Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

Headquarters
P.O. Box 3000
Johnstown Castle Estate
County Wexford
Ireland

WASTE LICENCE
FOR A WASTE MANAGEMENT FACILITY INCLUDING A HAZARDOUS AND NON-HAZARDOUS WASTE INCINERATOR

Recommended Decision

Licence Register Number:	186-1
Applicant:	Indaver Ireland (Branch of Indaver NV)
Location of Facility:	Ringaskiddy, County Cork

INTRODUCTION

This introduction is not part of the licence and does not purport to be a legal interpretation of the licence.

This licence is for the operation of a Community Recycling Park, Waste Transfer Station and two Incinerators to burn hazardous and non-hazardous waste and to recover energy in the form of steam and electricity (incineration plant) for export to the national grid at Ringaskiddy Co. Cork. The facility covers an area of approximately 12 hectares.

The Community Recycling Park consists of a "Bring Bank" where the public can bring material including cardboard, glass, aluminium cans, textiles batteries, waste oil and fluorescent tubes for recycling. Waste accepted at the park will be sent off site to suitable recycling facilities. The Community Recycling park is designed to accept in the region of 260 tonnes of waste per annum

The Waste Transfer Station has been designed to handle 15000 tonnes of industrial hazardous and non-hazardous waste per annum. Industrial hazardous and non-hazardous waste will be sorted and repackaged where necessary. Material will either be exported for treatment off site or transferred to the incineration plant for on site incineration.

The Incineration Plant consists of two incinerators, a fluidised bed incineration with post combustion chamber for the treatment of hazardous and non-hazardous solid and liquid waste and a moving grate incinerator for the treatment of non-hazardous solid industrial, commercial and household waste. The licence allows up to 150,000 tonnes of waste per year to be incinerated in each of the incinerators.

Infrastructure for the incineration plant includes, waste reception area, furnace, boiler, energy recovery system, facilities for the treatment of exhaust gases (5 stage treatment system), on-site facilities for handling and storage of residues and waste water, stack, devices and systems for controlling, recording and monitoring the incineration process. The heat produced from the process will be used to generate approximately 18MW of electricity with 14MW being exported to the national grid.
The licensee must manage and operate the facility to ensure that the activities do not cause environmental pollution. The licensee is required to carry out regular environmental monitoring and submit all monitoring results, and a wide range of reports on the operation and management of the facility to the Agency.

The licence sets out in detail the conditions under which Indaver Ireland (Branch of Indaver NV, Belgium), 4 Haddington Terrace, Dun Laoghaire, County Dublin will operate and manage this facility.

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DECISION & REASONS FOR THE DECISION

Reasons for the Decision

The Environmental Protection Agency is satisfied, on the basis of the information available, that the waste activities, licensed hereunder will comply with the requirements of Section 40(4) of the Waste Management Acts 1996 to 2003.

In reaching this decision the Environmental Protection Agency has considered the application and supporting documentation received from the applicant, all submissions received from other parties and the report of its inspector.

Part I Activities Licensed

In pursuance of the powers conferred on it by the Waste Management Acts 1996 to 2003, the Environmental Protection Agency (the Agency) proposes, under Section 40(1) of the said Act to grant this Waste Licence to Indaver Ireland to carry on the waste activities listed below at Ringaskiddy County Cork subject to conditions, with the reasons therefor and the associated schedules attached thereto set out in the licence.

Licensed Waste Disposal Activities, in accordance with the Third Schedule of the Waste Management Acts 1996 to 2003

Class 7.	**Physico-chemical treatment not referred to elsewhere in this Schedule (including evaporation, drying and calcination) which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1. to 10. of this Schedule (including evaporation, drying and calcination).**
Class 8.	**Incineration on land or at sea.**
Class 11.	**Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.**
Class 12.	**Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.**
Class 13.	**Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.**

Licensed Waste Recovery Activities, in accordance with the Fourth Schedule of the Waste Management Acts 1996 to 2003

Class 1.	**Solvent reclamation or regeneration:**
Class 2.	**Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes):**
Class 3.	**Recycling or reclamation of metals and metal compounds:**
Class 4.	**Recycling or reclamation of other inorganic materials:**
Class 6.	**Recovery of components used for pollution abatement:**
Class 9.	**Use of any waste principally as a fuel or other means to generate energy:**
Class 13.	**Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced:**

Part II: Schedule of Activities Refused

None of the proposed activities as set out in the waste licence application have been refused.

PART III: Glossary of Terms

All terms in this licence should be interpreted in accordance with the definitions in the Waste Management Acts 1996 to 2003, (the Acts), unless otherwise defined in this section.

Abnormal Operations	Any technical stoppage, disturbance, or failure of any of the purification devices or the measurement devices, during which the concentrations in the discharges to the air may exceed the prescribed emission limit values.
Aerosol	A suspension of solid or liquid particles in a gaseous medium.
Adequate lighting	20 lux measured at ground level.
AER	Annual Environmental Report.
Agreement	Agreement in writing.
Annually	At approximately twelve monthly intervals.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of this licence application.
Application	The application by the licensee for this licence.
Appropriate facility	A waste management facility, duly authorised under relevant law and technically suitable.
BAT	Best Available Technology
Bi-annually	All or part of a period of six consecutive months.
Biennially	Once every two years.
Biodegradable Waste	Any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food, garden waste, sewage sludge, paper and paperboard.
BOD	5 day Biochemical Oxygen Demand.
Breakdown	Any technical stoppage, disturbance, or failure of the purification devices or the measurement devices.
CCTV	Closed circuit television
CEN	Comité Européen De Normalisation – European Committee for Standardisation
COD	Chemical Oxygen Demand.
Condition	A condition of this licence.
Consignment Note	All movements of hazardous waste within Ireland must be accompanied by a "C1" consignment note issued by a local authority under the Waste Management (Movement of Hazardous Waste) Regulations (SI No. 147 of 1998). Transfrontier shipment notification and movement/tracking form numbers are required for all exports of waste from, into or through the state under the Waste Management (Transfrontier Shipment of Waste) Regulations (SI No. 149 of 1998).

Construction and Demolition Waste	All wastes which arise from construction, renovation and demolition activities.
Containment boom	A boom which can contain spillages and prevent them from entering drains or watercourses or from further contaminating watercourses.
Daily	During all days of plant operation, and in the case of emissions, when emissions are taking place; with at least one measurement on any one day.
Day	Any 24 hour period.
Daytime	0800 hrs to 2200 hrs.
dB(A)	Decibels (A weighted).
DO	Dissolved Oxygen.
Documentation	Any report, record, result, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence.
Drawing	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
Emergency	Those occurrences defined in Condition 9
Emission Limits	Those limits, including concentration limits and deposition levels established in *Schedule B* of this licence.
EMP	Environmental Management Programme.
EPA	Environmental Protection Agency.
European Waste Catalogue (EWC)	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 2000/532/EC and any subsequent amendment published in the Official Journal of the European Community.
Facility	Any site or premises used for the purposes of the recovery or disposal of waste.
Fortnightly	A minimum of 24 times per year, at approximately two week intervals.
GC/MS	Gas Chromatography/Mass Spectroscopy
HFO	Heavy Fuel Oil.
Hours of Waste Acceptance	The hours during which the facility is authorised to accept waste
Incident	The following shall constitute an incident for the purposes of this licence: a) An emergency; b) Abnormal operation; c) Breakdown; d) any emission which does not comply with the requirements of this licence; e) any trigger level specified in this licence which is attained or exceeded.
Industrial Waste	As defined in Section 5(1) of the Waste Management Acts, 1996 to 2003.

Inert Waste	Waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater.
Incineration Plant	As defined in Council Directive 2000/76/EC on the incineration of waste.
ICP	Inductively Coupled Plasma Spectroscopy.
K	Kelvin.
kPa	Kilo Pascals.
Leq	Equivalent continuous sound level.
Licensee	Indaver Ireland (Branch of Indaver NV).
Liquid Waste	Any waste in liquid form and containing less than 2% dry matter. Any waste tankered to the facility.
List I/II Organics	Substances classified pursuant to EC Directives 76/464/EEC and 80/68/EEC.
Local Authority	Cork County Council
Maintain	Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to adequately perform its function.
Mass Flow Limit	An Emission Limit Value which is expressed as the maximum mass of a substance which can be emitted per unit time.
Mass Flow Threshold	A mass flow rate, above which, a concentration limit applies.
Monthly	A minimum of 12 times per year, at approximately monthly intervals.
Municipal waste	As defined in Section 5(1) of the Waste Management Acts, 1996 to 2003.
Night-time	2200 hrs to 0800 hrs.
Noise Sensitive Location (NSL)	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other installation/facility or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
Nominal Capacity	As defined in Council Directive 2000/76/EC on the incineration of waste.
Oil Separator	Device installed according to the draft European Standard prEN 858 (Installations for the separation of light liquids, e.g. oil and petrol).
PER	Pollution Emission Register.
Recyclable Materials	Those waste types, such as cardboard, batteries, gas cylinders, etc, which may be recycled.
Residue	As defined in Council Directive 2000/76/EC on the incineration of waste.

Quarterly	All or part of a period of three consecutive months beginning on the first day of January, April, July or October.
Regional Fisheries Board	South-Western Regional Fisheries Board.
Sample(s)	Unless the context of this licence indicates to the contrary, samples shall include measurements by electronic instruments.
Sludge	The accumulation of solids resulting from chemical coagulation, flocculation and/or sedimentation after water or wastewater treatment with between 15% and 25% dry matter.
SOP	Standard Operating Procedure.
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) 20th Ed. 1998, American Public Health Association, 1015 Fifteenth Street, N.W., Washington DC 20005, USA; or, an alternative method as may be agreed in writing by the Agency.
TOC	Total Organic Carbon.
The Agency	Environmental Protection Agency.
Treatment	Treatment means the physical, thermal, chemical or biological processes, including sorting, that change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery.
Trigger Level	A parameter value, the achievement or exceedance of which requires certain actions to be taken by the licensee.
Weekly	During all weeks of plant operation, and in the case of emissions, when emissions are taking place; with at least one measurement in any one week.
WWTP	Waste Water Treatment Plant.

CONDITION 1. Scope

1.1 Waste activities at the facility shall be restricted to those listed and described in Part I: Schedule of Activities Licensed and as set out in the licence application and subject to the conditions of this licence.

1.2 For the purposes of this licence, the facility is the area of land outlined in the licence application. Any reference in this licence to "facility" shall mean the area thus outlined.

1.3 This licence is for the purposes of waste licensing under the Waste Management Acts, 1996 to 2003 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 The maximum tonnage to be accepted at the facility shall not exceed 315,260 tonnes per annum.

1.5 Waste disposal and recovery activities at this facility shall be limited to the waste categories and quantities as set out in *Schedule A: Limitations,* of this licence.

1.6 No composting or other biological transformation processes shall be carried out on site.

1.7 Every plan, programme or proposal submitted to the Agency for its agreement pursuant to any condition of this licence shall include a proposed timescale for its implementation. The Agency may modify or alter any such plan, programme or proposal in so far as it considers such modification or alteration to be necessary and shall notify the licensee in writing of any such modification or alteration. Every such plan, programme or proposal shall be carried out within the timescale fixed by the Agency but shall not be undertaken without the agreement of the Agency. Every such plan, programme or proposal agreed by the Agency shall be covered by the conditions of this licence.

1.8 The facility shall be controlled, operated, and maintained and emissions shall take place as set out in this licence. All programmes required to be carried out under the terms of this licence become part of this licence

1.9 No alteration to, or reconstruction in respect of, the activity or any part thereof which would, or is likely to, result in

(a) a material change or increase in:
- The nature or quantity of any emission,
- The abatement/treatment or recovery systems,
- The range of processes to be carried out,
- The fuels, raw materials, intermediates, products or wastes generated, or

(b) any changes in:
- Site management infrastructure or control with adverse environmental significance,

shall not be carried out or commenced without prior notice to, and without the prior agreement of, the Agency.

REASON: *To clarify the scope of this licence.*

CONDITION 2. Management of the Facility

2.1 Facility Management

2.1.1 The licensee shall employ a suitably qualified and experienced installation manager who shall be designated as the person in charge. The installation manager or a nominated, suitably qualified and experienced, deputy shall be present on the installation/facility at all times during its operation or as otherwise required by the Agency.

2.1.2 The licensee shall ensure that personnel performing specifically assigned tasks shall be qualified on the basis of appropriate education, training and experience, as required and shall be aware of the requirements of this licence.

2.2 Management Structure

2.2.1 Prior to the commencement of waste activities, the licensee shall submit written details of the management structure of the facility to the Agency. Any proposed replacement in the management structure shall be notified in writing to the Agency. Written details of the management structure shall include the following information:

a) the names of all persons who are to provide the management and supervision of the waste activities authorised by the licence, in particular the name of the facility manager and any nominated deputies;

b) details of the responsibilities for each individual named under a) above; and

c) details of the relevant education, training and experience held by each of the persons nominated under a) above.

2.3 Environmental Management System (EMS)

2.3.1 The licensee shall establish and maintain an Environmental Management System (EMS). The EMS shall be updated on an annual basis and submitted to the Agency as part of the Annual Environmental Report (AER).

2.3.2 The EMS shall include as a minimum the following elements:

2.3.2.1 Management and Reporting Structure.

2.3.2.2 Schedule of Environmental Objectives and Targets.

The licensee shall prepare a schedule of Environmental Objectives and Targets. The Schedule shall as a minimum provide for a review of all operations and processes, including an evaluation of practicable options, for energy and resource efficiency, the use of cleaner technology, cleaner production, and the prevention, reduction and minimisation of waste, and shall include waste reduction targets. The schedule shall include time frames for the achievement of set targets and shall address a five year period as a minimum. The schedule shall be reviewed annually and amendments thereto notified to the Agency for agreement as part of the Annual Environmental Report (AER).

2.3.3 Environmental Management Programme (EMP)

(i) The licensee shall, not later than six months from the date of grant of this licence, submit to the Agency for agreement an EMP, including a time schedule, for achieving the

Environmental Objectives and Targets prepared under Condition 2.3.2.2. Once agreed the EMP shall be established and maintained by the licensee. It shall include:

(a) designation of responsibility for targets;

(b) the means by which they may be achieved;

(c) the time within which they may be achieved.

(ii) The EMP shall be reviewed annually and amendments thereto notified to the Agency for agreement as part of the Annual Environmental Report (AER).

(iii) 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.

2.3.4 Documentation

(i) The licensee shall establish and maintain an environmental management documentation system which shall be to the satisfaction of the Agency.

(ii) The licensee shall issue a copy of this licence to all relevant personnel whose duties relate to any condition of this licence.

2.3.5 Corrective Action

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

2.3.6 Awareness and Training

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

2.3.7 Communications Programme

The licensee shall establish and maintain a Communications Programme to ensure that members of the public can obtain information at the installation/facility, at all reasonable times, concerning the environmental performance of the facility.

REASON: *To make provision for the proper 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. Infrastructure and Operation

3.1 The licensee shall establish all infrastructure referred to in this licence prior to the commencement of the licensed activities or as required by the conditions of this licence.

3.2 Monitoring Infrastructure

3.2.1 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.

3.2.2 The licensee shall provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency.

3.2.3 The licensee shall maintain all sampling and monitoring points, and clearly label and name all sampling and monitoring locations, so that they may be used for representative sampling and monitoring.

3.2.4 Groundwater
Prior to commencement of waste acceptance at the facility, the licensee shall install and maintain a minimum of two downgradient and one upgradient monitoring boreholes to allow for the sampling and analyses of groundwater in overburden and bedrock. All wellheads shall be adequately protected to prevent contamination.

3.2.5 Meteorological Station

3.2.5.1 The Licensee shall operate a weather monitoring station at a location agreed by the Agency which records the requirements specified in *Schedule C: Meteorological Monitoring,* of this licence.

3.2.5.2 The licensee shall provide and maintain in a prominent location on the facility a windsock, or other wind direction indicator, which shall be visible from the public roadway outside the site.

3.3 Facility Notice Board

3.3.1 The licensee shall provide and maintain a Facility Notice Board on the facility so that it is legible to persons outside the main entrance to the facility. The minimum dimensions of the board shall be 1200 mm by 750 mm.

3.3.2 The board shall clearly show:-

a) the name and telephone number of the facility;
b) the normal hours of opening;
c) the name of the licence holder;
d) an emergency out of hours contact telephone number;
e) the licence reference number; and
f) where environmental information relating to the installation/facility can be obtained.

3.4 Facility Security

3.4.1 The licensee shall provide and maintain a palisade security fence to ensure adequate security at the facility. During hours of operation access to the Waste Transfer Station and the Community Recycling Park shall be controlled by security barrier. Outside hours of operation the gate shall be locked and monitored by CCTV.

3.4.2 The licensee shall provide and maintain a security building and security barrier for the control of access to the incineration plant. The entrance to the incineration plant shall be monitored by CCTV at all times.

3.5 Waste Inspection and Quarantine Areas

3.5.1 An impermeable Waste Inspection Area and a Waste Quarantine Area shall be provided and maintained at the waste transfer station and the incineration plant.

3.5.2 These areas shall be constructed and maintained in a manner suitable, and be of a size appropriate, for the inspection of waste and subsequent quarantine if required. The waste inspection area and the waste quarantine area shall be clearly identified and segregated from each other

3.5.3 The licensee shall provide and maintain a scanner for the detection of radioactive material in waste entering the incineration plant.

3.5.4 The licensee shall provide and maintain two weighbridges at the facility.

3.6 Prior to the date of commencement of the waste activities at the facility, the licensee shall install and provide adequate measures for the control of odours and dust emissions, including fugitive dust emissions, from the facility. Such measures shall at a minimum include the following:-

3.6.1 Dust curtains shall be maintained on the entry/exit points from the buildings where waste is accepted; all other doors in this building shall be kept closed where possible.

3.6.2 Installation and maintenance of negative pressure at the waste reception area of the incineration plant to ensure no significant escape of odours or dust.

3.6.3 Installation of an odour management system.

3.7 Tank and Drum Storage Areas

3.7.1 All tank and drum storage areas shall be rendered impervious to the materials stored therein.

3.7.2 All 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:-

3.7.2.1 110% of the capacity of the largest tank or drum within the bunded area; or

3.7.2.2 25% of the total volume of substance which could be stored within the bunded area

3.7.3 All drainage from bunded areas shall be diverted for collection and safe disposal.

3.7.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.

3.7.5 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 following its installation and prior to their use as a storage area.

3.8 Surface Water Management.

3.8.1 Effective surface water management infrastructure shall be provided and maintained at the facility during construction and operation, of the facility.

3.8.2 Surface water runoff from impermeable surfaced areas and buildings in the Incineration Plant shall be collected and use as process water in the incineration plant as far as practicable.

3.8.3 Surface water from the incineration plant and hard standing shall not be discharged to the storm water sewer unless it has been monitored in accordance with Schedule C of this licence and incompliance with any agreed trigger levels.

3.8.4 Prior to the acceptance of waste at the facility, the licensee shall submit to the Agency for its agreement, surface water monitoring trigger levels (pH and TOC).

3.9 Drainage system, pipeline identification

3.9.1 Prior to the commencement of waste activities, all wastewater gullies, drainage grids and manhole covers shall be painted with red squares whilst all surface water discharge gullies, drainage grids and manhole covers shall be painted with blue triangles. These colour codes shall be maintained so as to be visible at all times during facility operation, and any identification designated in this licence (e.g. SW1) shall be inscribed on these manholes.

3.9.2 The licensee shall have in storage an adequate supply of containment booms and/or suitable absorbent material to contain and absorb any spillage at the facility.

3.9.3 The licensee shall install and maintain oil separators at the facility to ensure that all surface water discharges, other than those referred to in Condition 3.8.3 above, pass through oil separator prior to discharge to the storm water sewer. The oil separator shall be a Class II full retention separator and the separator shall be in accordance with European Standard prEN 858 (installations for the separation of light liquids)

3.9.4 The drainage system, bunds, and oil separators shall be desludged as necessary and properly maintained at all times. All sludge and drainage from these operations shall be collected for safe disposal.

3.9.5 All pump sumps or other treatment plant chambers from which spillage of environmentally significant materials might occur in such quantities as are likely to breach local or remote containment or separator, shall be fitted with high liquid level alarms (or oil detectors as appropriate) prior to the commencement of waste activities.

3.9.6 Fire water/storm water retention shall be provided on site as detailed in the licence application.

3.10 Waste Acceptance/Removal Hours and Hours of Operation

3.10.1 Waste shall only be accepted at or exported from the Facility (Incineration Plant, Water Transfer Station and Community Recycling Park) between the hours of 09.00 to 19.00 Monday to Friday inclusive and 09.00 to 14.00 on Saturdays.

3.10.2 Waste shall not be accepted at or exported from the facility on Sundays or on Bank Holidays without the written approval of the Agency.

3.10.3 The Water Transfer Station and Community Recycling Park shall not be operated outside the hours 09.00 to 19.00 Monday to Friday inclusive and 09.00 to 14.00 on Saturdays.

3.10.4 The Water Transfer Station and Community Recycling Park shall not be operated on Sundays or on Bank Holidays without the written approval of the Agency.

3.11 Incineration plant - Test programme/Commissioning Plan

3.11.1 In the case of the fluidised bed incinerator and the moving grate incineration, the licensee shall at least three months prior to the date of each incinerator

commissioning, submit to the Agency for its agreement a Test Programme/Commissioning Plan.

3.11.2 The Test Programme/Commissioning Plan shall as a minimum:

a. Verify the residence time as well as the minimum temperature and the oxygen content of the exhaust gas which will be achieved during normal operation and under the most unfavourable operating conditions anticipated.

b. Demonstrate that each combustion chamber will be able to achieve 850°C for a minimum of two seconds on a continuous basis.

c. Demonstrate that the post combustion chamber of the fluidised bed incinerator will be able to achieve 1100°C in the case of the incineration of waste with a content of more than 1% halogenated organic substances.

d. Establish all criteria for operation, control and management of the abatement equipment to ensure compliance with the emission limit values specified in this licence.

e. Establish criteria for the control of waste input including the minimum and maximum mass flows, the lowest and maximum calorific values and their maximum content of pollutants to ensure compliance with the emission limits set in this licence.

f. Assess the performance of any monitors on the abatement system and establish a maintenance and calibration programme for each monitor.

g. Confirm that all measurement equipment or devices (including thermocouples) used for the purpose of establishing compliance with this licence has been subjected, in situ, to its normal operating temperature to prove its operation under such conditions.

h. A report on the Test Programme/Commissioning Plan shall be submitted to the Agency on completion.

3.12 Incineration plant shall not be operated (outside of the agreed Test Programme/Commissioning Plan) until such time as it is authorised to do so by the Agency.

3.13 Incineration Plant Operation - additional requirements

3.13.1 The plant shall be operated in accordance with the criteria for operation and control as determined in the test programme in Condition 3.11.

3.13.2 The nominal capacity of the fluidised bed incinerator shall be 13.3 tonnes per hour.

3.13.3 The calorific values of the waste input into the fluidised bed incinerator shall be a minimum of 6MJ/kg and a maximum of 40 MJ/kg.

3.13.4 The waste input into the fluidised bed incinerator shall not contain pollutants which exceed the following levels:

3.13.4.1 Chlorine 300kg/hour

3.13.4.2 Fluorine 6 kg/hour

3.13.4.3 Sulphur 200 kg/hour

3.13.4.4 Cadmium & Thallium 0.25 kg/hour

3.13.4.5 Mercury 0.1 kg/hour

3.13.4.6 The sum of antimony (as Sb), arsenic (as As), lead (as Pb), chromium (as Cr), cobalt (as Co), copper (as Cu), manganese (as Mn), nickel (as Ni), and vanadium (as V) 20kg/hour

3.13.5 The nominal capacity of the moving grate incinerator shall be 13.3 tonnes per hour.

3.13.6 The calorific values of the waste input into the moving grate incinerator shall be a minimum of 8MJ/kg and a maximum of 14 MJ/kg.

3.13.7 Prior to the commencement of waste activities the licensee shall establish and maintain standard operating procedures for the operation of the Incineration plant. These shall incorporate the process controls identified in Schedule C: Control and Monitoring, of this licence.

3.13.8 The plant shall be operated in order to achieve a level of incineration such that the Total Organic Carbon (TOC) content of the slag and bottom ashes is less than 3% or their loss on ignition is less than 5% of the dry weight of the material.

3.13.9 The incineration plant shall be operated in such a way that the gas resulting from the process is raised, after the last injection of combustion air, in a controlled and homogeneous fashion and even under the most unfavourable conditions, to a temperature of 850^0C or 1100°C in the case of the incineration of waste with a content of more than 1% halogenated organic substances, as measured near the inner wall or at another representative point of the combustion chamber as authorised by the Agency for two seconds. Waste shall be charged into the incinerator only when these operating conditions are being complied with and when the continuous monitoring shows that the emission limit values are not being exceeded.

3.13.10 Each incineration plant shall be equipped with at least one auxiliary burner. The burner must be switched on automatically when the temperature of the combustion gases after the last injection of combustion air falls below 850^0C or 1100°C in the case of the incineration of waste with a content of more than 1% halogenated organic substances. The auxiliary burner shall also be used during plant start-up and shut-down operations in order to ensure the temperature of 850°C or 1100°C as appropriate is maintained at all times during the operations and as long as unburned waste is in the combustion chamber.

3.13.11 During start up or shut down or when the temperature of the combustion gas falls below 850°C or 1100°C as appropriate, the auxiliary burner shall not be fed with fuels which may cause higher emissions than those resulting from the burning of gas oil, as defined in Council Directive 75/716/EEC, liquefied gas or natural gas.

3.13.12 The incineration plant shall have and operate an automatic system to prevent waste feed:

a) At start-up, until the temperature of 850°C or 1100°C as appropriate has been reached;

b) Whenever the temperature of 850°C or 1100°C as appropriate is not maintained;

c) Whenever the continuous measurements show that any emission limit value is exceeded due to disturbances or failures of the purification devices

d) Whenever stoppages, disturbances, or failure of the purification devises or the measurement devices may result in the exceedance of the emissions limit values.

3.13.13 In the case of abnormal operating conditions the licensee shall, as soon as practicable,

3.13.13.1 shutdown incineration plant operations; and

3.13.13.2 shutdown process lines.

The licensee not resume incineration operations without the agreement of the Agency.

3.13.14 There shall be no bypass of the air abatement system

3.13.15 The boiler shall be equipped with an automatic cleaning system to minimise the reformation of dioxins and furans.

3.13.16 The waste bunker shall be equipped with a detector for the presence of explosive gases and with a smoke detection system with alarm and water cannon for fire control.

3.14 Prior to the commencement of waste activities the licensee shall ensure that adequate standby and back up equipment is provided on site to provide for contingency arrangements in the event of a breakdown of critical waste handling, treatment or abatement equipment.

3.15 All treatment/abatement and emission control equipment shall be calibrated and maintained, in accordance with the instructions issued by the manufacturer/supplier or installer.

3.16 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.

3.17 Waste Transfer Station Operation - additional requirements

3.17.1 Toxic materials, corrosive materials and flammable materials shall be stored separately.

3.17.2 Water reactive materials and materials such as organic peroxides shall be stored in special dedicated storage.

3.17.3 Drum washing and repacking shall be carried out within a dedicated building provided with extraction and abatement as required.

3.18 Community Recycling Park Operation - additional requirements

3.18.1 All containers for the reception of waste to be clearly labelled

3.18.2 The park shall be supervised during operating hours.

3.18.3 The placement and removal of containers shall be carried out during operating hours and containers shall be removal when full.

***REASON**: To provide for adequate infrastructure and appropriate operation of the facility to ensure protection of the environment.*

CONDITION 4. Interpretation

4.1 Emission limits for emissions to atmosphere from the incineration plant, in this licence shall be interpreted in the following way:

4.1.1 Continuous Monitoring

4.1.1.1 The half-hourly average values and the 10-minute averages shall be determined within the effective operating time (excluding the start-up and shut-off periods if no waste is being incinerated) from the measured values after having subtracted the value of the confidence interval specified at b) below. The daily average values shall be determined from those validated average values.

4.1.1.2 At the daily emission limit value level, the values of the 95% confidence intervals of a single measured result shall not exceed the following percentages of the emission limit values:

Carbon monoxide:	10 %
Sulphur dioxide:	20 %
Nitrogen dioxide:	20 %

Total dust:	30 %
Total organic carbon:	30 %
Hydrogen chloride:	40 %
Hydrogen fluoride:	40 %
Ammonia	40 %

4.1.1.3 To obtain a valid daily average value no more than five half hourly average values in any day shall be discarded due to malfunction or maintenance of the continuous measurement system. No more than ten daily average values per year shall be discarded due to malfunction or maintenance of the continuous measurement system.

4.1.2 Non-Continuous Monitoring

4.1.2.1 For periodic measurements, compliance shall be determined from the measured value after having subtracted the uncertainty error for the selected method of sampling and analysis for each relevant pollutant.

4.1.2.2 For any parameter where, due to sampling/analytical limitations, a 30 minute sampling period is inappropriate, a suitable period between 30 minutes and 8 hours should be employed and the value obtained therein shall not exceed the emission limit value.

4.1.2.3 For all other parameters, no 30 minute mean value shall exceed the emission limit value.

4.1.2.4 For flow, no hourly or daily mean value shall exceed the emission limit value.

4.2 The results of the measurements made to verify compliance with the emission limit values shall be standardised at the following conditions :

4.2.1.1 Temperature 273 K; pressure 101.3 kPa; 11 % oxygen; dry gas, in exhaust gas of incineration plants.

4.3 Noise

4.3.1 Noise from the activity shall not give rise to sound pressure levels (Leq,T) measured at noise sensitive locations which exceed the limit value(s).

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

CONDITION 5. Emissions

5.1 No specified emission from the installation/facility shall exceed the emission limit values set out in *Schedule B: Emission Limits* of this licence. There shall be no other emissions of environmental significance.

5.2 The licensee shall ensure that there are no discharges of effluent from the cleaning of exhaust gas to surface water, sewer or ground.

5.3 The licensee shall ensure that the activities shall be carried out in a manner such that emissions do not result in significant impairment of, and/or significant interference with amenities or the environment beyond the facility boundary.

5.4 There shall be no clearly audible tonal component or impulsive component in the noise emissions from the activity at noise sensitive locations..

5.5 The licensee shall ensure that vermin, birds, flies, mud, dust, litter and odours do not give rise to nuisance at the facility or in the immediate area of the facility. Any method used by the licensee to control any such nuisance shall not cause environmental pollution.

5.6 The licensee shall ensure that all vehicles delivering waste to and removing waste and materials from the facility are appropriately covered.

5.7 All loose litter or other waste, placed on or in the vicinity of the facility, other than in accordance with the requirements of this licences, shall be removed, subject to the agreement of the landowners, immediately and in any event by 10.00 a.m. of the next working day after such waste is discovered.

REASONS: *To control emissions from the facility and provide for the protection of the environment and to provide for the control of nuisances.*

CONDITION 6. Control and Monitoring

6.1 The licensee shall carry out such monitoring and at such locations and frequencies as set out in *Schedule C: Control and Monitoring* of this licence.

6.2 The licensee shall carry out a noise survey of the site operations within three months after the commencement of the licensed activity and annually thereafter. The survey programme shall be submitted to the Agency in writing at least one month before the survey is to be carried out. The survey programme shall be in accordance with Schedule C: Control & Monitoring, of this licence or as otherwise agreed by the Agency. A record of the survey results shall be available for inspection by any authorised persons of the Agency, at all reasonable times and a summary report of this record shall be included as part of the AER

6.3 Subject to the requirements of Article 11 of the Council Directive 2000/76/EC on the incineration of waste, the licensee may amend the frequency, locations, methods and scope of monitoring as required by this licence only upon the written instruction of the Agency and shall provide such information concerning such amendments as may be requested in writing by the Agency. Such alterations shall be carried out within any timescale nominated by the Agency.

6.4 Monitoring and analysis equipment shall be operated and maintained so that all monitoring results accurately reflect any emission, discharge or environmental parameter.

6.5 All persons conducting the sampling, monitoring and interpretation as required by this licence shall be suitably competent.

6.6 Measurements for the determination of concentrations of air and water polluting substances shall be carried out representatively.

6.7 Monitoring equipment shall be vibration isolated in accordance with manufacturers' specifications.

6.8 Sampling and analysis of all pollutants including dioxins and furans as well as reference measurement methods to calibrate automated measurement systems shall be carried out in accordance with CEN-standards. If CEN standards are not available, ISO, national or international standards which will ensure the provision of data of an equivalent scientific quality shall apply.

6.9 The appropriate installation and functioning of the automated monitoring equipment for emissions into air and water shall be subject to an annual surveillance test. Calibration shall be carried out by means of parallel measurements with reference methods at least every three years.

6.10 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.

6.11 The licensee shall, at a minimum daily, inspect the facility and its immediate surrounds for nuisances caused by litter, vermin, birds, flies, mud, dust and odours.

6.12 The readouts from continuous emission monitors shall report monitoring compliance information that enables direct comparison with the emission limit values specified in *Schedule B: Emission Limits*, of this licence.

6.13 The licensee shall prepare a programme, to the satisfaction of the Agency, for the identification and reduction of fugitive emissions. This programme shall be included in the annual Environmental Management Programme.

6.14 The drainage system, bunds and oil separators shall be inspected weekly.

6.15 Residues from the incineration plant shall be subject to the monitoring and analysis specified in *Schedule C: Control & Monitoring,* of this licence, prior to determining the route for disposal or recycling. The monitoring and analysis shall establish the physical and chemical characteristics and polluting potential of the residues.

REASON: *To ensure compliance with the conditions of this licence by provision of a satisfactory system of control and monitoring of emissions.*

CONDITION 7. Resource Use and Energy Efficiency

7.1 The licensee shall carry out an audit of the energy efficiency of the site within one year of the date of grant of this licence. The licensee shall consult with the Agency on the nature and extent of the audit and shall develop an audit programme to the satisfaction of the Agency. The audit programme shall be submitted to the Agency in writing at least one month before the audit is to be carried out. The energy efficiency audit report shall include:

7.1.1 A review of opportunities for increasing the overall energy efficiency of the facility over the coming year.

7.1.2 Identify progress with those opportunities identified in the previous annual report.

7.1.3 Identify the net usable energy produced per tonne of waste processed (i.e. energy consumption of the facility and unused energy discharged from cooling operations to be deducted).

The audit and report shall be repeated at intervals as required by the Agency.

7.2 The recommendations of the audit shall, where appropriate, be incorporated into the Schedule of Environmental Objectives and Targets under Condition 2 above.

7.3 The licensee shall identify opportunities for

7.3.1 The reduction in the quantity of water used on site including recycling and reuse initiatives, wherever possible.

7.3.2 The recovery/recycling of residues.

7.3.3 Optimisation of fuel and raw material usage on site.

These shall be incorporated into the Schedule of Environmental Objectives and Targets under Condition 2 above.

7.4 Within twelve months of completion of the audit specified in Condition 7.1 the licensee shall undertake a study to identify the opportunities to maximise the use or recovery of heat generated during the incineration process.

REASON: *To ensure that resources and energy efficiency are used to maximise the environmental performance of the facility.*

CONDITION 8. Materials Handling

8.1 Disposal or recovery of waste shall only take place in accordance with the conditions of this licence and in accordance with the appropriate National and European legislation and protocols.

8.2 Waste Acceptance/Removal and Characterisation Procedures

8.2.1 Wastes shall be accepted at/removed from the facility only from/by holders of waste collection permits issued under National or European legislation or Protocols. Copies of the waste collection permits must be maintained at the facility.

8.2.2 The quantity of waste to be accepted at the facility on a daily basis shall not exceed the appropriate storage capacity available.

8.2.3 Prior to commencement of waste acceptance at the facility, the licensee shall establish and maintain detailed written procedures for the acceptance and handling of wastes. These procedures shall include the following:

(a) Waste inspection at the point of entry to the facility and waste characterisation and waste profiling from known customers or new customers for waste accepted at the facility.

(b) Methods for the characterisation of waste in order to distinguish between inert, non-hazardous and hazardous wastes. Such methods shall have regard to the EU decision (2003/33/EC) on establishing the criteria and procedures for the acceptance of waste at landfills or any revisions pursuant to Article 16 and Annex II of Directive (1999/31/EC) on the landfill of waste.

(c) Waste weighing, documentation and reception.

(d) The manner in which waste will be handled for disposal or recovery. This shall include bunker management procedure at the incineration plant (mixing, periodic emptying and cleaning).

(e) The licensee shall, where possible, determine the mass of each category of waste in accordance with, and by reference to, the relevant EWC codes as presented by Commission Decision 2000/532 of 3rd May 2000 as amended prior to accepting the waste at the incineration plant.

(f) The licensee shall determine the calorific values and the content of pollutants as required to provide for the management of waste input to ensure compliance with the emission limit values set out in this licence.

8.3 Any waste deemed unsuitable for processing at the facility and/or in contravention of this licence shall be immediately separated and removed from the facility at the earliest possible time. Temporary storage of such wastes shall be in a designated Waste Quarantine Area. Waste shall be stored under appropriate conditions in the quarantine area to avoid putrefaction, odour generation, the attraction of vermin and any other nuisance or objectionable condition

8.4 Waste sent off-site for recovery or disposal shall be conveyed only by holders of waste collection permits issued under National or European legislation or Protocols to an appropriate facility authorised to accept such waste. The waste shall be transported only from the site of the activity to the site of recovery/disposal in a manner which will not adversely affect the environment and in accordance with the appropriate National and European legislation and protocols.

8.5 The licensee shall ensure that waste prior to transfer to another person shall be classified packaged and labelled in accordance with National, European and any other standards which are in force in relation to such labelling.

8.6 Waste shall be stored in designated areas, protected as may be appropriate, against spillage and leachate run-off. The waste is to be clearly labelled and appropriately segregated.

8.7 No waste classified as green list waste in accordance with the EU Transfrontier Shipment of Waste Regulations (Council Regulation EEC No.259/1993, as amended) shall be consigned for recovery without the prior agreement of the Agency.

8.8 Unless approved in writing by the Agency the licensee is prohibited from mixing a hazardous waste of one category with a hazardous waste of another category or with any other non-hazardous waste.

8.9 Infectious clinical waste shall be placed straight in the furnace, without first being mixed with other categories of waste and without direct handling.

8.10 Dry residues in the form of dust, such as boiler dust, and dry residues from the treatment of combustion gases, shall be stored in closed containers in such a way as to prevent dispersal in the environment.

8.11 Prior to the commencement of any solidification of waste residues from the incineration process, the licensee shall establish and maintain procedures for the process to be agreed by the Agency.

REASON: *To ensure that the handling of materials does not adversely effect the environment.*

CONDITION 9. Accident Prevention and Emergency Response

9.1 The licensee shall, prior to commencement of waste activities ensure that a documented Accident Prevention Policy is in place which will address the hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment.

9.2 The licensee shall, prior to commencement of waste activities ensure that a documented 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. This procedure shall be reviewed annually and updated as necessary.

9.3 In the event of an incident the licensee shall immediately:-

9.3.1.1 identify the date, time and place of the incident:

9.3.1.2 carry out an immediate investigation to identify the nature, source and cause of the incident and any emission arising therefrom;

9.3.1.3 isolate the source of any such emission;

9.3.1.4 evaluate the environmental pollution, if any, caused by the incident;

9.3.1.5 identify and execute measures to minimise emissions/malfunctions and the effects thereof;

9.3.1.6 provide a proposal to the Agency for its agreement within one month of the incident occurring to:-

- identify and put in place measures to avoid reoccurrence of the incident; and
- identify and put in place any other appropriate remedial action.

9.4 Emergencies

9.4.1 In the event of a complete breakdown of equipment or any other occurrence which results in the shutdown of the incineration plant or process line, any waste:-

9.4.1.1 arriving at the facility shall be transferred directly to an appropriate facility;

9.4.1.2 stored or awaiting processing at the facility shall, subject to the agreement of the Agency, be transferred to an appropriate facility within three days of the shutdown.

9.4.2 All significant spillages occurring at the facility shall be treated as an emergency and immediately cleaned up and dealt with so as to alleviate their effects.

9.4.3 A fire outbreak at the facility shall be treated as an emergency and immediate action shall be taken to extinguish it and notify the appropriate authorities.

9.4.4 In the event that monitoring of local wells indicates that the facility is having a significant adverse effect on the quantity and/or quality of the water supply this shall be treated as an emergency.

REASON: *To ensure the provision of detailed and documented policies and procedures to prevent accidents and to respond to emergencies.*

CONDITION 10. Remediation, Decommissioning, Restoration and Aftercare

10.1 The licensee shall within twelve months of the date of grant of this licence submit to the Agency for its agreement a Decommissioning and Aftercare plan for the facility. This plan shall be update when required by the Agency.

10.2 Following termination, or planned cessation for a period greater than six months, of use or involvement of all or part of the site in the licensed activity, the licensee shall, to the satisfaction of the Agency, decommission, render safe or remove for disposal/recovery, any soil, subsoils, buildings, plant or equipment, or any waste, materials or substances or other matter contained therein or thereon, that may result in environmental pollution.

REASON: *To provide for the restoration of the facility.*

CONDITION 11. Notifications, Records and Reports

11.1 In the event of an incident occurring on the facility, the licensee shall:-

a) notify the Agency as soon as practicable and in any case not later than 10.00a.m. the following working day after the occurrence of any incident;

b) submit a written record of the incident, including all aspects described in Condition 9.3(a-e), to the Agency as soon as practicable and in any case within five working days after the occurrence of any incident;

c) in the event of any incident which relates to discharges to surface water, notify the South-western Regional Fisheries Board as soon as practicable and in any case not later than 10:00a.m. on the following working day after such an incident; and

d) should any further actions be taken as a result of an incident occurring, the licensee shall forward a written report of those actions to the Agency as soon as practicable and no later than ten days after the initiation of those actions.

11.2 The licensee shall store and maintain the following documents and records at the facility:-

11.2.1.1 a copy of this licence and associated reference documents;

11.2.1.2 all written procedures produced by the licensee which relate to the licensed activities;

11.2.1.3 all reports and proposals prepared in accordance with the conditions of this licence;

11.2.1.4 all written records specified in Condition 11.3; and

11.2.1.5 all notifications to the Agency.

The above documents and records shall be available on site for inspection by authorised persons of the Agency.

11.3 The licensee shall maintain a written record of the following:-

11.3.1 All sampling, analysis, measurements, incidents, inspections, examinations, tests, malfunction, breakdown, calibrations, surveys, maintenance or remedial works carried out in accordance with the requirements of this licence.

11.3.2 For each load of waste arriving at and departing from the facility the following:-:

11.3.2.1 the date

11.3.2.2 the name of the carrier (including if appropriate, the waste collection permit details;

11.3.2.3 vehicle registration number;

11.3.2.4 the name of the producer(s)/collector(s) of the waste as appropriate;

11.3.2.5 the name of the waste facility (if appropriate) from which the load originated or to which the load departed, including the waste licence or waste permit register number

11.3.2.6 a description of the type of waste including the associated EWC codes;

11.3.2.7 the quantity of the waste, recorded in tonnes;

11.3.2.8 the name of the person checking the load;

11.3.2.9 where loads of wastes are removed or rejected, details of the date of occurrence, the types of waste and the facility to which they were removed; and

11.3.2.10 where applicable a consignment note number (including transfrontier shipment notification and movement/tracking form numbers, as appropriate).

11.3.3 For waste accepted at or dispatched from the facility: -

a) the type, relevant EWC code and total tonnage of waste accepted at the facility for disposal on a daily, monthly and annual basis;

b) the type, relevant EWC code and total tonnage of waste accepted at the facility for recovery on a daily, monthly and annual basis;

c) the type, relevant EWC code and total tonnage of waste sent off site for disposal or recovery on a daily, monthly and annual basis

d) the type, relevant EWC code and total tonnage of waste disposed of at the facility on an hourly, daily, monthly and annual basis;

e) the type, relevant EWC code and total tonnage of waste recovered at the facility on a monthly and annual basis;

f) Details of any approved waste mixing.

11.3.4 Off site profiling and characterisation of customer waste.

11.3.5 All training undertaken by facility staff.

11.3.6 Details of all wastes consigned abroad for Recovery and classified as 'Green' in accordance with the EU Transfrontier Shipment of Waste Regulations (Council Regulation EEC No. 259/1993, as amended). The rationale for the classification must form part of the record.

11.3.7 All incidents.

11.3.8 All complaints from third parties.

11.4 The written records of all complaints relating to the operation of the activity shall give details of the following:-

a) date and time of the complaint;

b) the name of the complainant;

c) details of the nature of the complaint;

d) actions taken on foot of the complaint and the results of such actions; and,

e) the response made to each complainant.

11.5 The licensee shall submit all records of sampling, analysis, measurements, incidents, inspections, examinations, tests, malfunction, breakdown, calibrations, maintenance or remedial works and reports and notifications to the Agency on a quarterly basis unless otherwise specified by a condition of this licence. Such records, reports and notifications shall:-

11.5.1.1 be sent to the Agency's Office of Environmental Enforcement, Cork Regional Inspectorate, Inniscarra, County Cork or other office of the Agency as directed;

11.5.1.2 comprise one original and two copies;

11.5.1.3 be formatted in accordance with any written instruction or guidance issued by the Agency;

11.5.1.4 include whatever information as is specified in writing by the Agency;

11.5.1.5 be accompanied by a written interpretation setting out their significance in the case of all monitoring data; and

11.5.1.6 be transferred electronically to the Agency's computer system if required by the Agency.

The frequency of such reporting may be altered by the Agency having regard to the environmental performance of the facility.

11.6 Annual Environmental Report

11.6.1 The licensee shall submit to the Agency, by the 31st March of each year, an Annual Environmental Report (AER) covering the previous calendar year.

11.6.2 The AER shall include as a minimum:

a) The information specified in *Schedule D: Annual Environmental Report,* of this licence and shall be prepared in accordance with any relevant written guidance issued by the Agency.

b) A report of annual audits undertaken by the licensee of the waste disposal, treatment and recovery sites for the residues and other wastes.

c) Pollution Emission Register (PER)

(i) The substances to be included in the PER shall be agreed by the Agency each year and shall be prepared in accordance with any relevant guidelines issued by the Agency.

(ii) The licensee shall, not later than six months from the date of commencement of the activity and thereafter as part of the AER, agree with the Agency the list of substances to be included in the PER, and the methodology to be used in their determination.

11.7 Written records of off-site waste profiling and characterisation shall be retained by the licensee for all active customers and for a two year period following termination of licensee/customer agreements.

REASON: *To provide for the keeping of records and reporting and notification of the Agency.*

CONDITION 12. Financial Charges and Provisions

12.1 Agency Charges

12.1.1 The licensee shall pay to the Agency an annual contribution of €63,883, or such sum as the Agency from time to time determines, having regard to variations in the extent of reporting, auditing, inspection, sampling and analysis or other functions carried out by the Agency, towards the cost of monitoring the activity as the Agency considers necessary for the performance of its functions under the Waste Management Acts 1996 to 2003. The first payment shall be a pro-rata amount for the period from the date of this licence to the 31st day of December, and shall be paid to the Agency within one month from the date of the licence. In subsequent years the licensee shall pay to the Agency such revised annual contribution as the Agency shall from time to time consider necessary to enable performance by the Agency of its relevant functions under the Waste Management Acts 1996 to 2003, and all such payments shall be made within one month of the date upon which demanded by the Agency.

12.1.2 In the event that the frequency or extent of monitoring or other functions carried out by the Agency needs to be increased the licensee shall contribute such sums as determined by the Agency to defraying its costs in regard to items not covered by the said annual contribution.

12.2 Financial Provision for Closure, Decommissioning and Aftercare

12.2.1 Prior to the acceptance of waste, the licensee shall arrange for a comprehensive and fully costed Environmental Liabilities Risk Assessment for the facility to be carried out. The Environmental Liabilities Risk Assessment shall have particular regard to any accidents, emergencies, or other incidents, which might occur at the facility and their effect on the environment. The Environmental Liabilities Risk Assessment shall include the cost of making such Financial

Provision as is required for the purposes of Section 53(1) of the Waste Management Act, 1996 to 2003. The Financial Provision shall include the costs entered into or incurred in the carrying on of the activities to which this licence relates or will relate including the closure, restoration, remediation and aftercare of the facility.

12.2.2 The licensee shall prior to the acceptance of waste establish and maintain a fund, or provide a written guarantee, for the costs determined under Condition 12.2.1. The type of fund established and means of its release/recovery shall be agreed by the Agency prior to its establishment.

12.2.3 The amount of financial provision, held under Condition 12.2.2 shall be reviewed and revised as necessary, but at least annually. Any proposal for such a revision shall be submitted to the Agency for its agreement.

12.2.4 The licensee shall within two weeks of establishment, purchase, renewal or revision of the financial provision required under Condition 12.2.2, forward to the Agency written proof of such indemnity.

12.2.5 Unless otherwise agreed any revision to the fund shall be computed using the following formula:

Cost = (ECOST x WPI) + CiCC
Where:

Cost = Revised restoration and aftercare cost.

ECOST = Existing restoration and aftercare cost.

WPI = Appropriate Wholesale Price Index [Capital Goods, Building & Construction (i.e. Materials & Wages) Index], as published by the Central Statistics Office, for the year since last closure calculation/revision.

CiCC = Change in compliance costs as a result of change in site conditions, changes in law, regulations, regulatory authority charges, or other significant changes.

12.3 The licensee shall pay €0.50 (Index Linked) for every tonne of waste accepted for disposal at the facility, into a ring-fenced community support and development fund. Prior to the commencement of waste disposal activities the licensee shall establish a community managed charitable trust (or equivalent) to manage and discharge this fund for the benefit of the social and physical environment of the local community.

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

SCHEDULE A Limitations

A.1 Waste Acceptance Community Recycling Park

Non-Hazardous Waste Types and Quantity Community Recycling Park

Maximum annual quantity to be accepted shall not exceed: 260 tonnes.

Waste Type	European Waste Catalogue (EWC)	Maximum (Tonnes Per Annum)
Wood and wood products	EWC 20 01 38 Household only	
Paper and paper products	EWC 20 01 01 Household paper	
Natural &manmade fibres	EWC 20 01 10 Household only EWC 20 01 11 Household only	
Vegetable oil	EWC 20 01 25 Household only	
Dried paints, dried varnish & dried lacquer	EWC 20 01 27 Household only EWC 20 01 28 Household only	
Glass	EWC 20 01 02 Household only	
Solid fully polmerised plastics	EWC 20 01 39 Household only	
Electronic and electrical waste	EWC 20 01 35 Household only EWC 20 01 36 Household only	
Ferrous metals	EWC 20 01 40 Household only	
Non-ferrous metals	EWC 20 01 40 Household only	
Footware	EWC 20 01 11 Household only	
Other Non-Hazardous Waste	To be agreed by the Agency Note 1	

Note 1: Quantity and handling/storage details to be agreed by the Agency prior to waste acceptance

A.2 Waste Acceptance Waste Transfer Station

Hazardous and Non Hazardous Waste Types and Quantity – Waste Transfer Station

Maximum annual quantity to be accepted shall not exceed: 15,000 tonnes.

Waste Type	European Waste Catalogue (EWC) [Note1]	DESCRIPTION
Waste oil	13 01 00 13 02 00 13 03 00 13 05 00 13 07 00	All waste oils including, hydraulic oils, oil/water mixtures and waste fuels
Oil filters	16 01 07	Oil filters from cars and machinery/plant.
Asbestos	17 06 01 17 06 05	Insulation materials and construction materials containing Asbestos
Oil/sand mixtures or mixtures of oil and other material	17 05 03	Soil containing fuel oil, diesel and other dangerous substances.
Wood preservation waste	03 02 00	Organic and inorganic wood preservative wastes
Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal	05 01 00	Waste from Petroleum refining.
Wastes from inorganic chemical processes	06 01 00 06 02 00 06 03 00 06 04 00 06 05 00 06 13 00	Wastes from MFSU of acids, bases, salts, metallic oxides including spent activated carbon
Wastes from organic chemical processes	07 01 00 07 02 00 07 03 00 07 04 00 07 05 00 07 06 00 07 07 00	Wastes from MFSU of organic chemicals, plastics, dyes, pharmaceuticals, soaps and detergents
Agrochemical wastes	02 01 05	Waste chemicals for the treatment of animals. Examples include sheep dip and louse powder.
Infectious Healthcare Waste	18 01 00 18 02 00	Wastes from the treatment, diagnosis or prevention of diseases in animals or humans.
Photographic processing waste	09 01 99	Solid and liquid waste from the photographic industry.
Paint, inks, adhesives and resins	08 01 00 08 03 00 08 04 00	Obsolete paints and inks and paint related material.
Batteries and accumulators	16 06 01	Lead Batteries.
Florescent tubes and other mercury containing waste	20 01 21	Fluorescent tubes and other mercury containing waste.
Wastes from the mining industry	01 01 00 01 03 00	Wastes from mineral excavation and from the

		physical and chemical processing of minerals.
Meat and bone meal	02 02 02	Meat and bone meal/ specified risk material from the rendering of animals.
Other Agricultural and food processing wastes	02 01 00 02 02 00 02 03 00 02 04 00 02 05 00 02 06 00 02 07 00	Materials unsuitable for consumption or processing or other wastes from the dairy or food processing industries.
Wastes from the leather, fur and textile industries	04 01 00 04 02 00	
Inorganic wastes from thermal processes	10 01 00 10 04 01 10 11 99	Wastes from power stations and other combustion plants.
Inorganic metal containing wastes from metal treatment and the coating of metals and non ferrous hydrometallurgy	11 01 00 11 03 00 11 05 00	Wastes from the surface treatment and coating of materials and waste sludges.
Wastes from shaping and surface treatment of metals and plastics	12 01 00	Machining oils, sludges and emulsions.
Wastes from organic substances used as solvents, (other than 07 and 08)	14 06 00	Solvents and mixtures containing halogenated and non-halogenated solvents and CFCs.
Wastes packaging; absorbent, wiping cloths, filter materials and protective clothing not otherwise specified	15 01 00 15 02 00	Hazardous packaging, filters, absorbents and protective clothing.
Wastes not otherwise specified	16 02 00 10 03 00 16 05 00 16 06 00 16 07 00 16 08 00 16 09 00 16 11 00	Electrical equipment containing CFCs, televisions, off specification batches, laboratory chemicals, oxidising substances, car batteries and waste linings and refractories.
Wastes from treatment facilities, off-site waste water treatment plants and the water industry	19 19 08 19 19 09	Boiler ash, fly ash, waste from water treatment plants and wastes from the preparation of water.
Municipal wastes and similar commercial, industrial and institutional wastes including separately collected fractions.	20 01 00	Solvents, acids, alkalines, pesticides, paints, inks adhesives, resins, detergents containing dangerous substances, cytotoxic and cytostatic medicines and waste electrical and electronic equipment.
Non-Hazardous Waste		

BIODEGRADABLE WASTE		
Paper and paper products	20 01 01	Waste newspapers, magazines, cardboard and other paper products.
Non-infectious health-care waste	18 01 02 18 01 04 18 02 01 18 02 03	Sharps and other non-infectious wastes from human and animal healthcare and research.
Street cleaning residues	20 03 03	
Gully emptyings	20 03 99	
Septic tank sludge	20 03 04	
Food stuffs	20 00 00	Foodstuffs unsuitable for consumption or processing.
Vegetable oil	20 01 25	Edible oils and other oils and fat.
OTHER WASTES		
Electronic and electrical waste	20 01 36	Non-hazardous electrical and electronic waste.
Waste from incineration or pyrolysis of municipal and similar commercial, industrial and institutional wastes	10 01 00 10 11 99	Non-hazardous residues from thermal processes.
Waste packaging absorbents, filters and protective clothing	15 01 00 15 02 00	Non-hazardous packaging, filters, absorbents and protective clothing.
Wastes from chemical surface treatment of metals and other materials	11 01 10 11 01 12	Non-hazardous sludges, filter cakes and washing liquids.
Wastes from waste management facilities and the water industry	19 01 12 19 01 14 19 01 16 19 09 04	Non-hazardous ashes and dusts. Spent activated carbon.
Municipal, commercial and institutional wastes	20 01 28 20 01 32 20 01 34	Non-hazardous paints, inks adhesives, resins and batteries.
Wastes from the production of alcoholic and non-alcoholic beverages	02 07 04	Materials unsuitable for consumption or processing.
End of life tyres	16 01 03	Waste tyres.
Other Waste		To be agreed by the Agency [Note 1]

Note 1: Quantity and handling/storage details to be agreed by the Agency prior to waste acceptance.

A.3 Waste Acceptance Incineration Plant

Hazardous and Non-Hazardous Waste Types and Quantities Fluidised Bed Incineration Plant

Maximum annual quantity to be accepted shall not exceed: 150,000 tonnes.

Waste Type	European Waste Catalogue (EWC) Note1	DESCRIPTION	Nominal Tonnes per Annum
Hazardous Waste			
Waste oil	13 00 00	Oil and fuel wastes.	45
Oil filters	15 02 12 16 01 07	Waste Oil filter.	5
Oil/sand mixtures or mixtures of oil and other material	13 05 01 15 05 08 15 02 02	Mixtures from grit chambers and oil/water separators.	20
Wood preservation waste	03 00 00	Waste from wood processing and production and processing of pulp, paper and cardboard.	10
Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal	05 00 00	Waste oils, tars and sludges from refining operations.	20
Wastes from inorganic chemical processes	06 00 00	Inorganic chemical process waste including spent activated carbon.	900
Wastes from organic chemical processes	07 00 00	Wastes from the MFSU of organic chemicals including chlorinated/non-chlorinated solvents and aqueous washing liquids.	40,000
Agrochemical wastes	02 01 08	Obsolete products and off specification batches.	100
Infectious Healthcare Waste Healthcare Waste	18 01 01 18 01 02 18 01 03 18 01 04 18 02 01 18 02 02 18 02 03 18 00 00	Wastes from the treatment, diagnosis or prevention of disease in animals or humans.	100
Paint, inks, adhesives and resins	08 01 00 08 03 00	Waste paint, inks and aqueous ink/paint solutions.	800
Waste packaging, absorbents, filters and protective clothing	15 00 00	Hazardous packaging, filters, absorbents and protective clothing.	2,000
Off specification batches containing organic or inorganic wastes	16 03 03 16 03 05	Waste pharmaceutical products.	2,000
Commercial wastes	20 01 00	Wastes including solvents, paints, inks and medicines from industries and institutions.	2,000
Sludges from physio-chemical treatment plants	19 02 05	Sludges containing dangerous substances will be accepted.	2,000

Non-Hazardous Waste			
BIODEGRADABLE WASTE			
Wood and wood products	20 01 38		
Paper and paper products	20 01 01		
Vegetable Matter	20 01 08		
Non-infectious health-care waste	18 01 04 18 02 01 18 02 03	Non-infectious wastes from the treatment, diagnosis or prevention of disease in animals or humans.	
Street cleaning residues	20 03 03		
Gully emptyings	20 03 99		
Septic tank sludge	20 03 04		
Food stuffs	02 00 00	Foodstuffs unsuitable for consumption or processing.	
Vegetable oil	20 01 25	Edible oils and other oils and fat.	
Oil and fat	20 01 26		
Animal faeces, urine and manure (including spoiled straw) effluent, collected separately and treated off-site	02 01 06		
Animal blood	18 02 03		

Non-Hazardous Waste Types and Quantities Moving Grate Incineration Plant

Maximum annual quantity to be accepted shall not exceed: 150,000 Tonnes.

Waste Type	European Waste Catalogue (EWC)	Maximum (Tonnes Per Annum)
Municipal Waste [Note 1]	20 03 01	150,000

Note 1: Household waste as well as commercial and other waste, which because of its nature or composition, is similar to household waste.

SCHEDULE B Emission Limits

(B.1) AIR

Emission Limits to Air

Emission Point Reference No.: **A1-1 (Fluidised Bed Incinerator Stack)**

Location: Main Process Building

Volume to be emitted: Maximum rate per hour: 101,927 m^3

Minimum Discharge height: 55 m above ground

Parameters	Units	Half Hour Average		Daily Average	Periodic
		A	B		
Total dust	mg/m^3	30 Note 1	10 Note 1	10	-
Gaseous and vaporous organic compounds expressed as total organic carbon	mg/m^3	20 Note 1	10 Note 1	10	-
Hydrogen chloride (HCl)	mg/m^3	60 Note 1	10 Note 1	10	-
Hydrogen fluoride (HF)	mg/m^3	4 Note 1	2 Note 1	1	-
Sulphur dioxide (SO_2)	mg/m^3	200 Note 1	50 Note 1	50	-
Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	mg/m^3	400 Note 1	200 Note 1	200	-
The sum of Cadmium (as Cd) and thallium (as Tl), and their compounds Note 2	mg/m^3	-		-	0.05
Mercury (as Hg) and its compounds Note 2	mg/m^3	-		-	0.05
The sum of antimony (as Sb), arsenic (as As), lead (as Pb), chromium (as Cr), cobalt (as Co) copper (as Cu), manganese (as Mn), nickel (as Ni), and vanadium (as V) Note 2	mg/m^3	-		-	0.5
Dioxins/furans (TEQ) Note 3	ng/m^3	-		-	0.1
Carbon monoxide (CO) Note 4	mg/m^3	100 Note5		50 Note 6	150 Note 7

Note 1: None of the half-hourly average values shall exceed any of the emission limit values set out in column A, or, 97 % of the half-hourly average values over the year shall not exceed any of the emission limit values set out in column B;

Note 2: All average values over the period of a minimum of 30 minutes and a maximum of 8 hours. Metals include both gaseous, vapour and solid phases as well as their compounds (expressed as the metal or total as specified).

Note 3: Average values shall be measured over a sample period of a minimum of 6 hours and a maximum of 8 hours. The emission limit value refers to the total concentration of dioxins and furans calculated using the concept of toxic equivalence in accordance with Annex I of Directive 2000/76/EC.

Note 4: The emission limit values of carbon monoxide (CO) concentrations shall not be exceeded in the combustion gases (excluding the start-up and shut-down phase).

Note 5: Taken in any 24 hour period

Note 6: 97% of the daily average value over the year does not exceed this emission limit value.

Note 7: 95 % of all measurements determined as 10-minute average values shall not exceed the emission limit value.

Emission Point Reference No.: **A1-2 (Moving Grate Incinerator Stack)**

Location: Main Process Building

Volume to be emitted: Maximum rate per hour: 80,453 m^3

Minimum Discharge height: 55 m above guound

Parameters	Units	Half Hour Average		Daily Average	Periodic
		A	B		
Total dust	mg/m^3	30 Note 1	10 Note 1	10	-
Gaseous and vaporous organic compounds expressed as total organic carbon	mg/m^3	20 Note 1	10 Note 1	10	-
Hydrogen chloride (HCl)	mg/m^3	60 Note 1	10 Note 1	10	-
Hydrogen fluoride (HF)	mg/m^3	4 Note 1	2 Note 1	1	-
Sulphur dioxide (SO_2)	mg/m^3	200 Note 1	50 Note 1	50	-
Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	mg/m^3	400 Note 1	200 Note 1	200	-
The sum of Cadmium (as Cd) and thallium (as Tl), and their compounds Note 2	mg/m^3	-		-	0.05
Mercury (as Hg) and its compounds Note 2	mg/m^3	-		-	0.05
The sum of antimony (as Sb), arsenic (as As), lead (as Pb), chromium (as Cr), cobalt (as Co) copper (as Cu), manganese (as Mn), nickel (as Ni), and vanadium (as V) Note 2	mg/m^3	-		-	0.5
Dioxins/furans (TEQ) Note 3	ng/m^3	-		-	0.1
Carbon monoxide (CO) Note 4	mg/m^3	100 Note5		50 Note 6	150 Note 7

Note 1: None of the half-hourly average values shall exceed any of the emission limit values set out in column A, or, 97 % of the half-hourly average values over the year shall not exceed any of the emission limit values set out in column B;

Note 2: All average values over the period of a minimum of 30 minutes and a maximum of 8 hours. Metals include both gaseous, vapour and solid phases as well as their compounds (expressed as the metal or total as specified).

Note 3: Average values shall be measured over a sample period of a minimum of 6 hours and a maximum of 8 hours. The emission limit value refers to the total concentration of dioxins and furans calculated using the concept of toxic equivalence in accordance with Annex I of Directive 2000/76/EC.

Note 4: The emission limit values of carbon monoxide (CO) concentrations shall not be exceeded in the combustion gases (excluding the start-up and shut-down phase).

Note 5: Taken in any 24 hour period

Note 6: 97% of the daily average value over the year does not exceed this emission limit value.

Note 7: 95 % of all measurements determined as 10-minute average values shall not exceed the emission limit value.

(B.2) Water

No Schedule

(B.3) Sewer

No Schedule

(B.4) Noise

Day dB(A) L_{Aeq}(30 minutes)	Night dB(A) L_{Aeq}(30 minutes)
55 Note 1	45 Note 1

SCHEDULE C Control & Monitoring

C.1.1 Process Control Monitoring of Incineration

Incinerator: Fluidised bed Incinerator

Control Parameter	Monitoring (continuous unless otherwise stated in licence)	Key Equipment Note 1
Combustion	**Combustion chamber temperature** note 2	Thermocouple
Exhaust gas	**% O_2 in exhaust gas**	O2 analyser
Exhaust gas	**Exhaust gas temperature**	Thermocouple
Exhaust gas	**Exhaust gas pressure**	Pressure monitor
Exhaust gas	**Water vapour content** note 3	Standard method
Sand bed	**Differential pressure over the sand bed**	Pressure monitors
Boiler output	**Steam pressure temperature and output load in the boiler**	-
Furnace pressure	**Pressure in the furnace**	Pressure monitors

Note 1: The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the system.
Note 2: Near the inner wall of the combustion chamber (or other representative location agreed by the Agency)
Note 3: Not necessary if gases are dried prior to analysis.

Incinerator: Moving grate Incinerator

Control Parameter	Monitoring	Key Equipment Note 1
Combustion	**Combustion chamber temperature** note 2	Thermocouple
Exhaust gas	**% O_2 in exhaust gas**	O_2 analyser
Exhaust gas	**Exhaust gas temperature**	Thermocouple
Exhaust gas	**Exhaust gas pressure**	Pressure monitor
Exhaust gas	**Water vapour content** note 3	Standard method
Waste input	**Feed rate**	Low level detector and visual
Burnout of waste in the furnace	**CCTV monitoring of flame front Temperature of last section of the furnace**	CCTV cameras with recorded Temperature probes
Boiler output	**steam pressure temperature and output load in the boiler**	
Combustion	**% O_2 in combustion gases**	O_2 analyser
Furnace pressure	**Pressure in the furnace**	Pressure monitors

Note 1: The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the system.
Note 2: Near the inner wall of the combustion chamber (or other representative location agreed by the Agency)
Note 3: Not necessary if gases are dried prior to analysis.

C.1.2 Process Control Monitoring of Flue gas abatement

Incinerator: Fluidised bed Incinerator

Location /Control Parameter	Monitoring	Key Equipment[Note 1]
Boiler /NOx abatement	**Reagent dosage rate**	Flow meter
Boiler/ Boiler output dust	**Voltage and current to electrostatic precipitator**	Voltmeter/Ammeter equipment with data recorder
Evaporating Spray Towers/ Temperature and acid gas removal	**Flue gas temperature**	Temperature probes
	Reagent dosage rate	Flow meter
	Reagent quality	To be agreed by the Agency
	Water dosage rate	Flow meter
Bag house filter with Activated Carbon/Lime Injection / Removal of metals, trace organics and dioxins/furans	**Reagent dosage rate**	Flow meter
	Reagent quality	To be agreed by the Agency
	Pressure differential across filters	Pressure monitors
Wet scrubber/ Acid gas removal	**Reagent dosage rate**	Flow meter
	Reagent quality	To be agreed by the Agency
Bag house filter with Activated Carbon/Lime Injection and reheat / Final polish and plume suppression	**Reagent dosage rate**	Flow meter
	Reagent quality	To be agreed by the Agency
	Pressure differential across filters	Pressure monitors
	Flue gas temperature	Temperature probes

Note 1: The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the abatement system.

Incinerator: Moving Grate Incinerator

Location /Control Parameter	Monitoring	Key Equipment[Note 1]
Boiler /NOx abatement	**Reagent dosage rate**	Flow meter
Evaporating Spray Towers/ Temperature and acid gas removal	**Flue gas temperature**	Temperature probes
	Reagent dosage rate	Flow meter
	Reagent quality	To be agreed by the Agency
	Water dosage rate	Flow meter
Bag house filter with Activated Carbon/Lime Injection / Removal of metals, trace organics and dioxins/furans	**Reagent dosage rate**	Flow meter
	Reagent quality	To be agreed by the Agency
	Pressure differential across filters	Pressure monitors
Wet scrubber/ Acid gas removal	**Reagent dosage rate**	Flow meter
	Reagent quality	To be agreed by the Agency
Bag house filter with Activated Carbon/Lime Injection and reheat / Final polish and plume suppression	**Reagent dosage rate**	Flow meter
	Reagent quality	To be agreed by the Agency
	Pressure differential across filters	Pressure monitors
	Flue gas temperature	Temperature probes

Note 1: The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the abatement system.

C1.3 Monitoring of Emissions to Air

Emission Point Reference No.s: **A1-1 (Fluidised Bed Incinerator Stack) and A1-2 (Moving Grate Incinerator Stack)**

Parameters	Monitoring Frequency	Analysis Method or equivalent/Technique [Note 1]
Total dust	Continuous	Iso-kinetic/gravimetric
Gaseous and vaporous organic compounds expressed as total organic carbon	Continuous	Flame Ionisation Detector
Hydrogen chloride (HCl)	Continuous	Infra red analyser
Hydrogen fluoride (HF)	Quarterly	To be agreed with Agency
Sulphur dioxide (SO_2)	Continuous	Infra red analyser
Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	Continuous	Infra red analyser
Nitrous oxide (N_2O)	Quarterly	To be agreed by the Agency
Cadmium (as Cd) and thallium (as Tl), and their compounds	Quarterly	To be agreed by the Agency
Mercury (as Hg) and its compounds	Quarterly	To be agreed by the Agency
Antimony (as Sb), arsenic (as As), lead (as Pb), chromium (as Cr), cobalt (as Co), copper (as Cu), manganese (as Mn), nickel (as Ni), and vanadium (as V) and their compounds	Quarterly	To be agreed by the Agency
Dioxins/furans	Quarterly [Note 2] Fortnightly [Note 3]	
Carbon monoxide (CO)	Continuous	Infra red analyser

Note 1: Or other methods agreed in advance by the Agency.
Note 2: Average values shall be measured over a sampling period of 6 hours and a maximum of 8 hours.
Note 3; Fortnightly based on continuous sampling.

C.2.1 Control of Emissions to Water

No Schedule

C.2.2 Monitoring of Emissions to Water

No Schedule

C.2.3 Monitoring of Surface Water Emission

Emission Point Reference No.: **SW1 - Incineration Plant and**
SW2(a) – Waste Transfer Station: Hard standing and marshalling areas.

Parameter	Monitoring Frequency	Analysis Method/Technique
PH	Continuous	pH electrode/meter with data logger
TOC	Continuous	TOC meter with data logger
Visual Inspection	Weekly	Sample and examine for colour and odour

SW2(b) – Waste Transfer Station: Roof and car park.
and SW3 -Community Recycling Park:

Parameter	Monitoring Frequency	Analysis Method/Technique
Visual Inspection	Monthly	Sample and examine for colour, odour and oil.

C.3.1 Control of Emissions to Sewer

No Schedule

C.3.2 Monitoring of Emissions to Sewer

No Schedule

C.4 Waste Monitoring

Residue Monitoring

Waste Description	Parameters to be measured	Frequency
Bottom Ash, Boiler Ash	TOC, metals (Ba, Cd, Mo, Sb, Se, Zn, Tl, Hg, Pb, Cr, Cu, Mn, Ni, As, Co, V, Sn) and their compounds, chloride, fluoride, sulphate, dioxins/furans and dioxin-like PCBs.	Quarterly for the first year biannually thereafter

Electro filter ash, Flue gas residuals and Gypsum	TOC, metals (Ba, Cd, Mo, Sb, Se, Zn, Tl, Hg, Pb, Cr, Cu, Mn, Ni, As, Co, V, Sn) and their compounds, chloride, fluoride, sulphate, dioxins/furans and dioxin-like PCBs.	Biannually

C.5 Meteorological Monitoring

Monitoring Location: Data to be obtained from location to be agreed by the Agency.

Parameter	Monitoring Frequency	Analysis Method/Technique
Precipitation Volume	Daily	WMO Standard [Note 1]
Temperature (min/max.)	Daily	WMO Standard [Note 1]
Wind Speed and Direction	Continuous	WMO Standard [Note 1]
Atmospheric Pressure	Continuous	WMO Standard [Note 1]

Note 1: World Metrological Organisation Standards and Recommendations

C.6 Ambient Monitoring

C.6.1 Groundwater Monitoring

Location: Two downgradient and one upgradient monitoring boreholes

Parameter	Monitoring Frequency	Analysis Method/Technique
PH	Biannually	pH electrode/meter
BOD	Biannually	Standard Method
Nitrate	Biannually	Standard Method
Nitrite	Biannually	Standard Method
Total Ammonia	Biannually	Standard Method
Conductivity	Biannually	Standard Method
Chloride	Biannually	Standard Method
Fluoride	Biannually	Standard Method
Metals(Cd, Tl, Hg, Pb, Cr, Cu, Mn, Ni, As, Co, V, Sn) and their compounds	Biannually	Standard Method
Organohalogens [Note 1]	Biannually	GC-MS

Note 1: Screening for priority pollutant list substances (such as US EPA volatile and/or semi-volatile compounds).

C.6.2 Noise Monitoring Frequency and Technique (Measured at the monitoring locations indicated in Table 8.7 of the EIS or as otherwise agreed by the Agency).

Parameter	Monitoring Frequency	Analysis Method/Technique
$L(A)_{EQ}$ [30 minutes]	Annual	Standard [Note 1]
$L(A)_{10}$ [30 minutes]	Annual	Standard [Note 1]
$L(A)_{90}$ [30 minutes]	Annual	Standard [Note 1]
Frequency Analysis(1/3 Octave band analysis)	Annual	Standard [Note 1]

Note 1: "International Standards Organisation. ISO 1996. Acoustics - description and Measurement of Environmental noise. Parts 1, 2 and 3."

C.6.3 Receiving Water Monitoring

No Schedule

SCHEDULE D Annual Environmental Report

Annual Environmental Report Content [Note 1]
Emissions from the facility.
Waste management record.
Resource consumption summary.
Complaints summary.
Schedule of Environmental Objectives and Targets
Environmental management programme – report for previous year
Environmental management programme – proposal for current year
Pollution emission register – report for previous year
Pollution emission register – proposal for current year
Ambient monitoring summary
Tank and pipeline testing and inspection report
Reported incidents summary
Energy efficiency audit report summary
Any other items specified by the Agency.

Note 1: Content may be revised subject to the agreement of the Agency

Signed on behalf of the said Agency
on the day of , 2004

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xxxxxxxxxxxx, **Authorised Person**