate 1 - Current Baler Loading area Building 3.
Proposed changes will include sealing this area

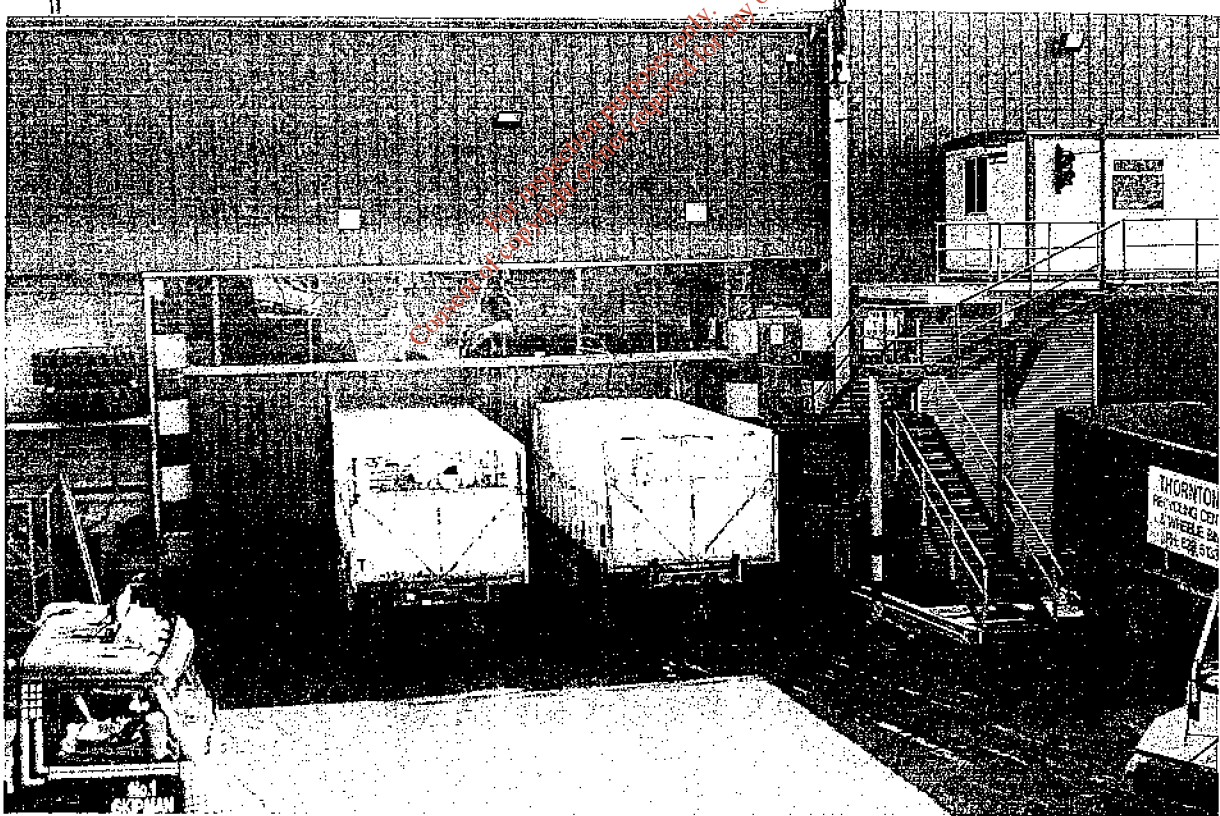
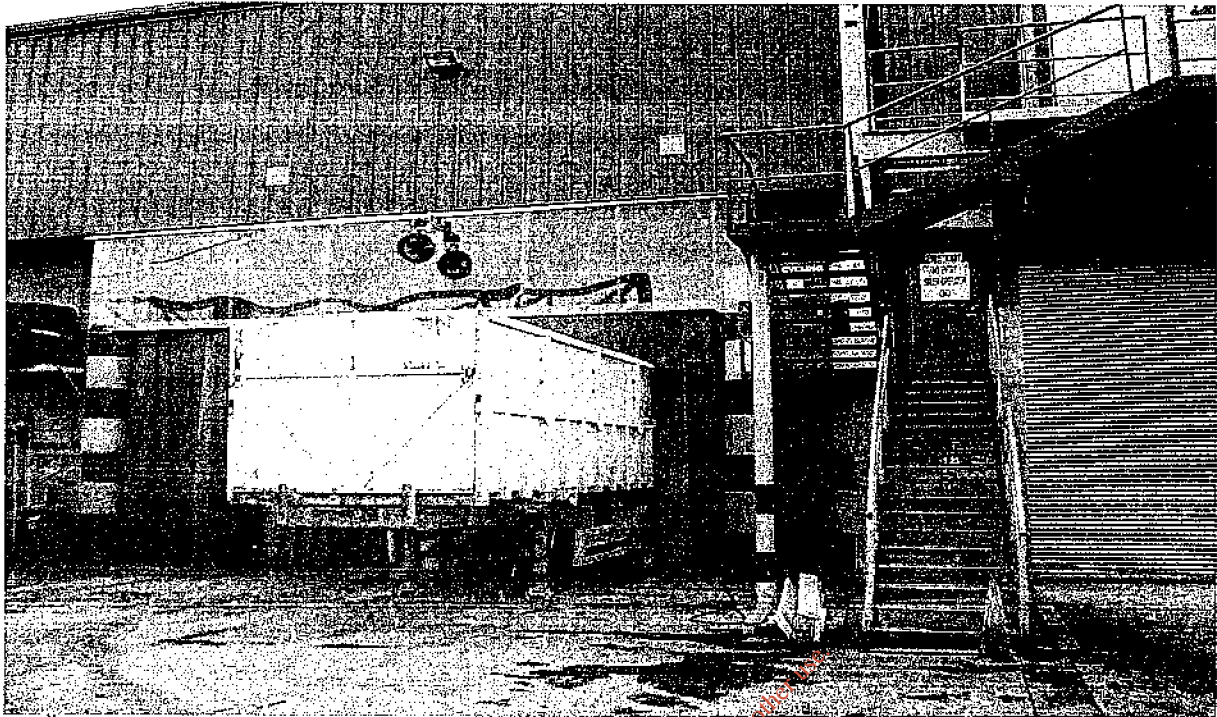
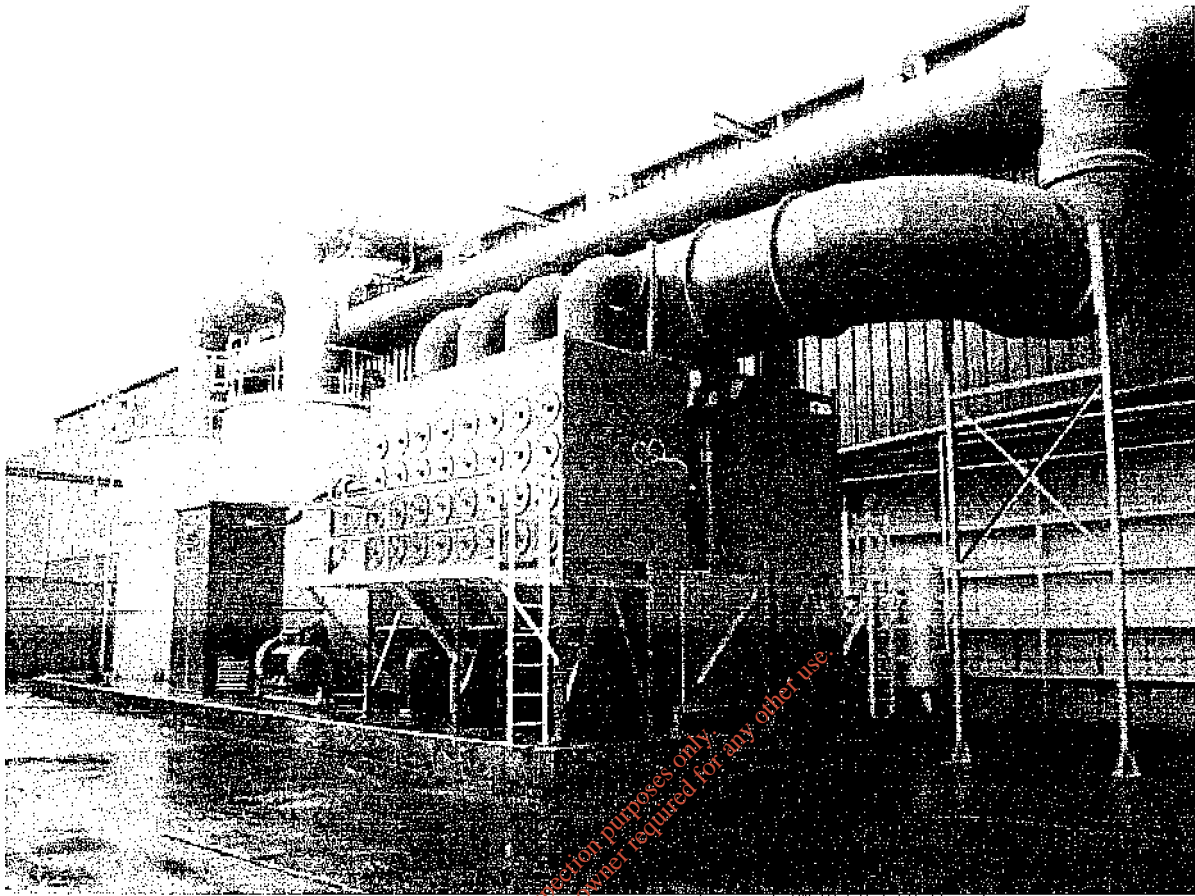


Plate 2 – Odour Abatement System and associated RJP Dust filtration system



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

Appendix 1

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

Procedures Manual		Reference	PM01
Title: Aspects Procedure		Date issued	20-04-09
		Revision	07

Relevant to:-	Killeen Road	Kilmainhamwood	Shredding	Dunboyne	PDM	ELV	HQ	Tankering
	√	√	√	√	√	√	√	√

Purpose and Scope

The purpose of this procedure is to identify environmental aspects relating to activities at TR. This procedure is used in the review of Quality Health and Safety and Environmental issues at the start of a new activity or site.

This process is used to identify, assess and control aspects of the sites activities products and services.

This procedure covers all activities of TR.

When to use this procedure

1. When there is a change in activities, stationary plant, products or services
2. When reviewing aspects as part of the internal audit process
3. Reviewing the risk assessments in the safety statement

Responsibility

1. Environment
It is the responsibility of the Environmental Manager for the facility to ensure that this procedure is reviewed. When a reference is made to the Environmental Manager it refers to the Environmental Manager responsible for that facility or service.
2. Health & Safety
It is the responsibility of the Health & Safety Manager to ensure that this procedure is reviewed.
3. Quality
It is the responsibility of the Quality representative to ensure that this procedure is reviewed.
4. New activities
All senior Managers and persons in charge of new projects must be aware of these procedures.

Associated Documents

PM01-F01, Aspects Pre Evaluation Form

PM01- F02, Aspects register

Environmental Legal Register

Health & Safety Legal Register

Procedures Manual		Reference	PM01
Title: Aspects Procedure		Date issued	20-04-09
		Revision	07

Relevant to:-	Killeen Road	Kilmainhamwood	Shredding	Dunboyne	PDM	ELV	HQ	Tankering
	√	√	√	√	√	√	√	√

Site specific environmental Waste License or Permit

Procedure

1. The Environmental Manager will carry out an assessment of the operations to determine if any aspects exist. This may include representatives from Environment, Health and Safety, Quality, or other functions as appropriate. The team examines all the inputs and the outputs of the process being reviewed or implemented.
2. The results of the team's findings may be recorded in the Aspects Register PM01-F02. For each of the aspects operating under the different conditions, there may be an associated impact.
3. All aspects will be assessed against the criteria defined below. The criteria are explained as comments in the headings of the Aspects Register Spreadsheet. The assessment criteria is as follows;

Scale

1. Impact doesn't extend beyond site boundary
2. Site vicinity, local community.
3. Regional
4. Very large geographical region

Severity

1. Negligible damage
2. Minor damage but clearly detectable impact
3. Substantial damage. Significant environmental degradation
4. Life threatening or catastrophic impacts

Frequency

1. Very unlikely, less than one case once every 10 years
2. Unlikely, less than once per year
3. Likely, more than once per year
4. Very likely to certain, more than once per year to on-going

Duration

1. Instantaneous, less than one hour
2. One day to several days
3. Several days to several weeks or months
4. Greater than one year, continuous or permanent

Legal Exposure

1. Negligible or limited impact on business operation. Little or no non-compliance penalties.
3. Minor penalty for violation. Little or no potential for plant shutdown or major operational disruptions. No criminal law applicability.

Procedures Manual		Reference	PM01
Title: Aspects Procedure		Date issued	20-04-09
		Revision	07

Relevant to:-	Killeen Road	Kilmainhamwood	Shredding	Dunboyne	PDM	ELV	HQ	Tankering
	√	√	√	√	√	√	√	√

5. Major regulatory fines. Potential for significant operational impact, production delays. Constraints or plant shutdown. Criminal law applicability.

Customer Benefit

1. Marginal or negative.
3. Acceptable. Application of available alternatives would be acceptable for customer.
5. Preferred or desirable. Customer would prefer available alternatives, given project impacts to product price and quality.

Public Opinion

1. Marginal. Application of available alternatives would not have a positive impact on public image.
3. Acceptable. Application of available alternatives would have a slight positive impact.
5. Preferred or desirable. Application of available alternatives would have a very positive impact.


4. If the risk rating is above 20 it is considered significant therefore must be included in the Management Programme Manual (MPM) or a procedure drawn up to control the aspect.
5. Any aspects that are not compliant with legal, policy or other similar requirements are considered significant.
6. A precautionary position is taken with any aspects for which there is a lack of information, and these are made significant.
7. The Environmental Manager is responsible for working with all team members to ensure that significant aspects identified by the team are considered in setting objectives and targets for the site.
8. The results of the most recent aspect / impact identification are reviewed as part of the Management Review process. Based on this review TR management determines the need to update the Aspects Manual. All current aspects as completed in the pre evaluation forms can be reviewed at: TR - Aspects for Sites. Each site to have a numbering system in place specific for the site and in numerical order.
9. Changes in processes, activities or operating procedures must be reviewed to determine whether they have an aspect associated with them.
10. Aspects that are no longer significant must be kept on record.

Procedures Manual		Reference	PM01
Title: Aspects Procedure		Date issued	20-04-09
		Revision	07

Relevant to:-	Killeen Road	Kilmainhamwood	Shredding	Dunboyne	PDM	ELV	HQ	Tankering
	√	√	√	√	√	√	√	√

11. The aspects identified on site will not be communicated to any third parties. The only person that will have access to the aspects will be the ISO 14001 certification body and the EPA if requested.

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

Procedures Manual		Reference PM01	
Title: Aspects Procedure		Date issued 20-04-09	
		Revision 07	
			

Relevant to:-	Killean Road	Kilmainhamwood	Shredding	Dunboyne	PDM	ELV	HQ	Tankering
	✓	✓	✓	✓	✓	✓	✓	✓

No.	Activity	Aspect	Normal conditions (N) Abnormal conditions (A) Emergency situation (E)	Layer of protection	Measuring and Monitoring	Impact	Impact evaluation
				Existing Planned		Air pollution Soil pollution Water pollution Noise Resources consumption	Scale (1,2,3,4) Severity (1,2,3,4) Frequency (1,2,3,4) Duration (1,2,3,4) Legal exposure (1,3,5) Customer benefit (1,3,5) Public image (1,3,5) Evaluation of total impact

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

Procedures Manual		Reference	PM01
Title: Aspects Procedure		Date issued	20-04-09
		Revision	07

Relevant to:-	Killeen Road	Kilmainhamwood	Shredding	Dunboyne	PDM	ELV	HQ	Tankering
	√	√	√	√	√	√	√	√

Quality

1. Quality issues such as resources infrastructure must be reviewed at the start of the project.

New activities

2. New activities need to be assessed for environmental aspects. The following form PM01-F01 should be completed by the person responsible for the new project or service. This form is used to determine at the start of a new process if additional requirements are needed.
3. The completed form needs to be reviewed by the following persons at the initial stages of the project;
 - General Manager
 - Project Manager
 - Manager Directly responsible for the proposed change of activity
 - Environmental Manager of the site
 - Health and Safety Manager
 - Quality Representative
4. A review of the site specific waste license or permit is required to determine if the activity needs to be communicated to the relevant Local Authority or the EPA.