



Headquarters, Ardavan
Wexford, Ireland

INTEGRATED POLLUTION CONTROL PROPOSED DETERMINATION

Licence Register Number: 182

Applicant: Irish Country Meats Ruskey Ltd

Location of Activity: Ruskey
Co Roscommon

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Glossary of Terms

AER	Annual Environmental Report.
Annually	All or part of a period of twelve consecutive months.
BATNEEC	Best Available Technology Not Entailing Excessive Cost.
Bi-annually	All or part of a period of six consecutive months.
BOD	5 day Biochemical Oxygen Demand.
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 1 measurement on any one day.
Day	0800 hrs to 2200 hrs.
dB(A)	Decibels (A weighted).
DO	Dissolved Oxygen.
EMP	Environmental Management Programme.
EWC	European Waste Catalogue (94/3/EEC, see also Agency Guidance Note on the EWC)
ICP	Inductively Coupled Plasma Spectroscopy.
IPC	Integrated Pollution Control.
Leq	Equivalent continuous sound level.
Lighting-up time	30 minutes after sun set.
List I	As listed in the EC Directives 76/464/EEC and 80/68/EEC and amendments.
List II	As listed in the EC Directives 76/464/EEC and 80/68/EEC and amendments.
Local Authority	Roscommon County Council.
Mass Flow Limit	An Emission Limit Value which is expressed as the maximum mass of a substance which can be emitted per unit time. The limit is usually expressed in kilograms per hour (kg/h).
Mass Flow Threshold	A mass flow rate, above which, a concentration limit applies. The rate is usually expressed in kilograms per hour (e.g. at mass flow rates > 2 kg/h).

Monthly	At least 12 times per year at approximately monthly intervals.
Night	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.
Organic Waste	WWTP sludge
PER	Pollution Emission Register.
ppm	Parts per million.
Quarterly	All or a part of three consecutive months beginning of the first day of January, April, July or October.
Standard Methods	As detailed in "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.
The Agency	Environmental Protection Agency.
The Licensee	Irish Country Meats Ruskey Ltd, Ruskey, Co Roscommon
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.
WWTP	Waste Water Treatment Plant.

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, intermediates, products or wastes generated,
- or any changes in:
- 1.2.5 The site management and control with adverse environmental significance
- shall 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 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 indicated in Figure 2.2 in attachment No. 2 of the IPC licence application.

Reason: To clarify the scope of this licence.

Condition 2 Management of the Activity

- 2.1 The licensee shall establish and maintain an Environmental Management System (EMS) which shall fulfil the requirements of this licence. The EMS shall assess all operations and review all practicable options for the use of cleaner technology, cleaner production and the reduction and minimisation of waste, and shall include as a minimum those elements specified in the Conditions 2.2 to 2.8 below:
- 2.2 A schedule of Environmental Objectives and Targets
- 2.2.1 The licensee shall prepare a schedule of Environmental Objectives and Targets. The schedule shall include time frames for the achievement of set targets. The schedule shall address a five year period as a minimum. The schedule shall be prepared to the satisfaction of the Agency and shall be submitted to the Agency within four months of date of grant of this licence. The schedule shall be reviewed annually and amendments thereto notified to the Agency for agreement as part of the Annual Environmental Report (AER) (See also Condition 2.8).

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- 2.3 Environmental Management Programme (EMP)
- 2.3.1 The licensee shall, not later than six months from the date of grant of this licence, establish and maintain an EMP, including a time schedule, for achieving objectives and targets. The EMP shall thereafter, form part of the AER and shall be agreed with the Agency prior to implementation. It shall include:
- (i) designation of responsibility for targets;
 - (ii) the means by which they may be achieved;
 - (iii) the time within which they may be achieved.
- 2.3.2 A report on the programme, including the success in meeting agreed targets, shall be prepared and submitted to the Agency as part of the AER. Such reports shall be retained on-site for a period of not less than seven years and shall be available for inspection by authorised persons of the Agency.
- 2.4 Documentation
- 2.4.1 The licensee shall establish and maintain an environmental management documentation system which shall be to the satisfaction of the Agency.
- 2.4.2 The licensee shall issue a copy of this licence to all relevant personnel whose duties relate to any condition of this licence.
- 2.5 Corrective Action
- 2.5.1 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.
- 2.6 Awareness and Training
- 2.6.1 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.
- 2.6.2 Personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and/or experience, as required.
- 2.7 Responsibilities
- 2.7.1 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 at all times when the activity is in operation. The person in charge shall also be available to meet with authorised persons of the Agency at all reasonable times.
- 2.8 Communications
- 2.8.1 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. This programme shall be submitted for agreement to the Agency within six months of the date of grant of this licence.

- 2.8.2 The licensee shall submit to the Agency, eighteen months from the date of grant of this licence, and each calendar year thereafter, an AER which shall be to the satisfaction of the Agency. This report shall include as a minimum the information specified in *Schedule 4(i) Recording & Reporting to the Agency* and shall be prepared in accordance with any relevant guidelines issued by the Agency.

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 Interpretation

- 3.1 Emission limit values for emissions to atmosphere in this licence shall be interpreted in the following way:-
- 3.1.1 For Non-Continuous Monitoring:
- (i) For any parameter where, due to sampling/analytical limitations, a 30 minute sample is inappropriate, a suitable sampling period should be employed and the value obtained therein shall not exceed the emission limit value.
 - (ii) For flow, no hourly or daily mean value, calculated on the basis of appropriate spot readings, shall exceed the relevant limit value.
 - (iii) For all other parameters, no 30 minute mean value shall exceed the emission limit value.
- 3.2 The concentration limits for emissions to atmosphere specified in this licence shall be based on gas volumes under standard conditions of :-
- 3.2.1 In the case of non-combustion gases:
- (i) Temperature 273K, Pressure 101.3 kPa (no correction for oxygen or water content).
- 3.2.2 In the case of combustion gases:
- (i) Temperature 273K, Pressure 101.3 kPa, dry gas; 3% oxygen for liquid and gas fuels; 6% oxygen for solid fuels.
- 3.3 Emission limit values for emissions to waters in this licence shall be interpreted in the following way:-
- 3.3.1 Continuous monitoring:
- (i) No flow value shall exceed the specified limit.

3.3.2 Non-Continuous Monitoring:

- (i) For parameters other than pH, temperature and flow, eight out of ten consecutive results, calculated as daily mean concentration or mass emission values on the basis of flow proportional composite sampling, shall not exceed the emission limit value. No individual result similarly calculated shall exceed 1.2 times the emission limit value.
- (ii) For parameters other than pH, temperature, and flow, no grab sample value shall exceed 1.2 times the emission limit value.

Reason : To clarify the interpretation of emission limit values fixed under the licence.

Condition 4 Notification

4.1 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:

4.1.1 Any release to atmosphere from any potential emission point.

4.1.2 Any emission which does not comply with the requirements of this licence.

4.1.3 Any malfunction or breakdown of control equipment or monitoring equipment set out in;

Schedule 2(ii) Process Effluent Treatment Control,

which is likely to lead to loss of control of the abatement system.

4.1.4 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.

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.

4.2 The licensee shall make a record of any incident as set out in Condition 4.1 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.

4.3 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.

4.4 In the case of any incident as set out in Condition 4.1.4 above which relates to discharges to water, the licensee shall notify the Shannon Regional Fisheries Board as soon as practicable after such an incident.

4.5 In the event of any incident, as set out in Condition 4.1.4 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 5 Emissions to Atmosphere

- 5.1 Within three months of the date of grant of this licence the licensee shall submit to the Agency, for approval, a proposal to undertake a detailed assessment of the emissions from the boilers A1-1 and A1-2 together with recommendations for any remedial measures necessary. This assessment shall, *inter alia*, include details:
- (i) Stack Height,
 - (ii) Characteristics of the emissions from the boilers,
 - (iii) Energy Efficiency,
 - (iv) Fuel Selection and characteristics,
 - (v) Combustion Zone Design and
 - (vi) Appropriate Air Dispersion Modelling taking into account the proximity of the two boiler stacks and consequential combined emissions effect.

The licensee shall carry out this assessment of the emissions from the boilers, as approved by the Agency, and shall submit a report to the Agency on the findings and recommendations of the assessment within a timescale to be specified by the Agency in said approval.

- 5.2 Having regard to the report on the assessment of the emissions from the boilers required by Condition 5.1, the licensee shall carry out any remedial measures that the Agency considers necessary and specifies, within a timescale specified by the Agency, taking account of BATNEEC, and shall submit a further report to the Agency on the satisfactory implementation of these measures.
- 5.3 Combustion Efficiency, and SO_x, NO_x and CO emissions for boilers number 1 and 2 (as identified in section 12 of the IPC licence application form) shall be tested annually and results reported as part of the AER.
- 5.4 Boilers shall be operated so as to give a smoke colour less than or equal to shade number 1 on the Ringelmann chart except during periods of start up. Such start up periods shall not exceed 30 minutes in any 24 hour period.
- 5.5 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.

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

Condition 6 Process Emissions to Water

- 6.1 No specified emission to water shall exceed the emission limit values set out in *Schedule 1(i) Process Effluent to Water*, subject to Condition 3 of this licence. There shall be no other emissions to water of environmental significance.
- 6.2 The equipment, including backup equipment, specified in *Schedule 1(ii) Process Effluent Treatment Control* of this licence, shall be provided on-site. All treatment/abatement, control and monitoring equipment shall be calibrated and maintained at all times when in use, in accordance with the information submitted in Table 13A(iii) of the IPC licence application or as otherwise approved by the Agency under the EMP.

- 6.3 Monitoring and analyses of the process effluent shall be carried out as specified in *Schedule 1 (iii) Monitoring of Process Effluent* of this licence. A report on the results of this monitoring shall be submitted to the Agency and the Sanitary Authority monthly.
- 6.4 A summary report of emissions to water 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.
- 6.5 The licensee shall within twelve months of date of grant of this licence report on the capacity of the WWTP to treat the parameters defined in *Schedule 1(i) Process Effluent to Water*. Once this report is agreed by the Agency the licensee shall not discharge to the WWTP an effluent outside the identified treatment capacity of the plant.
- 6.6 The licensee shall within three months of date of grant of this licence submit to the Agency for agreement, design proposals with a construction programme, in respect of extension of the process effluent outfall into the main channel of the River Shannon. The licensee shall implement said works to the agreed programme.
- 6.7 No by-pass or overflow facilities shall be provided which would allow untreated effluent enter any watercourses.
- 6.8 The licensee shall provide and maintain an inspection chamber in a suitable position in connection with the process effluent discharge. The inspection chamber or manhole shall be constructed and maintained by the licensee so as to permit the taking of samples of the discharge.
- 6.9 In relation to the process effluent discharge the licensee shall provide and maintain approved flow proportional sampling equipment capable of taking 24hour composite samples.
- 6.10 Effluent toxicity testing
- 6.10.1 The acute toxicity of the undiluted final effluent to at least four aquatic species from different trophic levels shall be determined by standardised and internationally accepted procedures and carried out by a competent laboratory. The name of the laboratory and the scope of testing to be undertaken shall be submitted, in writing, to the Agency, within three months of the date of grant of this licence.
- 6.10.2 Having identified the most sensitive species outlined in Condition 6.10.1, subsequent compliance toxicity monitoring on the two most sensitive species shall be carried out by the laboratory identified in Condition 6.10.1 as per *Schedule 1(iii) Monitoring of Process Effluent*.
- 6.10.3 Copies of all effluent toxicity reports shall, on completion, be submitted by the testing laboratory simultaneously to the Agency and the licensee.
- 6.11 No substance shall be discharged in a manner, or at a concentration which, following initial dilution, causes tainting of fish or shellfish.

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

Condition 7 Waste Management

- 7.1 Disposal or recovery of waste shall take place only as specified in Schedule 2(i) Hazardous Waste for Disposal/Recovery, and *Schedule 2(ii) Other Waste for Disposal/Recovery* of this licence and in accordance with the appropriate National and European legislation and protocols. No other waste shall be disposed of/recovered either on-site or off-site without prior notice to, and prior written agreement of, the Agency.
- 7.2 Waste sent off-site for recovery or disposal shall only be conveyed to 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.
- 7.3 All waste by-products of blood, offal, hair, bones, fat, and WWTP sludge, sent off-site for disposal/recovery shall be transported in covered, water retaining containers.
- 7.4 Waste for disposal/recovery off-site shall be analysed in accordance with *Schedule 2(iii) Waste Analysis* of this licence.
- 7.5 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:
- 7.5.1 The names of the agent and transporter of the waste.
 - 7.5.2 The name of the persons responsible for the ultimate disposal/recovery of the waste.
 - 7.5.3 The ultimate destination of the waste.
 - 7.5.4 Written confirmation of the acceptance and disposal/recovery of any hazardous waste consignments sent off-site.
 - 7.5.5 The results of any analyses required under *Schedule 2(iii) Waste Analysis*.
 - 7.5.6 The tonnages and EWC Code for the waste materials listed in *Schedule 2(i) Hazardous Waste for Disposal/Recovery* and *Schedule 2 (ii) Other Waste for Disposal/Recovery*, sent off-site for disposal/recovery.
 - 7.5.7 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.
- 7.6 Where wastes are destined for landspreading the following conditions apply:
- 7.6.1 All contractors and agents undertaking landspreading must be as outlined in the IPC licence application. Alterations to this is subject to prior written agreement by the Agency.
 - 7.6.2 All lands where waste from the licensed activity is to be landspread must be as outlined in the IPC licence application. Alterations to this landbank is subject to prior written agreement by the Agency.
 - 7.6.3 All landspreading activities shall be undertaken in accordance with a Nutrient Management Plan agreed with the Agency.

- 7.6.4 The licensee shall require that lands within the Nutrient Management Plan receiving organic waste from the facility to which this licence relates do not accept off-farm organic waste for landspreading from any source other than from the licensee.
- 7.6.5 All landspreading activities shall be carried out in such a manner as to avoid contamination of surface waters and groundwaters.
- 7.6.6 Landspreading of organic wastes shall be undertaken using soil injection, bandspreading, low trajectory splashplate, or other approved methods only.
- 7.6.7 Organic waste produced at the site shall be analysed in accordance with *Schedule 2(iii) Waste Analysis* of this licence.
- 7.6.8 Landspreading shall be carried out in accordance with:
Schedule 2(iv) Buffer Zones for Landspreading of Organic Wastes,
Schedule 2(v) Code of Practice for Landspreading
- 7.7 An organic waste register shall be maintained on site and shall be available for inspection by authorised personnel of the Agency at all reasonable times. This register shall include details of the following: the results of any analysis required under *Schedule 2(iii) Waste Analysis*, date of spreading, contractor/agent spreading organic waste, weather conditions at the time and weather forecast for subsequent 48 hours, nutrient requirements for individual fields/plots, volumes of organic waste applied to individual fields/plots. Details from the organic waste register should be reported to the Agency annually as part of the AER.

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

Condition 8 Noise

- 8.1 Activities on-site shall not give rise to noise levels off site, at any noise sensitive location, which exceed the following sound pressure limits (Leq,T):
- 8.1.1 Day-time: 55 dB(A)
- 8.1.2 Night-time: 45 dB(A).
- 8.2 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 9 Non-Process Water

9.1 Surface water and Groundwater

- 9.1.1 A visual examination of the surface water discharge shall be carried out daily.
- 9.1.2 The licensee shall determine the normal levels of COD for uncontaminated surface water and shall, within six months from the date of grant of this licence, submit proposals to the Agency for the setting of warning and action levels, and establish a response programme when such approved action levels are reached.
- 9.1.3 The licensee shall within six months from the date of grant of this licence, submit proposals to the Agency for agreement, in respect of a reduction in the number of surface water discharge points.
- 9.1.4 The licensee shall monitor surface water discharges in accordance with *Schedule 3 (i) Surface Water Discharge Monitoring* of this licence.
- 9.1.5 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,
 - (i) carry out an immediate investigation to identify and isolate the source of the contamination,
 - (ii) put in place measures to prevent further contamination and to minimise the effects of any contamination on the environment,
 - (iii) and notify the Agency as soon as is practicable.
- 9.1.6 The licensee shall within six months of date of grant of this licence submit to the Agency for agreement a surface and groundwater monitoring programme for the landspread areas. The results generated by the agreed programme are to be reported annually as part of the AER.

9.2 Facilities for the Protection of Groundwater and Surface Water

- 9.2.1 Any surface water arising from areas involved in process related activities shall be discharged to the on-site WWTP.
- 9.2.2 All tank and drum storage areas shall be rendered impervious to the materials stored therein. In addition, tank and drum storage areas shall, as a minimum, be bunded, either locally or remotely, to a volume not less than the greater of the following;
 - (i) 110% of the capacity of the largest tank or drum within the bunded area.
 - (ii) 25% of the total volume of substance which could be stored within the bunded area.

Drainage from bunded areas shall be diverted for collection and safe disposal. All bunds shall be tested at least once every three years. A report on such tests shall be included in the AER.

- 9.2.3 The integrity and water tightness of all the bunding structures and their resistance to penetration by water or other materials stored therein shall be tested and demonstrated by the licensee to the satisfaction of the Agency and shall be reported to the Agency within six months from the date of grant of this licence.

- 9.2.4 The loading and unloading of materials shall be carried out in designated areas protected against spillage and leachate run-off. While awaiting disposal, all materials shall be collected and stored in designated areas protected against spillage and leachate run-off.
- 9.2.5 All pump sumps or other treatment plant chambers from which spillage might occur shall be fitted with high liquid level alarms within twelve months from the date of grant of this licence.
- 9.2.6 The licensee shall undertake a programme of testing and inspection of underground tanks and pipelines to ensure that all underground effluent and foul sewer pipes are tested at least once every three years. A report on such tests shall be included in the AER.
- 9.2.7 An inspection for leaks on all flanges and valves on over-ground pipes used to transport materials other than water shall be carried out weekly.
- 9.2.8 The licensee shall have in storage an adequate supply of containment booms and suitable absorbent material to contain and absorb any spillage.

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

Condition 10 Monitoring

- 10.1 The licensee shall carry out such sampling, analyses, measurements, examinations, maintenance and calibrations as set out in Schedules:-

Schedule 1(ii) Process Effluent Treatment Control

Schedule 1 (iii) Monitoring of Process Effluent

Schedule 2(iii) Waste Analysis

Schedule 3 (i) Surface Water Discharge Monitoring

of this licence.

- 10.2 Where the ability to measure a parameter is affected by mixing before emission, then, with prior written agreement from the Agency, the parameter may be assessed before mixing takes place.
- 10.3 All automatic monitors and samplers shall be functioning at all times (except during maintenance and calibration) when the activity is being carried on unless alternative sampling or monitoring has been agreed in writing by the Agency for a limited period. In the event of the malfunction of any continuous monitor, the licensee shall contact the Agency as soon as practicable, and alternative sampling and monitoring facilities shall be put in place. Prior written agreement for the use of alternative equipment, other than in emergency situations, shall be obtained from the Agency.
- 10.4 Monitoring and analysis equipment shall be operated and maintained as necessary so that monitoring accurately reflects the emission or discharge.
- 10.5 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.

- 10.6 The licensee shall install on all emission points such sampling points or equipment, including any data-logging or other electronic communication equipment, as may be required by the Agency. All such equipment shall be consistent with the safe operation of all sampling and monitoring systems.
- 10.7 The licensee shall provide safe and permanent access to the following sampling and monitoring points:
- 10.7.1 Final effluent as discharged from the site,
 - 10.7.2 WWTP,
 - 10.7.3 Noise sources on-site,
 - 10.7.4 Waste storage areas on-site,
 - 10.7.5 Surface waters discharge,
- 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 11 Recording and Reporting to Agency

- 11.1 The licensee shall record all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence.
- 11.2 The licensee shall record all incidents which affect the normal operation of the activity and which may create an environmental risk.
- 11.3 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.
- 11.4 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.
- 11.5 Reports of all recording, sampling, analyses, measurements, examinations, calibrations and maintenance as set out in *Schedule 4(i) Recording and Reporting to the Agency* of 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.
- 11.6 Provision shall also be made for the transfer of environmental information, in relation to this licence, to the Agency's computer system, as may be requested by the Agency.
- 11.7 All reports shall be certified accurate and representative by the licensee's Plant Manager or other senior officer designated by the Plant Manager.
- 11.8 All written procedures controlling operations affecting this licence shall be available on-site for inspection by the Agency at all reasonable times.

- 11.9 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 12 Emergency Response

- 12.1 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 13 Financial Provisions

13.1 Agency Charges

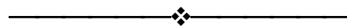
- 13.1.1 The licensee shall pay to the Agency a minimum annual contribution of £8,980, or such greater sum as the Agency from time to time determines, towards the cost of monitoring the emissions as the Agency considers necessary for the performance of its functions under the Environmental Protection Agency Act, 1992. The licensee shall in 1998 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 1997, the licensee shall pay a pro rata amount from the date of this licence to December 31 1997. This 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) Process Effluent to Water

Emission Point Reference No.: EW-1
Receiving Water: River Shannon, c.600m North of Roosky Bridge.
Volume to be emitted: Maximum in any one day : 2350m³
 Maximum rate per hour : 150m³

Parameter	Emission Limit Value	
	Up to January 1, 1999	From January 1,1999
Temperature	21.5°C (max.)	
pH	6 - 9	
Toxicity	5	
	mg/l	mg/l
BOD	30	20
Suspended Solids	30	25
Oils, Fats & Grease	15	15
Total Nitrogen (as N)	80	15
Ammonia (as N)	15	10
Chlorides	250	250
Total Phosphorus (asP)	3	2



Schedule 1 (ii) Process Effluent Treatment Control

Emission Point Reference No.: EW-1

Description of Treatment: Waste Water Treatment Plant

Monitoring :

Monitoring to be Carried Out	Monitoring Frequency	Monitoring Equipment/Method
<u>Equalisation / Balancing :</u> C.O.D. Dissolved Oxygen pH	Daily Daily Continuous	Digestion / Colorimetric DO Probe pH probe
<u>Aeration Tanks :</u> Dissolved Oxygen Mixed liquor suspended solids Settlement Sludge Volume Index Sludge floc microscopy	Continuous Daily Daily Daily Daily	On-line DO meters Standard Laboratory Test Standard Laboratory Test Standard Laboratory Test Standard Laboratory Test
<u>Clarifier / polishing :</u> Return sludge solids Suspended solids (final effluent) pH (final effluent)	Daily Daily Continuous	Gravimetric Standard Methods Standard Methods

Equipment:

Control Parameter	Equipment	Backup equipment
Balancing : Dissolved Oxygen Flow	Mixer / Aerator(s) Forward feed pumps	Spares / replacements Spares / replacements
Aeration Stage : Dissolved Oxygen	Surface aerators Venturi aerators	Spares / replacements Spares / replacements
Clarifier : Suspended solids	Clarifier basin & Sludge Press Chemical Precipitation equipment	Spares Spares & replacements



Schedule 1 (iii) Monitoring of Process Effluent

Monitoring Point Reference No.: PEMP-1

Location of Monitoring Point: Treated effluent outlet flow measurement & sampling chamber adjacent to settlement tank.

Parameter	Monitoring Frequency	Analysis Method/Technique
Flow	Continuous	On-line flow meter with recorder
Temperature	Continuous	On-line temperature probe with recorder
pH	Continuous	pH electrode/meter and recorder
Chemical Oxygen Demand	Daily	Standard Method
Biochemical Oxygen Demand	Daily	Standard Method
Suspended Solids	Daily	Gravimetric
Nitrates (as N)	Weekly	Standard Method
Nitrites (as N)	Weekly	Standard Method
Ammonia (as N)	Weekly	Ion selective electrode
Total Nitrogen (as N)	Weekly	Standard Method
Orthophosphate (as P)	Weekly	Standard Method
Total Phosphate (as P)	Weekly	Standard Method
Chloride	Weekly	Standard Method
Oils, fats & greases	Weekly	Standard Method
Toxicity ^{Note 1}	Annually (24 hour flow proportional composite)	To be agreed with the Agency
Antibiotics	Quarterly	Agreed Method

Note 1: The number of toxic units (Tu) = 100/x hour EC/LC₅₀ in percentage vol/vol so that higher Tu values reflect greater levels of toxicity. For test regimes where species death is not easily detected, immobilisation is considered equivalent to death.



Monitoring Point Reference No.: PEMP-2.

Location of Monitoring Point: Inlet to Balance tank.

Parameter	Monitoring Frequency	Analysis Method/Technique
Flow	Continuous	On-line flow meter with recorder
pH	Daily	pH electrode/meter and recorder
Temperature	Continuous	On-line temperature probe with recorder
Chemical Oxygen Demand	Daily	Standard Method
Biochemical Oxygen Demand	Weekly	Standard Method
Nitrates (as N)	Weekly	Standard Method
Ammonia (as N)	Weekly	Ion selective electrode
Total Phosphate (as P)	Weekly	Standard Method
Chloride	Daily	Standard Method
Oils, fats & greases	Weekly	Standard Method



Schedule 2(i) Hazardous Wastes for Disposal/Recovery

Waste Materials	Method of off-site disposal
Utilities Waste Oils	Agreed hazardous waste recovery contractor.
Any infectious waste ^{Note 1}	Specialist, licensed rendering facilities

Note 1 : As defined by Category H9 of Annex III to the EU Hazardous Waste Directive (91/689/EEC)



Schedule 2(ii) Other Wastes for Disposal/Recovery

Waste Materials ^{Note 1}	Method of off-site disposal or recovery ^{Note 2}
Dewatered sludge from the biological treatment plant	Landspreading by agreed disposal contractors
Offal and hair	Agreed rendering facility
Lard/Fat	Agreed rendering facility/recycling facility
Bones	Agreed rendering facility
Blood	Agreed recovery facility
Waste blood	Landspreading by agreed disposal contractors
Domestic Refuse	Agreed disposal contractor
Packaging Waste (plastic, drums, pallets)	Reused where possible, remainder to agreed disposal contractor
Other ^{Note 3}	

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

Note 2: Any variation from those contractors and methods listed in the IPC Licence application, or subsequent agreements, must have the prior written agreement of the Agency

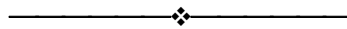
Note 3: No other waste shall be disposed of or recovered off-site without prior notice to, and prior written agreement of the Agency.



Schedule 2(iii) Waste Analysis

Waste Class	Frequency	Parameter	Method
Organic waste	Bi-Annually	% Dry Matter, total N, total P, total K	Standard Methods
	Bi-Annually	Antibiotics	As agreed with Agency
	Daily	Volume/Mass	As agreed with Agency
Other ^{Note 1}			

Note 1: No other waste shall be disposed of or recovered off-site without prior notice to, and prior written agreement of the Agency.



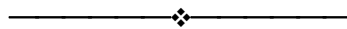
Schedule 2(iv) Buffer Zones for Landspreading of Organic Wastes

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

Area	Buffer zone (m) ^{Note 1}
Sensitive buildings (hospitals, schools and churches)	200
Dwelling houses	100
Karst features	30
Lakes and main river channels	20
Small watercourses	10
Public Roads	10
Domestic wells	50
Public supply well	300m ^{Note 2} /100 day 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.

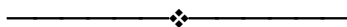


Schedule 2(v) Code of Practice for Landspreading of Organic Waste ^{Note 1}

Spreading shall not take place:
<ul style="list-style-type: none"> On wet or waterlogged ground On frozen or snow covered ground Where surface gradients are in excess of 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 25m³ 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 15mg P/ltr sampled to a depth of 10cm.
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 animal manures 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 give rise to 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 Daly, D. & Warren, W.P. (1997) Mapping Groundwater Vulnerability- The Irish Perspective, Geological Society London, Special Publication (in press).



Schedule 3 (i) Surface Water Discharge Monitoring

Emission Point Reference No's: EW2, EW3 & EW4 (or as may be amended by Condition 9.1.3)

Location: As indicated on Drawing reference 9.11, dated Sept.1996, in Attachment 9 of the IPC Licence application (or as may be amended by Condition 9.1.3)

Parameter	Monitoring Frequency	Analysis Method/Technique
BOD	Monthly	Standard Method
Total Ammonia	Monthly	Standard Method
Total Nitrogen	Monthly	Standard Method
COD	Weekly	Standard Method
Conductivity	Weekly	Standard Method
Visual Inspection	Daily	Not Applicable



Schedule 4(i) Recording and Reporting to the Agency

Completed reports shall be submitted to:

The Environmental Protection Agency
 Headquarters
 Ardavan
 Wexford

or Any other address as may be specified by the Agency

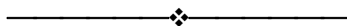
Reports are required to be forwarded as set out below:

Recurring Reports:

Report	Reporting Frequency	Report Submission Date
Monitoring of Process Effluent	Monthly	Ten days after end of the month being reported on.
Surface Water Discharge Monitoring	Monthly	Ten days after end of the month being reported on.
Complaints (where these arise)	Monthly	Ten days after end of the month being reported on.
Annual Environment Report(AER)	Annually	Eighteen months from the date of grant of licence and each year thereafter.

Annual Environmental Report Content
Boiler combustion efficiency and air emissions monitoring.
Process Effluent to water summary.
Non-process Surface Water discharge monitoring.
Waste management (including organic waste register) report.
Resource consumption summary.
Complaints summary.
Schedule of Environmental Objectives and Targets
Environmental management programme - proposal
Environmental management programme - report
Tank and pipeline testing and inspection report
Reported incidents summary

Items to be Addressed in the EMP
The reduction of Organic load to the WWTP
The reduction of Chloride load to the WWTP
The reduction of P load to the WWTP
The reduction of Ammonia load to the WWTP
The reduction of odour emissions from WWTP
Improvement in WWTP performance
Organic waste storage capacity
Re-examination of surface water drainage network with a view to properly isolating dirty and clean drainage sectors.



Once-off Reports:

Report	Report Submission Date
Programme for public information.	Within six months of the date of grant of licence.
Proposal for assessment of Boiler emissions	Within three months of the date of grant of licence.
Report on implementation of recommendations arising from Boiler emissions assessment.	At a time to be decided by the Agency
Bund integrity assessment.	Within six months of the date of grant of licence.
Treatment capacity of WWTP (c.f. Condition 6.5)	Within twelve months of the date of grant of licence.
Effluent Toxicity testing (c.f. Condition 10.2.1)	Within three months of the date of grant of licence.
COD action warning levels (c.f. Condition 9.1.2)	Within six months of the date of grant of licence.
Monitoring Programme for Landspread areas (c.f. Condition 9.1.5)	Prior to commencement of any landspreading programme.
Schedule of Environmental Objectives and Targets	Within four months of the date of grant of licence.
Environmental management programme proposal.	Six months from the date of grant of licence.

