

Appendix 4 - Revised Non-Technical Summary

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

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).

All exhausted cleaned air will be returned into the building and therefore there will be no emissions to the atmosphere. The expected dust load after the air has been cleaned is $<1\text{mgr/Nm}^3$.

Silt Trap and Petrol/fuel Interceptor

The surface water interceptor to be installed at the facility is a 'Euroceptor Bypass Interceptor NSB30', manufactured by Water Clear Environmental Solutions. The 'Euroceptor Bypass Interceptor NSB30' is a Class 1 Separator and meets BS EN 858-1:2002 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:

| | |
|--|--|
| <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> |
|--|--|

| | |
|---|---|
| Section 11.6. Recycling/Recovery infrastructure deficiencies | <i>"Materials recovery Facilities: a reasonable level of capacity is available but further increase in recycling will require more MRF capacity."</i> |
| Section 18.4. Household waste collection and recycling | <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> |
| Section 18.6 Materials Recovery Capacity/Waste transfer | <i>"Further increases in capacity to accept, sort and process recyclable waste is required in the Region"</i> |
| Section 18.14 Reprocessing and Recycling Capacity | <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> |

(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. There will be no emissions to air from the dust extraction 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. There will be no emissions to air from this system.

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) |

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.