



Headquarters,
Johnstown Castle Estate
County Wexford, Ireland

INTEGRATED POLLUTION CONTROL PROPOSED DETERMINATION

Licence Register Number: 375

Applicant: MMF Limited

Location of Activity: Glenawinna,
Toomevara,
Nenagh,
County Tipperary.

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Glossary of Terms

The Agency	Environmental Protection Agency.
The Licensee	MMF Limited, Glenawinna, Toomevara, Nenagh, County Tipperary.
AER	Annual Environmental Report.
Annually	All or part of a period of twelve consecutive months.
BATNEEC	Best Available Technology Not Entailing Excessive Cost.
BOD	5 day Biochemical Oxygen Demand.
Buffer zone	Area excluded from landspreading of waste
COD	Chemical Oxygen Demand.
Daily	During all days of plant operation, and in the case of emissions, when emissions are taking place; with no more than one measurement on any one day.
Day	Any 24 hour period.
Daytime	0800 hrs to 2200 hrs.
Daylight hours	Lighting-up time plus an hour
dB(A)	Decibels (A weighted).
DO	Dissolved Oxygen.
EIS	Environmental Impact Statement
EMP	Environmental Management Programme.
EWC	European Waste Catalogue (94/3/EEC, see also Agency Guidance Note on the EWC)
ha	hectare.
IPC	Integrated Pollution Control.
Leq	Equivalent continuous sound level.
Local Authority	Tipperary NR County Council.
Monthly	At least 12 times per year at approximately monthly intervals.
Night-time	2200 hrs to 0800 hrs.
Noise sensitive location	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.

Odour sensitive location	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of odour at nuisance levels.
ppm	Parts per million.
Quarterly	All or part of any three consecutive months beginning on the first day of January, April, July or October.
Regional Fisheries Board	Shannon Regional Fisheries Board
Slurry/manure	Animal faeces, urine, washwater and any associated feed or bedding
Standard Methods	“Standard Methods for the Examination of Water and Wastewater”, (prepared and published jointly by A.P.H.A., A.W.W.A & W.E.F) 19th Ed. 1995, American Public Health Association, 1015 Fifteenth Street, N.W., Washington DC 20005, USA.
Waste disposal operation	Means any of the operations included in the Third Schedule to the Waste Management Act 1996.
Waste recovery operation	Means any of the operations included in the Fourth Schedule to the Waste Management Act 1996.
Weekly	During all weeks of plant operation, and in the case of emissions, when emissions are taking place; with no more than one measurement in any one week.

Activities Licensed

In pursuance of the powers conferred on it by the Environmental Protection Agency Act, 1992, the Agency proposes to grant this Integrated Pollution Control licence to:

MMF Limited, Glenawinna, Toomevara, Nenagh, County Tipperary, under Section 83(1) of the said Act to carry on the following activity

:- the rearing of pigs in installations, within the same complex, where the daily capacity exceeds 3,000 units on soils other than gley soils and where units have the following equivalents:- 1 pig = 1 unit and 1 sow = 10 units.

at Glenawinna, Toomevara, Nenagh, County Tipperary, subject to the following conditions (11) with the reasons therefor and associated schedules attached thereto.

Conditions

Condition 1 Scope

- 1.1 The activity shall be controlled, operated, and maintained and emissions shall take place as set out in this Integrated Pollution Control (IPC) licence. All programmes required to be carried out under the terms of this licence, become part of this licence.
- 1.2 No alteration to, or reconstruction in respect of, the activity or any part thereof which would, or is likely to, result in a material change or increase in:
 - 1.2.1 The nature or quantity of any emission,
 - 1.2.2 The abatement/treatment or recovery systems,
 - 1.2.3 The range of processes to be carried out,
 - 1.2.4 The fuels, raw materials, products or wastes generated,or any changes in:
 - 1.2.5 The site management and control with adverse environmental significanceshall be carried out or commenced without prior notice to, and without the prior written agreement of, the Agency.
- 1.3 This licence is for the purposes of IPC licensing under the EPA Act, 1992 only and nothing in this licence shall be construed as negating the licensee's statutory obligations or requirements under any other enactments or regulations.
- 1.4 Any reference in this licence to 'site' shall mean the plan area labelled 'Site', included in Attachment 2 labelled 'Site Location Map' of the IPC licence application.
- 1.5 This licence relates to a facility with the capacity to house a maximum number of animals as described in *Schedule 1(i) Animal Numbers Housed at the Facility*.

Reason: To clarify the scope of this licence.

Condition 2 Management of the Activity

- 2.1 Corrective Action
 - 2.1.1 The licensee shall establish procedures to ensure that corrective action is taken should the specified requirements of this licence not be fulfilled. The responsibility and authority

for initiating further investigation and corrective action in the event of a reported non-conformity with this licence shall be defined therein.

2.2 Awareness and Training

2.2.1 The licensee shall establish and maintain procedures for identifying training needs, and for providing appropriate training, for all personnel whose work can have a significant effect upon the environment. Appropriate records of training shall be maintained.

2.2.2 Personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and/or experience, as required. The licensee must ensure that contractors/agents involved in landspreading of waste are appropriately trained, and receive adequate supervision.

2.3 Responsibilities

2.3.1 The licensee shall ensure that a person in charge, as defined under the terms of the Environmental Protection Agency Act, 1992 shall be available on-site to meet with authorised persons of the Agency at all reasonable times.

2.4 Communications

2.4.1 The licensee shall put in place a programme to ensure that members of the public can obtain information concerning the environmental performance of the licensee at all reasonable times.

2.4.2 The licensee shall submit to the Agency, eighteen months from the date of grant of this licence, and each calendar year by 1 November thereafter, an AER which shall be to the satisfaction of the Agency. This report shall include as a minimum the information specified in *Schedule 5(i) Recording & Reporting to the Agency* and shall be prepared in accordance with any relevant guidelines issued by the Agency.

2.5 Vermin Control

2.5.1 The licensee shall maintain sufficient and ongoing vermin control at the site.

Reason: To make provision for management of the activity on a planned basis having regard to the desirability of ongoing assessment, recording and reporting of matters affecting the environment.

Condition 3 Notification

3.1 The licensee shall notify the Agency by both telephone and facsimile, if available, to the Agency's Headquarters in Wexford, or to such other Agency office as may be specified by the Agency, as soon as practicable after the occurrence of any of the following:

3.1.1 Any unscheduled emission.

3.1.2 Any incident with the potential for environmental contamination of surface water or groundwater, or posing an environmental threat to air or land, or requiring an emergency response by the Local Authority.

3.2 The licensee shall include as part of the notification, date and time of the incident, details of the occurrence, and the steps taken to minimise the emissions and avoid recurrence. The licensee shall make a record of any incident as set out in Condition 3.1 above. The notification given to the Agency shall include details of the circumstances giving rise to the incident and all actions taken to minimise the effect on the environment and minimise wastes generated.

3.3 A summary report of reported incidents shall be submitted to the Agency as part of the AER. The information contained in this report shall be prepared in accordance with any relevant guidelines issued by the Agency.

- 3.4 In the case of any incident as set out in Condition 3.1.2 above which relates to contamination of surface and/or groundwater, the licensee shall notify the Shannon Regional Fisheries Board as soon as practicable after such an incident.
- 3.5 In the event of any incident, as set out in Condition 3.1.2 having taken place, the licensee shall notify the Local Authority as soon as practicable, after such an incident.

Reason : To provide for the notification of incidents and update information on the activity.

Condition 4 Emissions to Atmosphere

- 4.1 There shall be no emission to the atmosphere of environmental significance.
- 4.2 The licensee shall ensure that all operations on-site shall be carried out in a manner such that air emissions and/or odours do not result in significant impairment of, or significant interference with amenities or the environment beyond the site boundary and at odour sensitive locations as specified in *Schedule 2 (i) Odour Sensitive Locations*.

Reason: To provide for the protection of the environment by way of control, limitation, treatment and monitoring of emissions.

Condition 5 Waste Management

- 5.1 Disposal or recovery of waste shall take place only as specified in *Schedule 3(i) High Risk/Hazardous Wastes for Disposal/Recovery* and *Schedule 3(ii) Other Wastes for Disposal/Recovery* of this licence and in accordance with the appropriate National and European legislation and protocols. No other waste shall be recovered on-site or disposed of/recovered off-site without prior notice to, and prior written agreement of, the Agency.
- 5.2 Animal tissue or carcasses stored on-site pending disposal shall be placed in covered, leak proof containers and shall at a minimum be removed weekly for disposal in accordance with *Schedule 3(i) High Risk/Hazardous Wastes for Disposal/Recovery*.
- 5.3 Waste sent off-site for recovery or disposal shall only be conveyed by a waste contractor, as agreed by the Agency, and only transported from the site of the activity to the site of recovery/disposal in a manner which will not adversely affect the environment.
- 5.3.1 Animal tissue or carcasses sent off site for disposal/recovery shall be transported in covered, leak proof containers.
- 5.3.2 The transport of slurry/manure via the public road shall be carried out in sealed containers such that no spillage can occur.
- 5.4 For wastes other than those destined for landspreading, a full record, which shall be open to inspection by authorised persons of the Agency at all times, shall be kept by the licensee on matters relating to the waste management operations and practices at this site. This record shall as a minimum contain details of the following:
- 5.4.1 The names of the agent and transporter of the waste.
- 5.4.2 The name of the persons responsible for the ultimate disposal/recovery of the waste.
- 5.4.3 The ultimate destination of the waste.
- 5.4.4 Written confirmation of the acceptance and disposal/recovery of any hazardous waste consignments sent off-site.

- 5.4.5 The tonnages and EWC Code for the waste materials listed in *Schedule 3(i) High Risk/Hazardous Wastes for Disposal/Recovery* and *Schedule 3(ii) Other Wastes for Disposal/Recovery*, sent off-site for disposal/recovery.
- 5.4.6 Details of any rejected consignments.

A copy of this Waste Management Record shall be submitted to the Agency as part of the AER for the site.

5.5 Where wastes are destined for landspreading the following conditions apply:

- 5.5.1 Monitoring of available storage capacity for slurry/manure should be undertaken as outlined in *Schedule 3(iii) Waste Monitoring and Analysis*. Results should be submitted to the Agency monthly and a summary report included as part of the AER.
- 5.5.2 Slurry composition shall be analysed as outlined in *Schedule 3(iii) Waste Monitoring and Analysis* and a summary report included as part of the AER.
- 5.5.3 Slurry/Manure shall not be removed to off-site storage facilities without prior written approval by the Agency.
- 5.5.4 Landspreading shall not take place on lands identified in *Schedule 3(iv) Lands where Landspreading of Organic Wastes from this Facility are Excluded*.
- 5.5.5 All contractors and agents undertaking landspreading must be as agreed in the IPC licence application. Alterations must be agreed in writing in advance with the Agency.
- 5.5.6 All lands where waste from the activity is to be landspread must be as outlined in the IPC licence application except those referred to in Condition 5.5.4 above. Alterations to this landbank must be agreed in advance in writing with the Agency. A procedure for public notification of such alterations to the landbank must be agreed with the Agency.
- 5.5.7 The licensee shall ensure that no slurry/manure from the licensed site is provided to farms included in the landbank which are receiving organic wastes for landspreading from any other off-farm source which are not included in the Nutrient Management Plan.
- 5.5.8 Agreements between the licensee and recipients of wastes for landspreading should not conflict with any conditions in this licence.
- 5.5.9 All landspreading activities shall be undertaken in accordance with a Nutrient Management Plan which must be agreed in advance with the Agency and submitted not later than six months from date of grant of this licence and each calendar year thereafter as part of the AER.
- 5.5.10 Landspreading shall be carried out in accordance with *Schedule 3(v) Buffer Zones for Landspreading of Organic Waste* and *Schedule 3(vi) Code of Practice for Landspreading of Organic Waste*. All landspreading activities shall be carried out in such a manner as to avoid contamination of surface and groundwaters, and so as to minimise odour nuisance from such activities.
- 5.5.11 Landspreading shall be undertaken using soil injection, bandspreading, or low trajectory splashplate methods. Any other method must receive prior written agreement from the Agency.
- 5.5.12 A register of landspread slurry/manure ('Slurry/Manure Register') shall be maintained on site on a daily basis and shall be available for inspection by authorised personnel of the Agency at all times. This register should include details of the following:
 - (i) date of slurry/manure spreading,
 - (ii) contractor/agent spreading slurry/manure,
 - (iii) weather and ground conditions at the time of spreading, and weather forecast for subsequent 48 hours,

- (iv) nutrient requirements for individual fields/plots,
 - (v) volumes of slurry/manure applied to individual fields/plots.
- 5.5.13 The details, as per Condition 5.5.12, from the register should be reported to the Agency monthly, and annually as part of the AER.
- 5.6 A proposal for discharge of domestic sewage from the canteen facility to a septic tank or other suitable treatment system must be submitted for agreement by the Agency not later than six months from date of grant of this licence.

Reason: To provide for the disposal of waste and the protection of the environment.

Condition 6 Noise

- 6.1 Activities on-site shall not give rise to noise levels off site, at noise sensitive locations, which exceed the following sound pressure limits (Leq, 30 minute):
- 6.1.1 Daytime: 55 dB(A)
 - 6.1.2 Night-time: 45 dB(A).
- 6.2 There shall be no clearly audible tonal component or impulsive component in the noise emission from the activity at any noise sensitive location.

Reason: To provide for the protection of the environment by control of noise.

Condition 7 Protection of Surface and Groundwaters

- 7.1 Surface water.
- 7.1.1 The licensee shall divert all uncontaminated surface water runoff from roofs and non-contaminated impervious areas of the site, to the surface water drainage system. This drainage system shall discharge through one outfall to a soakway, as referenced in Attachment 12A of the IPC licence application. The licensee shall provide an inspection chamber at the outlet of the surface water drain.
 - 7.1.2 The licensee shall repair and install guttering where appropriate, and provide a report on completion of these tasks to the satisfaction of the Agency, within six months of date of grant of licence.
 - 7.1.3 There shall be no discharge of contaminated water to any surface water discharge system.
 - 7.1.4 The licensee shall monitor surface water discharges in accordance with *Schedule 4(i) Surface Water Discharge Monitoring* of this licence. A log of these inspections shall be maintained on-site and shall be reported annually as part of the AER.
 - 7.1.5 In the event that any analyses or observations made on the quality or appearance of surface water runoff should indicate that contamination has taken place, the licensee shall,
 - 7.1.5.1 carry out an immediate investigation to identify and isolate the source of the contamination,
 - 7.1.5.2 put in place measures to prevent further contamination and to minimise the effects of any contamination on the environment,

7.1.5.3 and notify the Agency, in accordance with Condition 3.1, as soon as is practicable.

7.2 Facilities for the Protection of Groundwater and Surface Water

- 7.2.1 All groundwater monitoring points shall be included in the site's maintenance programme.
- 7.2.2 The licensee shall provide a proposal to the satisfaction of the Agency for the location of groundwater monitoring points within the spreadland area, within six months of date of grant of licence. Where changes are made to the spreadlands outlined in the Nutrient Management Plan, this proposal shall be revised and re-submitted as part of the annual Nutrient Management Plan.
- 7.2.3 The licensee shall provide a minimum of six months slurry storage capacity at the site for waste destined for landspreading. This slurry storage capacity should be a minimum 7,500 m³ on-site when the unit is fully operational.
- 7.2.4 The licensee shall inform the Agency within five days where the quantity of stored slurry/manure exceeds 80% of the total available storage capacity. The licensee shall include as part of the notification, date of the exceedence, and the proposed steps to be undertaken.
- 7.2.5 Underground, partly underground or overground concrete storage facilities shall conform to the Department of Agriculture, Food and Forestry specifications (S108, S123).
- 7.2.6 All new tanks installed on site shall be provided with leak detection facilities.
- 7.2.7 The licensee shall prepare a programme for agreement with the Agency on testing and inspection of under and over-ground effluent storage tanks and pipelines to ensure that all effluent storage tanks and pipelines are tested within six months of the issue of this licence and at least once every five years thereafter. A report on such tests shall be included in the AER.
- 7.2.8 Where reception pit facilities are utilised, the licensee shall, with the agreement of the Agency:
- (i) provide tanks with two lockable valves in line
 - (ii) provide an appropriate reception pit with level alarm
 - (iv) undertake measures, as necessary, for the protection of tanks from damage by vehicles or trailers.
 - (v) provide a partial earthen bund to ensure sufficient protection of the clean water outfall in event of tank overflow, collapse or leakage

Reason: To provide for the protection of surface waters and groundwater.

Condition 8 Monitoring

8.1 The licensee shall carry out such sampling, analyses, measurements, examinations, as set out in Schedules:-

Schedule 3(iii) Waste Monitoring and Analysis

Schedule 4(i) Surface Water Discharge Monitoring

Schedule 4(ii) Ambient Surface Water Monitoring

Schedule 4(iii) Ambient Groundwater Monitoring

Schedule 4 (iv) Ambient Soil Monitoring

of this licence.

- 8.2 The frequency, methods and scope of monitoring, sampling and analyses, as set out in this licence, may be amended with the written agreement of the Agency following evaluation of test results. The licensee shall install on all emission points such sampling points or equipment, as may be required by the Agency. All such equipment shall be consistent with the safe operation of all sampling and monitoring systems.
- 8.3 The licensee shall provide safe and permanent access to the following sampling and monitoring points:
- 8.3.1 Waste storage areas on-site.
- 8.3.2 Surface water discharge points.
- and safe access to any other sampling and monitoring points required by the Agency.

Reason: To ensure compliance with the requirements of other conditions of this licence by provision of a satisfactory system of measurement and monitoring of emissions.

Condition 9 Recording and Reporting to Agency

- 9.1 The licensee shall record all sampling, analyses, measurements, examinations and maintenance carried out in accordance with the requirements of this licence.
- 9.2 The licensee shall record all incidents which affect the normal operation of the activity and which may create an environmental risk.
- 9.3 The licensee shall record all complaints of an environmental nature related to the operation of the activity. Each such record shall give details of the date and time of the complaint, the name of the complainant and give details of the nature of the complaint. A record shall also be kept of the response made in the case of each complaint. The licensee shall submit a report to the Agency, during the month following such complaints, giving details of any complaints which arise. A summary of the number and nature of complaints received shall be included in the AER.
- 9.4 The format of all records required by this licence shall be to the satisfaction of the Agency. Records shall be retained on-site for a period of not less than seven years and shall be available for inspection by the Agency at all reasonable times.
- 9.5 Reports of all recording, sampling, analyses, measurements, examinations, as set out in *Schedule 5(i) Recording and Reporting to the Agency* in this licence, shall be submitted to the Agency Headquarters as specified in this licence. The format of these reports shall be to the satisfaction of the Agency. One original and three copies shall be submitted as and when specified.
- 9.6 All reports shall be certified accurate and representative by the licensee or other senior officer designated by the licensee.
- 9.7 All written procedures controlling operations affecting this licence shall be available on-site for inspection by the Agency at all reasonable times.
- 9.8 The frequency and scope of reporting, as set out in this licence, may be amended with the written agreement of the Agency following evaluation of test results.

Reason: To provide for the collection and reporting of adequate information on the activity.

Condition 10 Emergency Response

- 10.1 The licensee shall ensure that an Emergency Response Procedure is in place which shall address any emergency situation which may originate on-site. This Procedure shall include provision for minimising the effects of any emergency on the environment.

Reason: To provide for the protection of the environment.

Condition 11 Financial Provisions

11.1 Agency Charges

- 11.1.1 The licensee shall pay to the Agency a minimum annual contribution of £1,747, or such greater sum as the Agency from time to time determines, towards the cost of monitoring as the Agency considers necessary for the performance of its functions under the Environmental Protection Agency Act, 1992. The licensee shall in 1999 and subsequent years, not later than January 31 of each year, pay to the Agency this amount updated in accordance with changes in the Consumer Price Index from the date of the licence to the renewal date. The updated amount shall be notified to the licensee by the Agency. For 1998, the licensee shall pay a pro rata amount from the date of this licence to December 31 1998. This amount shall be paid to the Agency within one month of the date of grant of this licence.

Reason: To provide for adequate financing for monitoring and financial provisions for measures to protect the environment.

Schedule 1(i) Animal Numbers Housed at the Facility

Animal Class	Numbers ^{Note 1,2}
Farrowing/Suckling Sows	136
Dry Sows	864
Gilts	50
Boars	15
Weaners	3646
Finishers	5071

Note 1: Variation in these numbers is allowed providing the overall number of units remains unchanged.

Note 2: This excludes suckling piglets maintained on site.

Schedule 2(i) Odour Sensitive Locations

Location
3 residences located on roadway approximately 340m S of site 1 residence located on roadway approximately 350m N of site 1 residence located approximately 500 NE of site.

Schedule 3(i) High Risk/Hazardous Wastes for Disposal/Recovery

Waste Materials	Further Treatment On-Site	On-site Recovery, Reuse or Recycling	Method of Off-Site Disposal ^{Note 1}
Veterinary Waste	None	None	Return to supplier ^{Note 2}
Animal tissue or carcasses	None	None	Agreed contractor
Other ^{Note 3}			

Note 1: Any variation from those contractors named in the IPC Licence application, or subsequent agreements, must have the prior written agreement of the Agency. In such cases where a previously agreed waste contractor is proven not to exercise due care in respect of the transport and disposal of the licensee's waste, the Agency may at any time instruct a licensee to stop using this contractor.

Note 2: If an approved hazardous waste disposal contractor accepts responsibility for ultimate disposal of the veterinary waste, such disposal arrangements should be made following written agreement with the Agency.

Note 3: No other hazardous waste shall be disposed of or recovered off-site without prior notice to, and prior written agreement of the Agency.

Schedule 3(ii) Other Wastes for Disposal/Recovery

Waste Materials	Further Treatment On-Site	On-Site Recovery, Reuse or Recycling ^{Note 1}	Method of Off-Site Disposal/Recovery ^{Note 2}
Domestic and canteen waste	None	None	Agreed disposal contractor.
Animal slurry/manure	None	None	Landspraying
Other ^{Note 3}			

Note 1: The licensee may further treat, reuse, recycle or recover waste subject to the prior written agreement of the Agency.

Note 2: Any variation from those contractors named in the IPC Licence application, or subsequent agreements, must have the prior written agreement of the Agency. In such cases where a previously agreed waste contractor is proven not to exercise due care in respect of the transport and disposal of the licensee's waste, the Agency may at any time instruct a licensee to stop using this contractor.

Note 3: No other waste shall be disposed of or recovered off-site without prior notice to, and prior written agreement of the Agency.

Schedule 3(iii) Waste Monitoring and Analysis

Waste Monitoring Reference(s): As labelled in 'Slurry Retention system, Proposed' (IPC Licence Application September 1997)

Waste Materials	Frequency	Parameter	Waste Monitoring Reference
Slurry/Manure	Annually	%Dry Matter, total N, total P, total K	WS1 (Reception Pit 1) WS11 (tank underlying house 21) ^{Note 1}
Slurry/Manure	Weekly	Available storage capacity	WS1 (Reception Pit 1) WS2 (Reception Pit 19) WS3 (tank underlying house 3) WS5 (tank underlying house 5) ^{Note 1} WS7 (tank underlying house 9) ^{Note 1} WS8 (tank underlying house 10) ^{Note 1} WS11 (tank underlying house 21) ^{Note 1}

Note 1: Monitoring to be commenced upon installation.

Schedule 3(iv) Lands where Landspreading of Organic Wastes from this Facility are Excluded

Location
Land areas identified in IPC Licence Application labelled: <ul style="list-style-type: none"> Map 28 - Farm 51 - Plot 1 and 6 Map 22 - Farm 49 - Plot 3 and 4

Schedule 3(v) Buffer Zones for Landspreading of Organic Waste

No organic waste shall be spread within the following buffer zones:

Area	Buffer zone (m)
Sensitive buildings (hospitals, schools and churches)	200
Dwelling houses	100
Karst features	30
Lakes and main river channels ^{Note 3}	20
Small watercourses ^{Note 1}	10
Public Roads ^{Note 1}	10
Domestic wells ^{Note 1}	50
Public water supplies ^{Note 1 & Note 2}	300 m or 100 days travel time

Note 1: The above distances to be increased if the gradient is greater than 6% (1:17).

Note 2: The appropriate distance depends on vulnerability and groundwater flow direction.

Note 3: 100 metres from the Ballintotty River.

Schedule 3(vi) Code of Practice for Landspreading of Organic Waste ^{Note 1}

Spreading shall not take place:
<ul style="list-style-type: none"> On wet or waterlogged ground On frozen or snow covered ground On exposed bedrock Where surface gradients are excessive (greater than 18% (1:5)) On fields that display cracks over pipe or mole drainage systems During November to February inclusive except with agreement by the Agency Outside daylight hours
Loadings:
<ul style="list-style-type: none"> Regardless of the dilution factor, the maximum hydraulic loading per single application shall not exceed 25 m³ per hectare on shallow limestone soils and in no case shall exceed 50m³ per hectare. Application of slurry/manure shall not be made on soils with a Morgan's P test in excess of 15 mg P/litre sampled to a depth of 10 cm.
Organic Waste application shall be in accordance with the following guidelines:
<ul style="list-style-type: none"> Landspreading on lands with extreme groundwater vulnerability ratings ^{Note 2} would be considered Not Generally Acceptable. Application should be made such that the rate of application of nitrogen from organic wastes does not exceed 250 kg N/ha per annum. No application when the risk of causing odour nuisance to the public is greatest e.g. Sundays or public holidays No application during meteorological conditions which increase the risk of odour nuisance. No application where significant rain is forecast within 48 hours

Note 1: This Code of Practice may be amended by the Agency as further environmental information becomes available.

Note 2: As defined in D Daly, W P Warren (1997) Mapping Groundwater Vulnerability - The Irish Perspective, Geological Society London, Special Publication (in press).

Schedule 4(i) Surface Water Discharge Monitoring

Emission Point Reference No. : SW1 (Storm water monitoring chamber 1 as indicated in Attachment 12A of the IPC licence application)

Parameter	Monitoring Frequency	Analysis Method/Technique
Visual and Odour Inspection	Weekly	Not Applicable
BOD	Quarterly	Standard Methods

Schedule 4(ii) Ambient Surface Water Monitoring

Monitoring Point Reference No's. ^{Note 1}:

- ASW1, identified as sampling point TR1 in the IPC application
- ASW2, Bridge opposite Gortnagarry Church [E20123, N17455]
- ASW3, identified as sampling point TR2 in the IPC application

Parameter	Monitoring Frequency	Analysis Method/Technique
BOD	Quarterly	Standard Methods
Total Ammonia	Quarterly	Standard Methods
Total Nitrogen	Quarterly	Standard Methods

Total Phosphorus	Quarterly	Standard Methods
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Note 1: Additional monitoring points may be necessary with amendments in spreadlands.

Schedule 4(iii) Ambient Groundwater Monitoring

Monitoring Point Reference No's ^{Note 1}: • Ambient groundwater monitoring points in spreadlands to be agreed with the Agency.

Parameter	Monitoring Frequency	Analysis Method/Technique
Nitrate	Annually	Standard Methods
Total Ammonia	Annually	Standard Methods
Faecal coliforms	Annually	Standard Methods

Note 1: Additional monitoring points may be necessary with amendments to the spreadlands.

Schedule 4(iv) Ambient Soil Monitoring

Monitoring Point Reference No's ^{Note 1, 2}: • For all spreadlands utilised in this IPC licence

Conditions	Monitoring frequency	Analysis Method/Technique
Where no soil test available	Within 12 months of grant of licence	Morgan's P test ^{Note 3}
Where soil test $\leq 10 \text{ mg P l}^{-1}$	Every 2 years	Morgan's P Test
Where soil test $> 10 \text{ mg P l}^{-1}$ but $\leq 15 \text{ mg P l}^{-1}$	Annually	Morgan's P Test

Note 1: Additional monitoring points may be necessary with amendments in spreadlands.

Note 2: Each sample should be representative of a maximum area of 4 ha except where uniform cropping and landuse has been in place for the previous 5 years or more. In the latter situation a sample area of 12 ha is acceptable. Each sample should be taken in accordance with the Teagasc soil sampling guidelines.

Note 3: M Peach & L English (1944) 'Rapid micro-chemical tests'. Soil Science 57: 167.

Schedule 5(i) Recording and Reporting to the Agency

Completed reports shall be submitted to:

The Environmental Protection Agency
P.O. Box 3000
Johnstown Castle Estate
County Wexford

or Any other address as may be
specified by the Agency

Reports are required to be forwarded as set out below:

Report	Reporting Frequency	Report Submission Date
Slurry/manure register	Monthly	Ten days after end of the month being reported on.
Available slurry/manure storage capacity	Monthly	Ten days after end of the month being reported on.
Complaints (where they arise)	Monthly	Ten days after end of the month being reported on.
Surface water monitoring	Quarterly	Ten days after end of the quarter being reported on.
Nutrient Management Plan	Annually	Six months from the date of grant of licence; thereafter as part of the AER.
Annual Environment Report (AER)	Annually	Eighteen months from the date of grant of licence and each calendar year by 1 November thereafter.
Proposal for location of groundwater monitoring locations	Once off	Six months from the date of grant of licence.
Proposal for alternative discharge of domestic sewage from canteen facility.	Once off	Six months from the date of grant of licence.
Report on repair and installation of rain guttering.	Once off	Six months from the date of grant of licence.
Report on construction of partial earthen bunds around reception pits.	Once off	Six months from the date of grant of licence.
Tank and pipeline testing and inspection programme	Every 5 years	Six months from the date of grant of licence; thereafter as part of the AER.

Annual Environmental Report Content

Waste Management Report (arising from Condition 5) including details of the Waste Management Record, Waste Monitoring and Analysis, and Slurry/Manure Register

Nutrient Management Plan

Ambient soil monitoring report

Ambient surface water monitoring report

Ambient groundwater monitoring report

Surface water discharge monitoring

Tank and pipeline testing and inspection report

Reported incidents summary

Complaints summary

Investigation of the possibility of alternative treatment technologies such as digestion for the disposal of slurry.

Signed on behalf of the Agency

Dated this day of July 1998