

**Environmental Protection Act 1990**

**Waste Management Licence Working Plan.**

For

**Biowaste Composting Facility.  
Albion Lane,  
Willerby,  
East Yorkshire.**

on behalf of

**Biowaste Recycling Limited.**

Licence number EAWML 65512

1.	Specified waste management operations	-----	3
1.1	Specified site	-----	3
1.2	Permitted waste operations	-----	4
2	Permitted waste		
2.1	Capacity of operation	-----	4
2.2	Permitted waste streams.	-----	5
3	Engineered site containment and drainage system		
3.1	Engineered site containment and drainage	-----	10
3.1.1	Green waste Operation	-----	10
3.1.2	Industrial sludge operation.	-----	11
3.1.3	Site maintenance	-----	11
4	Control of mud and debris		
4.1	Control of mud and debris	-----	12
5	Waste acceptance and procedures		
5.1	Operating procedures	-----	13
5.2	Plant & Equipment	-----	14
5.3	Control of quality and operational overview	-----	15
6	Waste quantity measurement		
6.1	Waste input monitoring	-----	15
7	Storage of wastes with specific hazardous properties		
7.1	Storage of wastes with specific hazardous properties	-----	16
8	Control, monitoring and reporting emissions		
8.1	Control of dusts, fibres and particulates	-----	16
8.2	Control of noise	-----	16
8.3	Control of bio-aerosols	-----	17
9	Control of odour emissions		
9.1	Control of odour	-----	18
9.2	Control of odour from Boythorpe tank	-----	18
10	Control of litter		
10.1	Control of litter	-----	19
11	Security & Maintenance of records		
11.1	Security and availability of site records	-----	20
12	Additional issues		
12.1	Management and staffing of the site	-----	21
12.2	Site security	-----	21
12.3	Fire prevention & control	-----	21
12.4	Control of pests	-----	22
12.5	Control of scavenging birds and other scavengers	-----	22

## 1 Specified Waste management operations

### 1.1 Specified site

- 1.1.1 The proposed site is located at:  
Albion Lane,  
Willerby,  
East Yorkshire.
- 1.1.2 The site is centred on grid reference TA 014314 as shown on location plan BIO01/06B.
- 1.1.3 Albion Lane composting site was established in March 2002 as a site with the ability to produce a soil enrichment material suitable for land reclamation works on the adjacent landfill sites.
- 1.1.4 It was registered as an exempt site with the Environment Agency. Registration YQ/E/L/BIO001. (Appendix 1)
- 1.1.5 The site layout plan is shown reference BIO04/06  
The drawing details the following:-  
  
The site boundary, gates and access.  
Waste reception areas  
The waste handling areas  
The location of the drainage system in use on site  
The control office  
The weighbridge location
- 1.1.6 The site will consist of several areas and is run as a two stream process.
- 1.1.7 The two streams will be:-  
  
1) A totally green waste stream  
  
and  
  
2) A stream consisting of industrial sludges, sawdust and woodchip and some green waste.
- 1.1.8 Whilst each waste stream will be handled separately wherever possible within the operation there are:-  
  
A waste reception area where the waste is deposited  
The operational area where the wastes are mixed, and made into windrows  
The storage area. where the product is stored prior to subsequent use.

## **1.2 Permitted Waste Management operations.**

- 1.2.1 The following specified waste management operations will be carried out on the site:-
- Recycling and reclamation of organic substances by biological treatment with selective composting and the associated physical treatments of turning, shredding and screening.
- 1.2.2 The two waste streams have very different sources.
- 1.2.2.1 The green wastes arising comes largely from householder's garden via the local authority Civic Amenity sites within the county. They consist of organic horticultural and landscaping materials such as grass clippings and tree prunings
- 1.2.2.2 The industrial sludges arise as by-products of a variety of industrial processes and are received in the form of a liquid via road tanker or as a semi dried sludge via a skip carrying vehicle. Each waste has been analysed prior to it being routinely accepted to allow an assessment of its chemical and physical suitability for the process.
- 1.2.3 Both composting processes are directed at producing a usable end product for both on and off site use.

## **2 Permitted Waste**

### **2.1 Maximum capacity of the operation.**

- 2.1.1 The site will handle the following maximum tonnes of waste:

Tonnes per annum	25,000
Tonnes per month	3,000
Tonnes per day	200
Total active material on site at any given time	10,000

- 2.1.2 The licensed area of the site is larger than that currently in daily operational use but this will allow for expansion of the facilities over the coming years. It is intended to extend the concreted area of the site on which the windrows are based progressively as input demands.

- 2.1.3 The operational storage of the green waste site will be limited to

Unshredded green wastes	800 tonnes
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Shredded green waste material prior to composting 200 tonnes  
(Not currently carried out)

2.1.4 The operational storage of non green waste will be limited to

Woodchip and Sawdust 200 tonnes

No storage of liquids or sludges will take place.  
All such waste streams are mixed as soon as possible after arrival.

## **2.2 Permitted wastes**

2.2.1 The following wastes will be accepted at the site, as defined by the European Waste Classification Scheme:

### **2.2.1.1 Green Waste Operation**

#### EWC code

02 01 Waste arising from agriculture, horticulture, aquiculture, forestry, hunting & fishing

02 01 03 Plant tissue waste

02 01 07 Waste from forestry

20 02 Garden & park waste (Including cemetery waste)

20 02 01 Biodegradable waste

20 02 02 Soil & stones

### **2.2.1.2 Industrial waste Operation**

#### EWC code

**02** Waste arising from agriculture, horticulture, aquaculture, hunting & fishing, food preparation and processing

02 01 Waste arising from agriculture, horticulture, aquiculture, forestry, hunting & fishing

02 01 03 Plant tissue waste

02 01 06 Animal faeces, urine & manure (Including spoiled straw), effluent, collected separately and treated off-site

02 01 07 Forestry waste

- 02 03 Wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea, and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses.
  - 02 03 01 sludges from washing, cleaning, peeling, centrifuging and separation.
  - 02 03 04 materials unsuitable for consumption or processing
  - 02 03 05 sludges from on-site effluent treatment
- 02 04 Wastes from sugar processing
  - 02 04 01 soil from cleaning and washing beet
  - 02 04 02 off-specification calcium carbonate
  - 02 04 03 sludges from on-site effluent treatment
- 02 05 Wastes from dairy products industry
  - 02 05 01 materials unsuitable for consumption or processing
  - 02 05 02 sludges from on-site effluent treatment
- 02 06 Wastes from the baking and confectionery industry
  - 02 06 01 materials unsuitable for consumption or processing
  - 02 06 02 wastes from preserving agents
  - 02 06 03 sludges from on-site effluent treatment
- 02 07 Wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea, and cocoa)
  - 02 07 01 wastes from washing, cleaning and mechanical reduction of raw materials
  - 02 07 02 wastes from spirits distillation
  - 02 07 03 wastes from chemical treatment
  - 02 07 04 materials unsuitable for consumption or processing
  - 02 07 05 sludges from on site effluent treatment
- 03 01 Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard
  - 03 01 01 waste bark and cork

- 03 01 05 sawdust, shavings, cuttings, wood, particle board, and veneer other than those noted in 03 01 14
- 03 03 Wastes from pulp, paper and cardboard production and processing
  - 03 03 01 waste bark and cork
  - 03 03 08 wastes from sorting of paper and cardboard destined for recycling
- 04 02 Wastes from the leather and fur industry
  - 04 01 01 fleshings and lime split wastes
  - 04 01 05 tanning liquor free of chromium
  - 04 01 07 sludges, in particular from on-site effluent treatment free of chromium
- 04 02 Wastes from the textile industry
  - 04 02 10 organic matter from natural products ( for example grease, wax,)
  - 04 02 20 sludges from on-site effluent treatment other than those mentioned in 04 02 19
- 06 Wastes from inorganic chemical processes
  - 06 10 Wastes from the MFSU of nitrogen chemicals, nitrogen chemical processes and fertiliser manufacture
  - 06 10 99 wastes not otherwise specified
- 07 Wastes from the manufacture, formulation, supply or use (MFSU) of basic organic chemicals
  - 07 01 12 sludges from on-site effluent treatment other than those noted in 07 01 11
- 07 03 Wastes from the MFSU of organic dyes and pigments (Except 06 11)
  - 07 03 12 wastes not otherwise specified
- 07 05 Wastes from the manufacture, formulation, supply and use (MFSU) of pharmaceuticals
  - 07 05 12 sludges from on-site effluent treatment other than those noted in 07 05 11

- 07 05 14 solid wastes other than those noted in 07 05 13
- 07 06 Wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics
  - 07 06 12 sludges from on-site effluent treatment other than those mentioned in 07 06 11
- 08 Wastes from the manufacture, formulation, supply and use (MFSU) of coatings (paints, varnishes and vitreous enamels), adhesives, sealants, and printing inks
  - 08 01 Wastes from MFSU and removal of paint and varnish
    - 08 01 16 aqueous sludges containing paint or varnish other than those mentioned in 08 01 05
    - 08 01 20 aqueous suspensions containing paint or varnish other than those noted in 08 01 19
  - 08 02 Wastes from MFSU of other coatings (including ceramic materials)
    - 08 02 01 waste coating powders
  - 08 04 Wastes from MFSU of adhesives and sealants (including waterproof products)
    - 08 04 14 aqueous sludges containing adhesives and sealants other than those mentioned in 08 04 13
    - 08 04 16 aqueous liquid waste containing adhesives and sealants other than those mentioned in 08 04 15
- 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 03 wooden packaging
    - 15 01 05 composite packaging
  - 15 02 Absorbents, filter materials, wiping cloths and protective clothing
    - 15 02 03 absorbents, filter materials, wiping cloths and protective clothing other than those noted in 15 02 02
- 16 Wastes not otherwise specified in the list

- 16 03 off-specification batches and unused products
  - 16 03 06 organic wastes other than those mentioned in 16 03 05
- 16 10 aqueous liquid wastes destined for off-site treatment
  - 16 10 02 aqueous liquid wastes other than those noted in 16 10 01
  
- 19 Waste from waste management facilities
  - 19 07 landfill leachate
    - 19 07 03 landfill leachate other than those mentioned in 19 07 02
  - 19 08 wastes from waste water treatment plants
    - 19 08 05 sludge from treatment of urban waste water.
  - 19 12 Wastes from mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
    - 19 12 01 paper and cardboard
    - 19 12 07 wood other than that mentioned in 19 12 06
    - 19 12 09 minerals (for example sand, stones)
  
- 20 Municipal wastes (household and similar commercial, industrial and institutional wastes including separately collected fractions)
  - 20 01 separately collected fractions
    - 20 01 01 paper and cardboard
    - 20 01 38 wood other than that mentioned in 20 01 37
  - 20 03 other municipal wastes
    - 20 03 03 street cleaning residues
    - 20 03 99 municipal wastes not otherwise specified

### **3 Engineered site containment and drainage systems**

#### 3.1 Engineered site containment and drainage

##### **3.1.1 Green Waste Operation**

- 3.1.1.1 All of the waste reception, storage, shredding and composting operation will be undertaken within the licensed area as per plan reference BIO01/06B.
- 3.1.1.2 The green waste reception area consists of two bays, which is based with compacted hardcore overlaying clays, and are used alternately to store the material prior to shredding. Material is stored here for up to three weeks maximum to await shredder availability. Each bay is emptied over a four week cycle by shredding every two weeks for one day.
- 3.1.1.3 Shredding of the collected material takes place between the two bays. The shredded material is taken to the windrow area during the shredding process. The empty bay is then lined with fresh woodchip material which absorbs any liquor produced during storage prior to shredding and reception into that bay is recommenced.
- 3.1.1.4 The existing concrete composting pad will extended by approx. 22 metres along the eastern boundary of the pad and connected to it to give an additional operational area of 30 metres by 22 metres. The construction specification will be exactly the same for the existing pad and will consist of a concrete slab 200mm grade with mesh re-enforcement and underlain with a water proof underlay consisting of 250 micron thick polythene sheet with a type I granular sub base overlay.  
The construction of the site will be undertaken on a tender basis by an external contractor. (Plan BIO03/06)
- 3.1.1.5 All rainwater falling on the area will be directed by grading of the area and side wall channels to discharge through buffered drainage holes in the existing wall on to the existing concrete area and thence to the existing underground storage tank. From the sumps the collected run-off will be pumped to Boythorpe storage tank for future use or directly back over the windrows to the maintain moisture content.
- 3.1.1.6 There will be no discharge of any collected liquor to any external area and as such the site will pose no threat to any groundwater source. Since the site is largely located at the highest point of the site and there are no surface water areas these too will not be threatened by the existence of the site.
- 3.1.1.7 In the event of an emergency or exceptionally heavy rainfall the sump contents will be re-circulated around the windrow areas. Should this prove inadequate the excess will be transported off site for disposal on some suitably licensed facility.

### **3.1.2 Industrial Sludge operation**

- 3.1.2.1 The industrial waste composting area is constructed from impermeable fibre re-enforced 200mm grade concrete slab and underlain with a water proof underlay consisting of 250 micron thick polythene sheet with a type I granular sub base overlay. Construction details are as per plan BIO02/06.
- 3.1.2.2. The entire area is laid to a fall such that all liquid gathers at the western end of the site where it is piped to a concrete section underground tank of 8 cubic metres capacity from where it is pumped to an over ground Boythorpe agricultural storage tank with a capacity of 398 cu. m. At times of exceptionally heavy rainfall or other emergency the run off can be contained within the site by closing the outfall from the site to permit remedial works to be carried out.
- 3.1.2.3 The perimeter of the concrete is walled by either 1) a high density building block wall three blocks in height set into the basal concrete or 2) a concrete slab wall to a height of three metres around the reception and mixing area. All joints are sealed and waterproof.
- 3.1.2.4 The Boythorpe tank is located on a similar slab of concrete banded by an analogous block wall to that described in 3.1.2.3.above on three sides with the run off being over a ledge into the operational area to prevent any leakage of water off the composting area should the tank leak.

### **3.1.3 Site Maintenance**

- 3.1.3.1 The operations are manned every day and inspections made as to the effectiveness of the composting pad, drainage systems and the integrity of the walling.
- 3.1.3.2 Inspection of the sump and underground storage tank is made on a daily basis and pumped to effective dryness as soon as possible that day if it is required. They are emptied prior to any significant rainfall forecast and records of rainfall on site are made and maintained on a daily basis along with other weather parameters.
- 3.1.3.3 The concrete slab used for industrial sludge composting is examined at least weekly for any sign of cracking or other imperfection. Any defect found will be rectified within a reasonable period of their discovery. Similarly any defect in the drainage system will be rectified as soon as reasonable after discovery.
- 3.1.3.4. On identifying any defect it will be recorded in the site diary and a suitable sub contractor identified and the works initiated. Should the defect be such that to continue operations would cause environmental damage the operations in the affected area would be suspended pending remedial action.

- 3.1.3.5 The site manager will progress and monitor the execution of the remedial to ensure that they have been completed as necessary.
- 3.1.3.6 During the design and construction of the facilities the effect of the operation on the ground water system has been considered. It was concluded that the impermeable surfacing of the industrial waste processing unit removed any risk to ground water from that source.

## **4 Control of mud and debris**

### 4.1 Control of mud and debris.

- 4.1.1 Access to the site is directly from the A164 Humber Bridge Approach Road and consists of some 500 metres of tarmacadamed road 6 metres wide and leads to the weighbridge facility of the site.
- 4.1.2 As all areas of the site are of hard standing in nature and vehicles do not have to pass over any unmetalled surfaces there is little possibility that vehicles will drag any mud from the site onto any public highway. Should this prove to be incorrect the site has an arrangement with a subcontractor to sweep the internal site roads on request.
- 4.1.3. Site instructions issued to all drivers give details of their responsibility to drive and behave whilst on site including the security of their load (Appendix 2.)
- 4.1.4 All loaded vehicles entering or leaving the site will be covered to prevent spillage.
- 4.1.5 Should it ever prove necessary the site has a dry wheel spinner which can be used to shake off any loose mud prior to rejoining the access road some 400metres from the public highway.

## **5 Waste Acceptance and procedures.**

### 5.1 Operating procedures

- 5.1.1 All wastes being delivered to the non green waste composting facility have to be notified to the site by fax at latest by 4.0pm on the working day preceding its anticipated delivery. This is to ensure that the site capacity is not exceeded and to allow preparatory work to receive the material to be undertaken (Appendix 3). Such wastes are accepted only up to two hours before the end of the working day to ensure that all delivered wastes have been dealt with correctly before the site closes
- 5.1.2 Green wastes are accepted into the reception area throughout the working day and stockpiled there waiting shredding.
- 5.1.3 Regardless of the type of compostable delivery taking place on entering the site, waste carrying vehicles will be visually inspected to ensure that they are as described on the transfer note and that they comply with the waste management licence.
- 5.1.4 Once deposited within either the mixing area or the storage area in the case of green wastes the load is further inspected and any materials identified as non permitted wastes are extracted and placed in a container on site. If the non permitted wastes exceed 5% of the load the load is refused and reloaded into the delivery vehicle or held on site whilst the vehicle is returned to the site to allow this to take place.
- 5.1.5 The extracted non compliant materials are dispatched back to their original site for the contractor to dispose of at a suitably licensed facility. Records of rejected loads are kept in the site diary and the removal of collected material is recorded as a removal from site across the weighbridge hence a ticket is generated.
- 5.1.6 The site has a written procedure for handling and disposing of unsuitable material and within that procedure the operative is required to inform the site manager of any concerns relating to unknown waste on site and it is his responsibility to see that the waste is dealt with in accordance with the regulations (Appendix 4).
- 5.1.7 Once the waste has been accepted it is either stockpiled to await shredding in the case of the green waste stream or for all other streams it is immediately mixed within the working area and placed in a windrow. It is customary in the case of non green wastes to mix the subsequent days waste with the first deliveries to give a good overall mix and ensure that microbial activity can commence as soon as possible. At the end of each working week all that week's wastes are formed into a single windrow. Operational layout of the industrial waste stream scheme is shown in plan BIO03/06A

- 5.1.8 Shredding of the stockpiled green wastes is undertaken at roughly fortnightly intervals when there is between 250 and 300 tonnes of stockpiled waste. Shredding is done using a Doppstat or similar hammer mill shredder and the material produced is formed into appropriate windrows. Windrows will be formed on the green waste only area in the same manner as shown schematically in plan BIO03/06B.
- 5.1.9 Each windrow is turned at least weekly and monitored for moisture content and temperature which are recorded usually two or three days after turning. All temperatures are measured using a long stem analogue thermometer with measurements being made in at least three points in the windrow each time. Moisture content is noted by the squeezed finger test.
- 5.1.9.1 In the non green wastes temperatures take up to two weeks to achieve 50°C plus and remain at that level for at least the next six weeks whilst being moved around the composting pad.
- 5.1.9.2 The green wastes rapidly achieve 60°C plus and are monitored in an analogous fashion to that above. They too are turned on a regular basis.
- 5.1.10 The matured compost is then screened to remove any oversize objects and the rejected stream is recycled back through the process. Any shredded plastic from the green waste stream is extracted and placed in the unacceptable bin on site for subsequent removal.
- 5.1.11 All screened compost is stockpiled in the maturation area as indicated on plan prior to its removal from the area for use. Compost is stored in the open area not exceeding the six metres in height granted by the planning consent.
- 5.1.12 The final product is inspected and batch analysed to confirm both its chemical and physical description and character. Each is also analysed for microbial presence of E. Coli & Salmonella with to date neither being found to be present. All such details are maintained within the site records as indeed are the destination of its delivery.

## 5.2 Plant and Equipment

- 5.2.1 The site is equipped with a JCB wheeled loader for mixing, turning and movement of the incoming waste streams.
- 5.2.2 Shredding is undertaken on a contract basis and screening is likewise subcontracted out although in the future it may well be that screening is undertaken in-house with a trommel screen operated by our own staff.
- 5.2.3 No waste is accepted if there is no mixing machine on site and the plant is maintained on a regular basis to ensure maximum availability.

### 5.3 Control of quality and operational overview.

- 5.3.1 Only those wastes permitted by the waste management licence will be allowed to remain on site for treatment.
- 5.3.2 Deposited waste is checked by site personnel and action taken by the operations manager to minimise the acceptance/delivery of any material falling outside the definitions. If any waste found on site contained hazardous materials the internal procedure would be implemented and the environment agency informed of its presence for guidance (Appendix 4).
- 5.3.4 All inspections are undertaken by personnel familiar with the licence conditions.
- 5.3.5 Contaminants such as plastic sacks, plant pots etc, delivered in the green wastes will be removed at each stage of the operation. They will be hand picked, bagged and placed in the on site container for removal elsewhere.
- 5.3.6 The fully composted material will be subject to analysis in accordance with the Composting Association guidelines at least three times per year and supplemented with additional analysis as felt necessary by management.
- 5.3.7 The site will be operated in such a way as to produce a product acceptable BSI (PAS100) certification, APEX or similar accreditation. It is anticipated that this will be achieved within the next year.

## **6 Waste quantity measurement.**

### 6.1 Waste Input Monitoring.

- 6.1.1 All vehicles entering the site have to cross a weighbridge where their gross weights are recorded. After deposition of the material they revisit the weighbridge where the tare weight of the vehicle is recorded. A computer printed ticket is produced for each load and is signed by both the delivery driver and the weighbridge person on duty. A copy is given to the driver and a second copy retained on site (Appendix 5).
- 6.1.2 The weighbridge is a 50 tonne Avery concrete bridge and is the subject of an annual maintenance with Avery which occurs at least twice per annum. The bridge is also subject to spot checks by the Weights & Measurement department of the local authority to ensure calibration is maintained. The bridge is kept accurate to within 20 kilograms.
- 6.1.3. In the event of a breakdown of the weighing facility records of the waste input are maintained manually with the previous records of each vehicle being analysed by computer to generate an average weight for the preceding six months. Once the weighbridge is back in operation the records are manually entered and the stored records updated.

## **7 Storage of wastes with specific hazardous properties.**

### 7.1 Storage of wastes with specific hazardous properties

7.1 The site will not accept any waste of a hazardous nature.

## **8 Control, monitoring and reporting emissions of dust, fibres and particulates.**

### 8.1 Control of dusts, fibres and particulates.

8.1.1 The site is located within a rural environment and is at least 350 metres from the nearest dwelling or place of work, Mill Cottages, Albion Lane and Stackyard Farm, Eppleworth Road. Plan BIO01/06B Accordingly it is not envisaged that dusts, fibres and particulates will cause any disturbance to our neighbours.

8.1.2 The site will not accept waste streams that consist solely or mainly of dusts powders or loose fibres. However the site does accept usually small quantities of sawdust and the handling of many wastes by mechanical means has the potential to generate dusts and thus mitigation measures will be put in place on an as necessary basis.

8.1.3 The two most likely sources of dust generation occur when sawdust is deposited on site or when screening of the product is carried out as the dryness of the material being handled is at its minimum to screen efficiently.  
To reduce both these risks all operatives are supplied with dust masks. In addition when depositing sawdust every effort is made to ensure that the deposit is made so that the driver can be upwind of the tipping operation. On windy days when the wind direction is such that any material could be carried out of the immediate vicinity of the site sawdust would be refused access to the site and no screening of the product would be carried out.

8.1.4 During periods of sustained dry weather the hard standing areas around the weighbridge and site access roads will be dampened with water to prevent dust generation.

8.1.5 The moisture content within the windrows will be maintained between 40 – 60% to again minimise the creation of dust.

### 8.2 Control of noise

8.2.1 The remoteness of the operational area from any dwelling or workplace means that the likelihood of noise pollution affecting anyone off site is extremely unlikely. All equipment utilised is of a standard nature and the operatives have the option of wearing ear defenders or plugs when necessary to work in close proximity to any heavy plant.

8.3 Control and monitoring of bio-aerosols.

- 8.3.1 There are no domestic, commercial or industrial premises within 250 metres of any of the proposed licensed area’s boundaries and as such the transport of bio-aerosols off-site is considered extremely unlikely.
- 8.3.2 There is as yet no Environment Agency standard assessment of bio-aerosol dispersion but following a report commissioned in 2001 Atkins Global concluded that a standard method should be adopted whereby comparison values between operations could be compared.
- 8.3.3 Whilst the Environment Agency document M17 does not contain any set trigger levels for Bio aerosol emissions at which remedial action should be considered it is commonly accepted that the trigger levels used should be those shown in Table 1 below.

Table 1

Mesophilic Bacteria	1000cfu/m <sup>3</sup>
Aspergillus /fungal spores	1000cfu/m <sup>3</sup>
Gram negative bacteria	300cfu/m <sup>3</sup>

In this respect it must be borne in mind that the absolute levels of detected species may not indicate in themselves that any trigger level has been reached since this form of measurement is dynamic in nature and the true value of the effect of the activity on the environment can only be seen from the level of species recorded downwind being deducted from the level of species recorded upwind and both may vary widely dependent upon the activities going on around the area.

- 8.3.4 Following discussions with D & F Associates it is proposed that the site be monitored on four occasions throughout the first operational year followed by an annual analysis using the protocol suggested by the Composting Association and in line with the Environment Agency document M17. Under this protocol samples of air are drawn, using the active impingement technique, onto an agar plate for a known period of time and at a known rate of air flow from at least three locations around the site. Samples will be collected from the perimeter upwind of the site, downwind of the site on suitably dry days and other samples collected from any location considered by the consultants as being vulnerable. The plates are then incubated and the fungal spore and bacterial counts are made.
- 8.3.5 The results of cell counts of fungal spores including Aspergillus species, mesophilic bacteria and gram negative bacteria will be reported to the Environment Agency in writing as soon as possible. In the event that any trigger level is exceeded the consultants will suggest a course of action to preclude further contamination. In that event operations on site believed to be responsible for generating the emissions, turning, shredding, and

screening, will be modified or stopped. This may include the use of fine mist sprayers across the site when that activity is being carried out to reduce any airborne emission.

In these circumstances attempts would be made to identify the particular waste stream producing the problem and its acceptance would be reconsidered to see if the nuisance could be prevented either by prior treatment or some form of containment. If that proved impossible the waste streams would be rejected.

In the event of such an occurrence the Agency would be kept informed of all steps taken to minimise the site impact.

## **9 Control of odour emissions**

### 9.1 Control of odours

- 9.1.1 The rural location of the facility means that there are few if any odour receptors within 350metres of the site and accordingly it is not anticipated that odour should be an issue. However in line with the restrictions on operating in Para 8.1.3 above in the event that turning would cause some nasal offence to anyone off site the operation would be suspended until a change in the wind direction and speed had occurred.
- 9.1.2 Regular turning of the windrows to ensure that as far as possible the aerobic state of the composting material is maintained reduces the likelihood of bad odour generation.
- 9.1.3 In the event of a failure of the present good management routine the site is equipped with odour suppression spray equipment to mask any odour generated. Under such condition this would be used and operations would be stopped until the odour had been identified and remedial action taken.
- 9.1.4 It should be noted that over the last two years of operation of the industrial waste scheme there have been no complaints regarding offensive odours from the site.

### 9.2 Control of odour emissions from Boythorpe tank.

- 9.2.1 In the event of odour being found emanating from the liquid storage tank on site any contained liquid will, as rapidly as possible, be drained from the tank and admixed with fresh woodchip, sawdust and other absorbent materials on site and treated to an eight week cycle as a windrow exactly as the other compost able material accepted on site.
- 9.2.2 In order to reduce the likelihood of this being required it is proposed to implement several operational steps. Firstly to reduce as far as possible the dwell time for any liquid put into the tank so as to discourage the commencement of anaerobic

conditions. The tank is used for excess fluid falling on the concrete pad and recycled through the mixtures at windrow turning to maintain the moisture levels. Efforts will be made to minimise the amount of liquid pumped into the tank and also its utilisation will be monitored to ensure a speedy turn round.

- 9.2.3 Secondly in order to prevent windborne odours and evaporation of volatile organics it is proposed to cover the surface of the liquid with buoyant balls as used in sewage farms which will form a layer across the surface and allow both removal and input but reform after disturbance.
- 9.2.4 Thirdly it is seen that covering of the surface may lead to some minor anaerobiosis as the surface of the liquid will no longer be interfaced with the atmosphere directly and trials will be undertaken with forced air stones to maintain aerobic conditions within the tank. It is envisaged that implementation of the first two stages should ameliorate the recently seen problems without the need for the third step. However if it does become necessary the Environment Agency would be informed before any forced air input was commenced as there is some possibility that such circumstances may lead to increased risk of evaporation and escape of odour for which consent would be requested.
- 9.2.5 Additionally it is proposed to examine and implement if possible a more controlled system of drainage from the pad whereby finer filters are to be installed for the drainage water to pass through prior to it reaching the underground water tank so as to again minimise the sediment passing into the Boythorpe tank and thereby restrict the initiation of microbial activity.

## **10 Control of litter**

### 10.1 Control of litter

- 10.1.1 Every effort will be made to restrict litter being generated by the insistence on contractors to suppress the deposit of such in their green waste receptacles. Any stray litter generated by the shredding of plastic bags will be picked as soon as possible after shredding to minimise the visual aspect of its presence. All such collected litter will be placed in the unacceptable container and removed from site to a suitably licensed facility.
- 10.1.2 The collection of such litter will take place at each stage of the operation so as to maintain the site in a clean and tidy condition.
- 10.1.3 It is not anticipated that there will be any windblown litter beyond the site boundaries but should such occur then it will be picked as soon as practicable.
- 10.1.4 All loads delivering green wastes and woodchip are sheeted to prevent windblown material escaping. Sawdust is accepted in sealed skips only and not in plastic sacks.

## **11 Security and maintenance of records.**

### 11.1 Security and availability of site records.

- 11.1.1 A record will be kept of the type, quantity and date of delivery of each waste deposited at the site as well as the same details of any material being removed from site. Summaries of this information will be submitted to the Environment Agency at quarterly intervals within one month of the end of the declared period.
- 11.1.2 All site records in the form of weighbridge tickets are stored in the lock up store on site for at least seven years.
- 11.1.3 The electronic version of the ticket data is downloaded every at the end of each working day and transferred to a second off site computer for analysis and storage. This data is regularly archived and a third computer, located at the registered offices of Dispit Ltd., used for invoicing, is uploaded at least fortnightly to maintain details of all deposits made.
- 11.1.4 A site diary or working sheet will be held at the site to record:
- 1) Site manger's name
  - 2) Names and details of all visitors to the site.
  - 3) Details of all significant events occurring on site, to include breakdowns of service dates of plant, breakdowns, times of use of contractors plant,
  - 4) Details of any vandalism, or damage to any part of the property along with date of repair.
- 11.1.5 A record of any complaints received will be recorded along with the remedial action taken and kept in the site diary.
- 11.1.6 In the event of the cessation of operations for a period in excess of four weeks the Environment agency will be informed and at least five working days notice will be given to the Agency prior to re-commencement.

## **12 Additional issues**

### 12.1 Management and staffing of the site.

12.1.1 Whenever the site is open to receive or dispatch material or is carrying out any of the specified waste management operations it will be supervised by at least one member of staff who is conversant with the licence conditions and able to take decisions controlling:

Waste acceptance and control procedures

Operational control

Record keeping

Emergency action plans

Site and plant maintenance.

### 12.2 Site Security

12.2 The site is located in a semi rural area largely surrounded by farmland and security is aimed at preventing easy or accidental access by humans or livestock.

12.2.2 The site has two sets of gates along the access road to the facility both of which are kept locked outside all operational hours.

12.2.3 The site is manned throughout its operational hours.

12.2.4 The perimeter of the former landfill site wherein the compost facility lies is fenced with either agricultural wooden fencing or chain link or wire fencing.

12.2.5 Any defects noted in the security of the site will be rectified within a reasonable period of time of discovery.

### 12.3 Fire prevention and control

12.3.1 No wastes shall be burned on site

- 12.3.2 Highly inflammable substances will not be accepted on site so as to minimise any fire risk.
- 12.3.3 In the event of a fire the existing internal company fire procedures would be implemented in line with written procedures (Appendix 6). These would be supplemented with informing the fire service of the situation and acting upon their advice and as soon as practicable inform the Environment Agency of the incident.

#### 12.4 Control of pests

- 12.4.1 Should any rodents be seen on site action will be implemented to eradicate their presence as soon as possible. It has proved rare over the last five years to see rodents on site and since the bulk of material we accept is not attractive to rats it is not envisaged that there will be a significant problem. The employed subcontractor is certificated for rodent control and is used occasionally for this purpose.
- 12.4.2 Constant activity on the site discourages infestation by rodents and the high temperatures of the windrows means that the environment is not hospitable for them.
- 12.4.3 The operative on site and site manager make daily inspections of the site for any obvious signs of infestation and any other unwanted intruders human or animal.

#### 12.5 Control of scavenging birds and other scavengers.

- 12.5.1 Due to the frequent movement on site of both humans and machinery, the high temperatures of the materials the site does not provide a hospitable environment for birds or other scavengers.
- 12.5.2 Given the nature of material being accepted there is little if anything to attract scavengers to the site and to date there has been no problem with such species.