

F Environmental Nuisance

F.1 Aerosol Control

The biodegradable organic waste reception and the composting / vermicomposting processes will be undertaken indoors. Thus due to the enclosed nature of the activity plus the air extraction and biofiltration system, there will be not be a problem associated with aerosols.

F.2 Bird Control

Bird Control Ireland Limited were retained by Shannon Vermicomposting Ltd during 2003 to install and monitor a programme to control minimize any potential problem with birds gathering around the site. During 2003, there was a problem with birds accumulating around the site due to the fact that the limited composting that was been undertaken was done outdoors. When construction is completed at the site, the waste reception and composting will be undertaken indoors and this will eliminate any problem there have been with birds. In the meanwhile, the measures that have been put in place by Bird Watch Ireland Limited will continue. These measures include a bird distress call system, a mechanical pop-up man, kite flying and a hawk. Since these measures were introduced, the problem has been substantially improved.

F.3 Dust Control

When the construction of all the tunnels, buildings and infrastructure is complete, the composting activities will be undertaken indoors and thus there will be no dust emissions to the atmosphere from these activities. The only activity that will be undertaken outdoors will be the screening phase of the composting process. This will be completed in small batches with the compost being loaded directly into the loading hopper and the screened compost collected in trailers. The compost will be damp which will inhibit the finer material from becoming airborne and the screened compost will be transferred indoors immediately. There is a concrete surfaced road from the entrance gate to the waste reception area and this will minimise any dust due to delivery traffic. This surface will be watered during dry spells to ensure there are no dust emissions.

F.4 Fire Control

The raw material is not readily combustible and the composting is a natural process that does not require an artificial heat source. The process does however require the use of mechanical machinery and electric aeration blowers. There is therefore the potential for fire and fire control

measures are a structured part of the Shannon Vermicomposting operational procedures. The fire control measures consist of the provision of two water tanks, specifically for fire fighting, an adequate supply of fire extinguishers spread throughout the site and the installation of a fire alarm system. A slurry tanker will be provided on site as a mobile fire-fighting appliance. All employees will have site safety certificates, will be familiar with the location and use of the fire fighting equipment and will undergo fire drills. All staff will also be familiar with the contact details for the emergency services.

F.5 Litter Control

All the raw materials delivered to the site are biodegradable organic wastes and these are tipped directly into the bays in the reception area. There should be no litter in the organic wastes. The site will be inspected daily to ensure that there is no litter on the site that could blow onto the public road. The natural hedgerows and boundary fences also ensure that there is no potential for litter to be blown onto or off the site.

F.6 Odour Control

Currently, Shannon Vermicomposting is undertaking a limited amount of composting at the site under the terms of a waste permit, issued by North Tipperary County Council. The composting is being undertaken outdoors, using windrows and the compost is covered by plastic sheeting to keep it dry from rainfall and to retain the moisture within the compost. An odour survey was completed by Bord na Mona Environmental to assess the impact of this current operation. The results of this survey are reported in Attachment D1

Construction is progressing at the site to complete the tunnels in which the composting / vermicomposting will take place. A planning application to roof the waste reception area has been lodged with North Tipperary County Council. When construction is completed, the waste reception and composting will take place indoors. These buildings will be fitted with an aeration system and biofilters to ensure that there are no odours. Each aeration tunnel is located adjacent to a vermicomposting tunnel. An under floor aeration system will feed air through the compost in the aeration tunnels. The extracted air is directed to the adjoining vermicomposting tunnel where it is passed through the vermicomposting beds. This heat promotes growth in the worm stocks, thereby increasing the density of the worms, and accelerating the processing of the compost material to worm cast compost. The vermicomposting beds act as a natural biofilter as these are filled with bacteria micro-organisms from the worms which act as a natural process to suppress odours. The air that is extracted from the worm tunnels is circulated back to the aeration tunnels to create a

balanced air system. Each tunnel is also fitted with an ozone disinfection defuser that air emitted to the atmosphere passes through to ensure the total elimination of odours.

F.7 Road Cleansing

There are a number of measures in place at the facility to ensure that the public road remains clean and is not adversely affected by the operation. Firstly, the surface of the facility is either a hard core or concrete surface. There is a concrete roadway between the access gate, weighbridge and reception area so no delivery trucks will travel on a dirty surface or through waste. All trucks will be required to pass through a wheelwash before they exit the facility to the public road and a high powered hand held power washer will also be provided at the wheel wash to ensure that all vehicles leaving the site are clean.

F.8 Traffic Control

It is envisaged that when the facility is operating at 20,000 tonnes per annum, up to 8 trucks will deliver the organic waste to the facility each day. These trucks will have sealed covered containers and they will pass through the village of Rathcabbin. A traffic survey was conducted on two days during May 2004 to determine the volume of traffic in the village between 9.00am and 6.00pm. The results of the survey were:

Private cars: 216

Commercial vehicles: 75 (comprises vans, tractors, 4x4 commercials)

Trucks: 12

The delivery by eight trucks to the Shannon Vermicomposting site will have no significant increase in the daily total number of vehicle movements through the village. It will however significantly increase the number of truck movements through the village.

F.9 Vermin Control

Since the middle of 2003, Shannon Vermicomposting Ltd have retained the services of Rentokil to monitor the facility on a regular basis to determine whether there is a vermin control problem present and to manage this problem, if it exists. The monitoring programme checks for the presence of pests, rats, mice and flies. Rentokil have inspected the site on 11 occasions in the past 12 months and no rats have been found in any of the traps that are present on the site. On two occasions, mice were recorded and the degree of infestation was described as "light" on the

Rentokil report sheet on both occasions. The reports subsequent to these occasions illustrate clearly that pest free conditions were restored and maintained immediately afterwards.

The programme of vermin control will be maintained to ensure that the facility will not have a problem relating to vermin.

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