

INSPECTORS REPORT

WASTE LICENCE REGISTER NUMBER 180-1, McGill Environmental Systems (Ireland) Ltd.

- A greenfield indoor composting facility.
- Recommendation: A waste licence, subject to conditions, be granted.

(1) Introduction:

McGill Environmental Systems (Ireland) Ltd have applied to operate a compost facility inside a proposed purpose built factory building. The address of the proposed facility is Coom, Carrignavar, Glenville. Co. Cork, 2 km North West of Glenville village in the middle of the triangle created by Cork City, Mallow and Fermoy. There is an old cottage within the boundary of the proposed facility. The cottage is in the ownership of the applicant and will be used for staff canteen and toilet facilities. The next nearest residence is a bungalow located approximately 400 metres to the Northeast of the development. The applicant proposes to accept a total of 20,800 tonnes per annum of non-hazardous waste for composting including industrial and sewage biosolids, waste fruit and vegetables and other non-hazardous biodegradable material.

This recommended Proposed Decision (PD) allows waste acceptance during the following hours:

- Between 8 a.m. and 5 p.m. Monday to Friday and between 8 a.m. and midday on Saturday.

This recommended PD allows waste handling during the following hours:

- Between 8 a.m. and 6 p.m. Monday to Friday and between 8 a.m. and 1.00 p.m. on Saturday.

Quantity of waste (tpa)	20,800
Environmental Impact Statement Submitted	Yes – I have assessed the EIS and am satisfied that it complies with the EIA and Waste licensing legislation.
Number of Submissions Received	2
Site Visits	Site notice check 28/11/02 Site visit by Maeve McHugh, Brian Donlon and Regina Campbell to waste permitted sister facility in Castletownroche, Cork 24/06/03.

Cork County Council granted full Planning Permission to McGill Environmental Systems (Ireland) Ltd. (MES) for this facility on 27/08/02. The County Council's decision was appealed to An Bord Pleanala by a local community group and An Bord Pleanala granted Planning Permission for the development on 08/08/03.

It should be noted that despite discussions with the Agency in relation to the classes of activity applied for the applicant applied only for Class 2 of the Fourth Schedule of the

Waste Management Act. The applicant was of the opinion that it was unnecessary to apply for classes of activity relating to storage (in the third and fourth Schedules of the WMA) because the products brought on-site to be mixed with compost (e.g. straw and sawdust) are purchased specifically for that purpose and are therefore not to be considered a waste. The applicant stated that at the end of the process compost which is bagged and ready for sale/removal offsite will not be stored on-site and, in any case this material is to be considered a product and not a waste.

Some of the waste types proposed to be accepted at the facility for example pharmaceutical sludges are not referred to in Annex 1 of the Draft Directive 'Biological treatment of Biowaste (2nd draft) which lists waste types suitable for composting. On 12/09/03 the Agency notified the applicant that the composted material resulting from the treatment of such materials should not be used in horticultural applications, but should be disposed of. For this reason the Agency also specified that the applicant should apply for Disposal Activity Class 6 of the 3rd Schedule and Classes 13 of the 3rd and 4th Schedules of the Waste Management Act, 1996. Condition 1.3 of the recommended PD states that only those wastes listed in Annex 1 of the Draft Directive 'Biological treatment of Biowaste (2nd draft) may be accepted at the facility for the production of compost. Wastes e.g. pharmaceutical sludges accepted at the facility for treatment may only be used for conventional composting applications if the agreement of the Agency is given, on a case-by-case basis.

With regard to the Animal By-Products Regulations 1774/2002 the waste types relevant to this application are the Category 3 Animal By-products (ABPs). The acceptance of Category 1 and 2 ABPs is specifically restricted in the recommended Proposed Decision.

(2) Facility Development

Infrastructure (See Appendix 1 Drawing No MES008 'building layout' and Appendix 2 Drawing No MES001 'site layout')

All waste handling, acceptance and processing will be carried out within the enclosed factory building (see Appendix 1: 'Building Layout'). There will be a total of 24 composting bays within the building. The composting bays will have underfloor aeration with blowers operating adjacent to the bays in concrete tunnels. The aeration process will be automated through a control panel to maintain optimum temperature. There will be two air extraction fans taking air out of the building through a biofiltration system ensuring that negative pressure is maintained within the building. There will be an area inside the building to the rear for the storage of straw and sawdust etc. which may be added to the compost. The waste acceptance area contains a ramp from which incoming trucks will tip their load. The factory doors will be kept closed as much as possible. Vertical plastic flaps hung immediately inside the main door will help to prevent air leaving the building while the doors are open.

Rain falling on the roof of the factory will be collected in a drain and discharged to the ground via a soakpit. Because the process will take place completely indoors it is anticipated by the applicant that there will be no runoff from the composting process and that water may have to be added to the compost piles. The applicant does not consider it necessary therefore to provide a holding tank for runoff/contaminated water. Nonetheless Condition 9.7 requires a holding tank to be put in place as a contingency measure.

The applicant proposes to use an existing septic tank for the treatment of wastewater arising on-site. The recommended PD however requires the installation of an on-site wastewater treatment system, the specification of which must be agreed in advance with the Agency.

The application states that surface water running across the public road adjacent to the site has caused problems in the past in times of heavy rainfall and would cause problems to truck traffic associated with the facility. The applicant therefore proposes to construct a pond to hold water, as part of the landscaping of the site. This will also be a conservation feature (see Appendix 2, 'Site Layout').

An existing building on site (cottage) will be used as an office facility.

An existing shed on the site will be converted to a bunded fuel storage shed.

Composting Process and Monitoring

The incoming biowastes will be subject to preselection criteria to determine their suitability for composting.

Depending on their moisture content incoming biowastes will be mixed with material such as the final product from the composting process, chopped straw, shredded paper or sawdust, placed in bays and aerated. The recommended PD requires that the compost must be initially maintained at a temperature of greater than or equal to 60°C for one week as recommended in the Draft Directive 'Biological treatment of Biowaste (2nd draft). After a week of this intensive composting phase the applicant proposes that the compost will be screened and refined and then cured/matured indoors.

Compost Standards

The final product shall be tested and compared to certain standards, including metal/chemical standards and microbiological monitoring for pathogenic indicators (*Schedule H*). The end use of the compost will be determined based on the particular class of compost achieved (classes specified in *Schedule H*)

- Class 1 compost may be used without restriction (subject to best agronomic practice).
- Class 2 material may be used subject to a maximum of 30 Tonnes dry matter per hectare unless otherwise agreed by the Agency. Records of use of Class 2 compost will be required to confirm its appropriate use.
- Material not reaching Class 1 or 2 standards will be classed as a waste and will require appropriate handling and record keeping (*as per* Conditions 6.2 and 10.2).

Where compost produced contains sewage sludge the requirements of the Sewage Sludge Regulations apply. These Regulations require the supplier of sludge for use in agriculture to liaise with the local authority as each Local Authority is required to maintain a 'sludge register' which must contain details of the quantity of sludge produced and supplied for use within their functional area, as well as details of the composition and treatment of the sludge and details of where it will be used (see Conditions 5.6, 10.6 and 10.7).

A recent EU Regulation (*'European Parliament and Council Regulation No 1774/2002 laying down health rules concerning animal by-products not intended for human consumption'*) with regard to the control of animal by-products proposed for treatment at this facility (e.g. slurries, foodstuff, catering waste) has been enacted. This is primarily with regard to their treatment to reduce risk of animal diseases. These regulations specify treatment requirements for these wastes prior to biological treatment, additional treatment during composting and additional parameters for monitoring (e.g. pathogens) subsequent to treatment. They also provide for significant restrictions on uses of certain compost containing animal wastes (see Condition 5.4).

A number of controls are detailed within the licence including;

- Provision of leak-proof waste containers.
- Disinfection of containers and vehicles used for transporting untreated animal by-product waste
- Handling of composting residues in such a way as to prevent recontamination from untreated products.
- Labelling of composting containers so as to ensure that animal by-product waste is treated in the same vessels

These procedures shall be updated prior to the acceptance of new waste types (when necessary), as required to reflect changes in National or EU Legislation or as agreed by the Agency.

(3) Waste Types and Quantities

The applicant proposes to accept a total of 20,800 tonnes per annum (400 tonnes per week) of non-hazardous biodegradable waste for composting including the following:

Source separated and separately collected (see Condition 5.2.6 and Schedule A)

- Household waste collected by or on behalf of the Local Authority
- Household waste delivered to civic waste facilities and other bring facilities
- Other household and commercial waste

and

- Sewage sludges
- Industrial sludges

The tonnage referred to above does not include the tonnage of what the applicant refers to as 'inert amendments' i.e. materials such as sawdust, straw etc. which is purchased for the purpose of being used in the composting process.

(4) Emissions to Air

Odour

Odour emissions from the facility will be controlled by the enclosed nature of the process and the provision of biofilters where odourous emissions are expected. All waste processing will be required to be carried out indoors and all process air from these areas will be extracted and biofiltered. In the curing phase there will also be forced aeration and this air will also be extracted and biofiltered.

Air monitoring will be required on a biannual basis but subjective odour assessments at the biofilter outlet will be required on a daily basis.

Dust

Dust and bioaerosol monitoring will be required as per Schedule E.3 of the recommended PD.

(5) Emissions to Surface Water/Groundwater

Surface Water

The background biological water quality in the vicinity of the facility is described as having a Q-rating of 3-4 indicating slightly to moderately polluted conditions. There is a stream which flows from a point at the facility boundary which joins another stream downstream. There will be no direct discharges to surface water but surface water quality will be analysed on an annual basis both upstream and downstream of the confluence with the adjoining stream.

Groundwater

The only discharge to groundwater will be (a) clean roof runoff and (b) wastewater treatment plant effluent or (c) wheel-wash waste water which will discharge via a percolation area which must satisfy the criteria set out in the Wastewater Treatment Manual, *Treatment Systems for Single Houses*, published by the Agency. Three groundwater monitoring boreholes will be installed and they will be monitored on an annual basis.

(6) Waste Management, Air Quality and Water Quality Plans

Air Quality Management Plan

No relevant plan exists for this area.

Water Quality Management Plan

There is a draft Water Quality Management Plan for the River Blackwater. It was developed in 1989 but has not been adopted to date. It is not thought that the activities

at the proposed facility will have an effect on water quality as there will be no direct emissions to surface water from the facility and the discharges to groundwater will be via an on-site wastewater treatment system and properly constructed percolation area.

Waste Management Plan

The Cork County Council Waste Management Plan (1999) identifies the trend towards pre-treatment and recovery of waste. The plan identifies action plans some of which relate to the separate collection of biowaste, treatment of separately collected biowaste and minimising the amount of waste for disposal although it does not refer specifically to this facility or company.

(7) Submissions/Complaints

2 valid submissions were received in relation to this application.

1. Submitter: Duchas.

Main content: *Duchas recommends that water quality (ground and surface) should be monitored yearly.*

Response: The recommended PD requires that surface water and groundwater quality will be monitored on an annual basis.

2. Submitter: Representatives of Glenville Community Council.

Main content: *The Community Council strongly object to the proposal on the following grounds.*

- i) *unknown effect on humans, animals and vegetation – they feel they have a right to clean air and water and a right to expect that the present flora and fauna balance isn't upset or destroyed.*
- ii) *Detrimental effects to the local fisheries in the long term as the Coome and Bride Rivers are hugely important spawning grounds for salmon and trout. The proposed facility is less than one kilometre from the Coome River. They object strongly to anything which could destroy this natural resource.*
- iii) *The heritage around the proposed Waste Recycling Facility is of great importance, and its retention unspoilt for future generations to enjoy is a priority to us. Much effort and expense has been expended in recent years to restore and promote a Mass rock which was used by locals during penal times to celebrate mass, also 2 miles of an historic famine walk has been restored, and plans are afoot to restore more of this walk. This heritage site is within one half of a kilometre of the proposed waste recycling facility. We as the community representatives object unanimously against the proposal of a Waste Recycling Facility, as it is in total contrast with what these Heritage sites symbolise i.e. Local unity, and the wish to retain a way of life. Also*

within less than 1 km there are two ring forts one of which has been excavated and the discovery of souterrains is a very significant feature.

Response to i), ii), and iii) above:

i) Compliance with a waste licence would ensure that the proposed activity will not impact on the quality of air and water, human or animal health. The recommended PD includes significant requirements to monitor air, water (both surface and groundwater), odour etc. With regard to the submitter's concerns regarding human and animal health it is not clear whether their concerns relate to the effect on human and animal health of the composting process or of the use of the compost product.

As outlined above the entire composting process will take place indoors on impermeable surfaces and emissions from the activity will be subject to stringent Emission Limit Values. The use of the compost product is also subject to restriction as set out in the PD.

ii) The proposed development will not adversely affect local fisheries. There will be no direct emissions to surface water from the facility and the discharges to groundwater will be via an on-site wastewater treatment system and properly constructed percolation area and these will consist only of sewage and canteen effluent generated by a few staff members i.e. not much more impact than an average household. There may from time to time be runoff from the composting process discharged to the treatment plant for treatment but the applicant does not envisage that this will be the case.

iii) Attachment C.3 of the application consists of a report on cultural heritage in the area. The record of monuments and places for County Cork was consulted during the preparation of the report. The report noted a number of places of archaeological interest in the vicinity of the proposed development, including those referred to in the submission, as well as several other features but none were in or adjacent to the proposed facility. Listed monuments include an earthwork, a souterrain and a Ringfort. The archaeological assessment confirmed that there will be no impact on any known archaeological sites or monuments. Nonetheless, in case of the discovery of any unknown feature Condition 11.7 of the PD requires consultation with Duchas or its successors prior to excavation of undeveloped areas of land, in relation to archaeological supervision.

Signed _____
Maeve McHugh

Dated:

Inspector, Environmental Management & Planning

APPENDIX 1
Drawing No. MESOO8
Building Layout

APPENDIX 2
Drawing no MES001
Site Layout