



**OFFICE OF
LICENSING &
GUIDANCE**

INSPECTORS REPORT ON A LICENCE APPLICATION

To:	DIRECTOR, OFFICE OF LICENSING & GUIDANCE	
From:	ANN MARIE DONLON	- LICENSING UNIT
Date:	13 FEBRUARY 2006	
RE:	APPLICATION FOR A WASTE LICENCE FROM KILLARNEY WASTE DISPOSAL LIMITED, LICENCE REGISTER 217-1	

Application Details

Type of facility:	Non-Hazardous Materials Recovery Facility
Class(es) of Activity (P = principal activity):	3 rd Schedule: 11, 12, 13 4 th Schedule: 2(P), 3, 4, 11, 12, 13
Quantity of waste managed per annum:	40,000 tonnes
Classes of Waste:	Non-hazardous household, commercial and construction and demolition wastes.
Location of facility:	Aughacurreen, Killarney, Co. Kerry
Licence application received:	03/02/05
Third Party submissions:	None
EIS Received:	Yes
Article 14 Notices sent:	13/04/05, 27/07/05, 11/08/05
Article 13 compliance date:	17/10/05
Article 12 Compliance date:	22/11/05
Section 52 notice received	17/01/06
Site Inspection:	11/04/05, 30/08/05

1. Facility

Killarney Waste Disposal Limited was granted a waste permit by Kerry County Council in December 2003 to operate a materials recovery facility at the above location (WP23/03). The facility is currently permitted to handle 16,500 tonnes/annum of non-hazardous waste. Killarney Waste Disposal Limited proposes to intensify the waste acceptance activities to 40,000 tonnes per annum. This intensification will increase the tonnage of each waste type currently being accepted and will require additional infrastructure. The material recovery building has already been extended to a total area of 3,223m².

The principle activity is Class 2 of the Fourth Schedule: Recycling or reclamation of organic materials.

Other activities:

Fourth Schedule- waste recovery activities: Class 3 (recycling & reclamation of metals), Class 4 (recycling & reclamation of inorganics), Class 11 (Use of waste), Class 12 (exchange of waste), Class 13 (storage).

Third Schedule- waste disposal activities: Class 11 (blending), Class 12 (repackaging), Class 13 (storage).

The facility will employ approximately 12 full time staff. Waste acceptance hours are proposed from 0730 to 1930 Monday to Saturday. The site will be operational for an additional one hour (0700 – 2000hrs).

The facility is located in a rural area approximately 4km northwest of Killarney town. There are approximately 20 residences within 500m from the boundary of the facility (13 residences within 100m). Most residences are located on a ribbon development on a nearby road. The site is 2.2 hectares and has a land drain flowing through it. Land use in the area is a mix of commercial forest and agricultural land.

An EIS accompanied the waste licence application. The facility has obtained planning permission subject to conditions.

2. Operational Description

Infrastructure

The facility consists of a material recovery building, concrete yard, weighbridge and administration building.

The materials recovery building includes a waste quarantine area, inspection and sorting areas, storage areas and effluent storage tank. The plant equipment currently includes a bag opener, screener, baler, wrapping machine, shredder for wood and three loaders. Proposed plant equipment for the sorting of materials includes a trommel (to replace screener), ballistic separator, picking lines and conveyor. It is proposed to treat putrescible waste in a vortex dryer. The vortex dryer is capable of grinding, drying, separating and sterilizing by using a combination of heat, g-forces and pressurised air. The Vortex dryer is a relatively new waste technology to Ireland. Excepting the timber shredder all plant will be operated within the material recovery building.

Timber and metals are stored outdoors. Timber is currently shredded outdoors. It is proposed to enclose and replace the existing shredder.

Stationary outdoor plant includes a generator (for screener and bag opener) and air compressors and heat exchangers (for vortex dryer).

Other ancillary infrastructure includes fuel storage, storm water drainage system, sanitary effluent treatment system, trade effluent drainage system and car parking.

Operations

It is proposed to accept household (11,000t/yr), commercial (17,000 t/yr) and C&D waste (12,000t/yr). It is estimated that 15,000 tonnes will be forwarded for disposal and 25,000 tonnes/annum will go for recovery. The unit operations on-site relate to the waste stream accepted which are of four classes.

- Mixed municipal waste is tipped on the floor, inspected, hazardous waste is removed to the quarantine area. The material is transferred to a bag opener and trommel where organic fines separate out. Municipal waste may undergo processing in the ballistic separator to remove organic fines. The residual waste is baled and wrapped

in plastic film. The bales will be sent to landfill or exported to an energy recovery facility or. The organics will be sent either off –site for composting or to the dryer to decrease the moisture content and then onto an energy recovery facility.

- Source separated waste, includes organic waste and dry recyclables: Segregated dry recyclables are tipped on the floor for inspection. Some materials are baled while others are bulked into storage skips. Mixed dry recyclables are sorted into various fractions by the ballistic separator before baling etc. All are sent off site for further processing. Source separated organics will be dried and bulked into a container and sent for composting off-site or energy recovery.
- Wood: Wood is shredded and sent off-site for recovery.
- Construction and demolition: C&D waste is tipped on the floor, inspected and large pieces of waste are manually sorted. The ballistic separator is used to further process the waste into various fractions like metal, wood, plastic and rubble. The materials are bulked and sent for recovery off-site.

Dry recyclables are delivered to the facility and processed every second week. C&D waste is processed for a few hours once a week. The rest of the operating time mixed municipal waste will be processed. The applicant proposes regular shipments and therefore has low storage requirement. The plant machinery is cleaned prior to changing from one waste stream to another.

The processing of waste especially mixed municipal waste gives rise to effluent emissions. It is proposed to collect wastewater emissions in a storage tank. Spun-off water from the vortex dryer will be directed to the waste water storage tank. The effluent is transferred to the Killarney WWTP for treatment by tanker.

The processing of mixed municipal waste and separated organics will give rise to diffuse odours. The vortex dryer is an enclosed system with a single emission point fitted with a filter system. The processing of C&D will be a source of dust.

Noise emissions will also arise from the operation of indoor and outdoor plant and traffic movements on-site. Nuisances include litter and pests.

3. Use of Resources

- Fuel: utilised for on-site loaders and generator.
- Electricity: on-site generator operates the bag opener and screener. Mains power to be used for operating other plant.
- Water: used for cleaning equipment.

4. Emissions

4.1 Air

The processing of mixed municipal waste and segregated organic waste will give rise to diffuse odours. The processing of construction and demolition waste and wood waste will give rise to dust.

There are twenty residences (sensitive locations) within 500m of the facility. The nearest three residences are 50m from the boundary of the site. A further 10 residences are within 100m of the site. The mitigating measures proposed include processing indoors, minimum residence time, cleaning, and covering of all areas where there is a potential for generation of odour (temporary storage area, skips, bins). Other dust control measures include; regular sweeping, a mobile water sprayer, regular maintenance of plant equipment, enclosing the timber shredder. These measures are considered to represent BAT but as the level of odour emissions relates to the age of waste and the malodorous waste volumes handled it maybe necessary to implement additional measures.

The RD specifies these mitigating measures and requires canopies on fines storage areas. The RD includes an enabling condition that allows the Agency to require additional measures should it prove necessary to mitigate against diffuse odour or dust. Storage of waste for disposal or malodorous waste is limited to 48 -72 hours.

The vortex dryer will treat putrescible waste by moisture reduction and heat stabilisation. It is proposed to abate the dryer with an air filtration system. The proposed stack height for the dryer is 6 meters but the MRF building is 9.45m high. The RD requires the minimum stack height to be 10m and the emission limit values (ELV) are in accordance with the Draft BAT Guidance Notes for the Waste Sector: Waste Treatment Activities (November 2003) for particulates and amines. Emission limit values are also specified for hydrogen sulphide and mercaptans, and ammonia. The RD requires a test programme for the dryer abatement system.

There is a mobile generator and three loaders, which will give rise to minor exhaust emissions. The RD requires a maintenance programme for all equipment and vehicles.

4.2 Emissions to Sewer

The processing of municipal waste will give rise to effluent. It is proposed to install an effluent collection tank within the materials recovery building and decommission the existing effluent tank. The proposed precast concrete holding tank will have 6.9m³ capacity and be lined with a 2.5mm thick HDPE liner. This underground tank will be banded. The RD requires underground tank and pipelines to be integrity tested prior to use. The RD also requires the existing tank (4.55m³ capacity) to be decommissioned. It is estimated that 6.77m³ of effluent will be generated every two weeks. The applicant proposed to tanker this waste water to the Killarney Waste Water Treatment Plant (WWTP).

Section 52 response:

In response to a Section 52 notice, Kerry County Council refused consent for discharges to the Killarney WWTP. Their reasons included the need to reserve capacity for developments within the catchment and the likely higher emission standard for emissions to Lough Leane from the WWTP in the future.

As a result KWD will have to dispose of the process effluent in accordance with the Waste Management Act, 1996 to 2005. Two weeks storage is considered insufficient where the applicant is required to transport the effluent larger distances. The RD requires six weeks storage capacity or equivalent measures within six months and proposals to be submitted within three months. The RD requires the effluent to be transported in a close tanker (Condition 3) and disposed in accordance with Condition 8 *Materials Handling*.

4.3 Storm Water Runoff

The site is located in the catchment of the Glanooragh River, which flows to the Gweestin River. The site is drained by the Aughacurreen drain and joins the Glanooragh River around 250m from the site. The Glanooragh River is described as moderately polluted (Q3) in the EIS.

The salmonid habitat value of Aughacurreen drain (stretch through the site) is described as 'none'. The lower reaches of the Aughacurreen drain are of a poor to fair salmonid habitat quality. The small size of the Aughacurreen drain renders it less than optimal for Q rating assessment. However a biological assessment was undertaken and it was found that the upstream and downstream of the site is seriously polluted. Chemical water quality data showed elevated ammonia and conductivity levels indicating contamination from the site itself. The applicant states that the source of contamination is unknown. It is likely that the source of contamination is from the existing septic tank system. This system is to be replaced with a septic tank/puraflo/raised percolation system.

Roof rainwater will be discharged at two locations to land drains to the front and rear of the MRF building.

Storm water run-off from the yard and wood and metal storage areas will be directed to the storm water treatment system. This system is comprised of an oil and solids separator (13m³) followed by a lagoon (74m³), a lined wetland (74m³) and percolation trench system (280m²). It is intended to plant willows along this percolation area. The RD requires monitoring of this storm water emission prior to the wetland system. This location is selected to ensure that emissions are of typical storm water character (i.e. do not contain heavy metals) and monitoring will include monitoring for heavy metals. The RD also requires ambient monitoring of the Aughacurreen drain.

4.4 Emissions to ground/groundwater:

Domestic effluent will be discharged to a septic tank and puraflo treatment unit with a raised percolation area. A catchment drain will be installed to collect any seepage. The RD requires the domestic waste water system to be installed and maintained in accordance with EPA guidance.

The RD requires the floor of the material recovery building and storage areas to be constructed of concrete and all defects to be repaired within five working days.

The facility was originally built on a green field site. Upon cessation of activities the site shall be returned to a satisfactory state i.e. green field state. The RD requires a proposal for the installation of groundwater monitoring borehole(s) and biannual groundwater monitoring.

4.5 Noise:

Acceptance and processing of waste will give rise to noise emissions. Significant noise sources on-site are the electricity generator, loading and unloading activities and timber shredding. Additional proposed sources include the vortex dryer and its air compressors, trommel and ballistic separator.

The background noise levels at two noise sensitive locations were measured: the L(A)₉₀ noise level was 33dB(A) and 35dB(A). The L_{(A)eq} sound pressure level from current activities on-site was 45dB (A) and 46dB(A) at the same noise sensitive locations. Noise levels were also measured when the timber shredder was running and the L_{(A)eq} levels were 56dB(A) and 51dB(A) at noise sensitive locations. As described earlier there are 20 residences within 500m of the site boundary and the facility is located in a predominantly rural environment as indicated by the low background noise levels. To mitigate noise the applicant proposes to enclose the shredder. The applicant aims to achieve 55dB L_{(A)eq} at the boundary (same as noise sensitive locations). The current waste permit specifies a limit of 55dB L_{(A)eq} and 45 dB L_{(A)eq} for day and night respectively.

The RD specifies a daytime noise limit of 55dB L_{(A)eq} and a nighttime noise limit of 45 dB L_{(A)eq} at the boundary. The nighttime limit will apply to the first hour of operation (07:00 to 08:00 hrs). These limits are proposed having regard to existing permit conditions and no record of complaint. However these limits are 20dB above background noise levels during daytime. The BAT Guidance Notes for the Waste Sector: Waste Transfer Activities (Draft November 2003) directs that where background noise levels at noise sensitive locations are less than or equal to 35dB L_{A90}, it is BAT to limit noise to a maximum of 10dB more than the measured L_{A90} background level. Consequently the RD also requires a programme for the reduction of noise from on-site activities.

The RD also specifies that timber-shredding operations shall be carried out in the materials recovery building or a dedicated building. The RD specifies that there shall be no tonal or impulsive components to noise. The RD requires a bi-annual noise survey and the preparation and maintenance of best work practices to control noise emissions.

4.6 Nuisance:

The applicant gave details of a litter control procedure, air emission control procedure and vermin and pest control programme to minimise nuisance occurring. The RD specifies measures to control nuisance and requires nuisance monitoring weekly. Further the RD requires adequate lighting in the hours of darkness.

5. Cultural Heritage, Habitats & Protected Species

The nearest conservation area (Killarney National Park) is over 2km from the site. The significant air emissions from the facility are fugitive dusts. The uncontaminated storm water is discharged to the Glanooragh River. Nuisances shall be controlled. There shall be no direct impacts on this designated conservation area. Where the activities are carried on in accordance with the conditions of this recommended decision, this facility will not impact on the designated site.

6. Waste Management, Air Quality and Water Quality Management Plans

The proposed intensification of activities at this facility is in line with the policy of providing an MRF in Killarney and the target of recycling 79.8% C&D material as outlined in the Limerick/Clare/Kerry Waste Management Plan (2000).

7. Environmental Impact Statement

I have examined and assessed the EIS and am satisfied that it complies with the EIA and Waste Licensing Regulations.

8. Fit & Proper Person Assessment

The applicant or any other relevant person has not been convicted under relevant legislation. The Director, Sean Murphy, has 15 years experience and currently handles 16,500 tonnes of waste per annum at this facility. The yard supervisor has 3 years experience.

The applicant is insured for fire, employer liability and public liability. The insurance company has stated in correspondence that cover extends to environmental liability arising from an accident.

The applicant submitted financial statement for the year ended 2003 and 2004. The accounts indicate that the company is financially capable of meeting the requirements of a waste licence. The applicant has stated that they are fully aware of their responsibilities and realise that financial provisions maybe required for decommissioning, aftercare and environmental pollution incidents.

9. Proposed Decision

The significant environmental aspects of this proposal are odour, dust/particulate and noise emissions. The RD specifies requirements for the prevention of fugitive dust and sets limit values for dust and particulates. The RD specifies ELV's for noise at the boundary. The RD requires the removal of waste for disposal and malodorous waste at regular intervals. Additional measures may be necessary to fully mitigate against odour at this site. There is a potential risk of contamination from tank, pipeline or bund failure and cracked surfaces. The RD requires site surfaces to be repaired and tanks and bunds to be integrity tested at intervals. This inspector is satisfied that the conditions set out in the RD will adequately address all emissions from the facility and where activities are carried out in accordance with the conditions, it will not cause environmental pollution.

10. Submissions

There were no submissions made in relation to this application.

11. Recommendation

I have considered all the documentation submitted in relation to this application and recommend that the Agency grant a licence subject to the conditions set out in the attached PD and for the reasons as drafted.

Signed

Inspectors name

Procedural Note

In the event that no objections are received to the Proposed Decision on the application, a licence will be granted in accordance with Section 43(1) of the Waste Management Acts 1996-2003.