OFFICE OF LICENSING & GUIDANCE

INSPECTORS REPORT ON A LICENCE APPLICATION

To:	DIRECTORS	
From:	DR. KAREN CREED	**- LICENSING UNIT**
Date:	23RD FEBRUARY 2007	
RE:	APPLICATION FOR A WASTE LICENCE FROM ORGANIC GOLD (MARKETING) LTD., LICENCE REGISTER W0219-01	

Application Details	
Type of facility:	Waste Composting Facility
Class(es) of Activity (**P** = principal activity):	3rd Schedule: (11,12,13) 4th Schedule: **2**, 4, (10,)11,12,13
Quantity of waste managed per annum:	25,000 tonnes
Classes of Waste:	Non-hazardous biodegradables
Location of facility:	Wilkinstown, Navan, Co. Meath
Licence application received:	13/03/2005
Third Party submissions:	Twenty four
EIS Required:	Yes
Article 14 Notices sent:	16/06/2005, 23/02/2006
Article 14 compliance date:	20/09/2005, 3/10/2005, 16/06/2006
Site Inspection:	19/05/2005

1. Facility

Organic Gold (Marketing) Ltd., is an existing waste composting facility which has been operating at the site near Wilkinstown, Navan, Co. Meath under permits from Meath County Council (WMP2000/17 and WMP2002/26) since 2000. Waste Permit, WMP2002/26, expired in November, 2005 and a renewal was refused by Meath County Council. The site is located 10 kms north of Navan in a rural agricultural setting approximately 380 meters from the crossroads in Wilkinstown village. The nearest sensitive receptors are 180m

from the fertilizer shed and 230m from the composting slab. The local school is located approximately 680m from the facility. The site encompasses 4.5 acres of land which currently consists of site buildings and fertiliser shed, a composting slab and a paddock area. Planning permission has been granted for retention of the composting slab and the construction of a waste reception building and in vessel composting system.

The applicant proposes to increase waste acceptance at the facility from previous levels (10,000 tonnes per annum) to 25,000 tonnes per annum and has requested the following waste activities;

3rd Schedule; (11,12,13)

4th Schedule; **2**, 4, (10),11,12,13

The Recommended Decision (RD) has recommended refusal of Classes 11,12 and 13 from the 3rd Schedule and Class 10 from the 4th Schedule of the Waste Management Acts 1996 to 2005.

Composting is a waste recovery activity and the bulk of the waste imported on site will leave in the form of a product i.e., compost. However, like any other activity the process produces a certain amount of waste (e.g., non-compostable material) which cannot be recovered and requires disposal. However, the disposal of this process related material or any wastes generated on site as a result of the activity do not require specification of a waste disposal class of activity as per the 3rd Schedule of the Acts. In fact, granting waste disposal classes of activity would change the nature of the facility. It would allow the acceptance on site of waste material purely for disposal, in effect, changing a Composting Facility to a Waste Transfer Facility. For this reason I recommend refusal of Classes 11,12 and 13 from the 3rd Schedule and this is reflected in the RD.

The applicant has also requested Class 10 of the 4th Schedule for '*the use of finished compost as a soil improver with beneficial consequences for land to which it is added in land remediation projects'.* Class 10 refers to '*The treatment of any waste on land with a consequential benefit for an agricultural activity or ecological system.'* Finished compost is a product not a waste and its use on land is permissible subject to regulatory requirements. I am therefore of the view that Class 10 is not applicable in this situation and its refusal is reflected in the RD.

The proposed hours of operation are 07.00 to 20.00 Monday to Friday and 07.00 to 14.00 on Saturdays. However, waste will only be accepted/handled between the hours of 08.00 and 19.00 Monday to Friday and 08.00 to 13.00 on Saturdays. The RD has allowed for this and arrangements can be made to facilitate contingencies subject to Agency agreement (Condition 1.6).

2. Operational Description

Condition 1.1 and Schedule A of the RD specify the waste types to be accepted at the facility. There are essentially two different waste processing activities proposed for the site. The first is the production of Organic Gold Multi-Purpose Compost and High Grade Fertilizer in the fertilizer production shed. This is an established activity on site. The production of Organic Gold

Multi-Purpose Compost involves mixing 50% dewatered cattle slurry with 50% peat to form a base product. This base product may then be further mixed to produce the following;

- 50% peat to produce Multi-Purpose Compost,
- 60% peat to produce Richgrow,
- calcified seaweed to produce Natgrow,
- silica sand to produce a specialised growing media for use on golf courses.

High Grade Fertilizer is produced on site by mixing dried sludge from the food processing industry with inorganics such as Calcium Ammonium Nitrate, Muriate of Potash, Diammonium Phosphate, Triple super Phosphate, Single super Phosphate, Ferrous Sulphate, Calcified Sea Weed and Urea.

Dried food sludge has not been accepted on the site since July of 2002. However, there is a stockpile of 200 tonnes of this material on-site for use in this process in the future. According to the applicant this dried sludge has not being accepted due to a lack of availability of machinery in Ireland to dry the material before it can be used in this process at the site. However, if the material becomes available again, Organic Gold proposes to accept it.

The second waste processing activity proposed by the applicant is the composting of organic waste such as food waste, green waste, sludge, dewatered slurry and commercial organics (food waste, brewery by-product, horse bedding).

This will involve the mixing of the various feedstocks in the waste reception building with bulking materials such as wood chip and saw dust. This material will then be moved to the enclosed composting vessels. The licence stipulates that all biowaste must be processed and put into the aerated composting area within twelve hours of its arrival at the facility (Condition 6.18.6).

It takes approximately 1 hour to fill the 180 tonne capacity composting vessels and the applicant proposes to have eight on site. However, it will take 3 days of waste acceptance to completely fill each vessel. According to the applicant, after two weeks in the in-vessel unit the waste material will be stabilised and pathogen free and ready to be moved to open windrow composting. The RD has stipulated that this stage of the process must take place on forced aeration pads (Condition 6.16.2.4).

3. Use of Resources

The applicant has estimated that the resource requirements for the activity will be 66,000l/day of water (this assumes full operation of the misting system), 60,000 units of electricity and 11,200 litres/yr of diesel. Condition 7 of the RD requires the applicant to carry out an energy audit and identify and implement the recommendations therein. The applicant must also identify opportunities for reduction in the quantity of water used on site.

4. Emissions

4.1 Air

There are no point source emissions to atmosphere from this facility. The main emissions to atmosphere are fugitive dust, odour and bioaerosols.

Odour

The applicant commissioned an odour impact assessment study and odour modelling at the facility. Four scenarios were modelled using BREEZE Industrial Source Complex Version 3; two were based on current composting operations (with/without the odour misting system) and two were based on the proposed composting operations (with/without the odour misting system). The modelling was carried out for worst-case meteorological conditions to estimate worst-case odour impact from the site and an odour impact criterion of $\leq 3(Ou_E\ m^{-3})$ was applied. The applicant has stated that as $6(Ou_E\ m^{-3})$ is considered the concentration at which odour becomes an issue from intensive agriculture facilities and that as odours from compost facilities are considered more unpleasant they have applied an odour impact criterion of $\leq 3(Ou_E\ m^{-3})$.

Under these conditions, the modelling predicted that while utilising the misting system and employing various operational measures a total of four residences and one shop will perceive an odour concentration of 3-5 ($Ou_E\ m^{-3}$) at the 98^{th} percentile in a worst-case meteorological year.

The RD recommends more stringent odour mitigation measures than those proposed by the applicant. The RD recommends that air extraction and abatement be employed in the waste reception building (Condition 6.16.2.2), that appropriately sized biofilters be employed for the in-vessel composting units (Condition 6.16.2.3) and that forced aeration pads be utilised for the windrows (Condition 6.16.2.4). In addition, prior to commencement of the licensable activity, the applicant must submit a detailed odour management plan (Condition 3.26) to the Agency for approval.

Bioaerosols

Bioaerosols can be defined as airborne particles or fragments of biological origins. They may be cells, spores, aggregates of cells or spores, fragments of cells, byproducts of cellular metabolism, or any biogenic particles. The bioaerosols typically associated with the composting process are bacteria and fungi (*Aspergillus fumigatus*).

There are currently no Occupational Exposure Limits recommended for exposure to bioaerosols in Ireland. However, the Environment Agency in the UK have proposed a 250m buffer zone between a workplace or boundary of a dwelling and a composting facility. If the proposed facility is less that 250 meters a site-specific risk assessment is required.

The Agency requested that the applicant undertake such a site specific risk assessment to show that bioaerosol levels can be maintained at appropriate levels. The applicant concluded that operations on site would not have a

significant impact on the nearest sensitive receptors due to several design and operational measures undertaken. These measures include boundary screening, mixing and blending indoors, in-vessel composting units, maintaining appropriate moisture conditions, only turning windrows when meteorological conditions are suitable and regular monitoring. The RD requires the applicant (Condition 6.25.1) to carry out a baseline bioaerosol monitoring study to determine background levels of bioaerosols prior to commencement of the licensable activity. This study can then be compared to the results of the annual monitoring in accordance with Schedule C1.2.

Dust

The applicant carried out a dust monitoring survey at four locations on the site boundary, none of which elicited a result in excess of those specified in TA Luft or the RD. However, the potential for increased dust deposition exists as Organic Gold (Marketing) Limited proposes to increase the waste volumes accepted on site. The RD has addressed this by way of Conditions 4.6, 5.7, 6.16 and Schedules B.1 and C6.

4.2 Emissions to Sewer

There are no emissions to sewer. A septic tank and percolation area has been put into operation by the applicant for the treatment of office and sanitary effluent. The RD requires that this system shall comply with Agency guidelines.

4.3 Emissions to Surface Waters

There are no process emissions to surface water.

4.4 Storm Water Runoff

The RD (Condition 3.19) recommends that, with the exception of stormwater from the roofs of the facility buildings, all stormwater must pass through a silt trap and a Class 1 full retention oil separator prior to discharge. Schedule C establishes the requirements for storm water runoff monitoring. In addition, Condition 3.7.4 requires the applicant to store and reuse storm water where possible.

4.5 Emissions to ground/groundwater:

The applicant states that there will be no process emissions to groundwater. All composting operations will take place on the composting slab which has been certified impermeable by an engineer. However, results of the water analysis from the groundwater well on site indicate elevated levels of coliforms, calcium, potassium and electrical conductivity. The applicant states that the elevated coliforms may be attributed to organic matter on the surface of the poorly protected well. Condition 3.22 of the RD requires that all wellheads be adequately protected to prevent contamination or physical damage. Condition 6.12 of the RD requires the applicant to carry out groundwater investigations to identify the source of this contamination and to carry out any remediation works that may be necessary. The aquifer

vulnerability for the site has been classified as high so the RD requires regular compliance monitoring (Schedule C8).

4.6 Wastes Generated:

The applicant maintains that waste generation on site will be minimal and intends to employ good housekeeping practices. All wastes will be disposed of using approved and appropriately licensed/permitted recovery/disposal contractors.

4.7 Noise:

As part of the application, the applicant monitored four site boundary and two noise sensitive locations (NSLs) for noise emissions. All but one of the site boundary locations and both of the NSLs resulted in exceedances of the limit values. Both the daytime and nightime noise levels at the NSLs were similar in the level of exceedance of the limit values. As the facility was closed during the nightime monitoring it is reasonable to conclude that the main source of the elevated readings was the road traffic noise from the R162 Navan to Kingscourt road. Both NSLs are located adjacent to this road. The RD specifies noise limits at boundary locations in order to protect all of the lands outside the boundary. The RD also requires an annual noise survey.

4.8 Nuisance:

The applicant has proposed a number of measures to control potential nuisances such as litter, vermin and birds. They include handling waste inside the waste reception building, daily litter patrols, use of poisons traps and the use of commercial pest and bird control contractors if necessary. Measures to control possible nuisances at the facility are specified in the RD.

5. Cultural Heritage, Habitats & Protected Species

There are no recorded features of architectural, archaeological or historical importance within the site boundary. The site is not located on or adjacent to any ecologically designated area.

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

The North East Region Waste Management Plan (2005 to 2010) adopted by Meath, Cavan, Monaghan and Louth County Councils recommends the introduction of biological treatment to the region to deal with organic waste.

7. Environmental Impact Statement

I have examined and assessed the EIS and having regard to the statutory responsibilities of the EPA, I am satisfied that it complies with Article 94 and Schedule 6 of the Planning and Development Regulations 2001 (S.I. No. 600 of 2001) and EPA Licensing Regulations (S.I. No. 85 of 1994, as amended).

8. Best Available Techniques (BAT)

I have examined and assessed the application documentation and I am satisfied that the site, technologies and techniques specified in the application and as confirmed, modified or specified in the attached Recommended Decision comply with the requirements and principles of BAT. I consider the technologies and techniques as described in the application, in this report, and in the RD, to be the most effective in achieving a high general level of protection of the environment having regard - as may be relevant - to the way the facility is located, designed, built, managed, maintained, operated and decommissioned.

9. Compliance with Directives/Regulations

The facility does not fall under the scope of the Landfill or IPPC directives. In relation to the Groundwater Directive the facility will not have any direct emissions to groundwater. Condition 1.2 in the RD requires compliance with the Animal By-Products Regulation prior to the commencement of any activities on site.

10. Compliance and Enforcement

According to Meath County Council Organic Gold (Marketing) Ltd., has failed to comply in full with the conditions set out in their waste permit (WMP2002/26). As a result, Meath County Council sent a notification of non-compliance to Organic Gold directing the cessation of waste activities on site. The company partially complied with this notice. A further warning letter was issued in February 2006 instructing that all waste on site be removed to an appropriate disposal facility. According to Meath County Council there was still waste on site in May.

The permit under which Organic Gold had been operating (WMP2002/26) expired on the 26th of November, 2005 and subsequent applications have been refused.

11. Fit & Proper Person Assessment

The applicants experience, technical abilities, financial and legal standing would qualify them as Fit & Proper Persons.

The applicant has stated that the Directors and Operations Manager of the facility have 15 years of experience each in the composting of organic waste. In addition, they propose to employ an additional technical staff member and employ the services of consultants to ensure that the facility is operated in such a way that it does not impact on the local residents or the environment.

The applicant has never been convicted of an offence under the Waste Management Acts 1996 to 2005 and the financial evidence submitted by the applicant is sufficient for the purposes of the Act.

Meath County Council was specifically offered the opportunity in a correspondence dated 16/01/2007 to make a submission on the application. When no submission was forthcoming they were contacted by telephone and asked again. They said that they had no interest in making a submission on this application.

12. Submissions

There are a number of common themes in relation to the 24 submissions received in relation to this application. These will be considered as follows. A full schedule of all those who made submissions is appended (Appendix 1).

(i) Odour

Most of the submissions received cited odour as a reason for objection to the proposed activity. Historically, there have been issues in relation to odour at the facility. However, the proposed facility as outlined in the application documentation details significant improvements in both operational and infrastructural design. The most important of which is that all waste handling will occur in a dedicated waste reception building and composting will take place in an in-vessel system. In addition to the measures proposed by the applicant to mitigate against odour nuisance the RD stipulates a number or additional measures. The most notable of these measures is the provision of additional odour abatement technology. The RD requires the applicant to employ extraction and abatement technology from the waste reception building and install biofilters on the in-vessel units. In addition, Condition 6.16.2.4 requires the applicant to install aeration pads for all windrow composting and submit a detailed odour management plan to the Agency prior to commencement of licensable activities (Condition 3.26).

(ii) Health

Issues in relation to health were mainly expressed in general terms and in the proximity of the facility to the sensitive receptors such as the school, the village of Wilkinstown and private dwellings. Health concerns surrounding composting facilities generally refer to bioaerosols.

It is important to note that bioaerosols are not exclusive to composting facilities. They can be found in farms, mushroom production, timber processing and non-occupational environments and activities such as wooded areas and cutting lawns.

As discussed in section 4.1 of this report there are no occupational exposure limits recommended in Ireland for exposure to bioaerosols, however, the UK Environment Agency recommends that if sensitive receptors are within 250m of a composting facility then a site specific risk assessment should be undertaken. Organic Gold (Marketing) Ltd., completed such an assessment and concluded that bioaerosol levels at the facility could be maintained at appropriate levels. In addition, the RD

requires annual monitoring of bioaerosols in accordance with Schedule C1.2.

(iii) Noise

Only one submission referred specifically to the noise impact of the proposed facility. Noise monitoring at the location indicated exceedances in the noise limits specified in the RD. However, these exceedances could be reasonably attributed to traffic noise. The RD specifies a number of conditions (4.5, 5.6, 6.13.1) to protect all of the lands outside the boundary from noise nuisance and sets limits (Schedule B4) and regular monitoring requirements (Schedule C5) for the activity.

(iv) Surface Water and Groundwater

Concerns relating to surface and groundwater contamination were specified in the submissions received in relation to this application. There are no direct process related emissions to either surface or ground water proposed for this facility. Nevertheless, the RD specifies a number of measures for the protection of both types of water resources.

(vi) Nuisance

Submissions received under this heading related to litter, vermin, birds and flies. Operational controls proposed by the applicant and Conditions 5.7, 6.24, 8.9.3, 8.9.6 and 11.13 mitigate against potential nuisances.

(vi) Other

Some of the issues raised in the submissions related to planning and traffic. These issues are matters for the Planning Authority. A number of the submissions related to the acceptance of sludge as a feed stock on site. Condition 1.5 limits the wastes to be accepted on site to those outlined in Schedule A and as listed under Annex 1 of the EC Working Document 'Biological Treatment of Biowaste' (2nd draft).

14. Charges

The RD requires that the applicant shall pay an annual contribution of €13,970 (Condition 12.1.1).

15. 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 RD and for the reasons as drafted.

Signed

Dr. Karen Creed

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.

Appendix 1

Sub. No.	Name	Address
1	Mr & Ms Paschal & Susan Baugh	Escallionia, Wilkinstown, Navan, Co. Meath
2	Mr Hugh Martin	Kells Road, Wilkinstown, Navan, Co. Meath
3	Mr Noel Flemming	Wilkinstown, Navan, Co. Meath
4	Mr Niall Monaghan	Glackenstown, Wilkinstown, Navan, Co. Meath
5	Ms Judith Duff	Glackenstown, Wilkinstown, Navan, Co. Meath
6	Ms Teresa Kelly	North Eastern Health Board, Community Care Services, Co. Clinic, Navan, Co, Meath
7	Mr & Ms Brendan & Orla O'Reilly	5 the Priory, Wilkinstown, Navan, Co. Meath
8	Mr & Ms Hugh & Angela Lynch	Wilkinstown, Navan, Co. Meath
9	Mr Sean Fleming	Clynch, Wilkinstown, Navan, Co. Meath
10	Mr & Ms Peter & Noeline McCormack	Wilkinstown, Navan, Co. Meath
11	Mr Brian D Kenny	Knighstown House, Wilkinstown, Navan, Co. Meath
12	Ms Emer Davis	Berryleck Lane, Wilkinstown, Navan, Co. Meath
13	Mr. Martin Mallon	Arch Hall, Wilkinstown, Navan, Co. Meath
14	Dr. Don MacAuley	The View, Wilkinstown, Navan, Co. Meath
15	Mr Brendan Markey	Wilkinstown, Navan, Co. Meath
16	Mr Brendan Markey	Wilkinstown, Navan, Co. Meath
17	Dr. Don MacAuley	The View, Wilkinstown, Navan, Co. Meath
18	Ms Bernie O'Dwyer	bernieodwyer@eircom.net
19	Dr. & Ms Billy & Catherine O'Keeffe	Kilshine Lodge, Wilkinstown, Navan, Co. Meath
20	Dr. Don MacAuley	The View, Wilkinstown, Navan, Co. Meath
21	Dr. Don MacAuley	The View, Wilkinstown, Navan, Co. Meath
22	Mr Brian D Kenny	Knighstown House, Wilkinstown, Navan, Co. Meath
23	Mr. Martin Mallon	Arch Hall, Wilkinstown, Navan, Co. Meath
24	Dr. Don MacAuley	The View, Wilkinstown, Navan, Co. Meath