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Ireland

**WASTE LICENCE  
Recommended Decision**

<b>Licence Register Number:</b>	W0167-02
<b>Applicant:</b>	Indaver Ireland (Branch of Indaver NV)
<b>Location of Facility:</b>	Carranstown, Duleek, County Meath

## **INTRODUCTION**

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

This revised waste licence is for the operation of an incinerator to burn non-hazardous waste and to recover energy in the form of steam which will be used to generate electricity at Carranstown, Duleek, County Meath. The facility is located within a site area of approximately 10 hectares.

Only residual non-hazardous waste (household, commercial and industrial) may be accepted at the facility. The licence authorises a maximum of 200,000 tonnes of waste per annum to be accepted at the facility for incineration, and 2,000 tonnes of waste per annum to be accepted for treatment in the proposed residue solidification plant.

Infrastructure for the incineration plant includes waste reception area, furnace, boiler, energy recovery system, facilities for the treatment of exhaust gases, facilities for handling and storage of incineration residues, stack, devices and systems for controlling, recording and monitoring of the incineration process. The plant will have one incineration line with a design capacity of 26.7 tonnes per hour. The heat produced from the process will be used to generate approximately 17.2MW of electricity, of which 2.1MW will be used on site and 15.1MW will be exported to the national grid.

The facility falls within the scope of Annex I of Council Directive 2008/1/EC concerning integrated pollution prevention and control. The following IPPC Directive activities will be carried on at the installation:

**Category 5.2:** Installations for the incineration of municipal waste (household waste and similar commercial, industrial and institutional wastes) with a capacity exceeding 3 tonnes per hour; and

**Category 1.1:** Combustion installations with a rated thermal input exceeding 50MW.

The activities also fall within the scope of Annex II of Council Directive 2008/98/EC on waste, under the following:

**Operation D10:** Incineration on Land; and

**Operation R1:** Use principally as a fuel or other means to generate energy.

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), 4 Haddington Terrace, Dun Laoghaire, County Dublin will operate and manage this facility.

## Table of Contents

	<b>Page No</b>
Glossary of Terms .....	1
Decision & Reasons for the Decision.....	7
Part I Schedule of Activities Licensed .....	7
Part II Schedule of Activities Refused .....	8
Part III Conditions.....	9
Condition 1.    Scope.....	9
Condition 2.    Management of the Facility .....	10
Condition 3.    Infrastructure and Operation .....	12
Condition 4.    Interpretation.....	18
Condition 5.    Emissions .....	19
Condition 6.    Control and Monitoring .....	20
Condition 7.    Resource Use and Energy Efficiency.....	22
Condition 8.    Materials Handling.....	23
Condition 9.    Accident Prevention and Emergency Response .....	24
Condition 10.    Decommissioning & Residuals Management .....	25
Condition 11.    Notification, Records and Reports .....	26
Condition 12.    Financial Charges and Provisions .....	29
SCHEDULE A:    Limitations .....	31
SCHEDULE B:    Emission Limits .....	33
SCHEDULE C:    Control & Monitoring .....	36
SCHEDULE D:    Annual Environmental Report .....	<b>Error! Bookmark not defined.</b> 42

## ***Glossary of Terms***

All terms in this licence should be interpreted in accordance with the definitions in the Environmental Protection Agency Acts 1992 to 2007 / Waste Management Acts 1996 to 2010, unless otherwise defined in the section.

<b>Abnormal Operations</b>	Any technical stoppage, disturbance, or failure of any of the purification devices or the measurement devices, during which the concentrations in the discharges to air may exceed the prescribed emission limit values.
<b>Adequate Lighting</b>	20 lux measured at ground level.
<b>AER</b>	Annual Environmental Report.
<b>Aerosol</b>	A suspension of solid or liquid particles in a gaseous medium.
<b>Agreement</b>	Agreement in writing.
<b>Annually</b>	At approximately twelve-monthly intervals.
<b>Application</b>	The application by the licensee for this licence.
<b>Appropriate Facility</b>	A waste management facility, duly authorised under relevant law and technically suitable.
<b>Attachment</b>	Any reference to Attachments in this licence refers to attachments submitted as part of this licence application ( <b>Register No. W0167-02</b> ).
<b>BAT</b>	Best Available Techniques.
<b>Bi-annually</b>	All or part of a period of six consecutive months.
<b>Biennially</b>	Once every two years.
<b>Biodegradable Waste</b>	Any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food, garden waste, sewage sludge, paper and paperboard.
<b>BOD</b>	5 day Biochemical Oxygen Demand (without nitrification suppression).
<b>Breakdown</b>	Any technical stoppage, disturbance, or failure of the purification devices or the measurement devices.
<b>CCTV</b>	Closed Circuit Television.
<b>CEN</b>	Comité Européen De Normalisation -- European Committee for Standardisation.

<b>COD</b>	Chemical Oxygen Demand.
<b>Condition</b>	A condition of this licence.
<b>Consignment Note</b>	As specified in the Waste Management (Movement of Hazardous Waste) Regulations (S.I. No. 147 of 1998).
<b>Construction and demolition (C&amp;D) waste</b>	Wastes that arise from construction, renovation and demolition activities: Chapter 17 of the EWC or as otherwise may be agreed.
<b>Containment boom</b>	A boom that can contain spillages and prevent them from entering drains or watercourses or from further contaminating watercourses.
<b>Daily</b>	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.
<b>Day</b>	Any 24 hour period.
<b>Daytime</b>	08:00 hrs to 22:00 hrs
<b>dB(A)</b>	Decibels (A weighted).
<b>Dioxins and Furans</b>	As defined in Council Directive 2000/76/EC on the incineration of waste.
<b>Documentation</b>	Any report, record, results, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence.
<b>Drawing</b>	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
<b>Emergency</b>	Those occurrences defined in Condition 9.4.
<b>Emission Limits</b>	Those limits, including concentration limits and deposition levels established in <i>Schedule B: Emission Limits</i> , of this licence.
<b>EMP</b>	Environmental Management Programme.
<b>Environmental damage</b>	As defined in Directive 2004/35/EC.
<b>EPA</b>	Environmental Protection Agency.
<b>European Waste Catalogue (EWC)</b>	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.

<b>Facility</b>	Any site or premises used for the purpose of the recovery of disposal of waste.
<b>Fortnightly</b>	A minimum of 24 times per year, at approximately two week intervals.
<b>Gas Oil</b>	Gas Oil as defined in Council Directive 1999/32/EC and meeting the requirements of S.I. No. 119 of 2008.
<b>GC/MS</b>	Gas chromatography/mass spectroscopy.
<b>HEPA filter</b>	<b>High efficiency particulate air filter</b>
<b>Hours of waste acceptance</b>	The hours during which the facility is authorised to accept waste.
<b>ICP</b>	Inductively coupled plasma spectroscopy.
<b>Incident</b>	The following shall constitute as incident for the purposes of this licence: a) an emergency; b) abnormal operation; c) breakdown; d) any emission that does not comply with the requirements of this licence; e) the attainment or exceedance of any trigger level specified in this licence; and f) any indication that environmental pollution has, or may have, taken place.
<b>Incineration Plant</b>	As defined in Council Directive 2000/76/EC on the incineration of waste.
<b>Incinerator Residue</b>	As defined in Council Directive 2000/76/EC on the incineration of waste.
<b>Industrial waste</b>	As defined in Section 5(1) of the Waste Management Acts 1996 to 2010.
<b>Inert Waste</b>	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.
<b>K</b>	Kelvin.
<b>kPa</b>	Kilopascals.
<b>L<sub>eq</sub></b>	Equivalent continuous sound level.
<b>Licensee</b>	<b>Indaver Ireland (Branch of Indaver NV), 4 Haddington Terrace, Dun Laoghaire, Co. Dublin.</b>

<b>Liquid waste</b>	Any waste in liquid form and containing less than 2% dry matter, or any waste tankered to the facility.
<b>List I</b>	As listed in EC Directive 2006/11/EC.
<b>List II</b>	As listed in EC Directive 2006/11/EC.
<b>Local Authority</b>	<b>Meath County Council.</b>
<b>Maintain</b>	Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to perform its function adequately.
<b>Mass flow limit</b>	An emission limit value expressed as the maximum mass of a substance that can be emitted per unit time.
<b>Mass flow threshold</b>	A mass flow rate above which a concentration limit applies.
<b>Mixed Municipal Waste</b>	Mixed municipal waste means waste from households as well as commercial, industrial and institutional waste, which because of its nature and composition is similar to waste from households, but excluding fractions indicated in the Annex to Decision 94/3/EC (4) under heading 20 01 that are collected separately at source and excluding the other wastes indicated under heading 20 02 of that Annex.
<b>Monthly</b>	A minimum of 12 times per year, at intervals of approximately one month.
<b>Night-time</b>	22:00 hrs to 08:00 hrs.
<b>Noise-sensitive location (NSL)</b>	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
<b>Nominal Capacity</b>	As defined in Council Directive 2000/76/EC on the incineration of waste.
<b>O.D.</b>	Ordinance datum Malin Head.
<b>Oil separator</b>	Device installed according to the International Standard I.S. EN 858-2:2003 (Separator system for light liquids, (e.g. oil and petrol) – Part 2: Selection of normal size, installation, operation and maintenance).
<b>PRTR</b>	Pollutant Release and Transfer Register.
<b>Quarterly</b>	All or part of a period of three consecutive months beginning on the first day of January, April, July or October.
<b>Recyclable Materials</b>	Those waste types, such as cardboard, batteries, gas cylinders, etc., which may be recycled.

<b>Regional Fisheries Board</b>	<b>Eastern Regional Fisheries Board.</b>
<b>Residue</b>	As defined in Council Directive 2000/76/EC on the incineration of waste.
<b>Residual Waste</b>	<b>In the context of intake to an incinerator/WtE plant, residual waste is waste that has been subjected to pre-treatment (including, <i>inter alia</i>, pre-segregation, sorting) to extract, to the maximum practical and available extent having regard to BAT, the recyclable/reusable components.</b>
<b>Sample(s)</b>	Unless the context of this licence indicates to the contrary, the term samples shall include measurements taken by electronic instruments.
<b>Sanitary effluent</b>	Wastewater from facility toilet, washroom and canteen facilities.
<b>Sludge</b>	The accumulation of organic and inorganic solids resulting from chemical coagulation, flocculation and/or sedimentation after water or wastewater treatment with greater than 2% dry matter.
<b>SOP</b>	Standard operating procedure.
<b>Source segregated waste</b>	Waste which is separated at source; meaning that the waste is sorted at the point of generation into a recyclable fraction(s) for separate collection (e.g., paper, metal, glass, plastic, bulk dry recyclables, biodegradables, etc.) and a residual fraction. The expression 'separate at source' shall be construed accordingly.
<b>Specified emissions</b>	Those emissions listed in <i>Schedule B: Emission Limits</i> of this licence.
<b>Standard method</b>	A National, European or internationally recognised procedure (e.g. I.S. EN, ISO, CEN, BS or equivalent); or an in-house documented procedure based on the above references; a procedure as detailed in the current edition of "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.), American Public Health Association, 1015 Fifteenth Street, N.W., Washington DC 20005, USA; or an alternative method as may be agreed by the Agency.
<b>Storm water</b>	Rain water run-off from roof and non-process areas.
<b>The Agency</b>	Environmental Protection Agency.
<b>TOC</b>	Total organic carbon.
<b>Treatment/pre-treatment</b>	<b>Any manual, thermal, physical, chemical or biological processes that change the characteristics of the waste in order to reduce its volume or hazardous nature or facilitate its handling, disposal or recovery.</b>
<b>Trigger level</b>	A parameter value, the achievement or exceedance of which requires certain actions to be taken by the licensee.
<b>Water Services Authority</b>	<b>Meath County Council.</b>



<b>Weekly</b>	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.
<b>WEEE</b>	Waste Electrical & Electronic Equipment
<b>WtE Plant</b>	<b>Waste-to-Energy incineration plant.</b>
<b>WWTP</b>	Waste water treatment plant.

## ***Decision & Reasons for the Decision***

The Environmental Protection Agency is satisfied, on the basis of the information available, that subject to compliance with the conditions of this licence, any emissions from the activity will comply with and will not contravene any of the requirements of Section 40(4) of the Waste Management Acts 1996 to 2010.

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 Schedule of Activities Licensed***

In pursuance of the powers conferred on it by the Waste Management Acts 1996 to 2010, the Environmental Protection Agency (the Agency) proposes, under Section 46(8) of the said Acts to grant this Waste Licence to **Indaver Ireland (Branch of Indaver NV), 4 Haddington Terrace, Dun Laoghaire, Co. Dublin** to carry on the waste activities listed below at **Carranstown, Duleek, Co. Meath**, 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 2010**

Class 7.	Physico-chemical treatment not referred to elsewhere in this Schedule which results in final compounds or mixtures which are disposed of by means of any activity referred to in paragraphs 1 to 5 or paragraphs 8 to 10 of this Schedule (including evaporation, drying and calcination).
Class 8.	Incineration on land or at sea. [Principal Activity]
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 2010**

Class 3.	Recycling or reclamation of metals and metal compounds.
Class 4.	Recycling or reclamation of other inorganic materials.
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***

On the basis of the information before it, the Agency, pursuant to its powers under Section 46(8) of the Waste Management Acts 1996 to 2010, proposes to refuse the following class of activity.

### ***Refused waste recovery activities, in accordance with the Fourth Schedule of the Waste Management Acts 1996 to 2010***

**Class 8.**

**Oil re-refining or other re-uses of oil:**

Reason: The use of a fuel in the auxiliary burners is a normal and integrated step in the facility technical processes and does not involve the combustion of waste and is not therefore an independent waste treatment process for wastes imported to, or produced on, the site.

## ***Part III Conditions***

### **Condition 1. Scope**

- 1.1 Waste activities at this facility shall be restricted to those listed and described in *Part I Schedule of Activities Licensed*, and shall be as set out in the licence application or as modified under Condition 1.5 of this licence and subject to the conditions of this licence.
- 1.2 Activities at this facility shall be limited as set out in *Schedule A: Limitations* of this licence.
- 1.3 No hazardous wastes shall be accepted at the facility.
- 1.4 For the purposes of this licence, the facility authorised by this licence is the **area of land outlined in red on Drawing No. 18081\WL\002 Proposed Site Plan of the application**. Any reference in this licence to “facility” shall mean the area thus outlined in red. The licensed activities shall be carried on only within the area outlined.
- 1.5 No alteration to, or reconstruction in respect of, the activity, or any part thereof, that would, or is likely to, result in
- (i) 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
  - (ii) any changes in:
    - site management, infrastructure or control with adverse environmental significance;
- shall be carried out or commenced without prior notice to, and without the agreement of, the Agency.
- 1.6 The facility shall be controlled, operated and maintained, and emissions shall take place as set out in the licence. All programmes required to be carried out under the terms of this licence become part of this licence.
- 1.7 This licence is for purposes of waste licensing under the Waste Management Acts 1996 to 2010 only and nothing in this licence shall be construed as negating the licensee’s statutory obligations, or requirements under any other enactments or regulations.
- 1.8 **This licence is being granted in substitution for the waste licence granted to the licensee on 24<sup>th</sup> November 2005 (Register No W0167-01). The previous waste licence (Register No: W0167-01) is superseded by this licence.**

<b>Reason:</b> <i>To clarify the scope of this licence.</i>
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## Condition 2. Management of the Facility

### 2.1 Facility Management

- 2.1.1 The licensee shall employ a suitably qualified and experienced (minimum 10 years in incinerator operation) facility manager who shall be designated as the person in charge. The facility manager or a nominated, suitably qualified and experienced deputy (minimum 5 years incinerator experience) shall be present on the 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 advance 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 Prior to the acceptance of waste at the facility, 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 and maintain 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).

#### 2.3.2.3 Environmental Management Programme (EMP)

- (i) The licensee shall, not later than six months from the date of commencement of waste activities, 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:
- designation of responsibility for targets;
  - the means by which they may be achieved;
  - 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.

#### 2.3.2.4 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.

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

#### 2.3.2.6 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.

#### 2.3.2.7 Maintenance Programme

The licensee shall establish and maintain a programme for maintenance of all plant and equipment based on the instructions issued by the manufacturer/supplier or installer of the equipment. Appropriate record keeping and diagnostic testing shall support this maintenance programme. The licensee shall clearly allocate responsibility for the planning, management and execution of all aspects of this programme to appropriate personnel (see Condition 2.1 above).

#### 2.3.2.8 Efficient Process Control

The licensee shall, **in accordance with the Test Programme / Commissioning Plan**, establish and maintain a programme to ensure there is adequate control of processes under all modes of operation. The programme shall identify the key indicator parameters for process control performance, as well as identifying methods for measuring and controlling these parameters. Abnormal process operating conditions shall be documented, and analysed to identify any necessary corrective action.

#### 2.3.2.9 Public Awareness & Communications Programme

The licensee shall maintain a Public Awareness and Communications Programme to ensure that members of the public are informed and can obtain information at the facility, at all reasonable times, concerning the environmental performance of the facility. The Public Awareness & Communications Programme shall, as a minimum, include the following:

- (i) Maintain information at the facility as required in Condition 11.2 which shall be available for inspection at all reasonable times;

- (ii) **If required by the Agency**, maintain the following information via the internet:
  - a) Real time data from on-line process **and emissions** monitoring of the incinerator (the parameters, format and timeframe for publication to the internet shall be agreed by the Agency but as a minimum shall include combustion chamber temperature as outlined in *Schedule C.1.1: Process Control*, of this licence)
  - b) A weekly summary of continuous emissions monitoring data;
- (iii) Establish a Community Liaison Committee and facilitate regular meetings of that Committee at a frequency to be agreed with the Committee. The Agenda for each meeting shall be prepared and circulated in advance.

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

### Condition 3. Infrastructure and Operation

- 3.1 The licensee shall establish and maintain all infrastructure referred to in the licence application and in this licence prior to the commencement of the licensed activities, or as required and specified by the conditions of this licence.
- 3.2 Monitoring Infrastructure
  - 3.2.1 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 sampling and analyses of groundwater in overburden and bedrock. All wellheads shall be adequately protected to prevent contamination or physical damage.
  - 3.2.2 Meteorological Station
    - 3.2.2.1 The licensee shall operate a weather monitoring station at the facility which records the requirements specified in *Schedule C.5: Meteorological Monitoring*, of this licence.
    - 3.2.2.2 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.
  - 3.2.3 Monitoring equipment shall be vibration isolated in accordance with manufacturers' instructions.
  - 3.2.4 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.
  - 3.2.5 The licensee shall clearly label and provide safe and permanent access to all on-site sampling and monitoring points and to off-site point as required by the Agency. The requirement with regard to off-site points is subject to the prior agreement of the landowner(s) concerned.
  - 3.2.6 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.
- 3.3 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:
- (i) the name and telephone number of the facility;
  - (ii) the waste acceptance hours;
  - (iii) the name of the licence holder;
  - (iv) an emergency out of hours contact telephone number;
  - (v) the waste licence reference number; and
  - (vi) where environmental information relating to the facility can be obtained.
- 3.4 Facility Security
- 3.4.1 Security and stockproof fencing and gates as described in **Attachment D.1.a – Site Security Arrangements** of the application, shall be installed and maintained. The security fence and gates shall be at the locations shown on **Drawing No. 18081\WL\005 of the licence application – ‘Site Plan’, revision B.**
- 3.4.2 Prior to the acceptance of waste at the facility, **the licensee shall install a CCTV system which records all truck movements into and out of the facility, as well as operations in the waste reception hall, bunker and ash storage areas. The CCTV system shall be operated at all times and copies of recordings kept on site for a period to be agreed by the Agency. Copies of these stored recordings shall be made available to the Agency on request.**
- 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 facility.
- 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 and waste quarantine areas shall be clearly identified and segregated from each other, and quarantined waste shall be appropriately stored and clearly labelled.
- 3.5.3 Drainage from these areas shall be **diverted for collection and safe disposal. The collected water shall be either used as process water in the incineration plant, or if unsuitable, tankered off site for treatment at an authorised waste or wastewater treatment facility.**
- 3.6 The licensee shall provide and maintain two weighbridges at the facility.
- 3.7 Fire-water Retention
- 3.7.1 **The licensee shall, to the satisfaction of the Agency, establish and maintain a suitable fire-water risk management programme. The risk management programme shall be fully implemented in advance of acceptance of waste at the facility.**
- 3.7.2 **In the event of a fire or spillage to storm water, the site storm water shall be diverted to suitable containment. The licensee shall have regard to any guidelines issued by the Agency with regard to firewater retention.**
- 3.8 The licensee shall provide the following minimum residual storage capacity:
- (i) bottom ash: **1,600 m<sup>3</sup>;**
  - (ii) boiler ash: **100 m<sup>3</sup>;**
  - (iii) fly ash/flue gas cleaning ash: **420 m<sup>3</sup>.**
- 3.9 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:-
- 3.9.1 Installation and maintenance of negative pressure at the **waste reception, waste bunker, waste storage and incinerator residue storage/loading areas** of the incineration plant, to ensure no significant escape of odours or dust.



- 3.9.2 **Doors at the entry/exit points from the buildings where waste is accepted and stored, shall be kept closed where possible.**
- 3.9.3 **Implementation of an odour and fugitive dust management system to include periods when the incinerator is not operational.**
- 3.10 Prior to the date of commencement of waste activities at the facility, the licensee shall ensure that adequate standby and back up equipment, to include that listed in the Test Programme/Commissioning Plan Report, is provided on site to provide for contingency arrangements in the event of a breakdown of critical waste handling, treatment or abatement equipment.
- 3.11 Tank, Container and Drum Storage Areas
- 3.11.1 All tank, container and drum storage areas shall be rendered impervious to the materials stored therein. Bunds shall be designed having regard to Agency guidelines 'Storage and Transfer of Materials for Scheduled Activities' (2004).
- 3.11.2 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:
- (i) 110% of the capacity of the largest tank or drum within the bunded area; or
  - (ii) 25% of the total volume of substance that could be stored within the bunded area.
- 3.11.3 All drainage from bunded areas shall be treated as hazardous waste unless it can be demonstrated to be otherwise. All drainage from bunded areas shall be diverted for collection and safe disposal.
- 3.11.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.
- 3.11.5 All tanks, containers and drums shall be labelled to clearly indicate their contents.
- 3.11.6 The integrity and water tightness of all bunding structures and their resistance to penetration by water or other materials stored therein shall be tested and demonstrated to the satisfaction of the Agency and shall be reported to the Agency following installation and prior to their use as a storage area. The licensee shall repeat the test at five year intervals and include the results of the tests in the AER.
- 3.11.7 **The licensee shall provide adequate tank storage on site for aqueous wastes delivered to the facility for treatment. The location and capacity of such tank storage shall be notified to the Agency prior to the acceptance of waste at the facility.**
- 3.12 Wastewater Treatment
- 3.12.1 The licensee shall provide and maintain Wastewater Treatment Systems at the facility for the treatment of sanitary effluent arising on-site, as described in **Appendix 9.5 Puraflo Modular Secondary Treatment Plant Specifications of the EIS (2009)** submitted with the licence application.
- 3.12.2 **The wastewater treatment systems and percolation areas shall satisfy the criteria set out in the Agency's Wastewater Treatment Manual on Treatment Systems for Small Communities, Business, Leisure Centres and Hotels (p.e. 10 – 500) (EPA, 1999). Any references therein to Treatment Systems for Single Houses (EPA, 2000) shall be replaced by the Code of Practice on Waste Water Treatment and Disposal Systems serving single houses (p.e. ≤ 10) (EPA, 2009).**
- 3.13 Surface Water Management
- 3.13.1 Effective surface water management infrastructure shall be provided and maintained at the facility during construction and operation of the facility. **The surface water management infrastructure shall be as described in Section 11.3.3 Storm Water Management of the EIS (2009) submitted with the application. The rate of surface water discharge from the site shall not exceed 36.2 litres per second, unless otherwise agreed by the Sanitary Authority.**

- 3.14 Drainage System, pipeline identification
- 3.14.1 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.
- 3.14.2 Silt Traps and Oil Separators
- The licensee shall install and maintain:
- (i) Silt traps to ensure that all storm water discharges, other than storm water from roofs, from the facility pass through a silt trap in advance of discharge;
  - (ii) A **Class I oil separator** on the storm water discharge from yard areas.
  - (iii) A **forecourt separator at the diesel delivery area.**
- The silt traps and separators shall be in accordance with I.S. EN 585-2:2003 (separator systems for light liquids).
- 3.14.3 The drainage system, bunds, silt traps and oil separators shall be inspected weekly, desludged as necessary and properly maintained at all times. All sludge and drainage from these operations shall be collected for safe disposal.
- 3.14.4 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.
- 3.14.5 Appropriate drainage infrastructure shall be provided at the aqueous waste unloading area to collect any potential spills or losses. All waste water from this area shall be diverted for collection and safe disposal.**
- 3.15 Existing 200mm Diameter Gas Main
- 3.15.1 The pathway for the existing gas main shall be clearly delineated on site. An on-site permanent way-leave width of 14m and a working strip of 18m shall be provided and maintained by the licensee.
- 3.16 Waste Acceptance / Removal Hours and Hours of Operation
- 3.16.1 Waste may be accepted at, or removed from, the facility only between the hours of 0800 to 1830 Monday to Friday inclusive and 0800 to 1400 on Saturdays.
- 3.16.2 Waste shall not be accepted at, or removed from, the facility on Sundays and Public Holidays without the written approval of the Agency.
- 3.16.3 The incineration plant may be operated 24 hours per day, Monday to Sunday inclusive.**
- 3.17 Incineration Plant
- 3.17.1 Prior to the commencement of waste activities, the licensee shall provide and maintain incineration plant as specified in the licence application (Reference W0167-02), or as may be varied with the written approval of the Agency.
- 3.17.2 The incinerator plant design and construction shall incorporate the following:
- (iv) The stack elevation of the incineration plant (Emission Point Reference No. A1-1) shall at minimum be **95.5m O.D.**
  - (v) Appropriate seismic design of the foundation.
- 3.18 Incineration Plant – Test Programme / Commissioning Plan
- 3.18.1 The licensee shall, at least three months prior to the date of plant commissioning, submit to the Agency for its agreement, a Test Programme / Commissioning Plan.
- 3.18.2 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 the combustion chamber will be able to achieve 850°C for two seconds on a continuous basis.
  - (c) Establish all criteria for operation, control and management of the abatement equipment to ensure compliance with the emission limit values specified in this licence.
  - (d) Assess the performance of any monitors on the abatement system and establish a maintenance and calibration programme for each monitor.
  - (e) 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.
  - (f) Establish a list of the standby and back up equipment required to provide for contingency arrangements in the event of a breakdown of critical waste handling, treatment or abatement equipment.
- 3.18.3 The Test Programme / Commissioning Plan shall be implemented as agreed and a report on its implementation shall be submitted to the Agency on completion.
- 3.18.4 The Incineration plant shall not be operated by the licensee (outside of the agreed Test Programme / Commissioning Plan) until such time as it is authorised to do so by the Agency.
- 3.19 Incineration Plant operations – additional requirements
- 3.19.1 The plant shall be operated in accordance with the criteria for operation and control as determined in the test programme in Condition 3.18.
  - 3.19.2 The nominal capacity of the plant shall be **26.7 tonnes per hour**.
  - 3.19.3 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.
  - 3.19.4 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.
  - 3.19.5 Even under the most unfavourable of conditions, the incineration plant shall be operated in such a way that, after the last injection of combustion air, the gas resulting from the process is raised, in a controlled and homogenous fashion, for a duration of two seconds to a temperature of 850°C, as measured near the inner wall or at another representative point of the combustion chamber as authorised by the Agency. 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.
  - 3.19.6 The 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°C. The auxiliary burner shall also be used during plant start-up and shut-down operations in order to ensure the temperature of 850°C is maintained at all times during the operations and as long as unburned waste is in the combustion chamber.
  - 3.19.7 During start-up or shut-down or when the temperature of the combustion gas falls below 850°C, 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.
  - 3.19.8 The incineration plant shall have and operate an automatic system to prevent waste feed:

- (a) At start-up, until the temperature of 850°C has been reached;
  - (b) Whenever the temperature of 850°C 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; and
  - (d) Whenever stoppages, disturbances, or failure of the purification devices or the measurement devices may result in the exceedance of the emission limit values.
- 3.19.9 The boiler shall be equipped with an automatic cleaning system to minimise the reformation of dioxins and furans.
- 3.19.10 The waste bunker shall be equipped with the following:-
- (a) a smoke detection system (**or equivalent**) with alarm and water cannon for fire control; and
  - (b) a detector for the presence of explosive gases.
- 3.20 Abnormal Operation / breakdown**
- 3.20.1 In the case of a breakdown, the licensee shall shut down incineration plant operations as soon as practicable, until normal operations can be restored. The licensee shall not resume incineration operations except in accordance with a protocol to be agreed with the Agency.**
- 3.20.2 In the case of abnormal operations:**
- (i) **The licensee shall under no circumstances continue to incinerate waste for a period of more than four hours uninterrupted where emission limit values specified in *Schedule B.1: Emission Limits to Air*, of this licence are exceeded, and**
  - (ii) **The cumulative duration of abnormal operation over one calendar year shall be less than 60 hours, and**
  - (iii) **The total dust content of the emissions from the stack (A1-1) shall under no circumstances exceed 150 mg/m<sup>3</sup> (expressed as a half-hourly average) and the emission limit values specified in Schedule B.1 for CO and TOC shall not be exceeded.**
- 3.21 There shall be no bypass of the air abatement system.
- 3.22 All treatment/abatement and emission control equipment shall be calibrated and maintained in accordance with the instructions issued by the manufacturer/supplier or installer.
- 3.23 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 level liquid alarms (or oil detectors as appropriate) prior to the commencement of waste activities.
- 3.24 The licensee shall provide and use adequate lighting during the operation of the facility in hours of darkness.
- 3.25 Engineering Works**
- 3.25.1 All construction works shall be supervised by an appropriately qualified person, and that person, or persons, shall be present at all times during which relevant works are being undertaken.
- 3.25.2 Following the completion of infrastructural works and prior to operation, the licensee shall commission an independent construction quality assurance validation and submit the validation report to the Agency on completion. The report shall, as appropriate, include the following information:-
- (a) A description of the works;
  - (b) As-built drawings of the facility;

- (c) Records and results of all integrity and validation tests carried out (including failures) including a report on the details of the computational fluid dynamic modelling of the incineration plant;
  - (d) Drawings and sections showing the location, capacity and discharge points of all pipes, drains, bunds, bunkers and waste storage areas;
  - (e) Name(s) of contractor(s)/individual(s) responsible for undertaking the work;
  - (f) Records of any problems and the remedial works carried out to resolve those problems; and
  - (g) Any other information requested in writing by the Agency.
- 3.25.3 **The licensee shall submit proposals for the installation of residue treatment and bottom ash recovery infrastructure to the Agency for its agreement at least three months in advance of the intended date of commencement of any such works (installation of infrastructure). No such works shall be carried out without the prior agreement of the Agency.**

**Reason:** *To provide for appropriate operation of the facility to ensure protection of the environment.*

## Condition 4. Interpretation

4.1 Emission limit values 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 Condition 4.1.1.2 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:
- |             |           |
|-------------|-----------|
| Temperature | 273 K     |
| Pressure    | 101.3 kPa |
| Oxygen      | 11%       |
- dry gas, in exhaust gas of incineration plants.
- 4.3 Noise
- Noise from the facility 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 limit values fixed under the licence.*

## Condition 5. Emissions

- 5.1 No specified emission from the 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 waste water 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, or significant interference with 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 maintain negative air pressure in the waste reception hall and waste bunker unless otherwise agreed by the Agency. Air extracted from these areas shall be discharged via the stack (emission point A1-1).**
- 5.6 The licensee shall ensure that all or any of the following:
- Vermin;
  - Birds;
  - Flies;
  - Mud;
  - Dust;
  - Litter;
  - Odour;
- associated with the activity do not result in an impairment of, or an interference with, amenities or the environment at the facility or beyond the facility boundary or any other legitimate uses of the environment beyond the facility boundary. Any method used by the licensee to control or prevent any such impairment/interference shall not cause environmental pollution.

- 5.7 The licensee shall ensure that all vehicles delivering waste to and removing waste from the facility are appropriately covered, **and sealed in the case of hazardous incinerator residues.**
- 5.8 The licensee shall, during the Test Programme / Commissioning Plan and on a quarterly basis thereafter, determine the PM<sub>10</sub> and PM<sub>2.5</sub> fraction of the Total Dust from Emission Point Reference No. A1-1 (Stack). The results of these determinations shall be submitted to the Agency annually as per the AER.

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

## Condition 6. Control and Monitoring

- 6.1 The licensee shall carry out such sampling, analyses, measurements, examinations, maintenance and calibrations as set out below and as in accordance with *Schedule C: Control & Monitoring* of this licence.
- 6.1.1 Analyses shall be undertaken by competent staff in accordance with documented operating procedures.
- 6.1.2 Such procedures shall be assessed for their suitability for the test matrix and performance characteristics shall be determined.
- 6.1.3 Such procedures shall be subject to a programme of Analytical Quality Control using control standards with evaluation of test responses.
- 6.1.4 Where any analysis is sub-contracted it shall be to a competent laboratory.
- 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 and provision of Article 11 of the Council Directive 2000/76/EC on the incineration of waste, the Agency may amend the frequency, locations, methods and scope of monitoring as required by this licence and shall notify the licensee accordingly. The licensee shall provide such information concerning such amendments as may be requested in writing by the Agency and 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 specified in this licence.
- 6.5 All persons conducting the sampling, analyses, 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 All treatment/abatement and emission control equipment shall be calibrated and maintained in accordance with the instructions issued by the manufacturer/supplier or installer. For Incineration Plant, the appropriate installation and the functioning of the automated monitoring equipment for emissions into air shall be subject to an annual surveillance test. Calibration shall be done by means of parallel measurements with the 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 waste activities are 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 of one week intervals, 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 using an appropriate combination of best available techniques. This programme shall be included in the Environmental Management Programme.
- 6.14 Prior to the acceptance of waste at the facility, the licensee shall submit to the Agency for its agreement, groundwater monitoring trigger levels (ammonia, TOC and chloride as a minimum).
- 6.15 Residues from the incineration plant shall be subject to the monitoring and analysis specified in *Schedule C.4: Monitoring of Residues from Incineration Plant*, 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.
- 6.16 The integrity and water tightness of all underground pipes, tanks, bunding structures and containers and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee prior to use. This testing shall be carried out by the licensee at least once every three years thereafter and reported to the Agency on each occasion. This testing shall be carried out in accordance with any guidance published by the Agency. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.
- 6.17 Storm Water
- 6.17.1 A visual examination of the storm water discharges shall be carried out daily. A log of such inspections, shall be maintained.
- 6.17.2 **Prior to the acceptance of waste at the facility, the licensee shall propose storm water trigger levels for the agreement of the Agency, having regard to the parameters in *Schedule C.2.3 Monitoring of Storm Water Emissions*.**

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



## Condition 7. Resource Use and Energy Efficiency

7.1 The licensee shall, prior to the commencement of waste activities at the facility, review and report to the Agency on the energy efficiency aspects of the design to maximise the recovery of the energy generated from the incineration of waste. Surplus energy from the operation of the facility shall be exported to the National Grid.

7.2 The licensee shall build and operate the facility to achieve an energy efficiency of, as a minimum, 0.65 using the formula below to calculate Energy Efficiency:

$$\text{Energy Efficiency} = [E_p - (E_f + E_i)] / [0.97 \times (E_w + E_f)] \text{ where}$$

$E_p$  = annual energy produced as heat or electricity (GJ/year) (heat produced for commercial use is multiplied by 1.1 and electricity is multiplied by 2.6)

$E_f$  = annual energy input to the system from fuels contributing to the production of steam (GJ/year)

$E_w$  = annual energy contained in the waste input using the net calorific value of the waste (GJ/year)

$E_i$  = annual energy imported excluding  $E_w$  and  $E_f$

And 0.97 is a factor accounting for energy losses.

7.3 The licensee shall carry out an audit of the energy efficiency of the site within one year of the date of commencement of waste acceptance. 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:

7.3.1 A review of opportunities for increasing the overall energy efficiency of the facility.

7.3.2 Progress with those opportunities identified in the previous report.

7.3.3 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 report shall include a full breakdown of the calculation of each parameter in the equation referred to in Condition 7.2 and the net usable energy produced per tonne of waste processed.**

The audit report shall be repeated annually and submitted to the Agency in the AER.

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

7.5 The licensee shall identify opportunities for:

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

(b) The recovery/recycling of residues.

(c) 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.

<p><b>Reason:</b> <i>To provide for the efficient use of resources and energy in all site operations.</i></p>
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## Condition 8. Materials Handling

- 8.1 All waste handling and treatment shall be undertaken within the facility building, with the exception of storage of non-conforming waste at the outdoor waste quarantine area.
- 8.2 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.
- 8.3 Waste Acceptance/Removal and Characterisation Procedures
- 8.3.1 Waste shall be accepted at/removed from the facility only from/by an authorised or exempted carrier under National or European legislation or protocols. Copies of the waste collection permits must be maintained at the facility.
- 8.3.2 The quantity of waste to be accepted at the facility on a daily basis shall not exceed the appropriate storage capacity available for such waste.
- 8.3.3 Prior to commencement of waste acceptance at the facility, the licensee shall establish and maintain, and submit to the Agency for written approval, detailed written procedures for the acceptance and handling of wastes. **Once approved by the Agency, the procedures shall be implemented at the facility.** These procedures shall include the following:
- (a) Procedures for waste profiling from new and known customers, **waste inspection prior to discharge into the bunker**, and waste characterisation;
  - (b) Methods for the characterisation of waste sent off-site for disposal/recovery, in order to distinguish between inert, non-hazardous and hazardous wastes. In the case of materials dispatched to landfill, 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) Procedures for the reception and weighing of incoming and outgoing wastes;
  - (d) **Procedures for the handling of waste and incinerator residues including bunker and silo management;**
  - (e) Procedures to determine the mass of each category of waste in accordance with, and by reference to, the relevant EWC codes as outlined by Commission Decision 2000/532 of 3<sup>rd</sup> May 2000, as amended.
- 8.4 Waste Pre-treatment
- 8.4.1 In the case of municipal waste, only waste that has been subject to pre-treatment shall be accepted for incineration at the facility.
- 8.4.2 Pre-treatment shall reflect published EPA technical guidance as set out in *Municipal Solid Waste – Pre-treatment and Residuals Management, EPA, 2009*.
- 8.5 Any waste deemed unsuitable for processing at the facility 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 **contamination of stormwater**, putrefaction, odour generation, the attraction of vermin and any other nuisance or objectionable condition.
- 8.6 The licensee shall ensure that waste from the incineration plant, prior to being sent for disposal or recovery off site, is:-
- 8.6.1 Segregated, classified, packaged and labelled in accordance with National, European and any other standards which are in force in relation to such labelling;
  - 8.6.2 Stored, loaded and unloaded in designated areas, protected as may be appropriate against spillage and leachate run-off;
  - 8.6.3 Stockpiled in such a manner as to minimise dust generation.

- 8.7 No waste classified as green list waste in accordance with the EU Shipment of Waste Regulations (Council Regulation EEC No. 1013/2006, as may be amended) shall be consigned for recovery without the agreement of the Agency.
- 8.8 Unless otherwise agreed 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 Waste shall be accepted at the facility only from known customers or new customers subject to initial waste profiling and waste characterisation off-site.
- 8.10 Incinerator Residues**
- 8.10.1 Bottom ash shall be stored at dedicated areas within the **ash handling** building on concrete hardstanding with contained drainage.
- 8.10.2 Boiler ash and flue gas cleaning residues shall be stored in **dedicated enclosed silos (equipped with HEPA filters) within the main process building**, on concrete hardstanding with contained drainage.
- 8.10.3 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.
- 8.10.4 Lime grits shall not be mixed with residues.
- 8.10.5 Metals for recycling that are recovered from the bottom ash shall be stored at a dedicated area within the bottom ash handling building on concrete hardstanding with contained drainage.
- 8.10.6 Prior to the commencement of solidification of waste residues from the incineration process, the licensee shall establish and maintain procedures for the solidification process to be agreed by the Agency.
- 8.11 Waste sent off-site for recovery or disposal shall be conveyed only by holders of wastes collection permits issued under National or European legislation or Protocols to an appropriate facility authorised to accept such waste. The waste shall be transported from the site of the activity to the site of recovery/disposal only in a manner that will not adversely affect the environment and in accordance with the appropriate National and European legislation and protocols.
- 8.12 The licensee shall neither import waste into the State nor export waste out of the State except in accordance with the relevant provisions of Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14th June 2006 on shipments of waste and associated national regulations.

**Reason:** *To provide for the appropriate handling of material and the protection of the environment.*

## **Condition 9. Accident Prevention and Emergency Response**

- 9.1 The licensee shall, prior to the commencement of waste activities, ensure that a documented Accident Prevention Procedure is in place that addresses the hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment. This procedure shall be reviewed annually and updated as necessary.
- 9.2 The licensee shall, prior to the commencement of waste activities, submit a written Emergency Response Procedure (ERP) to the Agency for its agreement. The ERP shall address any emergency situations which may originate on the facility and shall include provision for minimising the effects of any emergency on the environment. This procedure shall be reviewed annually and updated as necessary. The procedure should also develop appropriate responses to off-site emergency situations that may have implications for the safe operation of the licensee's site.

## 9.3 Incidents

9.3.1 In the event of an incident the licensee shall immediately:

- (a) carry out an immediate investigation to identify the nature, source and cause of the incident and any emission arising therefrom;
- (b) isolate the source of any such emission;
- (c) evaluate the environmental pollution, if any, caused by the incident;
- (d) identify and execute measures to minimise the emissions/malfunction and the effects thereof;
- (e) identify the date, time and place of the incident;
- (f) notify the Agency and other relevant authorities.

9.3.2 The licensee shall provide a proposal to the Agency for its agreement within one month of the incident occurring or as otherwise agreed by the Agency, to:

- (i) identify and put in place measures to avoid recurrence of the incident; and
- (ii) identify and put in place any other appropriate remedial actions.

## 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:-

- (a) arriving at the facility shall be transferred directly to an appropriate facility;
- (b) 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 shut-down, **unless otherwise agreed with the Agency.**

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 or the quality of the water supply, this shall be treated as an emergency **and the licensee shall provide an alternative supply of water to those affected.**

<i>Reason: To provide for the protection of the environment.</i>
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## Condition 10. Decommissioning & Residuals Management

10.1 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, subsoil, buildings, plant or equipment, or any waste, materials or substances or other matter contained therein or thereon, that may result in environmental pollution.

10.2 Decommissioning Management Plan (DMP)

10.2.1 The licensee shall prepare, to the satisfaction of the Agency, a fully detailed and costed plan for the decommissioning or closure of the site or part thereof. This plan shall be submitted to the Agency for agreement in advance of the commencement of the waste activities.

- 10.2.2 The plan shall be reviewed annually and proposed amendments thereto notified to the Agency for agreement as part of the AER. No amendments may be implemented without the agreement of the Agency.
- 10.2.3 The licensee shall have regard to the Environmental Protection Agency Guidance on Environmental Liability Risk Assessment, Decommissioning Management Plans and Financial Provision when implementing Condition 10.2.1 above.
- 10.3 The Decommissioning Management Plan shall include, as a minimum, the following:
- (a) a scope statement for the plan;
  - (b) the criteria that define the successful decommissioning of the activity or part thereof, which ensures minimum impact on the environment;
  - (c) a programme to achieve the stated criteria;
  - (d) where relevant, a test programme to demonstrate the successful implementation of the decommissioning plan; and
  - (e) details of the costings for the plan and the financial provisions to underwrite those costs.
- 10.4 A final validation report to include a certificate of completion for the Decommissioning Management Plan, for all or part of the site as necessary, shall be submitted to the Agency within three months of execution of the plan. The licensee shall carry out such tests, investigations or submit certification, as requested by the Agency, to confirm that there is no continuing risk to the environment.

<p><b>Reason:</b> <i>To make provision for the proper closure of the activity ensuring protection of the environment.</i></p>
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## **Condition 11. Notification, 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 10.00 a.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 9.3.1 (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 an incident which relates to discharges to surface water, notify the Regional Fisheries Board as soon as practicable and in any case, not later than 10:00 a.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:-
- (a) a copy of this licence and any elements of the licence application or EIS documentation referenced in this licence;
  - (b) the current EMS for the facility;
  - (iii) the previous year's AER for the facility;
  - (d) all reports and proposals prepared in accordance with the conditions of this licence;
  - (e) all written records specified in Condition 11.3; and

- (f) all notifications to the Agency and relevant correspondence with the Agency;
- (g) up to date site drawings/plans showing the location of key process and environmental infrastructure, including monitoring locations and emission points;
- (h) up to date Standard Operational Procedures for all processes, plant and equipment necessary to give effect to this licence or otherwise to ensure that standard operation of such processes, plant or equipment does not result in unauthorised emissions to the environment;

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

11.3 The licensee shall maintain written records at the facility of the following:-

11.3.1 All sampling, audits, 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:-

- (a) the date and time;
- (b) the name of the carrier (including if appropriate, the waste collection permit details);
- (c) the vehicle registration number;
- (d) the trailer, skip or other container unique identification number (where relevant);
- (e) the name of the producer(s)/collector(s) of the waste as appropriate;
- (f) 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;
- (g) a description of the waste including the associated EWC?HWL codes;
- (h) the quantity of the waste, recorded in tonnes;
- (i) details of the treatment(s) to which the waste has been subjected, if any;
- (j) the classification or coding of the waste, including whether MSW or otherwise;
- (k) whether the waste is for disposal or recovery, and if recovery, for what purpose;
- (l) the name of the person checking the load;
- (m) where loads of waste are removed or rejected, details of the date of occurrence the types of waste and the facility to which they were removed; and
- (n) 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 on a daily, monthly and annual basis;
- (d) the type, relevant EWC code and total tonnage of waste sent off-site for recovery on a daily, monthly and annual basis;
- (e) the type, relevant EWC code and total tonnage of waste disposed of at the facility on an hourly, daily, monthly and annual basis;
- (f) the type, relevant EWC codes and total tonnage of waste recovered at the facility on a monthly and annual basis; and

- (g) details of any approved waste mixing.
- 11.3.4 Off-site profiling and pre-characterisation of customer waste arriving direct to the incinerator for disposal.
- 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 Shipment of Waste Regulations (Council Regulation EEC No. 1013/2006, as may be amended). The rationale for the classification must form part of the record.
- 11.3.7 Details of all wastes consigned abroad for disposal.**
- 11.3.8 All incidents.
- 11.3.9 All complaints from third parties.
- 11.4 The written record of all complaints relating to the operation of the activity shall give details of the following:-
  - (a) date and time of the complaint;
  - (b) 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 Data Management
  - 11.5.1 The licensee shall, prior to the commencement of waste acceptance at the facility, develop and establish a Data Management System for collation, archiving, assessing and graphically presenting the environmental monitoring data generated as a result of this licence.
  - 11.5.2 The licensee shall submit all records of sampling, analysis, measurements, incidents, inspections, examinations, tests, malfunctions, 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:
    - (a) be sent to the Agency's Office of Environmental Enforcement, McCumiskey House, Richview, Clonskeagh Road, Dublin 14, or other office as directed by the Agency;
    - (b) comprise one original and two copies;
    - (c) be formatted in accordance with any written instruction or guidance issued by the Agency;
    - (d) include whatever information as is specified in writing by the Agency;
    - (e) be accompanied by a written interpretation setting out their significance in the case of all monitoring data; and
    - (f) be transferred electronically to the Agency's computer system if required by the Agency; and
    - (g) be certified as accurate and representative by the facility manager/deputy.
  - 11.5.3 The frequency of such reporting may be altered by the Agency having regard to the environmental performance of the facility.
- 11.6 Pollutant Release and Transfer Register (PRTR)

The licensee shall prepare and report a PRTR for the site. The substance and/or wastes to be included in the PRTR shall be as agreed by the Agency each year by reference to EC Regulations No. 166/2006 concerning the establishment of the European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC. The PRTR shall be prepared in accordance with any relevant guidelines issued by the Agency and shall be submitted electronically in specified format and as part of the AER.

**11.7 Annual Environmental Report**

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

11.7.2 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 dispatched from the facility.
- (c) Pollutant Release and Transfer Register (PRTR).

11.8 Records of off-site waste profiling and characterisation shall be retained by the licensee for all active customers and for a ten year period following termination of licensee/customer agreements.

11.9 The licensee shall notify the Agency in writing, seven months in advance of the intended date of commencement of acceptance of waste for Scheduled Disposal/Recovery activities at the facility.

**11.10 The licensee shall maintain a record/log of the use of the emergency generator. A summary of the record/log shall be included as part of the AER.**

**11.11 Waste Recovery Report**

The licensee shall, as part of the AER for the facility, submit a report on the contribution by this facility to the achievement of the waste recovery objectives agreed under Condition 2.3.2.2 and as otherwise may be stated in National and European Union waste policies. The report shall, as a minimum, include tonnages of the recovery of incinerator residues on site, off-site and their final use.

<i>Reason: To provide for the collection and reporting of adequate information on the activity.</i>
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## Condition 12. Financial Charges and Provisions

**12.1 Agency Charges**

12.1.1 The licensee shall pay to the Agency an annual contribution of €58,660, 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 2010. **The first payment shall be as specified by the Agency, and shall reflect the enforcement effort prior to the acceptance of waste at the facility. This payment** shall be paid to the Agency within one month of the date upon which demanded by the Agency. 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 2010, 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 defray its costs in regard to items not covered by the said annual contribution.



12.2 Environmental Liabilities

- 12.2.1 The licensee shall as part of the AER, provide an annual statement as to the measures taken or adopted at the site in relation to the prevention of environmental damage, and the financial provisions in place in relation to the underwriting of costs for remedial actions following anticipated events (including closure) or accidents/incidents, as may be associated with the carrying on of the activity.
- 12.2.2 The licensee shall arrange for the completion, by an independent and appropriate qualified consultant, of a comprehensive and fully costed Environmental Liabilities Risk Assessment (ELRA) to address the liabilities from past and present activities. The assessment shall include those liabilities and costs identified in Condition 10 for execution of the Decommissioning Management Plan. A report on this assessment shall be submitted to the Agency for agreement **prior to the acceptance of waste at the facility**. The ELRA shall be reviewed as necessary to reflect any significant change on site, and in any case every three years following initial agreement. The results of the review shall be notified as part of the AER.
- 12.2.3 **Prior to the acceptance of waste at the facility**, the licensee shall, to the satisfaction of the Agency, make financial provision to cover any liabilities identified in Condition 12.2.2. The amount of indemnity held shall be reviewed and revised as necessary, but at least annually. Proof of renewal or revision of such financial indemnity shall be included in the annual 'Statement of Measures' report identified in Condition 12.2.1.
- 12.2.4 The licensee shall have regard to the Environmental Protection Agency Guidance on Environmental Liability Risk Assessment, Decommissioning Management Plans and Financial Provision when implementing Conditions 12.2.2 and 12.2.3 above.

<p><b>Reason:</b> <i>To provide for adequate financing for monitoring and financial provisions for measures to protect the environment.</i></p>
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## SCHEDULE A: Limitations

### A.1 Waste Categories and Quantities for Acceptance for Incineration

Maximum annual quantity to be accepted for incineration shall not exceed: 200,000 tonnes.

Waste Type	European Waste Catalogue (EWC) Code	Description	Maximum Quantity (Tonnes per annum)
<b>Non-hazardous Residual Municipal Waste.</b> <small>Note 1</small>	20 03 01	Mixed Municipal Waste	200,000
	20 03 02	Waste from Markets	
	20 03 03	Street Cleaning Residues	
	20 03 07	Bulky Waste	
	20 03 99	Municipal wastes not otherwise specified	
<b>Commercial &amp; Industrial non-hazardous Waste</b>	02 01 02, 02 01 03, 02 01 04, 02 01 06, 02 01 07, 02 01 09, 02 01 99, 02 02 02, 02 02 03, 02 02 99, 02 03 02, 02 03 03, 02 03 04, 02 03 99, 02 04 99, 02 05 01, 02 05 99, 02 06 01, 02 06 02, 02 06 99, 02 07 01, 02 07 02, 02 07 03, 02 07 04, 02 07 99	Wastes from rendering plants, slaughterhouses, veterinarians, farms, horse stables, food factories, warehouse distributors, manufacturers, restaurants.	50,000
	03 01 01, 03 01 05, 03 01 99, 03 02 99, 03 03 01, 03 03 07, 03 03 08, 03 03 99	Wastes from furniture production, carpentry, forestry.	
	04 01 01, 04 01 02, 04 01 05, 04 01 09, 04 01 99, 04 02 09, 04 02 10, 04 02 15, 04 02 17, 04 02 21, 04 02 22, 04 02 99	Wastes from leather, fur and textile industries.	
	05 01 99, 05 06 99, 05 07 02, 05 07 99	Wastes from petroleum refining, natural gas purification and pyrolysis of coal.	
	06 01 99, 06 02 99, 06 03 99, 06 04 99, 06 06 03, 06 06 99, 06 07 99, 06 08 99, 06 09 04, 06 09 99, 06 10 99, 06 11 01, 06 11 99, 06 13 03, 06 13 99	Wastes from inorganic chemical processes.	
	07 01 99, 07 02 13, 07 02 15, 07 02 17, 07 02 99, 07 03 99, 07 04 99, 07 05 14, 07 05 99, 07 06 99, 07 07 99	Wastes from chemical process companies who produce non hazardous waste, e.g., pharmaceutical, cosmetics, chemicals.	
	08 01 12, 08 01 18, 08 01 99, 08 02 01, 08 02 99, 08 03 13, 08 03 18, 08 03 99, 08 04 10, 08 04 99	Wastes from paint/varnish/coating/glue manufacturers, painting companies, householders,	

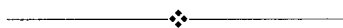
	printers waste, general maintenance contractors.
09 01 07, 09 01 08, 09 01 10, 09 01 99	Wastes from photographers, pharmacists, schools and colleges
10 01 25, 10 01 99, 10 03 99, 10 04 99, 10 05 99, 10 06 99, 10 07 99, 10 08 99, 10 09 99, 10 10 99, 10 11 99, 10 12 99, 10 13 99	Wastes from thermal processes.
11 01 14, 11 01 99, 11 02 03, 11 02 06, 11 02 99, 11 05 99	Wastes from metal plating, engineering firms.
12 01 01, 12 01 03, 12 01 05, 12 01 13, 12 01 99	Wastes from crane companies, jewellers, car manufacturers, engineering firms.
15 01 01, 15 01 12, 15 01 03, 15 01 04, 15 01 05, 15 01 06, 15 01 07, 15 01 09, 15 02 03	Wastes from manufacturing companies who produce a product that has packaging, schools, hospitals, chemical industry, councils, householders.
16 01 03, 16 01 06, 16 01 15, 16 01 17, 16 01 18, 16 01 19, 16 01 20, 16 01 22, 16 01 99, 16 05 09, 16 07 99, 16 11 02, 16 11 04, 16 11 06	Wastes from garages, maintenance of vehicles, farming, warehouse distributors, companies who produce a product/batch, e.g. pharmaceutical, chemical, food manufacturing (off-spec), schools, universities, hospitals.
18 01 01, 18 01 02, 18 01 04, 18 01 07, 18 01 09, 18 02 01, 18 02 03, 18 02 06, 18 02 08	Wastes from healthcare/hospitals, universities, veterinarians.
19 02 03, 19 02 10, 19 02 99, 19 05 01, 19 05 02, 19 05 03, 19 05 99, 19 06 04, 19 06 06, 19 06 99, 19 08 01, 19 08 02, 19 08 09, 19 08 99, 19 09 01, 19 09 04, 19 09 05, 19 09 99, 19 10 01, 19 10 02, 19 10 04, 19 10 06, 19 11 99, 19 12 01, 19 12 02, 19 12 03, 19 12 04, 19 12 05, 19 12 07, 19 12 08, 19 12 10, 19 12 12, 19 13 02	Wastes from waste facilities, transfer stations, water treatment facilities (e.g. Council, pharma industry), mechanical-biological treatment plants, landfills.
Note 2	
20 01 01, 20 01 08, 20 01 10, 20 01 11, 20 01 25, 20 01 30, 20 01 32, 20 01 38, 20 01 39, 20 01 40, 20 01 41, 20 01 99,	Wastes from waste facilities, transfer stations, waste collectors, local authorities, septic tank

	20 02 01, 20 02 03, 20 03 06	companies.	
<b>Sewage &amp; Industrial Sludges</b>	02 01 01, 02 02 01, 02 02 04, 02 03 01, 02 03 05, 02 04 03, 02 05 02, 03 03 05, 03 03 10, 03 03 11, 04 01 07, 04 02 20, 05 01 10, 05 01 13, 06 05 03, 07 01 12, 07 02 12, 07 03 12, 07 04 12, 07 05 12, 07 06 12, 07 07 12, 08 01 14, 08 01 16, 08 02 02, 08 03 07, 08 03 15, 08 04 12, 08 04 14, 10 01 21, 10 02 15, 10 11 18, 10 12 13, 11 01 10, 12 01 15, 19 02 06, 19 08 05, 19 08 12, 19 08 14, 19 09 02, 19 09 03, 19 09 06, 19 11 06, 19 13 04, 19 13 06, 20 03 04	Wastes from industrial and municipal wastewater treatment plants, washing and cleaning at commercial and industrial sites.	20,000
<b>Non-hazardous Aqueous Wastes</b>	08 01 20, 08 02 03, 08 03 08, 08 04 16, 11 01 12, 16 10 02, 16 10 04, 19 04 04, 19 06 03, 19 06 05, 19 07 03, 19 13 08	Wastes from pharmaceutical industry, paint/varnish/coating/glue manufacturers, painting companies, engineering firms, printers waste, general maintenance contractors, metal plating.	10,000
<b>Construction &amp; Demolition Waste</b> <small>Notes 2 &amp; 3</small>	17 02 01, 17 02 02, 17 02 03, 17 03 02, 17 05 04, 17 05 08, 17 06 04		50,000
<b>Total</b>			<b>200,000</b>

**Note 1:** Household waste (as well as commercial and other waste, that, because of its nature or composition, is similar to household waste) that has been pre-sorted or segregated to remove reusable and recyclable materials, and including separately collected fractions subject to the agreement of the Agency.

**Note 2:** Non-contaminated and separately collected recyclable waste shall only be treated in the incineration plant if recycling outlets are not available, e.g. during a collapse in the recycling market, and subject to the prior agreement of the Agency.

**Note 3:** While the specified C&D wastes may not have an energy value, they may be accepted for incineration to destroy or 'clean' organic contamination from non-hazardous bulk inorganic materials, e.g. non-hazardous contaminated soils which cannot be suitably managed in landfill.

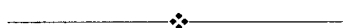


## A.2 Waste Categories and Quantities for Acceptance for Treatment other than Incineration

Maximum annual quantity to be accepted for treatment other than incineration shall not exceed: 2,000 tonnes.

Waste Type	European Waste Catalogue (EWC) Code	Description	Maximum Quantity (Tonnes per annum)
Industrial Non-hazardous Waste <small>Note 1</small>	10 01 01, 10 01 02, 10 01 03, 10 01 15, 10 01 17, 10 01 19	Wastes from thermal processes	2,000

**Note 1:** These wastes may be accepted at the facility for waste-to-waste applications in a residue pre-treatment facility, e.g. fly ash from other combustion processes may be used as a substitute for cement in the solidification of the flue gas treatment residues.



## SCHEDULE B: Emission Limits

### B.1 Emission Limits to Air

<b>Emission Point Reference No.:</b>	A1-1 (Stack Emission)		
<b>Location:</b>	Main process building		
<b>Volume to be emitted:</b>	Maximum rate per hour:	147,000 m <sup>3</sup>	
<b>Minimum Discharge height:</b>	65 m above ground level (95.5m O.D.)		

Parameters	Units	Half Hour Average		Daily Average	Periodic
		A	B		
Total dust	mg/m <sup>3</sup>	30 <sup>Note 1</sup>	10 <sup>Note 1</sup>	10	-
Gaseous and vaporous organic substances, expressed as total organic carbon	mg/m <sup>3</sup>	20 <sup>Note 1</sup>	10 <sup>Note 1</sup>	10	-
Hydrogen chloride (HCl)	mg/m <sup>3</sup>	60 <sup>Note 1</sup>	10 <sup>Note 1</sup>	10	-
Hydrogen fluoride (HF)	mg/m <sup>3</sup>	4 <sup>Note 1</sup>	2 <sup>Note 1</sup>	1	-
Sulphur dioxide (SO <sub>2</sub> )	mg/m <sup>3</sup>	200 <sup>Note 1</sup>	50 <sup>Note 1</sup>	50	-
Oxides of Nitrogen (NO and NO <sub>2</sub> , expressed as NO <sub>2</sub> )	mg/m <sup>3</sup>	400 <sup>Note 1</sup>	200 <sup>Note 1</sup>	200	-
The sum of Cadmium (as Cd) and thallium (as Tl), and their compounds <sup>Note 2</sup>	mg/m <sup>3</sup>	-	-	-	0.05
Mercury (as Hg) and its compounds <sup>Note 2</sup>	mg/m <sup>3</sup>	-	-	-	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) <sup>Note 2</sup>	mg/m <sup>3</sup>	-	-	-	0.5
Arsenic and its compounds <sup>Note 2</sup>	mg/m <sup>3</sup>	-	-	-	0.2
Dioxins/furans (TEQ) <sup>Note 3</sup>	ng/m <sup>3</sup>	-	-	-	0.1
Carbon monoxide (CO) <sup>Note 4</sup>	mg/m <sup>3</sup>	100 <sup>Note 5</sup>		50 <sup>Note 6</sup>	150 <sup>Note 7</sup>

**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.

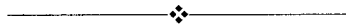
**Note 6:** 97% of the daily average value over the year does not exceed the emission limit value.

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



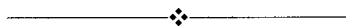
**B.2 Emissions to Water**

There shall be no process emissions to water.



**B.3 Emissions to Sewer**

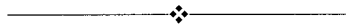
There shall be no emissions to sewer.



**B.4 Noise Emissions**

Daytime dB(A) $L_{Aeq}$ (30 minutes)	Night-time dB(A) $L_{Aeq}$ (30 minutes)
55 <sup>Note 1</sup>	45 <sup>Note 1</sup>

Note: There shall be no clearly audible tonal component or impulsive component in the noise emission from the activity at any noise-sensitive location.



## SCHEDULE C: Control & Monitoring

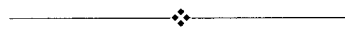
### C.1.1. Process Control <sup>Note 1</sup>

<i>Monitoring of Incinerator</i>		
<b>Control Parameter</b>	<b>Monitoring (continuous unless otherwise stated in licence)</b>	<b>Key Equipment</b> <sup>Note 2</sup>
Combustion	Combustion chamber temperature <sup>Note 3</sup>	Thermocouple
Exhaust gas	% O <sub>2</sub> in exhaust gas	O <sub>2</sub> analyser
Exhaust gas	Exhaust gas temperature	Thermocouple
Exhaust gas	Exhaust gas pressure	Pressure monitor
Exhaust gas	Water vapour content <sup>Note 4</sup>	Standard method
Furnace pressure	Pressure in the furnace	Pressure monitors
Waste input	Feed Rate	Low level detector and visual
Hydrocarbon	Hydrocarbon levels	LEL Detector
Burnout of waste in the furnace	CCTV monitoring of flame	CCTV Camera
<i>Monitoring of Boiler</i>		
<b>Control Parameter</b>	<b>Monitoring (continuous unless otherwise stated in licence)</b>	<b>Key Equipment</b>
Flue gas	Pressure	Pressure sensors
Flue gas	Temperature	Thermocouple
NO <sub>x</sub>	Concentration and Reagent	NO <sub>x</sub> Analyser and Reagent dosage rate
Feed water supply	Water rate and water level	Flow meter and level
<i>Monitoring of Energy Recovery</i>		
<b>Control Parameter</b>	<b>Monitoring (continuous unless otherwise stated in licence)</b>	<b>Key Equipment</b>
Energy Recovery	Steam Flow, Condenser Control, Turbine Control	Flow meter, Temperature, Pressure analysers

C.1.1 (Continued)

<i>Flue gas cleaning</i>		
<b>Location</b>	<b>Item/Parameter</b>	<b>Monitoring Equipment</b>
First stage dioxin/furan and heavy metals removal duct	Flue gas temperature	Thermocouple
	Flue gas pressure	Pressure transmitters
	Expanded clay dosing	Dosage rate meter and dosing bin weight
	Expanded clay silo	Low level alarm
Spray Drier Absorber	HCl and SO <sub>2</sub> concentration	Inline flue gas analyser
	Lime dosage rate	Flow meter
	Lime slurry buffer tank	Low level alarm
	Rotary atomiser	Weekly cleaning
LAB Loop	Outlet temperature	Thermocouple
	Activated Carbon dosing	Dosage rate meter and dosing bin weight
	Hydrated lime dosing	Dosage rate meter
	Activated carbon and hydrated lime supply silos	Low level alarms on both silos
Baghouse Filter	Pressure differential across LAB Loop	Pressure sensors on either side of loop
	Pressure differential across filters	Differential pressure indicator
	Temperature of discharge hopper	Thermocouple
Reagent recirculation	Discharge hopper	High level alarm
	Re-circulated flue gas cleaning residues supply hopper	Low and high level alarms
Maturation silo	Maturation time in silo	Flow meters at inlet and outlet
ID Fan	Flue gas pressure	Pressure sensors at inlet
<i>Residues</i>		
	<b>Item/Parameter</b>	<b>Monitoring Equipment (where applicable)</b>
Residue Silos:	Silo Capacity	High Level Alarms
	Silo emissions to air	HEPA Filter Integrity
Solidification:	Ash	Quantity & Type of ash
	Cement/Iron Silicate & Water	Quantity

- Note 1:** Or other monitoring equipment agreed in advance by the Agency
- Note 2:** The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the system.
- Note 3:** Near the inner wall of the combustion chamber (or other representative location agreed by the Agency).
- Note 4:** Not necessary if gases are dried prior to analysis.





**C.1.2. Monitoring of Emissions to Air**

<b>Emission Point Reference No.: A1-1 (Stack)</b>		
<b>Parameters</b>	<b>Monitoring Frequency</b>	<b>Analysis Method / Technique</b> <sup>Note 1</sup>
Total dust	Continuous	Iso-kinetic/gravimetric
PM <sub>10</sub> and PM <sub>2.5</sub>	Quarterly	To be agreed by the Agency
Gaseous and vaporous organic substances, expressed as total organic carbon	Continuous	Flame Ionisation Detector
Hydrogen chloride (HCl)	Continuous	Infra red analyser
Hydrogen fluoride (HF)	Quarterly	To be agreed by Agency
Sulphur dioxide (SO <sub>2</sub> )	Continuous	Infra red analyser
Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	Continuous	Infra red analyser
Nitrous oxide (N <sub>2</sub> O)	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	Continuous sampling with analysis every two weeks. Biannual measurement, average value over sample period of between 6 and 8 hours. (Quarterly for first year of operation).	Continuous sampling method as per application. Other measurements as per CEN method (EN 1948, parts 1,2, and 3).
Carbon monoxide (CO)	Continuous	Infra red analyser
<b>Emission Point Reference No.: A1-2 (Back-up Diesel Fired Electricity Generation Plant)</b>		
<b>Parameter</b>	<b>Monitoring Frequency</b> <sup>Note 2</sup>	<b>Analysis Method/Technique</b>
CO	On installation	Flue gas analyser/datalogger
NO <sub>x</sub>	On installation	Flue gas analyser
Particulates	On installation	Isokinetic/Gravimetric
TOC	On installation	Flame ionisation

**Note 1:** Or other methods agreed in advance by the Agency.

**Note 2:** Monitoring to be carried out on installation and thereafter as instructed by the Agency.

**C.2.1. Control of Storm Water Emissions**

**Emission Point Reference No:** SW-1

**Description of Treatment:** Oil removal

Control Parameter	Monitoring	Key Equipment
Oil removal	Mineral oil content in water	Forecourt separator, Class I separator



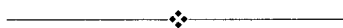
**C.2.3. Monitoring of Storm Water Emissions**

**Emission Point Reference No:** SW-1

**Monitoring locations:** Monitoring Chamber 1 (MSW1-1) prior to attenuation pond.  
Monitoring Chamber 2 (MSW1-2) at outlet of attenuation pond.

Parameter <sup>Note 1</sup>	Monitoring Frequency	Analysis Method/Technique
pH	Continuous	pH meter and recorder
TOC	Continuous	TOC analyser and recorder
Conductivity	Continuous	Conductivity meter and recorder

Note 1: Trigger levels of contamination to be established in accordance with Condition 6.17.



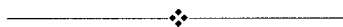
**C.2.2. Monitoring of Emissions to Water**

There shall be no process emissions to water.



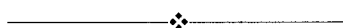
**C.3.1. Control of Emissions to Sewer**

There shall be no emissions to sewer.



**C.3.2. Monitoring of Emissions to Sewer**

There shall be no emissions to sewer.



#### C.4 Monitoring of Incinerator Residues

Residue Monitoring Parameter and Frequency		
Waste Description	Parameters to be measured	Frequency <sup>Note 1</sup>
Bottom Ash	TOC, metals <sup>Note 2</sup> and their compounds, chloride, fluoride, sulphate, dioxins/furans and dioxin-like PCBs.	Quarterly
	<b>Classification (hazardous/non-hazardous)</b>	<b>Annually</b>
Boiler Ash	TOC, metals <sup>Note 2</sup> and their compounds, chloride, fluoride, sulphate, dioxins/furans and dioxin-like PCBs.	Quarterly
	<b>Classification (hazardous/non-hazardous)</b>	<b>Annually</b>
Flue gas treatment residues	TOC, metals <sup>Note 2</sup> and their compounds, chloride, fluoride, sulphate, dioxins/furans and dioxin-like PCBs.	Biannually
	<b>Classification (hazardous/non-hazardous)</b>	<b>Annually</b>
Other <sup>Note 3</sup>		

**Note 1:** All analysis to be undertaken at an accredited laboratory employing accredited procedures.

**Note 2:** Metals shall include Ba, Cd, Mo, Sb, Se, Zn, Tl, Hg, Pb, Cr, Cu, Mn, Ni, As, Co, V, and Sn.

**Note 3:** Analytical requirements to be determined on a case by case basis.



#### C.5 Meteorological Monitoring

**Monitoring Location:**

On-site weather monitoring station AA2

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

**Note 1:** World Meteorological Organisation Standards and Recommendations.



## C.6 Ambient Monitoring

### C.6.1 Ambient Groundwater Monitoring

**Monitoring Locations:** Upgradient: AGW1-1  
Downgradient: AGW1-2 and AGW1-3

Parameter	Monitoring Frequency	Analysis Method/Techniques
TOC	Monthly	Standard Method
Ammonia (NH <sub>4</sub> ),	Monthly	Standard Method
Conductivity	Monthly	Standard Method
pH	Biannually	pH electrode/meter
Nitrate	Biannually	Standard Method
Nitrite	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 <sup>Note 1</sup>	Biannually	GC-MS
Total coliforms	Biannually	Standard Method
Faecal coliforms	Biannually	Standard Method

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



### C.6.2 Ambient Noise Monitoring

**Monitoring Locations:** Site boundary locations AN1-1, AN1-2, AN1-3 and AN1-4.

Parameter	Monitoring Frequency	Analysis Method/Technique
L(A) <sub>EQ</sub> [30 minutes]	Annual	Standard <sup>Note 1</sup>
L(A) <sub>10</sub> [30 minutes]	Annual	Standard <sup>Note 1</sup>
L(A) <sub>90</sub> [30 minutes]	Annual	Standard <sup>Note 1</sup>
Frequency Analysis(1/3 Octave band analysis)	Annual	Standard <sup>Note 1</sup>

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



## SCHEDULE D: Annual Environmental Report

Annual Environmental Report Content <sup>Note 1</sup>
<p>Reporting period.</p> <p>Details of waste activities carried out at the facility.</p> <p>Summary of quantity and composition of waste received, recovered and disposed of in reporting period.</p> <p>Summary report on emissions.</p> <p>Summary of noise survey.</p> <p>Summary of all environmental monitoring.</p> <p><b>Summary record of the use of the emergency generator.</b></p> <p>Resource and energy consumption summary.</p> <p>Waste recovery report (Condition 11.11).</p> <p>Tank, drum, pipeline and bund testing and inspection report.</p> <p>Summary of reported incidents and complaints.</p> <p>Summary of audits of waste disposal, treatment and recovery sites for the residues from facility.</p> <p>Environmental Management Programme – report for previous year.</p> <p>Environmental Management Programme – proposal for current year.</p> <p>Pollutant Release and Transfer Register – report for previous year.</p> <p>Pollutant Release and Transfer Register – proposal for current year.</p> <p>Report of particulates monitoring.</p> <p>Review of Decommissioning Management Plan.</p> <p>Statement of measures in relation to prevention of environmental damage and remedial actions (Environmental Liabilities).</p> <p>Environmental Liabilities Risk Assessment Review (every three years or more frequently as dictated by relevant on site change including financial provisions).</p> <p>Any other items specified by the Agency.</p>

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

Signed on behalf of the said Agency \_\_\_\_\_  
 On the xx day of xxxxx, 200X      xxxxxxxxxxxx      **Authorised Person**

