

**Waste Licence Application for Dublin Regional
Materials Recovery Facility at Merrywell Industrial
Estate, Ballymount Road Lower, Dublin 22
(Attachments)**

September 2007

Submitted by:

**Dublin City Council
Civic Offices
Wood Quay
Dublin 8**

On behalf of:

Dublin City Council,
Fingal County Council,
South Dublin County Council, and
Dun-Laoghaire Rathdown County Council

DC0137

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Attachment A: Non-technical Summary

A.1 Introduction

This non-technical summary has been prepared in accordance with the requirements of Part III, Article 12 (1) (u) of the Waste Management (Licensing) Regulations 2004 and in support of a Waste Licence Application by Dublin City Council (on behalf of Dublin City Council, Fingal County Council, South Dublin County Council and Dun Laoghaire-Rathdown County Council) for the operation of a Materials Recovery Facility at Merrywell Industrial Estate, Lower Ballymount Road, Ballymount, Dublin 22.

Please Note:

The facility is currently licensed under Waste Licence W0208-01. The licence covers the facility site as well as an adjoining site. Dublin City Council is applying for a stand-alone licence for its site in order to operate independently.

This Waste Licence Application proposes a total capacity of processing 100,000 tonnes per annum of mixed dry recyclable materials (predominantly "green bin" materials collected from households in the four Dublin Local Authority areas as listed above). The existing Waste Licence W0208-01 will reduce its total capacity by 100,000 tonnes; therefore there will be no overall increase in total waste tonnage arising from the two sites as a result of this application.

A.2 Name, Address, Contact Details of Applicant

A.2.1 Name of Applicant

Dublin City Council, on behalf of Dublin City Council, Fingal County Council, South Dublin County Council and Dun Laoghaire-Rathdown County Council; hereinafter the applicant is referred to as "Dublin City Council".

A.2.2 Address

Environment & Engineering Department
Block 1, Floor 4
Civic Offices
Wood Quay
Dublin 8

A.2.3 Telephone/Fax

Tel: 01 2222022
Fax: 01 2222748

A.2.4 Address for correspondence

As per Section A.2.2 above

A.3 Planning Authority

The proposed activity will be carried on in the functional area of South Dublin County Council planning authority.

A.4 Trade Effluent Discharge

There will be no trade effluent discharge.

Wastewater generated at the site (from toilet facilities only) will be directed to the South Dublin County Council (sanitary authority) foul sewer network, and treated at the Ringsend wastewater treatment facility.

Surface water runoff from the site will be directed through a silt trap and oil interceptor prior to discharge.

A.5 Location of Proposed Facility**A.5.1 Postal Address**

Merrywell Industrial Estate
Ballymount Road Lower
Dublin 22

A.5.2 Grid Reference

National Grid Reference E309656 N230688

A.6 The Nature of the Facility

This Waste Licence Application proposes a total capacity of processing 100,000 tonnes per annum of mixed dry recyclable materials (predominantly "green bin" materials collected from households in the four Dublin Local Authority areas as listed above). The existing Waste Licence W0208-01 will reduce its total capacity by 100,000 tonnes; therefore there will be no overall increase in total waste tonnage arising from the two sites as a result of this application.

The MRF processing will rely on highly sophisticated proven plant and screening systems supplemented with optical sorting and manual quality control to separate the target recyclables. This application is in accordance with an appropriate planning consent Ref: SD06A/0553.

A.7 Classes of Activity

The classes of activity concerned are specified as per the Third and Fourth Schedules of the Waste Management Acts 1996 to 2007, as follows:

Third Schedule:

Class 12: Repackaging prior to submission to any activity referred to in a preceding paragraph of this 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 is produced

Fourth Schedule:

Class 2: Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological processes)
[Principal Activity]

Class 3: Recycling or reclamation of metals and metal compounds

Class 4: Recycling or reclamation of other inorganic material

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

A.8 Quantity and Nature of waste recovered

This Waste Licence Application proposes a total capacity of processing 100,000 tonnes per annum of mixed dry recyclable materials.

Input Materials

The Ballymount MRF will accept dry recyclable material that has been collected in a single co-mingled waste stream from kerbside collections separated at source. The input materials will be non-hazardous dry recyclable wastes including:

- Newspapers
- Mixed cardboard
- Magazines and Pamphlets (printed Material)
- Mixed Paper
- Cardboard
- Mixed Plastic Bottles
- Plastic Film
- Film
- Steel cans
- Aluminium cans
- Tetra-Pak and Beverage cartons

The EWC codes for the incoming materials will relate to Chapter 20, *Municipal wastes (household waste and similar commercial, Industrial and institutional wastes) including separately collected fractions and 15 01 packaging (including separately collected municipal packaging waste)*, including (but not exclusive to) the following:

15 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED

15 01 packaging (including separately collected municipal packaging waste)

- 15 01 01 paper and cardboard packaging
- 15 01 02 plastic packaging
- 15 01 04 metallic packaging
- 15 01 05 composite packaging
- 15 01 06 mixed packaging

20 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS

20 01 separately collected fractions (except 15 01)

- 20 01 01 paper and cardboard
- 20 01 39 plastics
- 20 01 40 metals

It is proposed that other compatible dry recyclables may be acceptable at the facility, as required, subject to prior written agreement with the Agency.

A.9 Energy usage, fuel, raw material and other material usage

Energy will be used in the form of:

- Electricity for power supply to the main MRF building, office building and weighbridge office.
- Diesel for site machinery, including use for recovery equipment, front-end loaders (although it is not proposed to store fuel on site, except for fuel for the backup pump for the fire sprinkler system as detailed in Section D.1.g).

Modern, state of the art recovery equipment will be installed, with suitable energy efficiency ratings. A record of energy used at the facility will be retained and submitted to the Agency as part of the Annual Environmental Report.

The input to the MRF facility will be mixed dry recyclables. The process aims to maximise the segregation and recovery of the individual recyclable streams. Segregated recyclables will be dispatched off-site for recycling/reprocessing options.

Minimal amounts of lubricant oils and maintenance material will be required on site, and will be stored in a dedicated area in the workshop. No fuels, chemicals, additives, or similar substances will be stored at the facility (except for fuel for the back-up pump for the fire sprinkler system as detailed in Section D.1.g).

No insecticides/pesticides or other harmful substances will be stored on site.

A.10 Plant, Processes and Operating Procedures

A.10.1 Plant & Processes

The Ballymount MRF processing will rely on highly sophisticated proven plant and screening systems supplemented with optical sorting and manual quality control to separate the target recyclables.

Fibre separation is accomplished with a combination of large scale mechanical screens (OCC, NEWScreen, CP container /Paper screens) and optical sorting (MultiWave and FibreSort units) - a powerful detection system using colour detection, near infra-red (NIR) detection, lignin sensing (paper products) and gloss detection into one central processor to classify a variety of material types (brown cardboard, carrier-board packaging, white office paper, waste such as textiles, foils, leather & wood, plastics by resin type) according to their unique signatures.

3 specialised optical Infrared sorting systems (Aladdin units) are used for container separation of PET, Mixed Plastics, PVC, HDPE and Tetra.

The aluminium will be sorted using a double eddy current separator and the ferrous extraction will be carried out using a standard magnetic system.

The MRF will consist of other standard plant and equipment such as conveyor systems, a bag opener, feed pits, multiple baling systems, walking floors, storage silos, docking systems, residual waste compactors and sorting cabins.

Manual sorting at the 'pre-sort' stage, (before the mechanical and other related sorting systems process the co-mingled material) and at the final 'quality control' stages will play a crucial role to ensure high quality material output specification to meet global commodity market requirements.

Mobile plant such as front-end loaders and forklift vehicles will also be used on a day-to-day basis to handle the dry recyclables input and plant outputs for intermediate storage and loading for haulage.

A.10.2 Abatement Systems

Dust Control System

Air quality control (dust and odour control) will be implemented in 3 separate environments:

- A. Within cabin areas (where most of the MRF staff work)
- B. In the in-feed pit area
- C. In high material transition areas (Major Screens)

A central vacuum system will be used to control and manage the dust levels within the facility. There will also be two other systems used in conjunction with the central vacuum system, these are:

- Water atomiser (used in the feed pit areas to minimise the amount of dust becoming air borne)
- Air conditioning (used in the cabins to restrict air borne dust from areas where MRF operatives will be working).

The dust removed by the central vacuum system within the facility will be transported via the air ducting system to a central filtration and collection system.

The system has a control panel that continually collects and collates data so that optimum filtration is achieved. All aspects of the filtration system can be controlled from this panel.

Silt Trap and Petrol/fuel Interceptor

A Klargest type NSBD030 silt trap and petrol interceptor is proposed; the system will comply with relevant Agency/I.S. standards.

A.10.3 Operating Procedures

Measures will be introduced to ensure that waste acceptance is restricted to those recyclables for which the facility was designed, and which are acceptable by the licence.

Upon entry into the facility:

- All loads will be weighed
- A description of the waste will be checked to confirm it complies with the licence
- A record will be made of the waste type, quantity and source

All waste delivery vehicles arriving at the facility will be obliged to enter onto the weighbridge at the entrance gate where they will be weighed and the accompanying documentation checked by the weighbridge operator. Full details, as per Agency requirements, will be recorded on the weighbridge software. The vehicle will then drive from the weighbridge to the MRF building where the waste will be off loaded and inspected. Wastes will only be discharged inside the building.

The Ballymount MRF processing relies on highly sophisticated proven screening systems supplemented with optical sorting and manual quality control to separate the target recyclables.

A.11 Information Required under the Waste Management Acts, 1996 to 2007

Section 40(4) of the Waste Management Acts 1996 to 2007 states that the Agency shall not grant a waste licence unless it is satisfied that the following points have been complied with:

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

The facility will be managed and operated to minimise environmental impact. Environmental monitoring is proposed for dust, noise and surface water to ensure that relevant emission limit values are not exceeded.

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

The facility shall be managed and operated in strict compliance with the terms of the EPA Waste Licence, and to ensure that it does not cause environmental pollution.

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

Not applicable

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

The Applicant has included proposals for significant capital investment to eliminate or control emissions, e.g. surface water management system, concrete hardstanding, dust management system, in line with EPA BAT (Best Available Technology) Notes for Transfer Facilities.

(cc) the activity concerned is consistent with the objectives of the relevant waste management plan and will not prejudice measures taken or to be taken by the relevant local authority or authorities for the purpose of the implementation of any such plan

The Waste Management Plan for the Dublin Region (2005-2010) makes the following references to the MRF at Ballymount:

Chapter 18.6 Materials Recovery Capacity/Waste Transfer:

"Dublin City Council is developing a MRF for household waste at Ballymount, Dublin 12 on behalf of the region. This facility will have capacity to sort and treat municipal household waste with a capacity of approximately 100,000 tonnes per annum."

The following extracts from the Dublin Waste Management Plan refer to the need for waste management infrastructure, and in particular the provision of Material Recovery facilities:

Section 11.2.2 Materials Recovery Facilities

"These facilities are required to accept, sort and bale recyclable materials for transfer to reprocessing markets. There has been rapid growth in the number of MRFs in the Region, handling mainly commercial waste but also some household recyclables. Throughput of commercial/industrial recyclables in MRFs was in the Region of 230,000 tonnes in 2003. Since further growth in recycling is required under the plan, it is envisaged that further expansion of MRF capacity will be required. Typically MRFs and transfer stations are located in industrial areas."

<p>Section 11.6. Recycling/Recovery infrastructure deficiencies</p>	<p><i>"Materials recovery Facilities: a reasonable level of capacity is available but further increase in recycling will require more MRF capacity."</i></p>
<p>Section 18.4. Household waste collection and recycling</p>	<p><i>"To continue to extend the green bin recycling service, increasing the quantity of material collected for recycling. This will be achieved through ongoing public information and motivation, increasing the capacity in the system, and continuing to extend collection to multi-unit dwellings. It is proposed to include new materials such as plastic bottles in the door to door collection."</i></p>
<p>Section 18.6 Materials Recovery Capacity/Waste transfer</p>	<p><i>"Further increases in capacity to accept, sort and process recyclable waste is required in the Region"</i></p>
<p>Section 18.14 Reprocessing and Recycling Capacity</p>	<p><i>"The Dublin Local Authorities recognise the deficit in capacity to reprocess and recycle waste in Ireland, and will support the development of national scale recycling facilities in the Dublin Region"</i></p>

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

Not applicable

(e) the applicant has complied with any requirements under section 53.

Financial commitments or liabilities will be addressed by the Applicant.

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

The major energy requirements for the Ballymount MRF are in terms of equipment operation. Energy will be monitored and reported to the Agency on an annual basis.

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

Regular noise monitoring will be conducted to ensure that noise emission limits are complied with.

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

Appropriate accident and environmental accident prevention procedures will be put in place.

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

Appropriate closure and aftercare plans will be agreed with the Agency.

A.12 Emissions

A central vacuum system will be used to control and manage the dust levels within the facility. The dust removed by the central vacuum system within the facility will be transported via the air ducting system to a central filtration and collection system.

Surface water runoff from the site will be directed through a silt trap and oil interceptor prior to discharge.

Lavatory and washing facilities from the Office/Administration building and the Weighbridge building are the only emissions to sewer. There are a total of 23 toilets on the site.

There will be no direct emissions to groundwater from the site.

Potential noise emissions are associated with plant and vehicle movements.

A.13 Effects of Emissions

Air

It is not anticipated that dust will be a significant issue at the facility. There will be no open storage of waste. The facility access roads, vehicle maneuvering and parking areas will be paved. A dust management system will be installed.

Surface water

There are no anticipated significant impacts on surface waters.

Sewer

There are no anticipated significant impacts on the foul sewer.

Groundwater and soils

There are no anticipated significant impacts on soils or groundwater.

Noise

Noise will be controlled and monitored.

A.14 Monitoring Proposals

Air Monitoring

Proposed dust monitoring locations are shown on **Drawing 13: Proposed Monitoring Locations**.

Proposed Dust Monitoring Locations

Monitoring Location Ref.	Type	Grid Ref.		Proposed Frequency of Monitoring
		Easting	Northing	
D1	Ambient monitoring	309691E	230642N	Biannually (Between May and September)
D2	Ambient monitoring	309485E	230488N	Biannually (Between May and September)
A2-1	Emission point from Dust Extraction System	309516E	230528N	Annual

Odour

It is not anticipated that there will be a significant impact as a result of fugitive odour emissions. It is proposed that odour be checked around the site as part of the Daily or Weekly Site Inspection. No specific monitoring locations are therefore proposed.

Surface Water

The proposed surface water monitoring location is shown on **Drawing 13: Proposed Monitoring Locations**. The monitoring point will be located after the proposed silt trap and oil interceptor.

Proposed Surface Water Monitoring Locations

Monitoring Location Ref.	Type	Grid Ref.		Proposed Frequency of Monitoring
		Easting	Northing	
SW1	Surface water emission point	309649E	230687N	Bi-annual

Sewer Discharge

There is no effluent discharge to sewer (except for toilets), therefore no monitoring is proposed.

Groundwater

There are no direct emissions to groundwater, therefore no groundwater monitoring is proposed.

Noise

Proposed noise monitoring locations are shown on **Drawing 13: Proposed Monitoring Locations**.

Proposed Noise Monitoring Locations

Monitoring Location Ref.	Type	Grid Ref.		Proposed Frequency of Monitoring
		Easting	Northing	
N1	Ambient Monitoring	309445E	230551N	Annually
N2	Ambient Monitoring	309538E	230641N	Annually
N3	Ambient Monitoring	309623E	230691N	Annually

Meteorological Data

It is proposed that a daily record of representative meteorological data will be obtained from Met Eireann at Dublin Airport.

Leachate

Not applicable.

Landfill Gas

Not applicable.

A.15 Waste Arising from the Activity

There will be no waste arisings associated with contaminated soil applications.

Segregated recyclables and residual waste will be transported off site by permitted hauliers, to permitted/licensed facilities or recovery/reprocessing facilities. All parties involved will be agreed in advance with the Agency. There will be small volumes of municipal-type waste generated by the office/kitchen environment, which will also be recycled/disposed of by a permitted haulier, to a licensed facility.

A.16 Waste Treatment Off-site

Segregated recyclables and residual waste will be transported off site by permitted hauliers, to permitted/licensed facilities or recovery/reprocessing facilities. All parties involved will be agreed in advance with the Agency. There will be small volumes of municipal-type waste generated by the office/kitchen environment, which will also be recycled/disposed of by a permitted haulier, to a licensed facility.

A.17 Contingency Plans

Detailed Emergency Response Procedures shall be drafted by Dublin City Council and agreed with the Agency prior to the commencement of waste operations at the site.

Within the MRF building, appropriate fire detection and control systems will be installed, in accordance with the Fire Certificates granted by South Dublin County Council for the facility.

In the event of a significant spillage, the surface water drainage system shall be isolated by closing the shut-off valve.

A.18 Restoration and Aftercare

It is not envisaged that the activities at the Ballymount Materials Recovery Facility will have an adverse affect on the site, which will result in detailed aftercare management of the site being required.

Post-closure environmental monitoring at the site will be agreed with the Environmental Protection Agency (EPA), if necessary, after appropriate closure procedures have been put in place.

A.19 Control of Major Accident Hazards

The European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2000 does not apply to the proposed development.

A.20 Emission of List I/II Substances

Not applicable.

List of Drawings

The following drawings are contained as an appendix to the non-technical summary and are referenced throughout the Waste Licence Application:

- > Map 1: Location Map
- > Drawing 1: Ownership Plan
- > Drawing 2: Site Plan
- > Drawing 3: Site Notice Drawing
- > Drawing 4: Services Plan showing 250m from Proposed Site Boundary
- > Drawing 5: Services Plan including Surface Water Collection system
- > Drawing 6: Surface Water Collection system showing Petrol Interceptor Detail
- > Drawing 7: Vehicle Movements
- > Drawing 8: System Layout – Plan View
- > Drawing 9: Unit Operations
- > Drawing 10: Estimated Approximate Throughput Diagram
- > Drawing 11: Emission Points
- > Drawing 12: Proposed Dust Extraction System
- > Drawing 13: Proposed Monitoring Locations

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Attachment B: General

Please Note:

The facility is currently licensed under Waste Licence W0208-01. The licence covers the facility site as well as an adjoining site. Dublin City Council is applying for a stand-alone licence for its site in order to operate independently.

This Waste Licence Application proposes a total capacity of processing 100,000 tonnes per annum of mixed dry recyclable materials (predominantly "green bin" materials collected from households in the four Dublin Local Authority areas as listed above). The existing Waste Licence W0208-01 will reduce its total capacity by 100,000 tonnes; therefore there will be no overall increase in total waste tonnage arising from the two sites as a result of this application.

B.1 Applicant's Details

This project is on behalf of the four Dublin Local Authorities – Dublin City Council, Fingal County Council, Dún Laoghaire-Rathdown County Council, and South Dublin County Council. Dublin City Council is the lead Local Authority.

Throughout the application documentation, Dublin City Council, on behalf of Dublin City Council, Fingal County Council, Dún Laoghaire-Rathdown County Council, and South Dublin County Council" is hereinafter referred to as "Dublin City Council".

B.1.1 Ownership Drawing

An ownership drawing for the site is attached (**Drawing 1**). The boundary showing Dublin City Council's ownership is shown in blue ink.

> **Drawing 1: Ownership Plan**

B.2 Location of Activity

B.2.1 Site Plan

A site plan is attached (**Drawing 2: Site Plan**). The proposed Waste Licence boundary is shown in red ink. The grid reference point (E309656, N230688) is marked on this drawing.

> **Drawing 2: Site Plan**

A drawing showing the location of the site notice is attached.

> **Drawing 3: Site Notice Drawing**

B.2.2 Location Map

An Ordnance Discovery Series map is attached (Map 1: OS Map).

> **Map 1: Location Map**

B.2.3 Services Plan

Services plan drawings are attached (Drawing 4: Services Plan).

> **Drawing 4: Services Plan showing 250m from Proposed Site Boundary**

> **Drawing 5: Services Plan including Surface Water Collection system**

> **Drawing 6: Surface Water Collection system showing Petrol Interceptor Detail**

B.3 Planning Authority**B.3.1 Planning Permission**

Planning permission for this development was granted by South Dublin County Council on 24th August 2006; Planning Register Ref SD06A/0553. An EIS was not required.

A copy of the Planning Permission document is attached in **Appendix 1**.

> **Appendix 1: Planning Permission Decision**

B.3.2 Existing Licensing/Permitting

The proposed Waste Licence Application site is currently within the boundary of EPA Waste Licence W0208-01 (licensee is Oxigen Environmental); a copy is attached in **Appendix 2**.

> **Appendix 2: EPA Waste Licence W0208-01**

The licensee for W0208-01 shall seek a Technical Amendment to its licence to exclude the portion of the site under Dublin City Council ownership, i.e. the area which is subject to this Waste Licence application. This is confirmed in the correspondence attached in **Appendix 3**.

> **Appendix 3: Correspondence from W0208-01 licensee**

B.4 Sanitary Authority

Wastewater generated at the site (from toilet facilities only) will be directed to the South Dublin County Council (sanitary authority) foul sewer network, and treated at the Ringsend wastewater treatment facility.

B.5 Other Authorities

Not applicable

B.6 Notices and Advertisements

A copy of the text of the site notice is attached.

> **Appendix 4: Site Notice**

A drawing showing the location of the site notice on site is attached as **Drawing 3**.

A copy of the whole page of the newspaper containing the advertisement is attached.

> **Appendix 5: Newspaper Advertisement**

The complete newspaper containing the advertisement is included with the original application.

B.7 Type of Waste Activity

The proposed activities as per the Third and Fourth Schedule of the Waste Management Acts 1996 to 2007 are as follows:

Third Schedule (Waste Disposal Activities)

Class 12: Repackaging prior to submission to any activity referred to in a preceding paragraph of this 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 is produced

Fourth Schedule (Waste Recovery Activities)

Class 2: Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological processes).
[Principal Activity]

Class 3: Recycling or reclamation of metals and metal compounds

Class 4: Recycling or reclamation of other inorganic material

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.

Rationale for Waste Disposal and Recovery Activities

Class of Activity	Rationale	Estimated Approximate Quantity (tonnes per annum)
Third Schedule (Waste Disposal Activities)		
Class 12: Repackaging prior to submission to any activity referred to in a preceding paragraph this Schedule	<ul style="list-style-type: none"> ▫ Bulking and transfer of waste off-site 	8,200
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 is produced	<ul style="list-style-type: none"> ▫ The storage of waste prior to bulking and transfer off-site 	(8,200)*
Fourth Schedule (Waste Recovery Activities)		
Class 2: Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological processes). [Principal Activity]	<ul style="list-style-type: none"> ▫ The recovery of dry recyclables 	81,000
Class 3: Recycling or Reclamation of metals and metal compounds	<ul style="list-style-type: none"> ▫ The segregation of steel and metals prior to recovery off-site 	5,000
Class 4: Recycling or reclamation of other inorganic material	<ul style="list-style-type: none"> ▫ The segregation of plastics prior to recovery off-site 	5,800
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.	<ul style="list-style-type: none"> ▫ The storage of waste prior to recovery on or off-site 	(91,800)*
TOTAL		100,000

*All materials handled for onward recycling or disposal shall be temporarily stored on site.

B.8 Seveso II regulations

Not applicable

Attachment C: Management of the Facility

C.1 Technical Competence and Site Management

The operational management structure of the facility will be put in place following procurement of the collection, processing and marketing service provider contract. Dublin City Council will ensure that the management and operational team are competent in terms of experience and qualifications. Full details will be submitted to the Agency prior to the commencement of operations.

C.2 Environmental Management System (EMS)

No Environmental Management System (EMS) has been developed for the facility. An EMS will be developed in line with EPA requirements, with relevant procedures, etc. documented and implemented upon granting of a Licence.

C.3 Hours of Operation

C.3 (a) Proposed hours of operation

The facility will operate on a 24-hour basis, 7 days per week, Monday to Sunday.

C.3 (b) Proposed hours of waste acceptance/handling

The facility will accept waste on a 24-hour basis 7 days per week, Monday to Sunday.

C.3 (c) Proposed hours of any construction and development works at the facility and timeframes:

The proposed hours of construction and development are 6am to 9pm.

C.3 (d) Any other relevant hours of operation expected

Not applicable

C.4 Conditioning Plan

Not applicable

Attachment D: Infrastructure & Operation

D.1 Infrastructure

D.1.a Site Security arrangements including gates and fencing

The Weighbridge Office will be located at the entrance of the facility and will also act as the gate/security office for the site.

The boundaries of the site are secured by wire mesh type fencing.

Other security measures to be implemented include:

- There will be two separate points of access/egress to and from the site, allowing employee/visitor vehicles to access the car park via a separate entrance point from that of the HGV and waste collection vehicles.
- Lockable security gates will be put in place at all the access/egress points.
- Closed Circuit Television (CCTV) will be installed for security management.
- Strategically located security lighting will be positioned around the facility.
- The facility will be manned 24-hours per day.

D.1.b Designs for Site Roads

There will be no requirement for new access roads, as the site is located in an existing industrial estate, where there is a well developed road network. The existing site's internal roads are concreted. Any damage caused by construction and development works will be made good. The site roads and proposed traffic flow is shown on **Drawing 7: Vehicle Movements**.

> **Drawing 7: Vehicle Movements**

D.1.c Design of Hardstanding Areas

The majority of the site is currently overlain with concrete. All new hardstanding areas will be constructed of reinforced concrete, with appropriate surface water drainage and collection systems, as detailed in Section D.1.k.

D.1.d Plant

The Ballymount MRF processing will rely on highly sophisticated proven plant and screening systems supplemented with optical sorting and manual quality control to separate the target recyclables.

Fibre separation is accomplished with a combination of large scale mechanical screens (OCC, NEWScreen, CP container /Paper screens) and optical sorting (MultiWave and FibreSort units) - a powerful detection system using colour detection, near infra-red (NIR) detection, lignin sensing (paper products) and gloss detection into one central processor to classify a variety of material types (brown cardboard, carrier-board packaging, white office paper, waste such as textiles, foils, leather & wood, plastics by resin type) according to their unique signatures.

3 specialised optical Infrared sorting systems (Aladdin units) are used for container separation of PET, Mixed Plastics, PVC, HDPE and Tetra.

The aluminium will be sorted using a double eddy current separator and the ferrous extraction will be carried out using a standard magnetic system.

The MRF will consist of other standard plant and equipment such as conveyor systems, a bag opener, feed pits, multiple baling systems, walking floors, storage silos, docking systems, residual waste compactors and sorting cabins.

Manual sorting at the 'pre-sort' stage, (before the mechanical and other related sorting systems process the co-mingled material) and at the final 'quality control' stages will play a crucial role to ensure high quality material output specification to meet global commodity market requirements.

Mobile plant such as front-end loaders and forklift vehicles will also be used on a day-to-day basis to handle the dry recyclables input and plant outputs for intermediate storage and loading for haulage.

A system layout drawing for the MRF building is attached as **Drawing 8**.

> **Drawing 8: System Layout – Plan View**

D.1.e Wheelwash

There is no wheelwash proposed for the facility.

D.1.f Laboratory Facilities

There are no laboratory facilities proposed for the facility.

D.1.g Design and location of fuel storage areas

A small self-contained diesel fuel tank will be provided on the back-up pump for the fire sprinkler system. This will be located in the workshop/plant room building. The fuel tank will have a capacity of 114 litres. It will be banded in line with EPA requirements.

D.1.h Waste Quarantine Areas

Any delivered material that does not have the appropriate documentation or which is deemed not suitable will not be accepted at the facility, and shall be recorded at the weighbridge as a "rejected load". A designated Quarantine area will be located inside the facility for material which, upon tipping, is found to be unsuitable. This designated area may be assigned a skip or suitable container system to prevent

any escape of waste and/or liquid and will also provide easy access and removal of unsuitable wastes.

D.1.i Waste Inspection Areas

The facility has a dedicated Inspection Area (See **Drawing 2: Site Plan**) to facilitate tipping and inspection of incoming loads. All waste loads arriving to the site will be tipped inside the main facility building and inspected prior to processing. If staff members (Front End Loader driver) are satisfied that the load is suitable, the material will be processed as required. Any loads considered to be potentially unsuitable will be removed to the quarantine area for further inspection, as detailed in D.1.h.

D.1.j Traffic Control

There will be two new entrances to the site, one for staff and visitors and one for Rear End Loaders (RELs), articulated vehicles and waste compactor vehicles, which can be accessed via the Turnpike Road or Ballymount Road Lower. The whole area will have speed restrictions and warning notices. The traffic will be separated by means of road markings and plastic bollards to ensure vehicles stay within their designated movement streams. Access to the rear of the buildings is for maintenance and fire fighting purposes only.

Transportation of baled and sorted material from the Materials Recovery Facility if required can also be accommodated in the time period outside the main expected Refuse Collection Vehicle (RCV) delivery period of incoming recyclables.

Vehicle movements have been considered in the layout and design of the Materials Recovery Facility, such as the on-site queuing areas, and acceptable vehicle access and turning circles. See **Drawing 7: Vehicle Movements**.

D.1.k Sewerage and surface water drainage infrastructure

Sewer Details

A new foul sewer connection from the facility is proposed (see **Drawing 5**). Outfall is to the adjacent Industrial Estate road. The sewer discharges to the Dublin trunk sewer system and outfalls into the Ringsend Treatment works.

Surface Water Drainage

It is proposed to place a silt trap and an interceptor followed by a sampling chamber before the point of discharge to surface water. The sampling chamber will be used to collect a sample of discharge to monitor for quality of the discharge according to values specified by the Agency. The silt trap will prevent significant amounts of silt from being carried into the drainage system. See **Drawing 5** for the proposed surface water drainage system and **Drawing 6** for the Petrol Interceptor details.

D.1.l All other services

Service infrastructure will include the following:

Electricity supply

The power to operate the site will be provided by a local sub-station which will be located on the site. The ESB have been contacted in relation to the site energy requirements. The ESB have confirmed that the substation will have sufficient capacity to meet the future requirements of the facility.

Telecommunications infrastructure

Telecommunications infrastructure will be supplied to the main administration/ office building and the weighbridge office.

Water Services

A new water mains connection will be provided to the site (as per **Drawing 5**).

D.1.m Plant sheds and garages

It is proposed to construct the following on site:

- ESB substation
- Workshop (adjacent to MRF building)

See **Drawing 2: Site Plan**

D.1.n Site Accommodation**MRF Building**

The main MRF building will house all waste processing operations on site including delivery, material segregation, baling and storage. This building will be the main operational building of the proposed development. The MRF building has been extended at both ends to accommodate input and output storage requirements; this provides a direct flow of material through the facility with the vehicle movements following a site one-way system. Within the loose input material storage areas, push walls have been located to protect the fabric of the building whilst the doors have been located to allow both for material reception/discharge and loading, but also for maintenance access. The entire structure has been re-clad with noise reducing material. The gross total floor space of the proposed development (i.e. new and retained buildings, including administration and weighbridge buildings) is 13,624 sq. metres.

Within the MRF building, appropriate fire detection and control systems will be installed, in accordance with the Fire Certificates granted by South Dublin County Council for the facility.

Office/Administration Building

An office/administration building will be built on site. The office block design includes:

1. A meeting room for a minimum of 25 people. Large flat screen TVs for use in presentations and plant processing observations will be installed, with the ability to view the CCTV cameras if required.
2. An open-plan office area for a minimum of four people and two enclosed offices will be included. These areas include provisions for office furniture and other appropriate equipment.
3. A small meeting room for a minimum of 6 people which will include tables and chairs.
4. A reception desk and reception/waiting area.
5. Kitchen and mess facilities.
6. Employee changing rooms including lockers and changing cubicles.

7. Employee wash rooms including showers, washing facilities and toilets.

Additional facilities included in the office block will include:

1. Storage/cleaners cupboards
2. Lift to the first floor
3. Clothes washing facilities within the kitchen
4. Employee mess area within the kitchen area
5. Display area in entrance hall area.

Within the office block, appropriate fire detection and control systems will be installed, in accordance with the Fire Certificates granted by South Dublin County Council for the facility.

Weighbridge Office

A Weighbridge Office will also be constructed on site, to include an appropriate weighbridge and software system. All waste delivery vehicles arriving at the facility will be required to enter onto the weighbridge where they will be weighed and the accompanying documentation checked by the weighbridge operator.

Within the Weighbridge Office, appropriate fire detection and control systems will be installed, in accordance with the Fire Certificates granted by South Dublin County Council for the facility.

CCTV will be installed at the weighbridge.

D.1.o Fire Control System, including water supply

The buildings will be designed in accordance with Part B of the Building Regulations. Two Fire Certificate applications (Ref FSD/063/07 – main MRF building and FSD/051/07 – administration building) have been submitted and approved prior to construction.

A proposed external fire bay is indicated on **Drawing 2: Site Plan**.

Detection and alarm systems will be in compliance with the Building Regulations and will be incorporated as part of the Fire Certificate. Monitoring controls will be part of the overall fire control and detection system.

Proposed fire hydrants are shown on **Drawing 5: Services Plan, including Surface Water Collection System**. A new proposed connection from the water mains will provide water for fire-fighting purposes.

Fire Detection and Alarm System General

The fire detection and alarm system will be designed, installed and commissioned in accordance with the guidance set out in I.S. 3218: 1989 "Code of Practice for Fire Detection and Alarm Systems for Buildings".

Fire Detection and Alarm System Zones

The fire detection and alarm system will be broken down into a number of zones using the following parameters;

- No zone will have a floor area greater than 2000 sq.m.

- The search distance within a zone will not exceed 30m.
- Zones will be restricted to a single storey.
- Fire compartments and fire detection and alarm system zones will coincide.

Audibility of Alarms

The alarm sounders will give a minimum sound level of 65dB(A) or a sound level 5dB(A) above other persistent noise levels (whichever is greater).

The alarm sound will be distinct from the background noise and any other sounders in the building. The frequency will be in the 500Hz to 1000Hz range.

System Type

The system will be an L4 system that will provide automatic detection in all escape routes, which include corridors, circulation areas, protected escape routes (both vertical and horizontal).

Detectors will be located generally in accordance with Clause 12.2 of I.S. 3218.

Wiring

Wiring of the system will conform to the current ETCI rules for electrical installations. The following components are required to continue operating in fire conditions:

- Alarm sounders
- Control and indicating equipment
- Power supplies

Certification

On completion of the works, design, installation and commissioning of the system a suitably qualified person will certify the entire system.

D.1.p Civic Amenity facilities

No civic amenity facilities are proposed.

D.1.q Any other waste recovery infrastructure

Not applicable

D.1.r Details of composting infrastructure

Not applicable

D.1.s Construction and Demolition waste infrastructure

Not applicable

D.1.t Incineration infrastructure

Not applicable

D.1.u Any other infrastructure

Two weighbridges will be installed at the site (for incoming and outgoing vehicles).

The operator will have full visibility of both weighbridges. The location of the weighbridge enables more than one vehicle to arrive at any one time without the need for vehicles to be queuing off site on the road. An automatic vehicle recognition system will be employed to facilitate a fast turnaround of vehicles on the weighbridge.

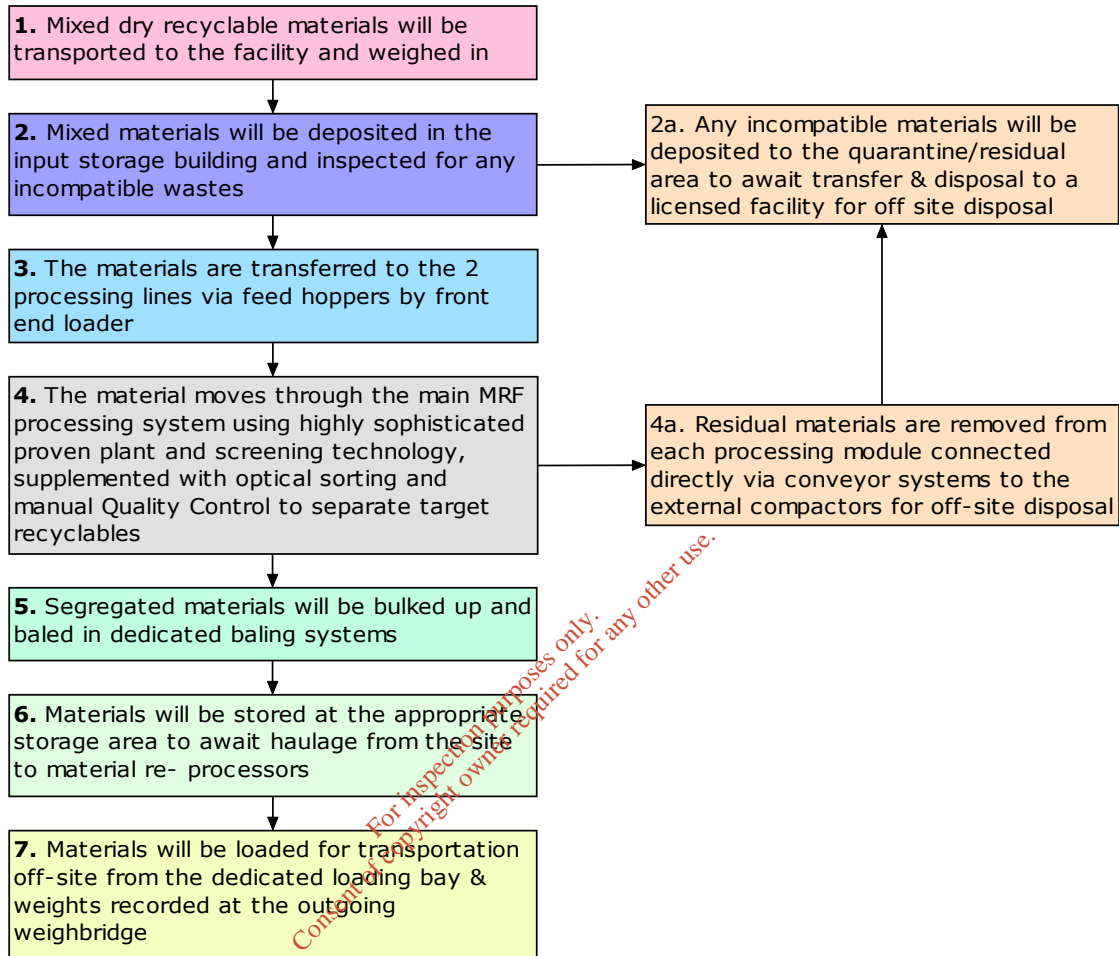
A camera detects and reads the number plate of a vehicle and logs this in a database. At the same time the vehicle's weight is recorded by the weighbridge and cross referenced against the number plate and also logged into the same database. When the vehicle leaves the site the same process is conducted so a net weight gain (for collecting vehicles) or loss (for delivering vehicles) is determined. This system needs the vehicle to stop on the incoming side of the weighbridge for approximately 5 seconds.

D.2 Facility Operation**D.2.1 Unit Operations**

The Ballymount MRF processing will rely on highly sophisticated proven plant and screening systems supplemented with optical sorting and manual quality control to separate the target recyclables. A simplified version is detailed in the flow chart below. Abatement systems are discussed in Section F.1.

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> **Drawing 9: Unit Operations**



D.2.2 Flow Diagram of Process

A flowchart detailing the various recovery processes at the facility can be seen in **Drawing 10: Estimated Approximate Throughput Diagram**. It should be noted that the configuration shown is based on the input data provided by the 4 Dublin Local Authorities and appropriate machinery to process this volume and characterization. The MRF will be capable of processing a total of 27.5 tonnes per operating hour, via 2 processing lines

> **Drawing 10: Estimated Approximate Throughput Diagram**

D.2.3 Emissions to Environment

The main environmental emissions related to the operation of the Materials Recovery Facility are as follows:

1. **Noise:** The main noise emissions from the site will be associated with traffic movements, and the operation of site machinery.
2. **Dust:** Dust will be generated in the input building and main processing building from loading/unloading material, processing, handling, stacking and vehicle movements.

This is discussed in greater detail in Section E.

D.2.4 Laboratory Facilities

No laboratory facilities exist on the site. No laboratory facilities are proposed.

D.3 Liner System

Not applicable

D.4 Leachate Management

Not applicable

D.5 Landfill Gas Management

Not applicable

D.6 Capping System

Not applicable

Attachment E: Emissions

The following are the emission points:

Type of Emission	Source	Emission Points
▫ Air emissions	Air emissions from dust extraction system	A2-1
▫ Surface water emissions	Surface water drainage system	SW1
▫ Emissions to sewer	Toilets in office block and Weighbridge office	SE1

A drawing showing the location of these points is attached.

> Drawing 11: Emission Points

Potential fugitive emissions of dust and noise are considered as part of monitoring proposals; see Section F.

E.1 Emissions to Atmosphere

A central vacuum system will be used to control and manage the dust levels within the facility. There will also be two other systems used in conjunction with the central vacuum system, these are:

- Water atomiser (used in the feed pit areas to minimise the amount of dust becoming air borne)
- Air conditioning (used in the cabins to restrict air borne dust from areas where MRF operatives will be working).

The dust removed by the central vacuum system within the facility will be transported via the air ducting system to a central filtration and collection system. The collection unit to be used will be a reverse pulse jet system. This high efficiency system uses timed introductions of compressed air to ensure optimum filtration of the dust-laden air.

See section F.1 for further details.

E.2 Emissions to Surface Waters

The proposed Materials Recovery Facility is located within the upper catchment of the River Liffey, of which the facility is located within the sub-catchment of the Camac River. This river catchment is characterised by high intensity industrial and commercial areas. There is no surface water body located within or adjacent to the site. Uncontaminated surface water from the facility will be discharged into the culverted Ballymount stream that flows within the immediate area, which ultimately discharges into the Camac River north of the facility.

The proposed emission point to surface water is shown on **Drawing 11, Emission Points**. Surface water runoff from the site will be directed through a silt trap and oil interceptor prior to discharge (See **Drawing 6, Surface Water Collection System, showing Petrol Interceptor Detail**).

There will be no requirement for washdown of equipment or input reception areas due to the nature of the dry recyclables. All equipment will be brushed/wiped down and all reception and storage areas will be brushed and swept on a regular basis to keep the area clean and dust free.

Invert levels and pipe sizes are shown on **Drawing 5**.

Area of the roof and other impervious areas drained for each collection system

The total roof and hardstanding areas amount to 14,700m².

Meteorological data

The following rainfall data was obtained from Met Eireann for the Dublin Airport weather station.

	Monthly Rainfall (mm)	
	30-year average	2006
Jan	69	15
Feb	50	37
Mar	54	70
Apr	51	41
May	55	117
Jun	56	27
Jul	50	18
Aug	71	58
Sep	67	85
Oct	70	107
Nov	65	69
Dec	76	87
Total	733	732

Potential points of contamination/areas most at risk

The greatest potential risk of surface water contamination is associated with a significant fuel spill on-site from a visiting HGV. The designated fuel interceptor will address small to medium spillages. In the event of a significant spillage, the surface water drainage system shall be isolated by closing the shut-off valve. This

will contain any potentially contaminated liquid, which can then be pumped for off-site treatment.

In the event of contaminated firewater entering the surface water drainage system, it can be contained in a similar fashion, i.e. closure of the shut-off valve, storage within the surface water drainage system, and pumped for off-site treatment.

Due to the stable nature of the recyclable materials being deposited at the facility, the risks to surface water associated with handling and storage of materials of this type are considered insignificant.

E.3 Emissions to Sewers

Lavatory and washing facilities from the Office/Administration building and the Weighbridge building are the only emissions to sewer. There are a total of 23 toilets on the site.

E.3.a On-site or off-site treatment envisaged

Off-site treatment is proposed.

E.3.b If for off-site: the name of the sewerage / WWTP undertaker and a copy of any agreement or permission by the undertaker to accept effluent

Sewage will be emitted to the South Dublin County Council sewage system, with ultimate discharge to the Ringsend Treatment Plant.

E.3.c Any further treatment of effluent by the undertaker, existing or proposed

No treatment proposed.

E.3.d Any problems of sewage treatment associated with the proposed emission

There are no anticipated issues. The only sewage discharge from the site is associated with toilet facilities.

E.3.e Likely effects of the emission on sewer or sewage treatment maintenance operations

There are no anticipated effects on the sewer or maintenance operations.

E.3.f Capacity, quality and integrity of the sewer

There are no known issues surrounding the capacity, quality and integrity of the sewer.

E.3.g Likely effects of the emission on sewer integrity

There are no anticipated effects on sewer integrity.

E.3.h Possible reactions of the emission with other effluent likely to be in the sewerage system

There are no anticipated impacts in this regard.

E.3.i Nature of final emission to the receiving water and the estimated volumetric contribution of the site emissions to the total wastewater treatment plant Dry Weather Flow expressed as a percentage (% DWF).

The emissions to sewer from the proposed facility are associated with x. No. toilets and washing facilities, and would be considered insignificant in terms of nature and volume.

E.4 Emissions to Groundwater

There will be no direct discharges to groundwater or any groundwater abstractions as part of the proposed development.

E.5 Noise Emissions

Potential noise emissions are associated with plant and vehicle movements. A baseline noise survey was carried out in June 2006; See Section I.6 for further information.

E.6 Environmental Nuisances

E.6.a Bird Control

Birds will not pose a significant risk at the facility as the final products are of low nutritional value to macro-organisms. All the dry recyclable waste material will be processed and stored inside the site building. Residual waste will be stored in a sealed compactor unit outside the building until it is ready for transfer to landfill or an appropriate licensed facility.

E.6.b Dust Control

During the operational phase, waste deliveries will occur within the main building and mainly consist of dry solid material, packaging etc. The material concerned (i.e. dry mixed recyclable waste) is not considered a major dust producer, however, the following mitigation measures will be employed to prevent or minimise the impact of dust arising at the proposed facility:

- All processing/waste activities will be conducted indoors.
- Facility roads will be cleaned regularly with street-sweeping equipment, as required.
- Dust suppression systems will be installed over the main tipping floor, to keep dust levels down.

Please see Attachment F.1 for further dust control measures.

E.6.c Fire Control

Emergency response procedures will be prepared and submitted to the EPA as part of the Environmental Management Programme. All site operators and staff will be made aware of the dangers of fires and how to treat them.

Two separate Fire Safety Certificates (FSC/063/07 and FSC/051/07) have been granted for both the main MRF building and the Administration building. A sprinkler system will also be fitted in certain parts of the building.

Precautions to be taken in order to ensure fire safety:

- Fire alarm and defence systems will be fitted throughout each of the buildings on site.
- All operatives will receive basic instructions on fire safety and protocol.
- A number of operatives are to attend fire officer training courses. At least one of these fire officers will be on-site at all operational times.
- A Fire Safety Drill and a Code of Practice will be developed by the site management. All staff will be fully trained with this code.
- The phone number of the local fire station will be posted in prominent positions throughout the various buildings on site.

E.6.d Litter Control

Implementation of the following control measures will minimise the potential for litter problems:

- All waste handling and processing will be carried out in the enclosed facility only.
- All incoming and outgoing vehicles will be covered.
- A daily litter patrol of the site and nearby roads will be carried out by a site operator, and a daily inspection sheet completed.
- Regular sweeping of the tipping floor and good housekeeping practices will prevent windblown materials.
- Waste will be baled, tied and placed in enclosed articulated lorries or appropriately covered vehicles before exiting the facility.

E.6.e Traffic

It is proposed to provide separate distinct access routes for the different types of vehicles utilising the MRF. The following information is to be read in conjunction with **Drawing 7: Vehicle Movements**.

1) Staff and Visitors

All staff and visitors will have a separate site entrance. This entrance will allow direct road access to the car park for the administration building. There will be no vehicle access from the car park into the main site area, except for the parking of PSVs (Public Service Vehicles) which have been used to transfer visitors to the site.

2) Rear End Loader (REL) Access

RELs will access through the main gate and weighbridge. There will be a system of automatic vehicle identification and weighing to minimise the length of time on the weighbridge and queuing prior to entry into the facility.

The RELs or similar vehicle will travel on the access road alongside the buildings (as indicated on drawings) to the tipping area (within the Input Storage Building) or directly to the clean load tipping area as required. The RELs will turn in front of the building and reverse into either one of the 2 doors, tip their load in the building and return out through the same door. This allows more than one REL to be tipping at any one time. From this position the REL will travel back to the weighbridge, where it will be identified and weighed again prior to exiting the site.

3) Articulated Vehicles (Container and Curtain Sided Vehicles)

Container will remove the baled end product material will enter through the main gate and weighbridge. They will use the same automatic vehicle identification and weighing system to minimise the length of time on the weighbridge or drive straight through if the vehicle has been pre-weighed (empty) [tare weight] and logged into the system.

Container vehicles will travel on the access road alongside the Baled Material Storage Building (same as the RELs). The vehicles then move off the access road and reverse into one of the 4 loading docks. Once loaded, these vehicles will return to the access road exit lane.

Side curtain vehicles will drive through the baled storage area (adjacent to the administration block) and will be loaded inside the building and exit via the up-ramp near the docking stations and follow the route of all vehicles exiting the site.

4) **Waste Compactor Vehicles**

These vehicles will replace the full waste compactor containers. They will enter through the main gate and weighbridge and use the same automatic vehicle identification and weighing system to minimise the length of time on the weighbridge.

They will then travel on the access road alongside the Administration Building (same as the RELs). The vehicles then reverse to the waste compactors to enable the change to be carried out. Once completed these vehicles will return to the access road exit lane and follow the route of all vehicles exiting the facility

The traffic management system will include speed restrictions and warning notices. The traffic will be separated by means of road markings and plastic bollards to ensure vehicles stay within their designated movement streams and lanes. Access to the rear of the buildings is for maintenance and fire-fighting purposes only.

The following additional measures will be used to control the traffic into and out of the site.

- The Weighbridge Office will monitor the access and egress of vehicles.
- There will be a free flow of traffic into and out of the facility by widening the entrance road, separating entrances and exits to the site, one-way traffic flow, clear sign-posting and road markings.
- There will be adequate parking spaces on the site of the proposed development. The traffic control point is set back from the main entrance which will prevent the queuing of vehicles on the Ballymount Road. Queuing capacity is provided inside the facility of required.
- Refuse Collection Vehicles and Articulated lorries will avoid rush hour traffic by scheduling off- peak movements to and from the site, insofar as possible.
- A clean and well serviced fleet will be maintained at all times.

E.6.f Vermin Control

Vermin will not pose a significant risk at the facility as the materials are of low nutritional value to macro-organisms. A pest control management system will be implemented. All the dry recyclable waste material will be processed and stored inside the MRF building. Residual waste will be stored within sealed compactor units.

Attachment F: Control & Monitoring

F.1 Treatment, Abatement and Control Systems

Dust Control System

Air quality control (dust and odour control) will be implemented in 3 separate environments:

- A. Within cabin areas (where most of the MRF staff work)
- B. In the in-feed pit area
- C. In high material transition areas (Major Screens)

A. Cabins

Fresh air will be piped into the cabins at a rate of between 5 and 10 air changes per hour. This will create a slight positive pressure. This is so that any dust that becomes airborne is forced downwards away from the operatives.

The only exit for air in the cabin will be down the chutes that the removed material is deposited in. This means that all the dust forced down by the positive pressured air will be carried down the chutes away from the cabin and will be removed.

B. In-feed pit area

It is proposed to use a water atomiser over the feed pit area. This will limit the amount of dust produced by the material entering the system.

C. High material transition areas

It is proposed to use an extraction system that will contain, control and remove the airborne dust within the facility. This system creates a slight negative pressure within the building thus minimising dust movement to adjacent areas.

It is proposed to use a high-level extraction header positioned down the full length of the building. Connected to the main header there will be sub-systems that will have extraction points at the main conveyor transfer areas. There will also be several grilles strategically located to help extract dust in areas of the building that are very sheltered.

From the exhaust header the dust-laden air would be ducted through an adjacent wall and subsequently connected to the inlet of a dust collector. From the collectors clean air outlet, the cleaned air would be discharged to atmosphere via a vertical discharge stack using a centrifugal fan driven by a 90kw motor.

A central vacuum system will be used to control and manage the dust levels within the facility. There will also be two other systems used in conjunction with the central vacuum system, these are:

- Water atomiser (used in the feed pit areas to minimise the amount of dust becoming air borne)
- Air conditioning (used in the cabins to restrict air borne dust from areas where MRF operatives will be working).

The dust removed by the central vacuum system within the facility will be transported via the air ducting system to a central filtration and collection system.

The collection unit to be used will be a reverse pulse jet system. This high efficiency system uses timed introductions of compressed air to ensure optimum filtration of the dust-laden air.

The design incorporates an upper section which houses the compressed air cleaning system, the central section includes the filtering medium with the lower section being the expansion hopper, legs and contaminated air inlet.

The contaminated air enters the lower section whereupon the heavy dust particulate gravitates from the air-stream into the expansion hopper below. The fine dust laden air passes into the filter section at a low velocity where the fine dust is deposited on the media and the clean air subsequently passing into the top clean air header.

The reverse jet cleaning system uses a sequence control timer to activate pilot valves in sequence at a pre-determined interval on a continuous cycle. The pilot valves subsequently open the diaphragm valves thus introducing a short burst of compressed air into each sleeve in turn. This reverses the airflow and dislodges the accumulated dust into the collection hopper below.

This system has a control panel that continually collects and collates data so that optimum filtration is achieved. All aspects of the filtration system can be controlled from this panel.

> **Drawing 12: Proposed Dust Extraction System**

Silt Trap and Petrol/fuel Interceptor

A Klargester type NSBD030 silt trap and petrol interceptor is proposed; see **Drawing 6, Surface Water Collection System, showing Petrol Interceptor Detail**. The system will comply with relevant Agency/I.S. standards.

F.2 Air Monitoring

Proposed dust monitoring locations are shown on **Drawing 13: Proposed Monitoring Locations**.

> **Drawing 13: Proposed Monitoring Locations**

The proposed methodology for dust monitoring is the 'Bergerhoff' Method (German Standard Method VDI2119).

Table F.2.1: Proposed Dust Monitoring Locations

Monitoring Location Ref.	Type	Grid Ref.		Proposed Frequency of Monitoring
		Easting	Northing	
D1	Ambient monitoring	309691E	230642N	Biannually (Between May and September)
D2	Ambient monitoring	309485E	230488N	Biannually (Between May and September)
A2-1	Emission point from Dust Extraction System	309516E	230528N	Annual

Odour

Due to the nature of the recyclables (Dry Domestic Recyclables) material, the potential for any odour is minimised however, any fugitive odour emissions will be minimised by a series of design features, work practices and mitigation measures. Each of these measures is outlined briefly below:

- All waste operations will be housed indoors minimising odour emissions.
- The use of roller shutter doors will minimise exposure to the outside environment.
- Daily cleaning (brushdown, sweeping and wipedown) of all work surfaces and floors.
- Residence time for waste will be kept to a minimum before transfer for further processing.

It is not anticipated that there will be a significant impact as a result of fugitive odour emissions. It is proposed that odour be checked around the site as part of the Daily or Weekly Site Inspection. No specific monitoring locations are therefore proposed.

F.3 Surface Water

The proposed surface water monitoring location is shown on **Drawing 13: Proposed Monitoring Locations**. The monitoring point will be located after the proposed silt trap and oil interceptor.

Table F.3.1: Proposed Surface Water Monitoring Locations

Monitoring Location Ref.	Type	Grid Ref.		Proposed Frequency of Monitoring
		Easting	Northing	
SW1	Surface water emission point	309649E	230687N	Bi-annual

F.4 Sewer Discharge

There is no effluent discharge to sewer (except for toilets), therefore no monitoring is proposed.

F.5 Groundwater

There are no direct emissions to groundwater therefore no groundwater monitoring is proposed.

F.6 Noise

Proposed noise monitoring locations are shown on **Drawing 13: Proposed Monitoring Locations**.

Table F.6.1: Proposed Noise Monitoring Locations

Monitoring Location Ref.	Type	Grid Ref.		Proposed Frequency of Monitoring
		Easting	Northing	
N1	Ambient Monitoring	309445E	230551N	Annually
N2	Ambient Monitoring	309538E	230641N	Annually
N3	Ambient Monitoring	309623E	230691N	Annually

F.7 Meteorological Data

It is proposed that a daily record of representative meteorological data will be obtained from Met Eireann at Dublin Airport.

F.8 Leachate

Not applicable.

F.9 Landfill Gas

Not applicable.

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Attachment G: Resource Use & Energy Efficiency

G.1 Raw Materials, Substances, Preparations and Energy

The input to the MRF facility will be mixed dry recyclables. The process aims to maximise the segregation and recovery of the individual recyclable streams. Segregated recyclables will be dispatched off-site for recycling/reprocessing options.

The site is currently overlain with a layer of concrete that will be excavated, as necessary, and removed during the construction of the new buildings and services. Materials will be sent to an authorised Construction and Demolition waste recovery facility, as appropriate.

Minimal amounts of lubricant oils and maintenance material will be required on site, and will be stored in a dedicated area in the workshop. No fuels, chemicals, additives, or similar substances will be stored at the facility (except for fuel for the back-up pump for the fire sprinkler system as detailed in Section D.1.g).

No insecticides/pesticides or other harmful substances will be stored on site.

G.2 Energy Efficiency

Energy will be used in the form of:

- Electricity for power supply to the main MRF building, office building and weighbridge office.
- Diesel for site machinery, including use for recovery equipment, front-end loaders (although it is not proposed to store fuel on site, except for fuel for the backup pump for the fire sprinkler system as detailed in Section D.1.g).

Modern, state of the art recovery equipment will be installed, with suitable energy efficiency ratings. A record of energy used at the facility will be retained and submitted to the Agency as part of the Annual Environmental Report.

Attachment H: Materials Handling

H.1 Waste Types and Quantities

Input Materials

The Ballymount MRF will accept dry recyclable material that has been collected in a single co-mingled waste stream from kerbside collections separated at source. The input materials will be non-hazardous dry recyclable wastes including:

- Newspapers
- Mixed cardboard
- Magazines and Pamphlets (printed Material)
- Mixed Paper
- Cardboard
- Mixed Plastic Bottles
- Plastic Film
- Film
- Steel cans
- Aluminium cans
- Tetra-Pak and Beverage cartons

It is proposed to accept up to 100,000 tonnes of input material per annum.

The EWC codes for the incoming materials will relate to Chapter 20, *Municipal wastes (household waste and similar commercial, Industrial and institutional wastes) including separately collected fractions* and 15 01 *packaging (including separately collected municipal packaging waste)*, including (but not exclusive to) the following:

15 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED

15 01 packaging (including separately collected municipal packaging waste)

- 15 01 01 paper and cardboard packaging
- 15 01 02 plastic packaging
- 15 01 04 metallic packaging
- 15 01 05 composite packaging
- 15 01 06 mixed packaging

20 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS

20 01 separately collected fractions (except 15 01)

- 20 01 01 paper and cardboard
- 20 01 39 plastics
- 20 01 40 metals

It is proposed that other compatible dry recyclables may be acceptable at the facility, as required, subject to prior written agreement with the Agency.

Output Materials

The estimated values for output materials given below are shown for indicative purposes only, and are likely to vary based on the composition of the incoming material.

Material	Estimated Approximate Output	
	% of total	Tonnes (based on 100,000 tonnes input)
News & Pams	52%	52,000
Mixed Paper	18%	18,000
Cardboard	11%	11,000
Plastics	4%	4,000
Film	1%	800
Steel	3%	3,000
Aluminium	2%	2,000
Tetra	1%	2,000
Residual Waste	8%	8,200
	100%	100,000

The proposed EWC codes for sorted, segregated materials dispatched from the facility relate to *Chapter 19 Wastes from Waste Management Facilities, Off-Site Waste Water Treatment Plants and the Preparation of Water intended for Human Consumption and Water for Industrial Use*, including (but not exclusive to) the following:

19 WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE

19 12 wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified

19 12 01 paper and cardboard

19 12 02 ferrous metal

19 12 03 non-ferrous metal

19 12 04 plastic and rubber

19 12 10 combustible waste (refuse derived fuel)

19 12 12 other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11

It is proposed that other compatible EWC codes be assigned to outgoing recyclable and waste fractions, as required.

H.2 Waste Acceptance Procedures

Measures will be introduced to ensure that waste acceptance is restricted to those recyclables for which the facility was designed, and which are acceptable by the licence.

Upon entry into the facility:

- All loads will be weighed
- A description of the waste will be checked to confirm it complies with the licence
- A record will be made of the waste type, quantity and source

All waste delivery vehicles arriving at the facility will be obliged to enter onto the weighbridge at the entrance gate where they will be weighed and the accompanying documentation checked by the weighbridge operator. Full details, as per Agency requirements, will be recorded on the weighbridge software. The vehicle will then drive from the weighbridge to the MRF building where the waste will be off loaded and inspected. Wastes will only be discharged inside the building.

The principal waste input will be from the green bin system run by the 4 Dublin Local Authorities.

H.3 Waste Handling

The Ballymount MRF will accept dry recyclable material that has been collected in a single co-mingled waste stream from kerbside collections separated at source from residential sources.

The Ballymount MRF processing relies on highly sophisticated proven screening systems supplemented with optical sorting and manual quality control to separate the target recyclables.

Fibre separation is accomplished with a combination of large scale mechanical screens (OCC, NEWScreen, CP container /Paper screens) and optical sorting (MultiWave and FibreSort units) a powerful detection system using colour detection, near infra-red (NIR) detection, lignin sensing (paper products) and gloss detection into one central processor to classify a variety of material types (brown cardboard, carrier-board packaging, white office paper, waste such as textiles, foils, leather & wood, plastics by resin type) according to their unique signatures.

3 specialised optical Infrared sorting systems (Aladdin units) are used for container separation of PET, Mixed Plastics, PVC, HDPE and Tetra.

The aluminium will be sorted using a double eddy current separator and the ferrous extraction will be carried out using a standard magnetic system.

The MRF will consist of other standard equipment such as conveyor systems, a bag opener, feed pits, baling systems, walking floors, storage silos, docking systems, residual waste compactors and sorting cabins.

Manual sorting at the 'pre-sort' stage, before the mechanical and other related sorting systems process the co-mingled material and after this stage at the final 'quality control' stages will play a crucial role to ensure high quality material output specification to meet global commodity market requirements.

Dry recyclable material will be handled and stored with a view to minimising potential environmental impacts, including dust, noise and odour.

H.4 Waste Arisings

There will be no waste arisings associated with contaminated soil applications.

Segregated recyclables and residual waste will be transported off site by permitted hauliers, to permitted/licensed facilities or recovery/reprocessing facilities. All parties involved will be agreed in advance with the Agency. There will be small volumes of municipal-type waste generated by the office/kitchen environment, which will also be recycled/disposed of by a permitted haulier, to a licensed facility.

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Attachment I: Existing Environment & Impact of the Facility

I.1 Assessment of atmospheric emissions

Air Quality

A baseline air monitoring programme conducted in 2004 identified that the air quality in the vicinity of the site is of good quality. Potential impacts on air quality associated with materials recovery facilities are dust and odours.

It is not anticipated that dust will be a significant issue at the facility. There will be no open storage of waste. The facility access roads, vehicle maneuvering and parking areas will be paved. The waste delivery vehicles will not track across waste offloaded inside the building.

The potential for generation of odours at the site will be minimised by the type of waste that will be accepted and through good working practices. All wastes handling, sorting, treatment and storage of wastes will be carried out indoors. The floor of the building and in particular the area handling recyclable waste will be swept at regular intervals. The processing areas will be swept, brushed and wiped down on a regular basis. Daily inspections will be carried out.

I.2 Assessment of impacts of surface water discharges on the receiving waters

There are no anticipated significant impacts on surface waters; see Section E.2.

I.3 Assessment of impact on receiving sewer

There are no anticipated significant impacts on surface waters; see Section E.3.

I.4 Assessment of impact to groundwater and soils

There are no anticipated significant impacts on soils or groundwater.

I.5 Ground and/or groundwater contamination

There have been no known historical pollution incidents at the site and there is no evidence of contaminated ground or groundwater.

I.6 Noise Impact

An ambient daytime and night-time noise monitoring and traffic assessment was conducted at the Ballymount Road Lower site on the 23rd June 2006 as part of the planning application to South Dublin County Council for this proposed MRF facility. The full report is attached as **Appendix 6**.

The aim of this survey was to establish the impact of current noise emissions from the facility. In order to assess the noise impacts of the site, three sets of measurements at each monitoring point were taken at different times of the day, as follows:

Survey Measurement Times

Time of Day	Facility W0208-01: Operational
Daytime (15:00 . 18:00)	Yes
Late Evening (21:00 . 22:30)	Yes
Night-time (23:00 . 00:30)	No

Waste delivery and processing activities were in progress at the site during all daytime and late evening noise measurements. The site was not operational during the night-time measurements after 23:00hrs. The main site operations at the site which lead to noise emissions include:

- Vehicle movements / Reversing sirens
- Skip movement
- Material handling on site
- Trommel
- Compactor Trailer Loading

Additional noise sources included background environmental noises such as traffic and human activity.

All measurements were taken outdoors, and are considered representative of the noise regime in the region of the site. To minimise the influence of reflections all measurements were taken at least 3.5 metres from reflecting surfaces, other than the ground.

The nearest noise sensitive location, three boundary locations and one on-site location were monitored.

- **N1** Located off-site to the north-west of the site, adjacent to the nearest noise sensitive locations, a group of residences on the Ballymount Road.
- **N2** Boundary Location on the north boundary of the facility.
- **N3** Boundary location on the south boundary of the facility.
- **N4** Boundary location on the east boundary of the facility.
- **N5** On-site location near the west boundary of the site.

In addition to the noise monitoring, a night and day time traffic count survey was undertaken at the noise sensitive location, (N1) adjacent to the Turnpike Road situated to the north west of the facility. All vehicular movements on the road were counted. The traffic count was divided into light vehicles and HGV vehicles.

The results for all measurements taken in the region show that the noise in the area is relatively high. Daytime noise levels (LAeq(30-min)) range from 53 dB(A) - 69 dB(A), with night-time LAeq(30-min) ranging from 53 - 63 dB(A). Traffic is the dominant noise at all measurement locations, with traffic sources both adjacent to measurement sites and distant traffic audible at all locations.

The following conclusions have been reached:

- The site is located in a high noise area, where traffic noise dominates.
- The nearest noise sensitive location is subject to significant traffic noise from both local traffic on the Turnpike Road, and from distant traffic on the surrounding road network.
- The operations at the facility do not contribute significantly to the noise levels at the noise sensitive location. It is considered that the site was operating within the noise conditions requirements set out by the EPA Waste Licence during the measurements.
- The site is currently not a significant noise source in the region and is not having a significant negative impact on the noise environment.

> **Appendix 6: Noise Report**

Noise Analysis of a Reference Plant in the UK is submitted as **Appendix 7**.

> **Appendix 7: Noise Analysis of a Reference Plant in the UK**

I.7 Assessment of Ecological Impacts and Mitigation Measures

The impact of the facility on the ecology of the surrounding area is regarded as insignificant as the site is located within an Industrial Estate on a previously developed site.

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Attachment J: Accident Prevention & Emergency Response

J.1 Accident prevention and Emergency Response

Detailed Emergency Response Procedures shall be drafted by Dublin City Council and agreed with the Agency prior to the commencement of waste operations at the site.

Fire Control

All employees working at the facility will be trained in the proper procedures to be followed in the event of a fire at the site. Both the MRF building and Administration building have obtained a fire certificate from the local fire officer.

Staff at the site will be trained in the use of fire fighting equipment, i.e. blankets and extinguishers. As part of their training, employees will be instructed in the following:

- Keep fire escape routes clear
- Keep all fire doors closed
- Know the escape routes in their environment
- Know the locations of break-glass fire alarm buttons and fire-fighting equipment, and make sure they are easily accessible
- Know the designated assembly points
- Learn to use fire-fighting equipment

Full details on fire prevention control measures were included in the application (Ref: FSC/063/07 and FSC/051/07) to South Dublin County Council.

In the event of a fire incident, firewater can be retained within the surface water drainage system, with use of the shut-off valve, pending pumping and off-site removal.

Insurance provision is held by Dublin City Council; copies of policy documents etc. are available on request.

Arrangements in Case of Breakdown or Emergency Situations

If for any reason the facility is required to cease the acceptance of material, it will be the responsibility of the site operators to redirect vehicles to the nearest recovery facility. Instances resulting in the facility being unable to accept material would include:

- Industrial disputes
- The storage capacity of the facility being exceeded
- Breakdown of site machinery resulting in a build-up of material in the acceptance area.

Direction of incoming materials to alternative facilities would be agreed in advance with the Agency.

Contingency Arrangements in Case of Environmental Contamination

If for any reason the facility is required to cease the acceptance of material due to environmental contamination at the site, it will be the responsibility of the site operators to redirect those vehicles to dispose of dry mixed recyclables to the nearest recovery facility.

Instances resulting in the facility being unable to accept material would be contamination whereby remedial works would result in the site being unable to accept waste materials until the site was environmentally satisfactory, examples would be:

- Surface water contamination from spillages or unplanned discharges
- Contamination of air from smoke after fires at the site
- Groundwater contamination from on-site spillages

Emergency Contacts

Emergency contact numbers, e.g. the local Fire Brigade, doctors and hospitals will be posted in all site buildings so that they are easily accessible and prominent for all employees.

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Attachment K: Remediation, Decommissioning, Restoration and Aftercare

K.1 Cessation of Activity

If the decommissioning of part or all of the Ballymount Materials Recovery facility should be required, the following programme will be put in place. The decommissioning of the site will be carried out in a phased process. It is envisaged that the phased approach will be carried out as follows:

1. The site will stop accepting materials at the site after a specified date and all remaining materials which have been deposited at the site prior to this date will be treated as per the current operations.
2. Plant and equipment will be disassembled and decommissioned and materials sent for reuse, recovery or disposal, as appropriate.
3. After all material has been removed a programme of environmental monitoring and a site audit will be carried out to ensure that the local environment has not been adversely affected by the closure of the facility and that no residual material remains on the site.
4. After the site audit and monitoring has been completed, the site may be used for other purposes, in line with proper planning and development of the site.

Aftercare Management

It is not envisaged that the activities at the Ballymount Materials Recovery Facility will have an adverse affect on the Site, which will result in detailed aftercare management of the site being required.

Post-closure environmental monitoring at the site will be agreed with the Environmental Protection Agency (EPA), if necessary, after appropriate closure procedures have been put in place.

Attachment L: Statutory Requirements

L.1 Statutory Requirements

Information Required under the Waste Management Acts, 1996 to 2007

Section 40(4) of the Waste Management Acts 1996 to 2007 states that the Agency shall not grant a Waste Licence unless it is satisfied that the following points have been complied with:

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

The facility will be managed and operated to minimise environmental impact. Environmental monitoring is proposed for dust, noise and surface water to ensure that relevant emission limit values are not exceeded.

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

The facility will not cause environmental pollution. Proposed activities are low environmental risk, i.e. the acceptance and short-term storage of dry recyclable waste, prior to further processing off-site. Routine monitoring will ensure that no pollution is being caused.

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

Not applicable

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

The facility has been designed with reference to EPA BAT Guidance Notes for Transfer Stations.

(cc) the activity concerned is consistent with the objectives of the relevant waste management plan and will not prejudice measures taken or to be taken by the relevant local authority or authorities for the purpose of the implementation of any such plan

The Dublin Region Waste Management Plan 2005-2010 makes the following reference to the MRF at Ballymount:

Chapter 18.6 Materials Recovery Capacity/Waste Transfer:

"Dublin City Council is developing a MRF for household waste at Ballymount, Dublin 12 on behalf of the region. This facility will have capacity to sort and treat municipal household waste with a capacity of approximately 100,000 tonnes per annum."

The following extracts from the Dublin Waste Management Plan refer to the need for waste management infrastructure, and in particular the provision of Material Recovery facilities:

<p>Section 11.2.2 Materials Recovery Facilities</p>	<p><i>"These facilities are required to accept, sort and bale recyclable materials for transfer to reprocessing markets. There has been rapid growth in the number of MRFs in the Region, handling mainly commercial waste but also some household recyclables. Throughput of commercial/industrial recyclables in MRFs was in the Region of 230,000 tonnes in 2003. Since further growth in recycling is required under the plan, it is envisaged that further expansion of MRF capacity will be required. Typically MRFs and transfer stations are located in industrial areas."</i></p>
<p>Section 11.6. Recycling/Recovery infrastructure deficiencies</p>	<p><i>"Materials Recovery Facilities: a reasonable level of capacity is available but further increase in recycling will require more MRF capacity."</i></p>
<p>Section 18.4. Household waste collection and recycling</p>	<p><i>"To continue to extend the green bin recycling service, increasing the quantity of material collected for recycling. This will be achieved through ongoing public information and motivation, increasing the capacity in the system, and continuing to extend collection to multi-unit dwellings. It is proposed to include new materials such as plastic bottles in the door to door collection."</i></p>
<p>Section 18.6 Materials Recovery Capacity/Waste transfer</p>	<p><i>"Further increases in capacity to accept, sort and process recyclable waste is required in the Region"</i></p>
<p>Section 18.14 Reprocessing and Recycling Capacity</p>	<p><i>"The Dublin Local Authorities recognise the deficit in capacity to reprocess and recycle waste in Ireland, and will support the development of national scale recycling facilities in the Dublin Region"</i></p>

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

Not applicable

(e) the applicant has complied with any requirements under section 53.

Financial commitments or liabilities will be addressed by the Applicant, in compliance with Agency requirements.

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

The major energy requirements are in terms of equipment operation. An energy analyser will be used on the main distribution board. Energy will be monitored and reported to the Agency on an annual basis.

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

Regular noise monitoring will be conducted to ensure that noise emission limits are complied with.

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

Appropriate accident and environmental accident prevention procedures will be put in place.

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

Appropriate closure and aftercare plans will be agreed with the Agency.

L.2 Fit and Proper Person

Not applicable to Local Authority applicants.

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