Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

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

INDUSTRIAL EMISSIONS LICENCE

Licence Register Number:	**W0232-02**
Company Register Number:	**399060**
Licensee:	**Dublin Waste to Energy Limited**
Location of Installation:	**Pigeon House Road Poolbeg Peninsula Dublin 4**

ENVIRONMENTAL PROTECTION AGENCY ACT 1992 AS AMENDED

INDUSTRIAL EMISSIONS LICENCE

Decision of Agency, under Section 90(2) of the EPA Act 1992 as amended in respect of licence

Reference number in Register of licences: W0232-02

Further to notice dated 23/03/23, the Agency in exercise of the powers conferred on it by the Environmental Protection Agency Act 1992 as amended, for the reasons hereinafter set out, hereby grants an Industrial Emissions review licence to Dublin Waste to Energy Limited, 10 Earlsfort Terrace, Dublin 2, CRO number 399060,

to carry on the following activities:

11.3	Disposal or recovery of waste in waste incineration plants or in waste co-incineration plants –
	(a) for non-hazardous waste with a capacity exceeding 3 tonnes per hour.
11.1	The recovery or disposal of waste in a facility, within the meaning of the Act of 1996, which facility is connected or associated with another activity specified in this Schedule in respect of which a licence or revised licence under Part IV is in force or in respect of which a licence under the said Part is or will be required.

at Pigeon House Road, Poolbeg Peninsula, Dublin 4, subject to the conditions as set out.

GIVEN under the Seal of the Agency on this the 16th day of October 2023.

PRESENT when the seal of the Agency
was affixed hereto:

Ray Cullinane, Authorised Person

INTRODUCTION

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

This licence is for the operation of an incinerator to burn non-hazardous waste and to recover energy in the form of steam and electricity for export to the national grid at Pigeon House Road, Poolbeg Peninsula, Dublin 4, and for the transfer of heat to a municipal district heating scheme, when this system is available. Only residual non-hazardous waste (household, commercial and industrial) may be accepted at the installation.

This licence authorises an increase in the permitted maximum quantity of waste to be accepted at the installation from 600,000 tonnes per annum (tpa) to 690,000 tpa (a 15% increase) and five additional waste types, such as separately collected fractions of municipal waste, to be accepted at the installation. There are no physical amendments required to the installation to facilitate the increase in tonnage requested.

The activity falls under the following category of Annex I of the Industrial Emissions Directive:

5.2 (a) Disposal or recovery of waste in waste incineration plants or in waste co-incineration plants: for non-hazardous waste with a capacity exceeding 3 tonnes per hour.

This licence sets out in detail the conditions under which Dublin Waste to Energy Limited will operate and manage this installation.

Table of Contents

Page No

Glossary of Terms

All terms in this licence should be interpreted in accordance with the definitions in the Environmental Protection Agency Act 1992 as amended, unless otherwise defined in the glossary.

Abnormal operations	Any technical stoppage, disturbance, or failure of any of the purification devices or the measurement devices, during which the concentrations in the discharges to the air may exceed the prescribed emission limit values.
Accident	For the purpose of this licence an accident means an unplanned event that may result in pollution.
Adequate lighting	20 lux measured at ground level.
AER	Annual Environmental Report.
Aerosol	A suspension of solid or liquid particles in a gaseous medium.
Approval	Approval in writing/electronically.
Annually	All or part of a period of twelve consecutive months.
Application	The application by the licensee for this licence.
Appropriate Facility	A waste management facility or installation, duly authorised under relevant law and technically suitable.
Attachment	Any reference to Attachments in this licence refers to attachments submitted as part of this licence application.
BAT	Best Available Techniques (BAT) as described in the Commission Implementing Decision (CID) of 2019/2010 establishing Best Available Techniques (BAT) Conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for waste incineration as a reference when setting licence conditions. Reference to BAT numbers in the conditions of this licence are references to the BAT Conclusions according to how they are numbered in the aforementioned CID.
BAT conclusions	A document containing the parts of a BAT reference document laying down the conclusions on best available techniques, their description, information to assess their applicability, the emission levels associated with the best available techniques, associated monitoring, associated consumption levels and, where appropriate, relevant site remediation measures.
BAT reference document	A document drawn up by the Commission of the European Union in accordance with Article 13 of the Industrial Emissions Directive, resulting from the exchange of information in accordance with that Article of that Directive and describing, in particular, applied techniques, present emissions and consumption levels, techniques considered for the determination of best

	available techniques as well as BAT conclusions and any emerging techniques.
Biannually	At approximately six – monthly intervals.
Biennially	Once every two years.
Biodegradable Waste	Any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food, garden waste, sewage sludge, paper and paperboard.
BOD	5-day Biochemical Oxygen Demand (without nitrification suppression).
Breakdown	Any malfunction or technical stoppage, disturbance, or failure of the incineration plant or equipment.
CCTV	Closed Circuit Television.
CEN	Comité Européen De Normalisation – European Committee for Standardisation.
Channelled emissions	Emissions of pollutants into the environment through any kind of duct, pipe, stack, chimney, funnel, flue, etc.
CID 2019/2010	Commission Implementing Techniques (EU) 2019/2010 of 12 November 2019 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and the Council, for waste incineration.
COD	Chemical Oxygen Demand.
Commercial Waste	Means waste from premises used wholly or mainly for the purposes of a trade or business or for the purposes of sport, recreation, education or entertainment but does not include household, agricultural or industrial waste.
Consignment Note	As specified in the Waste Management (Movement of Hazardous Waste) Regulations (SI No. 147 of 1998).
Construction and demolition (C&D) waste	Wastes that arise from construction, renovation and demolition activities: Chapter 17 of the LoW or as otherwise may be approved by the Agency.
Containment boom	A boom that can contain spillages and prevent them from entering drains or watercourses or from further contaminating watercourses.
Continuous measurement	Measurement using an automated measuring system permanently installed on site.
CRO Number	Company Register Number.
Daily	During all days of plant operation and, in the case of emissions, when emissions are taking place; with at least one measurement on any one day.

Day	Any 24-hour period.
Daytime	0700hrs to 1900hrs.
dB(A)	Decibels (A weighted).
Diffuse Emissions	Non-channelled emissions (e.g. of dust, volatile compounds, odour) into the environment, which can result from 'area' sources (e.g. tankers) or 'point' sources (e.g. pipe flanges).
Dioxins and Furans	Means all polychlorinated dibenzo-p-dioxins and dibenzofurans listed in Part 2 of Annex VI of IED 2010/75/EU.
DO	Dissolved oxygen.
Documentation	Any report, record, results, data, drawing, proposal, interpretation or other document in written or electronic form which is required by this licence.
Drawing	Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence.
Dust	Total Particulate matter (in air).
Emission limits	Those limits, including concentration limits and deposition rates, established in *Schedule B: Emission Limits,* of this licence.
EMP	Environmental Management Programme.
EMS	Environment Management System. The aspect of the organisation's overall management structure that addresses immediate and long-term impacts of its products, services and processes on the environment.
Environmental damage	As defined in Directive 2004/35/EC.
EPA	Environmental Protection Agency.
Evening Time	1900hrs to 2300hrs.
Facility	Any site or premises used for the purpose of the recovery or disposal of waste.
Fly ashes	Particles from the combustion chamber or formed within the flue-gas stream that are transported in the flue-gas.
Fortnightly	A minimum of 24 times per year, at approximately two week intervals.

GC/MS	Gas chromatography/mass spectroscopy.
Green Waste	Waste wood (excluding timber), plant matter such as grass cuttings, and other vegetation.
Groundwater	Has the meaning assigned to it by Regulation 3 of the European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010), as amended.
ha	Hectare.
Hazardous Substances	Substances or mixtures as defined in Article 3 of Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures.
Hazardous waste	"Hazardous waste" means waste which displays one or more of the hazardous properties listed in the *Second Schedule* of the Waste Management Act 1996 as amended.
Heavy metals	This term is to be interpreted as set out in "Parameters of Water Quality, Interpretation and Standards" published by the Agency in 2001. ISBN 1-84095-015-3.
Hours of operation	The hours during which the installation is authorised to be operational.
Hours of waste acceptance	The hours during which the installation is authorised to accept waste.
ICP	Inductively coupled plasma spectroscopy.
IE	Industrial Emissions.
Incident	The following shall constitute an incident for the purposes of this licence: (i) an emergency; (ii) any emission which does not comply with the requirements of this licence; (iii) any malfunction or breakdown of key environmental abatement, control or monitoring equipment; (iv) any exceedance of the daily duty capacity of the waste handling equipment; (v) any indication that environmental pollution has, or may have, taken place.
Incineration of waste	The combustion of waste, either alone or in combination with fuels, in an incineration plant.
Industrial Emissions Directive	Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (Recast).

Industrial waste	As defined in Section 5(1) of the Waste Management Act 1996 as amended.
Inert Waste	Waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater.
Installation	A stationary technical unit or plant where the activity concerned referred to in the First Schedule of EPA Act 1992 as amended is or will be carried on, and shall be deemed to include any directly associated activity, which has a technical connection with the activity and is carried out on the site of the activity.
Installation Manager	The licensee or an authorised representative of the licensee with the appropriate seniority and authority to ensure compliance with the licence.
I-TEQ	International toxic equivalent according to the North Atlantic Treaty Organization (NATO) schemes.
K	Kelvin.
kPa	Kilopascals.
$L_{Aeq,T}$	This is the equivalent continuous sound level. It is a type of average and is used to describe a fluctuating noise in terms of a single noise level over the sample period (T).
$L_{Ar,T}$	The Rated Noise Level, equal to the L_{Aeq} during a specified time interval (T), plus specified adjustments for tonal character and/or impulsiveness of the sound.
Licensee	Dublin Waste to Energy Limited, 10 Earlsfort Terrace, Dublin 2, CRO Number: 399060.
Liquid waste	Any waste in liquid form and containing less than 2% dry matter.
List of Wastes (LoW)	A harmonised, non-exhaustive list of wastes drawn up by the European Commission and published as Commission Decision 2014/955/EU, as amended by any subsequent amendment published in the Official Journal of the European Community.
Local Authority	Dublin City Council.
Mass flow limit	An emission limit value expressed as the maximum mass of a substance that can be emitted per unit time.

Mass flow threshold	A mass flow rate above which a concentration limit applies.
Monthly	A minimum of 12 times per year, at intervals of approximately one month.
Movement document	As specified under Article 4(1)(b), Annex 1A of Regulation (EC) No. 1013/2006.
Municipal waste	'Municipal waste' means: (*a*) mixed waste and separately collected waste from households, including paper and cardboard, glass, metals, plastics, bio-waste, wood, textiles, packaging, waste electrical and electronic equipment, waste batteries and accumulators, and bulky waste, including mattresses and furniture; (*b*) mixed waste and separately collected waste from other sources, where such waste is similar in nature and composition to waste from households; Municipal waste does not include waste from production, agriculture, forestry, fishing, septic tanks and sewage network and treatment, including sewage sludge, end-of-life vehicles or construction and demolition waste. This definition is without prejudice to the allocation of responsibilities for waste management between public and private actors.
MWWTP	Municipal Wastewater Treatment Plant.
Night-time	2300hrs to 0700hrs.
Noise-sensitive location (NSL)	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other installation or area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
Nominal capacity	As defined in Directive 2010/75/EU on industrial emissions.
Non-hazardous waste	'non-hazardous waste' means waste which is not covered by the definition of hazardous waste.
Notification Document	As specified under Article 4(1)(a), Annex 1A of Regulation (EC) No. 1013/2006.
NO_x	The sum of nitrogen monoxide (NO) and nitrogen dioxide (NO_2), expressed as NO_2.
O.D.	Ordinance datum Malin Head.
Odour-sensitive location	Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other premises or area of high amenity which for its proper enjoyment requires the absence of odour at nuisance levels.
Oil separator	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).

OTNOC	Other than normal operating conditions.
PCDD/F	Polychlorinated dibenzo-*p*-dioxins and -furans.
Periodic Measurement	Measurement at specified time intervals using manual or automated methods.
Potential emissions	Emissions which take place only under abnormal operating conditions. Examples include emissions from overpressure valves, bursting discs, and back-up generators.
PRTR	Pollutant Release and Transfer Register.
Quarterly	All or part of a period of three consecutive months beginning on the first day of January, April, July or October.
Recyclable Materials	Those waste types, such as cardboard, batteries, gas cylinders, etc, which may be recycled.
Relevant Hazardous Substances	Those substances or mixtures defined within Article 3 of Regulation (EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) which, as a result of their hazardousness, mobility, persistence and biodegradability (as well as other characteristics), are capable of contaminating soil or groundwater and are used, produced and/or released by the installation.
Residual Waste	In the context of intake to an incinerator/WtE plant, is waste that has been subjected to pre-treatment (including, *inter alia*, pre-segregation, sorting, mechanical-biological treatment) to extract, to the maximum practical and available extent having regard to BAT, the recyclable/reusable components.
Residues	Any liquid or solid waste which is generated by an incineration plant or by a bottom ash treatment plant.
SAC	Special Area of Conservation designated under the Habitats Directive, Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.
Sample(s)	Unless the context of this licence indicates to the contrary, the term samples shall include measurements taken by electronic instruments.
Sanitary effluent	Wastewater from installation toilet, washroom and canteen facilities.
Slags and/or bottom ashes	Solid residues moved from the furnace once wastes have been incinerated.
Sludge	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.
Soil	The top layer of the Earth's crust situated between the bedrock and the surface. The soil is composed of mineral particles, organic matter, water, air and living organisms.

SOP	Standard operating procedure.
Source segregated waste	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.
SPA	Special Protection Area designated under the Birds Directive, Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds.
Specified emissions	Those emissions listed in *Schedule B: Emission Limits,* of this licence.
Standard method	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 approved by the Agency.
Storage	Includes holding of waste.
Storm water	Rain water run-off from roof and non-process areas.
The Agency	Environmental Protection Agency.
TOC	Total organic carbon, expressed as C (in water); includes all organic compounds.
TOC content (in solid residues)	Total organic carbon content. The quantity of carbon that is converted into carbon dioxide by combustion and which is not liberated as carbon dioxide by acid treatment.
Trade effluent	Trade effluent has the meaning given in the Water Services Act, 2007.
Treatment	Treatment means the physical, thermal, chemical or biological processes, including sorting, that change the characteristics of the waste in order to reduce its volume or hazardous nature, facilitate its handling or enhance recovery.
TVOC	Total volatile organic carbon, expressed as C (in air).
Uisce Éireann	Uisce Éireann, Colvill House, 24/26 Talbot Street, Dublin 1.
Valid half-hourly average	A half-hourly average is considered valid when there is no maintenance or malfunction of the automated measuring system.

Waste	Any substance or object which the holder discards or intends or is required to discard.
WI CID (2019/2010)	Commission Implementing Decision of 2019/2010 establishing Best Available Techniques (BAT) Conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for waste incineration.
Waste Incineration Plant	As defined in Directive 2010/75/EU on industrial emissions.
Water Services Authority	Dublin City Council.
WEEE	Waste Electrical & Electronic Equipment.
Weekly	During all weeks of plant operation and, in the case of emissions, when emissions are taking place; with at least one measurement in any one week.
WHO-TEQ	Toxic equivalent according to the World Health Organization (WHO) schemes.
WWTP	Waste water treatment plant.
WtE Plant	Waste-to-Energy incineration plant.

Decision and 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 83(5) of the Environmental Protection Agency Act 1992 as amended.

The Agency also considers that the activities will not adversely affect the integrity of any European Site, and has decided to impose conditions for the purposes of ensuring they do not do so. It has determined that the activities, if managed, operated and controlled in accordance with this licence, will not have any adverse effect on the integrity of any of those sites.

The Agency has applied the Commission Implementing Decision of 2019/2010 establishing Best Available Techniques (BAT) Conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for waste incineration as a reference when setting licence conditions.

The Agency has accordingly decided to grant a licence to Dublin Waste to Energy Limited to carry on the activities listed in *Part I, Schedule of Activities Licensed*, subject to the conditions set out in *Part III, Conditions;* such licence to take effect in lieu of Licence Register Number: W0232-01.

In reaching this decision the Agency has considered the documentation relating to: the existing licence, Register Number: W0232-01; the review application, Register Number: W0232-02 and the supporting documentation received from the applicant; submission received; the Inspector's Report dated 2 March 2023; the Proposed Determination dated 23 March 2023; the objection received from the Applicant; the Technical Committee Report dated 28 September 2023 on the objection to the Proposed Determination; the Technical Committee Addendum Report dated 5 October 2023 and has carried out an Environmental Impact Assessment (EIA) and an Appropriate Assessment of the likely significant effects of the activities on European Sites. The Agency has performed its functions in a manner consistent with Section 15 of the Climate Action and Low Carbon Development Act 2015 as amended.

It is considered that the Inspector's Report contains a fair and reasonable examination, evaluation and analysis of the likely significant effects of the activities on the environment, and adequately and accurately identifies, describes and assesses those effects. The assessment as reported in this document is adopted as the assessment of the Agency. Having regard to this assessment, it is considered that the activities, if managed, operated and controlled in accordance with this licence will not result in the contravention of any relevant environmental quality standards or cause environmental pollution.

Having regard to the examination of environmental information in the Inspector's Report, and in particular to the content of the Environmental Impact Assessment Report (EIAR) and supplementary information provided by the licensee, and any other third party in the course of the application, it is considered that the potential significant direct and indirect effects of the activities on the environment are as follows:

- emissions to Air from the combustion of waste (including odour emissions);
- noise emissions;
- accidental leakages or spillages;
- major accidents and disasters (e.g. fire and/or explosion).

Having assessed those potential effects, the Agency has concluded as follows:

- emissions to air are mitigated through: imposing emission limit values to ensure compliance with ambient air quality standards; and implementing monitoring, maintenance and control measures;
- noise emissions will be mitigated through: imposing daytime, evening-time and night-time noise limits at noise sensitive locations; and implementing monitoring, maintenance and control measures;
- accidental leakages or spills will be mitigated through inspection and maintenance of bunds and tanks and accident and emergency requirements specified in the licence;
- major accidents and disasters through implementing monitoring, maintenance and control measures.

Having regard to the effects (and interactions) identified, described and assessed throughout the Inspector's Report, it is considered that the monitoring, mitigation and preventative measures proposed will enable the activities to operate without causing environmental pollution, subject to compliance with this licence.
The conditions of this licence and the mitigation measures will significantly reduce the likelihood of accidental emissions occurring and limit the environmental consequences of an accidental emission should one occur.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activities, individually or in combination with other plans or projects are likely to have a significant effect on any European Site. In this context, particular attention was paid to the European Sites in Table 1.0 below.

The activities are not directly connected with or necessary to the management of any European Site and the Agency considered, for the reasons set out below, that it cannot be excluded, on the basis of objective information, that the activities, individually or in combination with other plans or projects, will have a significant effect on any European Site and accordingly determined that an Appropriate Assessment of the activities was required, and for this reason determined to require the applicant to submit a Natura Impact Statement.

This determination is based on the proximity of the installation to European Sites and the potential for significant effects on their qualifying interests.

The Agency has completed the Appropriate Assessment of potential impacts on these sites and has made certain, based on best scientific knowledge in the field and in accordance with the European Communities (Birds and Natural Habitats) Regulations 2011 as amended, pursuant to Article 6(3) of the Habitats Directive, that the activities, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site, in particular, those sites specified in Table 1.0, having regard to their conservation objectives and will not affect the preservation of these sites at favourable conservation status if carried out in accordance with this licence and the conditions attached hereto for the following reasons:

- Air dispersion modelling was assessed as part of the licence review and concluded that there would not be a significant impact on air quality as a result of the activities at the installation.
- The licence specifies emission limit values and controls for emissions to air.
- There will be no increase in noise emissions compared to what is currently licensed. The licence specifies noise emission limit values at noise sensitive locations, and the noise modelling assessment demonstrated that these limits can be complied with to avoid disturbance of qualifying interest species.
- The licence contains standard conditions in relation to the storage and management of materials and wastes.
- The licence specifies limits and controls regarding flow and temperature in the cooling water discharges.
- The licence requires that all storm water discharges, other than from roofs, from the installation pass through silt traps and oil separator before discharge.
- Condition 9 requires the licensee to maintain a documented Accident Prevention Procedure that addresses the hazards on-site, particularly in relation to the prevention of accidents with a possible impact on the environment.
- No significant in-combination effects are predicted; therefore, no additional mitigation measures are required.

The Agency is satisfied that no reasonable scientific doubt remains as to the absence of adverse effects on the integrity of those European Sites specified in Table 1.0 below.

Table 1.0

South Dublin Bay SAC (Site Code 000210)	Dalkey Islands SPA (Site Code 004172)
South Dublin Bay and River Tolka Estuary SPA (Site Code 004024)	Ireland's Eye SAC (Site Code 002193)
North Dublin Bay SAC (Site Code 000206)	Ireland's Eye SPA (Site Code 004117)
North Bull Island SPA (Site Code 004006),	Malahide Estuary SAC (Site Code 000205)
Rockabill to Dalkey Island SAC (Site Code 003000)	Malahide Estuary SPA (Site Code 004025)
Howth Head SAC (Site Code 000202)	Wicklow Mountains SAC (Site Code 002122)
Howth Head Coast SPA (Site Code 004113)	Wicklow Mountains SPA (Site Code 004040)
Baldoyle Bay SAC (Site Code 000199)	Knocksink Wood SAC (Site Code 00725)
Baldoyle Bay SPA (Site Code 004016)	Glenasmole Valley SAC (Site Code 001209
Ballyman Glen SAC (Site Code 000713)	-

Part I Schedule of Activities Licensed

In pursuance of the powers conferred on it by the Environmental Protection Agency Act 1992 as amended, the Agency hereby grants this revised Industrial Emissions licence to:

Dublin Waste to Energy Limited, 10 Earlsfort Terrace, Dublin 2, CRO Number 399060

under Section 90(2) of the said Act to carry on the following activities:

11.3 Disposal or recovery of waste in waste incineration plants or in waste co-incineration plants -

(a) for non-hazardous waste with a capacity exceeding 3 tonnes per hour.

11.1 The recovery or disposal of waste in a facility, within the meaning of the Act of 1996, which facility is connected or associated with another activity specified in this Schedule in respect of which a licence or revised licence under Part IV is in force or in respect of which a licence under the said Part is or will be required.

at Pigeon House Road, Poolbeg Peninsula, Dublin 4 subject to the following twelve Conditions, with the reasons therefor and associated schedules attached thereto.

Part II Schedule of Activities Refused

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

Part III Conditions

Condition 1. Scope

1.1 Industrial Emissions Directive activities at this installation 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 1.4 of this licence and subject to the conditions of this licence.

1.2 The licensee shall carry on the licensed activities in accordance with the limitations set out in *Schedule A: Limitations* of this licence.

1.3 For the purposes of this licence, the installation authorised by this licence is the area of land outlined in red on Drawing No. 002 Rev B, entitled Site Layout Plan of the application. Any reference in this licence to "installation" shall mean the area thus outlined in red and blue. The licensed activities shall be carried on only within the area outlined.

1.4 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 approval of, the Agency.

1.5 The maximum tonnage to be accepted at the installation shall not exceed 690,000 tonnes per annum.

1.6 Only residual waste shall be incinerated at the installation.

1.7 No hazardous waste shall be incinerated at the installation.

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

1.9 This licence is for the purpose of licensing under the EPA Act 1992 as amended only and nothing in this licence shall be construed as negating the licensee's statutory obligations or requirements under any other enactments or regulations.

1.10 This licence shall have effect in lieu of the licence granted on 1 December 2008 (Register No. W0232-01).

1.11 Waste Acceptance Hours and Hours of Operation

1.11.1 With the exception of emergencies, or as may be approved by the Agency, waste shall only be accepted at the installation between the hours of 0800 hrs to 2200 hrs Monday to Saturday inclusive. The installation may operate on a twenty four hour basis, seven days per week.

1.11.2 Incinerator residues destined for ships within the Dublin Port Area, and Flue Gas Treatment Residue/Air Pollution Control Residue destined for Belview Port, County Kilkenny, may be dispatched from the installation at any time. Otherwise, waste shall be dispatched from the installation only between the hours of 0800 hrs to 1830 hrs

Monday to Friday inclusive and 0800 hrs to 1400 hrs on Saturdays, unless agreed by the Agency.

1.11.3 The installation shall not accept/dispatch waste outside the hours specified in Conditions 1.11.1 and 1.11.2, or on Sundays or Bank Holidays without the written approval of the Agency.

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

Condition 2. Management of the Installation

2.1 Installation Management

2.1.1 The licensee shall employ a suitably qualified and experienced (minimum 10 years in incinerator operation) installation manager who shall be designated as the person in charge. The installation manager or a nominated, suitably qualified and experienced deputy (minimum 5 years incinerator experience) shall be present on the installation 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 Environmental Management System (EMS)

2.2.1 The licensee shall maintain and implement an Environmental Management System (EMS). The EMS shall be reviewed by senior management for suitability, adequacy and effectiveness and updated on an annual basis.

2.2.2 The EMS shall include, as a minimum, the following elements:

2.2.2.1 A statement of the commitment, leadership and accountability of management, including senior management for the implementation of an effective EMS.

2.2.2.2 An environmental policy, defined by Management, that includes a commitment to continuous improvement of the environmental performance of the installation.

2.2.2.3 Management and Reporting Structure and responsibility for environmental aspects, including for the planning and provision of financial and human resources to manage and implement the EMS.

2.2.2.4 An analysis of the organisation's regulatory and environmental obligations, including the potential risks to the environment from the activity.

2.2.2.5 The procedures required by this licence, including procedures for;

2.2.2.5.1 ensuring compliance with environmental legislation;

2.2.2.5.2 ensuring employee awareness of and involvement in complying with environmental legislation; and

2.2.2.5.3 checking performance and developing performance indicators by sectoral benchmarking on a regular basis, including for energy efficiency.

2.2.2.6 Schedule of Environmental Objectives and Targets

The licensee shall maintain and implement a Schedule of Environmental Objectives and Targets. The schedule shall, as a minimum, provide for a review of all operations and processes, as referred to in the conditions of this licence, including an evaluation of practicable options for:

(i) energy and resource efficiency;

(ii) the reduction in water consumption;

(iii) the use of cleaner technology, cleaner production;

(iv) odour and noise management;

(v) the prevention, reduction and minimisation of waste including waste reduction targets;

(vi) the impacts from eventual decommissioning of the installation; and

(vii) a monitoring and measurement programme.

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.

2.2.2.7 Environmental Management Programme (EMP)

The licensee shall maintain and implement an EMP, including a time schedule, for achieving the Environmental Objectives and Targets prepared under Condition 2.2.2.6 above. The EMP shall include:

- designation of responsibility for targets;
- the means by which they may be achieved; and
- the time within which they may be achieved.

The EMP shall be reviewed annually.

A report on the programme, including the success in meeting agreed targets and an evaluation of non-conformities and associated corrective actions and the potential for further non-conformities to occur 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.

2.2.2.8 Documentation

(i) The licensee shall maintain and implement an environmental management documentation system.

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

2.2.2.9 Corrective and Preventative Action

(i) The licensee shall maintain and implement procedures to ensure that corrective and preventative action is taken should the specified requirements of this licence not be fulfilled. The responsibility and authority for persons initiating further investigation and corrective and preventative action in the event of a reported non-conformity with this licence shall be defined.

(ii) Where a breach of one or more of the conditions of this licence occurs, the licensee shall without delay take measures to restore compliance with the conditions of this licence in the shortest possible time and initiate any feasible preventative actions to prevent recurrence of the breach.

(iii) All corrective and preventative actions shall be documented.

2.2.2.10 Internal Audits

The licensee shall maintain and implement a programme for independent internal audits of the EMS. Such audits shall be carried out at least once every three years. The audit programme shall determine whether or not the EMS is being implemented and maintained properly, and in accordance with the requirements of this licence. Audit reports and records of the resultant corrective and preventative actions shall be maintained as part of the EMS in accordance with Condition 2.2.2.9.

2.2.2.11 Awareness, Training and Competence

The licensee shall maintain and implement procedures for identifying training needs, and for providing appropriate training, for all personnel whose work can have a significant effect upon the environment to ensure awareness and competence in their work area. Appropriate records of training shall be maintained.

2.2.2.12 Public Awareness and Communications Programme

(i) The licensee shall maintain and implement a Public Awareness and Communications Programme to ensure that members of the public are informed, and can obtain information at the installation, at all reasonable times, concerning the environmental performance of the installation.

(ii) The programme shall include a specific public awareness campaign to inform local residents about the actions being taken to ensure compliance with the conditions of the licence including the prevention of nuisance and other factors at the installation, and a community engagement programme, which highlights the information that is maintained at the installation as required in Condition 11.9, for public inspection.

(iii) The programme shall be approved by the Agency and a report on the programme shall be prepared and submitted to the Agency annually.

(iv) The programme as a minimum shall include the following:

(a) Maintain information at the installation as required in Condition 11.9 which shall be available for inspection at all reasonable times;

(b) Maintain the following information via the internet:

(i) real time data from on-line monitoring of the incinerator (the parameters, format and timeframe for publication to the internet as required by the Agency) but as a minimum shall include combustion chamber temperature as outlined in *Schedule C.1.1 Control of Emissions to Air,* of this licence);

(ii) a daily and weekly summary of continuous emission monitoring data;

(c) Maintain a Community Liaison Committee and facilitate regular meetings of that Committee at a frequency to be agreed with the Committee. The Committee shall provide input to enhance the effectiveness of the Public Awareness and Communications Programme. The agenda for each meeting shall be prepared and circulated in advance of each meeting. The licensee shall circulate a newsletter, which shall also be available on the website, at a frequency to be agreed with residents, but no less than twice per annum, which shall provide information of activities on-site and compliance with this licence.

2.2.2.13 Maintenance Programme

The licensee shall maintain and implement 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). The maintenance programme shall use appropriate techniques and measures to ensure the optimisation of energy efficiency in plant and equipment.

2.2.2.14 Efficient Process Control

The licensee shall maintain and implement 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.

2.2.2.15 The licensee shall establish, maintain and implement a waste stream management plan, which shall incorporate an appropriate combination of techniques listed in BAT 9 and BAT 11 of CID 2019/2010.

2.2.2.16 The licensee shall establish, maintain and implement a residues management plan, which shall include measures aiming to:

(i) minimise the generation of residues;
(ii) optimise the reuse, regeneration, recycling of, and/or energy recovery from the residues; and
(iii) ensure the proper disposal of residues.

2.2.2.17 Other than Normal Operation Conditions (OTNOC)

The licensee shall establish, maintain and implement a risk-based OTNOC management plan in order to reduce the frequency of OTNOC and to reduce emissions to air from the incineration plant during periods of other than normal operating conditions, including start-up and shut-down periods. The programme shall include the elements set out in BAT 18 of CID 2019/2010.

2.2.2.18 An accident management plan which incorporates all elements outlined in Section 2.4 of CID 2019/2010.

2.2.2.19 The licensee shall establish, maintain and implement diffuse dust emissions management in order to prevent or reduce diffuse dust emissions to air from the treatment of slags and bottom ashes which shall include the management features listed in BAT 23 of CID 2019/2010.

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 ensure, at all times after the grant of this licence, that all infrastructure and all equipment required under this licence has been and is:

(i) installed;
(ii) commissioned;
(iii) present on site; and
(iv) maintained in full working order.

3.2 Where any Condition / Schedule of this licence specifies any later deadline for installation of any piece of infrastructure or equipment, Condition 3.1 shall apply as and from the deadline specified.

3.3 The licensee shall establish and maintain, for each component of the installation, all infrastructure referred to in this licence or as required by the conditions of this licence. Infrastructure specified in the application that relates to the environmental performance of the installation and is not specified in this licence, shall be installed in accordance with the schedule submitted in the application.

3.4 The licensee shall have regard to the following when choosing and/or designing any new plant/infrastructure:

(i) Energy efficiency, and

(ii) The environmental impact of eventual decommissioning.

3.5 Installation Notice Board

(i) The licensee shall maintain an Installation Notice Board on the installation so that it is legible to persons outside the main entrance to the installation. The minimum dimensions of the board shall be 1200mm by 750mm. The notice board shall be maintained thereafter.

(ii) The board shall clearly show:

(i) the name and telephone number of the installation;

(ii) the normal hours of operation;

(iii) the normal hours of waste acceptance;

(iv) the name of the licence holder;

(v) an emergency out of hours contact telephone number;

(vi) this licence reference number; and

(vii) where environmental information relating to the installation can be obtained.

(iii) A plan of the installation clearly identifying the location of each storage and treatment area shall be displayed as close as is possible to the entrance to the installation. The plan shall be displayed on a durable material such that is legible at all times. The plan shall be replaced as material changes to the installation are made.

3.6 The licensee shall install on all emission points such sampling points or equipment, including any data-logging or other electronic communication equipment, as may be required by the Agency. All such equipment shall be consistent with the safe operation of all sampling and monitoring systems.

3.7 In the case of composite sampling of aqueous emissions from the operation of the installation, a separate composite sample or homogeneous sub-sample (of sufficient volume as advised) shall be refrigerated immediately after collection and retained as required for EPA use.

3.8 The licensee shall clearly label and provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency. The requirement with regard to off-site points is subject to the prior agreement of the landowner(s) concerned.

3.9 Tank, Container and Drum Storage Areas

3.9.1 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).

3.9.2 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.

3.9.3 All drainage from bunded areas shall be treated as contaminated unless it can be demonstrated to be otherwise.

3.9.4 All drainage from bunded areas shall be diverted for collection and safe disposal, unless it can be deemed uncontaminated.

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

3.9.6 All tanks containers and drums shall be labelled to clearly indicate their contents.

3.9.7 All bunds shall be uniquely identified and labelled at the bund.

3.9.8 The licensee shall apply a leak detection system to all storage tanks, container and drum storage areas that contain liquid material other than water.

3.10 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 installation. Once used, the absorbent material shall be disposed of at an appropriate facility.

3.11 Water metering and records

3.11.1 The licensee shall install and maintain a water meter on all water supplies serving the installation, within three months of the date of grant of this licence.

3.11.2 Records of water usage shall be maintained on site and a summary records report shall be submitted annually as part of the AER.

3.12 Silt Traps and Oil Separators

The licensee shall maintain silt traps and oil separators at the installation:

(i) Silt traps to ensure that all storm water discharges, other than from roofs, from the installation pass through a silt trap in advance of discharge;

(ii) An oil separator on the storm water discharge from yard areas. The separator shall be a Class I full retention separator.

The separator shall be in accordance with I.S. EN-858-2: 2003 (separator systems for light liquids).

3.13 Firewater Retention

3.13.1 The licensee shall review and update the risk assessment on firewater retention as required by the Agency. The risk assessment, and any subsequent reports or programmes, shall be completed in accordance with any guidelines issued by the Agency with regard to firewater retention.

3.13.2 The licensee shall submit the Firewater Risk Assessment Report based on the assessment in Condition 3.13.1 to the Agency for approval within six months of date of notification by the Agency.

3.13.3 The licensee shall implement the Firewater Risk Assessment Report as approved by the Agency under Condition 3.13.2, within the timeframes specified by the Agency.

3.14 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 separators, shall be fitted with high liquid level alarms (or oil detectors as appropriate).

3.15 The provision of a catchment system to collect any leaks from flanges and valves of all over-ground pipes used to transport material other than water shall be examined. This shall be incorporated into a Schedule of Environmental Objectives and Targets set out in Condition 2 of this licence for the reduction in diffuse emissions.

3.16 All wellheads at the installation shall be adequately protected to prevent contamination or physical damage.

3.17 The licensee shall maintain in a prominent location on the site a wind sock, or other wind direction indicator, which shall be visible from the public roadway outside the site.

3.18 The licensee shall operate a weather monitoring station on the site which records the requirements specified in *Schedule C.6 Meteorological Monitoring,* of this licence.

3.19 Monitoring equipment shall be vibration isolated in accordance with manufacturers' instructions.

3.20 The licensee shall ensure that adequate standby and back up equipment is provided on site to provide for contingency arrangements in the event of breakdown of critical waste handling, treatment and abatement equipment.

3.21 Installation Security

3.21.1 Security and stockproof fencing and gates shall be maintained at the installation. The base of the fencing shall be set in the ground.

3.21.2 The licensee shall maintain a CCTV monitoring system which records all waste vehicle movement into and out of the installation, as well as operations in the waste reception hall bunker and ash storage areas. The CCTV system shall be operated at all times with digital date stamping. Copies of recordings shall be kept on-site for a minimum of 30 days and made available to the Agency on request.

3.21.3 There shall be no unauthorised public access to the installation.

3.21.4 Gates shall be locked shut when the installation is unsupervised.

3.21.5 The licensee shall remedy any defect in the gates and/or fencing as follows:

(i) a temporary repair shall be made by the end of the working day; and

(ii) a repair to the standard of the original gates and/or fencing shall be undertaken within three working days.

3.22 Dust and Odour Control

The licensee shall maintain and provide adequate measures for the control of odours and dust emissions, including diffuse dust emissions, from the installation. Such measures shall at a minimum include the following:

3.22.1 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.

3.22.2 The licensee shall maintain and implement a programme to demonstrate negative pressure and building envelope integrity throughout all buildings where residual, food or other odour-forming waste is deposited, stored or treated to ensure that there is no significant escape of odours. The programme shall also maintain all criteria for the operation and control of negative pressure. This programme shall be reviewed at least annually.

3.22.3 Implementation of an odour and diffuse dust management system to include periods when process lines and / or induced draft fans are not operational.

3.23 Installation Roads and Site Surfaces

3.23.1 Effective site roads shall be provided and maintained to ensure the safe and nuisance free movement of vehicles within the installation.

3.23.2 The licensee shall provide and maintain an impermeable surface in all areas of the installation used for the movement, holding, storage or processing of waste. The impermeable surface shall be constructed to the appropriate European or National Standard, as amended or an alternative as approved by the Agency. The licensee shall remedy any defect in impermeable surfaces within five working days.

3.24 Installation Office

3.24.1 The licensee shall provide and maintain an office at the installation. The office shall be constructed and maintained in a manner suitable for the processing and storing of documentation.

3.24.2 The licensee shall provide and maintain a method for electronic transfer of information at the installation.

3.25 Waste Inspection and Quarantine Areas

3.25.1 An impermeable Waste Inspection Area and a Waste Quarantine Area shall be maintained at the installation.

3.25.2 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 area shall be clearly identified and segregated

from each other, and quarantined waste shall be appropriately stored and clearly labelled.

3.25.3 Drainage from these areas shall be directed to a process water storage tank that is not connected to the stormwater system. Water from the storage tank shall be either used as process water in the incineration plant, or if unsuitable, directed to the waste bunker. It shall not be discharged to the surface water or foul sewer system.

3.26 Waste Treatment Infrastructure

3.26.1 Waste treatment infrastructure shall at a minimum comprise the following:

(i) indoor waste acceptance, inspection, quarantine, storage and treatment/processing areas;

(ii) separate storage areas for all waste treatment outputs including any screened fractions;

(iii) air handling and odorous air treatment infrastructure.

3.26.2 The quantity of waste to be accepted at the installation on a daily basis shall not exceed the duty capacity of the equipment at the installation. Any exceedance of this intake shall be treated as an incident.

3.27 Weighbridge

3.27.1 The licensee shall maintain a weighbridge at the installation.

3.27.2 All waste arriving at or leaving the installation shall be weighed at the weighbridge onsite.

3.28 Incinerator residues

3.28.1 The licensee shall maintain, on site and in accordance with Condition 8.6, the following minimum incinerator residue storage capacity:

(a) bottom ash/non-hazardous boiler ash: 6,000m^3; and

(b) fly ash /flue gas cleaning ash/hazardous boiler ash: 700m^3.

3.28.2 The licensee shall transfer bottom ash to trucks/containers within an enclosed building under negative pressure.

3.29 Storm water Management

3.29.1 Effective storm water management infrastructure shall be provided and maintained at the installation.

3.29.2 All storm water runoff from external areas shall be collected in a storage tank for use as process water in the incineration plant. Surplus storm-water is to be discharged to foul sewer.

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

3.31 Incineration Plant

3.31.1 The licensee shall provide and maintain incineration plant as specified in the licence application (Reference W0232-01), as updated in licence application Reg, No. W0232-02, or as may be varied with the written approval of the Agency.

3.31.2 The incinerator plant design and construction shall incorporate the following:

(a) The stack elevation of the incineration plant (Emission Point Reference Nos. A2-1 & A2-2) shall at minimum be 105m OD.

(b) Appropriate seismic design of the foundation.

3.32 Incineration Plant operations – additional requirements

3.32.1 The plant shall be operated in accordance with the criteria for operation and control as determined in the test programmes conducted in accordance with Condition 6.2.

3.32.2 The nominal capacity of the plant shall be 82 tonnes per hour (41t per line).

3.32.3 The licensee shall maintain standard operating procedures for the operation of the incineration plant, in order to improve the environmental performance of the plant and reduce emissions to air, in accordance with BAT 16 of CID 2019/2010. These shall incorporate the process controls identified in *Schedule C: Control and Monitoring*, of this licence.

3.32.4 The plant shall be operated in order to achieve environmental performance levels from the incineration of waste as set out in *Schedule C.8 Environmental Performance Levels for unburnt substances in slags and bottom ashes from the incineration of waste,* of this licence.

3.32.5 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 homogeneous 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.

3.32.6 Each line of the incineration plant shall be equipped with at least one auxiliary burner. The burner shall 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.

3.32.7 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 that may cause higher emissions than those resulting from the burning of gas oil, as defined in Council Directive 2016/802/EU, liquefied gas or natural gas.

3.32.8 Each process line of the incineration plant shall have and operate an automatic system to prevent waste feed to that line:

(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 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 emissions limit values.

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

3.32.10 The waste bunker shall be equipped with the following:

(a) a smoke detection system with alarm and water cannon for fire control; and

(b) a detector for the presence of explosive gases.

3.32.11 The licensee shall blend and mix wastes prior to incineration for the purposes of improving the overall environmental performance of the incineration of waste in accordance with BAT 14 of CID 2019/2010.

3.32.12 The licensee shall maintain and implement an advanced control system for the incineration plant to control the combustion efficiency and support the minimisation of emissions in accordance with BAT 14 of CID 2019/2010.

3.32.13 The licensee shall maintain and implement procedures for the adjustment of the plant's settings in accordance with BAT 15 of CID 2019/2010.

3.33 Abnormal operation/breakdown

3.33.1 In the case of a breakdown, the licensee shall reduce or close down operation of the relevant process line(s), as soon as practicable, until normal operations can be restored. The licensee shall not resume incineration operations except in accordance with a protocol approved by the Agency.

3.33.2 In the case of abnormal operations:

(a) the licensee shall under no circumstances continue to incinerate waste in the relevant process line for a period of more than four hours uninterrupted where emission limit values specified in *Schedule B.1 Emissions to Air,* of this licence are exceeded, and

(b) the cumulative duration of abnormal operation over one calendar year shall be less than 60 hours, and

(c) the total dust content of the emissions from the combined stacks (A2-1 and A2-2) shall under no circumstances exceed 150 mg/m^3 (expressed as a half-hourly average) and the emission limit values specified in *Schedule B.1 Emissions to Air*, of this licence for CO and TVOC shall not be exceeded.

3.34 There shall be no bypass of the air abatement system.

3.35 The licensee shall ensure that the flue gas cleaning system is operated within its design range in accordance with BAT 17 of CID 2019/2010.

3.36 The intake screens for the cooling water abstraction shall be designed so as to permit a continuous backwash to the estuary. The licensee shall ensure that appropriate screens are used so-as to protect smolts during their passage past the intake point.

3.37 The hours of operation of the emergency diesel generator (A4-1) shall not exceed 500 hours annually, as a rolling average over a five-year period. The licensee shall record the hours of operation to the satisfaction of the Agency.

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

Condition 4. Interpretation

4.1 Emission limit values for emissions to atmosphere 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 volatile organic carbon:	30 %

Hydrogen chloride:	40 %
Hydrogen fluoride:	40 %
Ammonia:	40 %
Volumetric Flow:	10%

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

(i) 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.

(ii) For any parameter where, due to sampling/analytical limitations, a 30-minute sample is inappropriate, a suitable sampling period should be employed and the value obtained therein shall not exceed the emission limit value.

(iii) For flow, no hourly or daily mean value, calculated on the basis of appropriate spot readings, shall exceed the relevant limit value.

(iv) For all other parameters, no 30-minute mean value shall exceed the emission limit value.

4.2 The concentration and volume flow limits for emissions to atmosphere specified in this licence shall be achieved without the introduction of dilution air and shall be based on gas volumes under standard conditions of:

4.2.1 From combustion sources:

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

4.3 Emission limit values for emissions to waters in this licence shall be achieved without the introduction of dilution, and shall be interpreted in the following way:

4.3.1 Continuous Monitoring

(i) 98% of all flow values over the year, calculated as m^3/hr, shall not exceed the emission limit value.

(ii) No daily mean flow value shall exceed the emission limit value.

(iii) 98% of all temperature values over the year, calculated as m^3/hr, shall not exceed the emission limit value.

(iv) No temperature value, calculated as an hourly average, shall exceed the limit value by more than 0.5°C.

(v) No total residual chlorine value shall exceed the emission limit value.

4.3.2 Composite Sampling

(i) No pH value shall deviate from the specified range.

(ii) No temperature value shall exceed the limit value.

(iii) For parameters other than pH, temperature, total residual chlorine and flow, eight out of ten consecutive composite results, based on flow proportional composite sampling, shall not exceed the emission limit value. No individual results similarly calculated shall exceed 1.2 times the emission limit value.

4.3.3 Discrete Sampling

For parameters other than pH, temperature, total residual chlorine and flow, no grab sample value shall exceed 1.2 times the emission limit value.

4.4 Where the ability to measure a parameter is affected by mixing before emission, then, with agreement from the Agency, the parameter may be assessed before mixing takes place.

4.5 Noise

Noise from the installation shall not give rise to sound pressure levels measured at noise-sensitive locations (NSLs) which exceed the limit value(s).

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

Condition 5. Emissions

5.1 Emissions may be made from the specified emission points set out in *Schedule B: Emission Limits,* of this licence subject to compliance with the Emission Limit Values specified in that Schedule.

5.1.1 Uncontaminated storm water may be discharged to surface water.

5.1.2 Uncontaminated storm water may be emitted to groundwater or to soil.

5.1.3 Minor, diffuse and potential emissions may be emitted to air as specified in the application, or as approved by the Agency under Condition 1 of this licence.

5.2 Notwithstanding the requirements of Condition 5.1, there shall be no other emissions from the installation.

5.3 No emissions, including odours and dust, from the activities carried on at the site shall result in an impairment of, or an interference with amenities or the environment beyond the installation boundary or any other legitimate uses of the environment beyond the installation boundary.

5.4 No substance shall be discharged in a manner, or at a concentration, that, following initial dilution, causes tainting of fish or shellfish.

5.5 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 installation or beyond the installation boundary or any other legitimate uses of the environment beyond the installation boundary. Any method used by the licensee to control or prevent any such impairment/interference shall not cause environmental pollution.

5.6 The licensee shall, at a minimum of one-week intervals, inspect the installation and its immediate surrounds for nuisances caused by litter, vermin, birds, flies, mud, dust and odours.

5.7 The licensee shall ensure that all vehicles delivering waste to and removing waste from the installation are appropriately covered, and sealed in the case of hazardous incinerator residues.

5.8 No emission of process cooling water shall cause, in the receiving water outside the mixing zone:

(a) the temperature to exceed the unaffected temperature by more than 1.5°C, during the period 1st May to 30th October, or

(b) the temperature to exceed 21.5°C, or

(c) the total residual chlorine level to exceed 0.005mg/l (as HOCl).

The mixing zone shall not exceed 25% of the estuarine cross sectional area at any point. The thermal discharge shall not cause sudden variations in temperature in the receiving water.

5.9 No substance shall be discharged in a manner, or at a concentration which, following initial dilution, causes tainting of fish or shellfish.

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

Condition 6. Control and Monitoring

6.1 The licensee shall carry out such sampling, analyses, measurements, examinations, maintenance, calibrations and control techniques as set out below and as in accordance with *Schedule C: Control and Monitoring,* of this licence.

6.1.1 Sampling and analysis shall be undertaken by competent staff in accordance with documented operating procedures. Unless otherwise approved by the Agency, sampling and analysis of emissions to atmosphere shall be carried out by ISO 17025 accredited persons/organisations, with accreditation for the relevant scope of sampling and analysis, and in accordance with the Agency's air monitoring policy.

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 appropriate control standards with evaluation of test responses.

6.1.4 Where any analysis is sub-contracted it shall be outsourced to a competent laboratory.

6.2 Incineration -Test Programme

6.2.1 The licensee shall prepare a test programme for the incineration of each individual or combination of additional wastes proposed for introduction to the incinerator. This programme shall be submitted to the Agency at least one month prior to implementation.

6.2.2 The test programme, following approval from the Agency, shall be implemented and a report on its implementation shall be submitted to the Agency within one month of its completion.

6.2.3 The criteria for the operation of abatement equipment as determined by the test programme shall be incorporated into the standard operating procedures.

6.2.4 The test programme shall as a minimum:

(i) Verify the residence time, 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;

(ii) establish all criteria for operation, control and management of the abatement equipment to ensure compliance with the emission limit values specified in this licence;

(iii) assess the performance of any monitors on the abatement system and establish a maintenance and calibration programme for each monitor; and

(iv) be prepared in accordance with the guidance published by the Agency's Odour Emissions Guidance Note (Air Guidance Note AG9)', as may be amended or replaced.

6.2.5 Incineration of additional waste shall not be permitted (outside the approved test programme) until such time as the Agency has indicated in writing that it is satisfied with the results of the test programme for each individual or combination of additional wastes.

6.3 The licensee shall ensure that:

(i) sampling and analysis for all parameters listed in the schedules to this licence; and

(ii) any reference measurements for the calibration of 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.

The automated measuring systems shall be subject to parallel measurements with the reference methods at least once per year. The licensee shall submit to the Agency an air monitoring report with the results of the parallel measurements.

6.4 All automatic monitors and samplers shall be functioning at all times (except during maintenance and calibration) when the activity is being carried on unless alternative sampling or monitoring has been approved 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. The use of alternative equipment, other than in emergency situations, shall be as approved by the Agency.

6.5 Monitoring and analysis equipment shall be operated and maintained as necessary so that all monitoring results accurately reflect any emission, discharge or parameter specified in this licence.

6.6 The licensee shall ensure that groundwater monitoring well sampling equipment is available or installed on-site at the installation and is fit for purpose at all times. The sampling equipment shall be to Agency specifications.

6.7 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.

6.8 Subject to the limitations of Article 15 of the European Union (Waste Incineration Plants and Waste Co-Incineration Plants) Regulations 2013 (S.I. No. 148 of 2013) and the Waste Incineration CID (2019/2010), the frequency, methods and scope of monitoring, sampling and analyses, as set out in this licence, may be amended as required or approved by the Agency following evaluation of test results.

6.9 The licensee shall prepare and implement a programme, to the satisfaction of the Agency, for the identification and reduction of diffuse emissions using all appropriate techniques listed in BAT 21 of CID 2019/2010. This programme shall be included in the Environmental Management Programme.

6.10 The integrity and water tightness of all tanks, bunding structures, containers and underground pipes and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee.

6.10.1 testing shall be carried out by a suitably qualified and experienced person;

6.10.2 testing shall be carried out in accordance with any guidance published by the Agency;

6.10.3 testing shall be carried out at least once every three years thereafter and reported to the Agency on each occasion;

6.10.4 any repairs required to ensure the integrity and water tightness of tanks, bunding structures, containers and underground pipes shall be carried out as soon as practicable, and

6.10.5 a written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee.

6.11 The storm water drainage system (i.e., gullies, manholes, any visible drainage conduits and such other aspects as may be required by the Agency), 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. The licensee shall maintain a drainage map on site. The drainage map shall be reviewed annually and updated as necessary.

6.12 Process Effluent

6.12.1 The acute toxicity of the undiluted final effluent to at least four aquatic species from different trophic levels shall be determined by standardised and internationally accepted procedures and carried out by a competent laboratory.

6.12.2 Having identified the most sensitive species outlined in Condition 6.12.1, subsequent compliance toxicity monitoring shall be carried out on the two most sensitive species.

6.12.3 A representative sample of effluent shall be screened for the presence of organic compounds. Such screening shall be repeated at intervals as requested by the Agency thereafter.

6.12.4 The licensee shall undertake a biological survey of the receiving water upstream and downstream of the cooling water outfall biennially. The licensee shall have regard to the Dublin City Council Biodiversity Plan in scoping the survey and shall consult with the Agency and Inland Fisheries Ireland on the timing, nature and extent of the survey. The survey shall, as a minimum, include a fish diversity study.

6.12.5 Screens on the discharge pipe shall be examined and details recorded once a week during the period 1st May to 30th September.

6.12.6 A report of the testing, survey and examination referred to in Conditions 6.12.1, 6.12.2 and 6.12.3 above shall be included as part of the AER.

6.13 An inspection system for the detection of leaks on all flanges and valves on over-ground pipes used to transport materials other than water shall be maintained.

6.14 Storm Water

A visual examination of the storm water discharges shall be carried out prior to discharge to Ringsend MWWTP. A log of such inspections, shall be maintained.

6.15 Noise

6.15.1 The licensee shall carry out a noise survey of the site operations as required by the Agency. The survey programme shall be undertaken in accordance with the methodology specified in the 'Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4)' as published by the Agency.

6.15.2 The licensee shall ensure that noise emissions arising from the site activities are prevented, or where that is not practicable, minimised, by using one or a combination of techniques listed in BAT 37 of CID 2019/2010.

6.15.3 Noise Management Plan

6.15.3.1 The licensee shall prepare, maintain and implement, to the satisfaction of the Agency, a Noise Management Plan.

6.15.3.2 The plan shall be submitted within six months of the date of grant of this licence.

6.15.3.3 The plan shall outline noise reduction and abatement measures.

6.15.3.4 The plan shall be prepared in accordance with the Agency's Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4) and incorporate management techniques listed in Section 2.4 of CID 2019/2010.

6.15.3.5 The plan shall be implemented within twelve months of the date of grant of this licence.

6.15.3.6 The plan shall be reviewed annually.

6.16 The licensee shall undertake a thermal survey of the estuary upstream and downstream of the cooling water channel outfall as required by the Agency. The licensee shall consult with the Agency on the timing, nature and extent of the survey (to include assessment of the design and effectiveness of the cooling water discharge system in distributing the thermal load to the estuary, and the optimisation of the ratio between cooling water volume and temperature), and

shall develop a survey programme to the satisfaction of the Agency. The survey programme shall be submitted to the Agency in writing at least one month before the survey is to be carried out. 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.

6.17 In complying with Condition 6.16 the licensee shall take into account other licensed industrial cooling water discharges in the immediate area and may, with the agreement of the Agency, submit a joint (with these other industrial discharges) thermal ambient river survey proposal.

6.18 Odour

6.18.1 The licensee shall carry out an odour survey of the site operations as required by the Agency

6.18.2 The survey programme shall be undertaken in accordance with the methodology specified in the 'Air Guidance Note 5 (AG5) Odour Impact Assessment Guidance for EPA Licensed Sites' as published by the Agency.

6.19 Odour Management Plan

6.19.1 The licensee shall prepare, maintain and implement, to the satisfaction of the Agency, an Odour Management Plan.

6.19.2 The plan shall be submitted within twelve months of the date of grant of this licence.

6.19.3 The plan shall outline odour reduction and abatement measures.

6.19.4 The plan shall as a minimum address the storage and handling of wastes and other materials with a potential for causing odour.

6.19.5 The plan shall be prepared in accordance with the Agency's Odour Emissions Guidance Note (Air Guidance Note AG9) and incorporate management techniques listed in 2.4 of CID 2019/2010.

6.19.6 The plan shall be reviewed annually.

6.20 Pollutant Release and Transfer Register (PRTR)

The licensee shall submit a PRTR data report for the site. The pollutants and/or wastes to be included in the PRTR shall be determined by reference to EC Regulations No. 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register. The PRTR shall be prepared in accordance with any relevant Agency guidance and shall be submitted electronically in the format specified by the Agency.

6.21 The licensee shall maintain a Data Management System for collation, archiving, assessing and graphically presenting the monitoring data generated as a result of this licence.

6.22 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.

6.23 Monitoring off-site shall be subject to the agreement of the property owner(s) where appropriate.

6.24 Residues from the incineration plant shall be subject to the monitoring and analysis specified in *Schedule C.4 Monitoring of Incinerator Residues,* 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.

6.25 The licensee shall as part of the EMP (Condition 2) maintain a hypochlorite/chlorine dosing plan for the cooling water system.

6.26 Groundwater and Soil Monitoring

The licensee shall carry out monitoring for relevant hazardous substances in soil and groundwater at the site of the installation. The substances for monitoring shall be identified by the licensee by undertaking a risk-based assessment. The risk assessment, sampling and monitoring shall be carried out in accordance with any guidance published by the Agency. The licensee shall have regard to the '*Classification of Hazardous and Non-Hazardous Substances in Groundwater*' as published by the Agency

6.26.1 Groundwater monitoring shall be carried out at least once every five years. Monitoring shall be carried out in accordance with S*chedule C.7.1 Groundwater Monitoring* of this licence.

6.26.2 Soil monitoring shall be carried out at the site of the installation at least once every ten years. Monitoring shall be carried out in accordance with S*chedule C.7.3 Soil Monitoring* of this licence.

6.27 All wastewater gullies, drainage grids and manhole covers shall be indicated by a red colour coded system. All non-process clean storm water discharge gullies, drainage grids and manhole covers shall be indicated by blue coloured markings. This system shall be maintained so as to be visible at all times during installation operation. Any identification designated in this licence (e.g. SW1) shall be inscribed on these manholes.

6.28 The licensee shall monitor channelled emissions to air from the incineration plant during OTNOC in accordance with BAT 5 of CID 2019/2010.

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 Surplus energy from the operation of the installation shall be exported to the Dublin district heating system (when the system is available) and the National Grid.

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

Energy Efficiency = $[E_p-(E_f+E_i)] / [0.97 \times (E_w + E_f)]$ 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 lower 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 annually. The audit shall be carried out in accordance with the guidance published by the Agency, "Guidance Note on Energy Efficiency Auditing". The energy efficiency audit report shall, as a minimum, include:

(a) A review of opportunities for increasing the overall efficiency of the facility over the coming year,

(b) Progress with those opportunities identified in the previous report,

(c) The energy efficiency of the facility.

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

7.4 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.

7.5 The audit shall identify all practicable opportunities for energy use reduction and efficiency and the recommendations of the audit will be incorporated into the Schedule of Environmental Objectives and Targets under Condition 2 above.

7.6 The licensee shall carry out a performance test after each modification of the incineration plant that could significantly affect the energy efficiency, the gross electrical efficiency or the gross energy efficiency. Where a performance test at full load cannot be carried out for technical reasons, the gross electrical efficiency or the gross energy efficiency can be determined taking into account the design values at performance test conditions.

7.7 For the incineration of municipal solid waste:

7.7.1 The gross electrical efficiency shall not be less than 20%; and

7.7.2 The gross energy efficiency shall not be less than 72% when the Dublin district heating system is available.

This is expressed in the General Considerations of CID 2019/2010.

7.8 The licensee shall use an appropriate combination of the techniques in BAT 20 of CID 2019/2010 to increase the energy efficiency of the incineration plant.

7.9 The licensee shall maintain and operate a heat recovery boiler in accordance with BAT 19 of CID 2019/2010.

7.10 The licensee shall undertake an assessment of the efficiency of use of raw materials in all processes, having particular regard to the reduction in waste generated. The assessment should take account of best international practice for this type of activity. Where improvements are identified, these shall be incorporated into the Schedule of Environmental Objectives and Targets under Condition 2 above.

Reason: ***To provide for the efficient use of resources and energy in all site operations.***

Condition 8. Materials Handling

8.1 The licensee shall ensure that waste generated in the carrying on of the activity shall be prepared for re-use, recycling or recovery or, where that is not technically or economically possible, disposed of in a manner which will prevent or minimise any impact on the environment.

8.2 Disposal or recovery of waste on-site 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 sent off-site for recovery or disposal

8.3.1 Waste sent off-site for recovery or disposal shall be transported only by an authorised waste contractor.

8.3.2 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.

8.3.3 Waste sent off-site for recovery or disposal shall be transferred only to an appropriate facility.

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

8.3.5 Waste sent off-site for recovery or disposal shall be stockpiled in such a manner as to minimise dust generation.

8.4 The loading and unloading of materials shall be carried out in designated areas protected against spillage and leachate run-off.

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

8.6 All incinerator residues (including bottom ash, fly ash and abatement system derived material) shall be stored within the installation building pending off-site disposal or recovery.

8.7 Hazardous boiler ash and flue gas cleaning residues shall be stored at dedicated areas within enclosed structures (incorporating dust curtains or equivalent approved and vented through self -cleaning filters), or sealed containers on hard standing with contained drainage.

8.8 All waste processing is to be undertaken within the installation building.

8.9 Unless approved in writing, in advance, 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.

8.10 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.

8.11 Waste Acceptance and Characterisation Procedures

8.11.1 The licensee shall maintain and implement detailed written procedures and criteria for:

(i) basic characterisation, compliance testing, acceptance, on-site verification and handling of all wastes arriving at the installation;

(ii) reception and weighing of incoming and outgoing wastes;

(iii) handling of waste and incinerator residues including bunker and silo management;

(iv) to determine the mass of each category of waste in accordance with, and by reference to, the relevant List of Waste Codes as outlined by Commission Decision 2014/955/EU of 18 December 2014, as amended;

(v) rejection of unacceptable incoming waste; and

(vi) ensuring adequate storage capacity exists in advance of waste acceptance.

8.11.2 The quantity of waste to be accepted at the installation on a daily basis shall not exceed the appropriate storage capacity available for such waste.

8.11.3 Waste shall be accepted at the installation only from known waste producers or new waste producers subject to initial waste profiling and basic characterisation offsite. The written records of this off-site waste profiling and characterisation shall be retained by the licensee for all active waste producers and for a two year period following termination of licensee/waste producer agreements.

8.11.4 Waste shall only be accepted at the installation from local authority waste collection or transport vehicles or holders of valid waste collection permits, unless exempted or excluded, issued under the Waste Management Act 1996 as amended. Copies of these waste collection permits shall be maintained at the installation.

8.11.5 Waste arriving at the installation shall be inspected and have its documentation checked at the point of entry to the installation and subject to this verification, weighed, documented and directed to an appropriate area within the installation. Unless otherwise required by the Agency, at a minimum one load of waste per day received from each waste producer shall be inspected prior to incineration.

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

8.11.7 A record of all inspections of incoming waste loads shall be maintained.

8.11.8 Each container of waste accepted at the installation shall, as part of the waste tracking system, be labelled with, at least, a unique identifier, its date of arrival and List of Waste code.

8.11.9 The licensee shall maintain a list of the List of Waste codes that are authorised for acceptance at the installation.

8.11.10 No hazardous waste shall be accepted at the installation.

8.11.11 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 prior approval of the Agency.

8.11.12 Prior to the acceptance and use in the process of 'grey water' (effluent from Ringsend WWTP), the licensee shall maintain protocols for the safe and appropriate management and use of this water. This protocol shall be maintained as part of the EMS identified in Condition 2.

8.12 Waste and Materials Storage Plan

8.12.1 The licensee shall, within three months of the date of grant of this licence, develop and thereafter maintain and implement a Waste and Materials Storage Plan for all waste, and other materials and waste water stored and held at the installation.

8.12.2 The Waste and Materials Storage Plan shall be adequate to ensure compliance with all conditions of this licence.

8.12.3 The Waste and Materials Storage Plan shall be to the satisfaction of the Agency at all times.

8.12.4 The Waste and Materials Storage Plan shall incorporate:

(i) the recommendations of the Fire Risk Assessment required by Condition 9.5 of this licence;

(ii) a limit on the total quantity of waste to be stored at the installation at any one time;

(iii) maximum wastes and residues to be stored in the bunker and IBA storage areas including maximum volume, height, length, width and area;

(iv) a limit on the maximum storage or holding period for each type of waste in designated storage areas or vessels;

(v) limitations, as may be necessary, on waste storage arrangements to be used to prevent odours arising;

(vi) a drawing or plan of the location of each waste type and the means of storage for each waste type (e.g. as loose waste, baled, in sealed containers);

(vii) details of the drainage system super-imposed on the above drawing or plan; and

(viii) a designated fire quarantine area.

8.12.5 Waste storage and holding practices at the installation shall comply at all times with the Waste and Materials Storage Plan.

8.12.6 Waste accepted or generated at the installation shall be stored or held only in designated areas or vessels that have been identified in the Waste and Materials Storage Plan.

8.12.7 All designated areas or vessels for storage or holding of waste and waste water shall be:

- clearly labelled;
- appropriately segregated; and
- visibly or physically delineated by walls, dividers, painted lines or marks on the ground or other methods acceptable to the Agency.

8.12.8 The Emergency Response Procedure as required under Condition 9 of this licence shall include an up-to-date copy of the Waste and Materials Storage Plan.

8.12.9 The Waste and Material Storage Plan shall include in its scope any material that was waste but has achieved end-of-waste status.

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 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 ensure that a documented Emergency Response Procedure is in place, that addresses any emergency situation which may originate on-site. This procedure shall include provision for minimising the effects of any emergency on the environment. This procedure shall be reviewed annually and updated as necessary.

9.3 Incidents

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

(i) carry out an investigation to identify the nature, source and cause of the incident and any emission arising therefrom;

(ii) isolate the source of any such emission;

(iii) evaluate the environmental pollution, if any, caused by the incident;

(iv) identify and execute measures to minimise the emissions/malfunction and the effects thereof;

(v) identify the date, time and place of the incident; and

(vi) notify the Agency as required by Condition 11.3 of this licence.

9.3.2 Where an incident or accident that significantly affects the environment occurs, the licensee shall, without delay take measures to limit the environmental consequences of the incident or accident and to prevent further incident or accident.

9.4 Emergencies

9.4.1 In the event of a breakdown or any other occurrence where both process lines of the incineration plant are being shutdown, waste (with the exception of incinerator residues):

(a) arriving at the installation shall be transferred directly to an appropriate facility/installation;

(b) stored or awaiting processing at the installation shall, subject to the approval of the Agency, be transferred to an appropriate facility/installation within three days of the shutdown.

9.4.2 All significant spillages occurring at the installation 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 installation shall be treated as an emergency and immediate action shall be taken to extinguish it and notify the appropriate authorities.

9.5 Fire Risk Assessment

9.5.1 The licensee shall arrange, within six months of the date of grant of this licence and every three years thereafter or as directed by the Agency, for the completion, by an

independent and appropriately qualified person, of a fire risk assessment for the installation.

9.5.2 The assessment shall examine all relevant factors on site that impinge on fire risk and prevention.

9.5.3 The assessment shall have regard to any guidelines issued by the Agency with regard to fire risk assessment.

9.5.4 A report on the fire risk assessment shall be prepared and notified to the Agency, in accordance with Condition 11.1 of this licence.

9.5.5 Any recommendations in the fire risk assessment shall be implemented by the licensee.

Reason: ***To provide for the protection of the environment.***

Condition 10. Closure, Restoration and Aftercare 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. A final validation report to include a certificate of completion to demonstrate there is no continuing risk to the environment shall be submitted to the Agency within three months of termination or planned cessation of the activity.

10.2 Closure, Restoration and Aftercare Management Plan (CRAMP)

10.2.1 The licensee shall submit a revised CRAMP for agreement by the Agency prior to the acceptance of additional waste greater than 600,000 tonnes per annum. The licensee shall maintain a fully detailed and costed plan for the closure, restoration and long-term aftercare of the site or part thereof.

10.2.2 The plan shall be reviewed annually and proposed amendments thereto notified to the Agency for agreement. No amendments may be implemented without the agreement of the Agency.

10.3 The Closure, Restoration and Aftercare Management Plan (CRAMP) shall include, as a minimum, the following:

(i) a scope statement for the plan;

(ii) the criteria that define the successful closure and restoration and aftercare of the activity or part thereof, which ensures minimum impact on the environment;

(iii) a programme to achieve the stated criteria;

(iv) where relevant, a test programme to demonstrate the successful implementation of the plan;

(v) details of the long-term supervision, monitoring, control, maintenance and reporting requirements for the restored facility; and

(vi) details of the costings for the plan.

10.4 The licensee shall, prior to the acceptance of additional waste greater than 600,000 tonnes per annum, and to the satisfaction of the Agency, make financial provision to cover any liabilities associated with closure, restoration and aftercare identified in Condition 10.2. The amount of financial provision held shall be reviewed and revised as necessary.

10.5 The licensee shall have regard to the Environmental Protection Agency's Guidance on Assessing and Costing Environmental Liabilities (2014) and Guidance on Financial Provision for Environmental Liabilities (2015), as may be amended or replaced, when implementing Conditions 10.2, 10.3 and 10.4 above.

Reason:	***To make provision for the proper closure of the activity ensuring protection of the environment.***

Condition 11. Notification, Records and Reports

11.1 The licensee shall submit the reports, proposals and submissions required by this licence by the deadlines specified. The licensee shall not be in compliance with the requirements of this condition unless and until it has submitted every report, proposal and submission, the deadline for which has passed.

11.2 The licensee shall carry out every action required by the Agency, and arising out of such reports, proposals or submissions, by such deadline as the Agency may specify. The licensee shall not be in compliance with the requirements of this condition unless and until it has carried out every such action.

11.3 The licensee shall notify the Agency, in a format as may be specified by the Agency, as soon as practicable after the occurrence of any of the following:

(i) an incident or accident as defined by the glossary;

(ii) any breach of one or more of the conditions attached to this licence.

The licensee shall include as part of the notification, date and time of the incident, summary details of the occurrence, and where available, the steps taken to minimise any emissions. All details required to be communicated must be in accordance with any guidance provided by the Agency.

11.4 In the event of any incident which relates to discharges to sewer having taken place, the licensee shall notify Uisce Éireann and the Local Authority in a manner prescribed by Uisce Éireann, as soon as practicable after such an incident.

11.5 The following shall be notified, as soon as practicable after the occurrence of any incident which relates to a discharge to water:

(i) Department of Agriculture, Food and the Marine in the case of discharges to receiving waters.

(ii) The local authority, in the case of discharges to designated bathing waters.

11.6 The licensee shall make a record of any notification made under Condition 11.3. This record shall include details of the nature, extent, and impact of, and circumstances giving rise to, the incident or accident. The record shall include all corrective actions taken to manage the incident or accident, minimise wastes generated and the effect on the environment, and avoid recurrence. In the case of a breach of a condition, the record shall include measures to restore compliance.

11.7 The licensee shall record all complaints of an environmental nature related to the operation of the activity. Each such record shall give details of the date and time of the complaint, the name of the complainant (if provided), and give details of the nature of the complaint. A record shall also be kept of the response made in the case of each complaint.

11.8 The licensee shall record all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the installation.

11.9 The licensee shall as a minimum ensure that the following documents are accessible at the site:

(i) the licence relating to the installation;

(ii) the current EMS for the installation including all associated procedures, reports, records and other documents;

(iii) the previous year's AER for the installation;

(iv) records of all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence and all other such monitoring which relates to the environmental performance of the installation;

(v) relevant correspondence with the Agency;

(vi) up-to-date site drawings/plans showing the location of key process and environmental infrastructure, including monitoring locations and emission points;

(vii) 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;

(viii) dosing plan for hypochlorite/chlorine in cooling water system; and

(ix) any elements of the licence application or EIA documentation referenced in this licence.

This documentation shall be available to the Agency for inspection at all reasonable times.

11.10 The licensee shall submit to the Agency annually, or as otherwise approved by the Agency,

11.10.1 An AER covering the previous calendar year, which shall be;

(i) to the satisfaction of the Agency and include as a minimum the information specified in *Schedule D: Annual Environmental Report,* of this licence;

(ii) prepared in accordance with any relevant guidelines issued by the Agency; and

(iii) submitted by the 31st March of each year,

11.10.2 The results of all emission monitoring carried out in accordance with the requirements of this licence; including an assessment and interpretation of the results.

11.11 A full record, which shall be open to inspection by authorised persons of the Agency at all times, shall be kept by the licensee on matters relating to the waste management operations and practices at this site. This record shall be maintained on a monthly basis and shall as a minimum contain details of the following:

(i) the tonnages and LoW Code for the waste materials imported and/or sent off-site for disposal/recovery;

(ii) the names of the agent and carrier of the waste, and their waste collection permit details, if required (to include issuing authority and vehicle registration number);

(iii) details of the ultimate disposal/recovery destination facility for the waste and its appropriateness to accept the consigned waste stream, to include its permit/licence details and issuing authority, if required;

(iv) written confirmation of the acceptance and disposal/recovery of any hazardous waste consignments sent off-site;

(v) details of all waste 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;

(vi) details of any rejected consignments;

(vii) details of any approved waste mixing;

(viii) the results of any Incinerator residues analyses required under *Schedule C: Control and Monitoring*, of this licence; and

(ix) the tonnage and LoW Code for the waste materials recovered/disposed on-site.

11.12 The licensee shall maintain an annual log of the use of the emergency generator, this log to be reported as part of the AER.

11.13 The licensee shall submit report(s) electronically as required by the conditions of this licence to the Agency.

11.14 All reports shall be certified accurate and representative by the installation manager or a nominated, suitably qualified and experienced deputy.

11.15 Waste Recovery Report

The licensee shall as part of the Annual Environmental Report for the installation submit a report on the contribution by this facility to the achievement of the waste reduction targets stated in

Condition 2.2.2.6 and as otherwise may be stated in National and European Union waste policies and shall, as a minimum, include tonnages of the following:

(a) The pre-treatment of the municipal waste prior to being accepted at the facility,

(b) The recovery of incinerator residues on site, off-site and their final use.

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

Condition 12. Financial Charges and Provisions

12.1 Agency Charges

12.1.1 The licensee shall pay to the Agency an annual contribution of €35,006, 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 Environmental Protection Agency Act 1992 as amended. The first payment shall be a pro-rata amount for the period from the date of grant of this licence to the 31st day of December, and shall be paid to the Agency within one month from the date of grant of this licence. In subsequent years the licensee shall pay to the Agency such revised annual contribution as the Agency shall from time to time consider necessary to enable performance by the Agency of its relevant functions under the Environmental Protection Agency Act 1992 as amended, 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, prior to the acceptance of additional waste greater than 600,000 tonnes per annum, arrange for the revision, by an independent and appropriately qualified person, of a comprehensive and fully costed (revised) Environmental Liabilities Risk Assessment (ELRA) which addresses the liabilities from past and present activities. A report on this assessment shall be submitted for approval and agreement by the Agency. The ELRA shall be reviewed as necessary to reflect any significant change on site, and in any case every three years following initial agreement.

12.2.2 The licensee shall prior to the acceptance of additional waste greater than 600,000 tonnes per annum and to the satisfaction of the Agency, make financial provision to cover any liabilities with respect to the ELRA in Condition 12.2.1 above. The amount of financial provision held shall be reviewed and revised as necessary.

12.2.3 The licensee shall have regard to the Environmental Protection Agency's Guidance on Assessing and Costing Environmental Liabilities (2014) and Guidance on Financial Provision for Environmental Liabilities (2015), as may be amended or replaced, when implementing Conditions 12.2.1 and 12.2.2 above.

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

SCHEDULE A: Limitations

A.1 Limitations on the installation

The following waste related processes are authorised:

- Temporary storage of waste, including incinerator residues generated at the installation.
- Use of waste as a fuel.

No additions to these processes are permitted unless approved in advance by the Agency.

A.2 Waste Acceptance

Table A.2 Waste Categories and Quantities for acceptance at the incineration plant

Total maximum annual quantity of wastes to be accepted: 690,000 Tonnes per calendar year.

Description	List of Waste codes	Waste Description	Maximum Note 3 (Tonnes per calendar year)
Non-Hazardous residual waste Note 1	20 03 01	Mixed municipal waste Note 1	625,000
	20 03 02	Waste from markets	
	20 03 03	Street-cleaning residues	
	20 03 07	Bulky waste	
	19 05 01	Wastes from aerobic treatment of solid waste Note 2	
	20 01 28	Separately collected fractions of municipal waste	11,500
	20 01 30	Separately collected fractions of municipal waste	11,500
	20 02 03	Non-biodegradable garden and park wastes	11,500
	19 12 10	Combustible waste (refuse derived fuel) Note 2	10,000
	19 12 12	Waste from Mechanical Treatment of Waste Note 2	150,000
Commercial, & Industrial wastes Note 4	02 01 03, 02 01 04, 02 01 07, 02 02 02, 02 02 03, 02 03 02, 02 05 01, 02 06 01, 02 06 02, 02 07 01, 02 07 04.	Waste from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing	100,000
	03 03 08	Waste from pulp, paper and cardboard production and processing	
	04 02 09, 04 02 21, 04 02 22.	Wastes from textile industry	

Description	List of Waste codes	Waste Description	Maximum [Note 4] (Tonnes per calendar year)
	08 01 12, 08 01 18, 08 01 20, 08 03 08, 08 03 13, 08 03 18.	Waste from manufacture, formulation, supply and use (MFSU) of coatings (paints, varnished and vitreous enamels), adhesives, sealants and printing inks	
	12 01 05.	Wastes from shaping and physical and mechanical surface treatment of metals and plastics	
	15 02 03.	Adsorbents, filter materials, wiping cloths and protective clothing	
	16 01 19, 16 01 22 16 03 04, 16 03 06.	Wastes from dismantling end of life vehicles and vehicle maintenance Off-specification batches and unused products	
	19 02 03, 19 02 10, 19 05 02, 19 05 03, 19 08 01, 19 08 09, 19 09 05, 19 10 04, 19 10 06, 19 12 01, 19 12 04, 19 12 07, 19 12 08.	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use.	

Note 1: As defined in the glossary of this licence.
Note 2: Derived from the treatment of the residual waste fraction of mixed municipal waste.
Note 3: The individual limitation on waste streams may be varied with the approval of the Agency subject to the overall total limit of 690,000 tonnes staying the same.
Note 4: Annual tonnage shall be limited to 11,500 tonnes per annum per individual waste code. This may be increased with the written approval of Agency.

SCHEDULE B: Emission Limits

B.1 Emissions to Air

Emission Point Reference No: A2-1 & A2-2 (twin stack emissions, one for each incinerator line)
Location: Flue gas treatment and discharge area
Volume to be emitted: Maximum rate per hour: 275,000 m^3 per line/emission point
Minimum discharge height: 105 m above ground

Parameters [Note 1]	Units	Half Hour Average		Daily Average	Periodic	
		A	B			
Total dust	mg/m^3	30 [Note 2]	10 [Note 2]	5	-	
Total volatile organic carbon, expressed as C (TVOC)		20 [Note 2]	10 [Note 2]	10		
Hydrogen chloride (HCl)	mg/m^3	60 [Note 2]	10 [Note 2]	8	-	
Hydrogen fluoride (HF)	mg/m^3	4 [Note 2]	2 [Note 2]	<1 [Note 3]	-	
Sulphur dioxide (SO_2)	mg/m^3	200 [Note 2]	50 [Note 2]	40	-	
NO_x, expressed as NO_2	mg/m^3	400 [Note 2]	200 [Note 2]	180	-	
The sum of Cadmium (as Cd) and thallium (as Tl), and their compounds [Note 4]	mg/m^3	-		-	0.05 [Note 5]	0.02 [Note 6, Note 10]
Mercury (as Hg) and its compounds [Note 4]	mg/m^3	-		-	0.05 [Note 5]	0.02 [Note 6, Note 10, Note 11]
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) and their compounds [Note 4]	mg/m^3	-		-	0.5 [Note 4]	0.3 [Note 6, Note 10]
Arsenic (as As) and its compounds [Note 4]	mg/m^3	-		-	0.2	
Dioxins/furans (PCDD/F) (I-TEQ) [Note 7]	ng/m^3	-		-	0.1 [Note 5]	0.06 [Note 6]
Carbon monoxide (CO) [Note 8]	mg/m^3	100 [Note 8]		50 [Note 9]	-	
Ammonia (NH_3)	mg/m^3			10 [Note 6]		

Note 1: In accordance with Article 3(13) of the IED 2010/75/EU 'emission limit levels associated with the best available techniques' means the range of emission levels obtained under normal operating conditions using a best available technique or a combination of best available techniques, as described in the BAT conclusions, expressed as an average over a given period of time, under specified reference conditions.

Note 2: Either none of the half-hourly average values shall exceed any of the emission limit values set out in column A, or, where relevant, 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 3: For HF, "Average over the sampling period" as defined in the Waste Incineration CID (EU) (2019/2010) can be applied as an alternative to "daily average" sampling period.

Note 4: 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 5: Emission limit value applicable until 11 November 2023.

Note 6: Emission Limit Value applicable from 12 November 2023.

Note 7: 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 8: At least 95% of all 10-minute average values taken in any 24-hour period shall not exceed 150 mg/m^3 or all half-hourly average values taken in the same period shall not exceed 100 mg/m^3.

Note 9: At least 97% of the daily average values over the year shall not exceed the emission limit value.

Note 10: Average value of three consecutive measurements of at least 30 minutes each.

Note 11: A "daily average" sampling period can be applied as an alternative to "average over the sampling period" as defined in the Waste Incineration CID (EU) (2019/2010).

B.2 Emissions to Water

Emission Point Reference No.:	SW-1 Cooling Water Discharge	
Name of Receiving Waters:	Liffey Estuary	
Location:	Cooling water outfall	
Volume to be emitted:	Maximum in any one day:	570,000m^3
	Maximun rate per hour:	14,040 m^3

Parameter	Emission Limit Value
Temperature rise (Δ T) relative to intake	9.0 °C
Total residual chlorine (as HOCl)	0.5 mg/l and 0.2 mg/l (as 24 hour average)

B.3 Emissions to Sewer

There shall be no process effluent emissions to sewer.

B.4 Noise Emissions

Daytime dB L_{Aeq} (30 minutes)	Evening time dB L_{Aeq} (30 minutes)	Night-time dB L_{Aeq} (30 minutes) Note 1
55	50	45

Note 1: During night time hours, 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 and Monitoring

C.1.1. Control of Emissions to Air [Note 1]

In addition to the requirements of Condition 6 the following monitoring shall be undertaken.

Monitoring of Incinerator		
Control Parameter	**Monitoring (continuous unless otherwise stated in licence)**	**Key Equipment [Note 2]**
Combustion	Combustion chamber temperature [Note 3]	Thermocouple
Exhaust gas	% O_2 in exhaust gas	O_2 analyser
Exhaust gas	Exhaust gas temperature	Thermocouple
Exhaust gas	Exhaust gas pressure	Pressure monitor
Exhaust gas	Water vapour content [Note 4]	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

Monitoring of Boiler		
Control Parameter	**Monitoring (continuous unless otherwise stated in licence)**	**Key Equipment**
Flue gas	Pressure	Pressure sensors
Flue gas	Temperature	Thermocouple
NOx	Concentration and Reagent	NOx Analyser and Reagent dosage rate
Feed water supply	Water rate and water level	Flow meter and level

Monitoring of Energy Recovery		
Control Parameter	**Monitoring (continuous unless otherwise stated in licence)**	**Key Equipment**
Energy Recovery	Steam Flow, Condenser Control, Turbine Control	Flow meter, Temperature, Pressure analysers

C.1.1 (Continued)

Flue gas cleaning

Location	*Item/Parameter*	*Monitoring Equipment*
Boiler /NOx abatement	Reagent dosage rate	Flow meter
Activated Carbon/Lime	Activated Carbon / Lime Mixture dosing	Dosage rate meter
Mixture Injection:	Supply silo level	Low level alarm
Baghouse Filter:	Pressure Differential Across Filters	Differential Pressure Indicator
	Collection Unit level	High level alarm on collector unit
	Filter bag leak detection	Leak detection system
Cooling System	Gas Temperature	Thermocouples
Wet Flue Gas Cleaning:	Flue Gas Temperature	Thermocouple
	Water Input	Flow meter
	pH	Meter
	Scrubber Liquid Flow	Flow meter
	Reagent Dosage Rate	Flow meter
	Scrubbing Liquid level	Low Level Alarm
	Scrubber solution dissolved salt levels	Chemical Analysis

Residues

	Item/Parameter	*Monitoring Equipment (where applicable)*
Residue Silos/hoppers:	Silo/hopper Capacity	High Level Alarms
	Silo area under negative air pressure	Air flow/Pressure Indicator
	Flue gas hopper emissions	HEPA Filter Integrity
Solid:	Ash	Quantity & Type of ash

Note 1: Or other emissions control/monitoring equipment approved in advance by the Agency, and subject to application of BAT and the requirements of Condition 1.4.
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 approved by the Agency).
Note 4: Not necessary if gases are dried prior to analysis.

C.1.2. Monitoring of Emissions to Air

Emission Point Reference No.:	**A2-1 and A2-2 (twin stack emission points)** [Note 1]	
Parameters	**Monitoring Frequency**	**Analysis Method / Technique** [Note 2]
Flow	Continuous	Standard Method
Total dust	Continuous	Generic EN standards and EN13284-2
PM_{10} and $PM_{2.5}$	Quarterly	Generic EN standards
TVOC	Continuous	Generic EN standards
Hydrogen chloride (HCl)	Continuous	Generic EN standards
Hydrogen fluoride (HF)	Continuous [Note 3]	Generic EN standards
Sulphur dioxide (SO_2)	Continuous	Generic EN standards
NO_x, expressed as NO_2	Continuous	Generic EN standards
Nitrous oxide (N_2O)	Quarterly	EN 21258
Cadmium (as Cd) and thallium (as Tl) and their compounds	Quarterly	EN14385
Mercury (as Hg) and its compounds	Quarterly [Note 4] Continuous [Note 5, Note 6]	Generic EN standards and EN 14884
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) and their compounds**	Biannually	Generic EN standards
Arsenic (as As) and its compounds	Biannually	Generic EN standards
Dioxins/furans (PCDD/F)	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. Biannual measurements as per CEN method (EN 1948, parts 1,2, and 3).
Carbon monoxide (CO)	Continuous	Generic EN standards
Ammonia (NH_3)	Continuous	Generic EN standards
Dioxin-like PCBs	Once every six months [Note 7]	EN 1948-1, EN 1948-2, EN 1948-3
Benzo[*a*]pyrene	Once every year	No EN standard available [Note 8]
Carbon dioxide (CO_2)	Continuous	Continuous

Note 1: Monitoring during OTNOC shall be carried out in accordance with the description provided in BAT 5 of the WI CID (2019/2010).

Note 2: Or other methods approved in advance by the Agency.

Note 3: The continuous measurement of HF may be replaced by periodic measurements with a minimum frequency of once every six months if the HCl emission levels are proven to be sufficiently stable. No EN standard is available for periodic measurement of HF.

Note 4: Applicable until 11 November 2023.

Note 5: Applicable from 12 November 2023.

Note 6: The continuous monitoring of mercury emissions may be replaced by long-term sampling (no EN standard is available for long-term sampling of Hg) or periodic measurements with a minimum frequency of once every six months, following the preparation and submission of a detailed assessment report to the Agency, which demonstrates that the waste feed has a proven low and stable mercury content and with the written approval of the Agency to amend the monitoring frequency.

Note 7: Monitoring shall not apply where the emissions of dioxin-like PCBs are proven to be less than 0.01 ng WHO-TEQ/Nm^3, following approval by the Agency.

Note 8: If EN standards are not available, BAT is to use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.

Emission Point Reference No: A4-1 (Back-up Diesel Generator)

Parameter	Monitoring Frequency	Analysis Method/Technique
CO	Every 1,500 hours of operation	Flue gas analyser/datalogger
NOx	As required by the Agency	Flue gas analyser
Particulates	As required by the Agency	Isokinetic/Gravimetric
TOC	As required by the Agency	Flame ionisation

C.2.1. Control of Emissions to Water

Emission Point Reference No.: SW-1 Cooling Water Discharge

Monitoring to be Carried Out	Monitoring Frequency	Monitoring Equipment/Method
Temperature Rise (Δ T)	Continuous	Temperature probe
Flow	Continuous	Flow meter/recorder
Hypochlorite/Chlorine Dosing	Concentration & Interval	Continuous Residual Chlorine Monitor

Equipment:

Control Parameter	Equipment	Backup Equipment
Temperature (intake & outlet)	Temperature probe	Spares held on site
Flow	Flow meter/recorder	Spares held on site
Hypochlorite/Chlorine dose (Total Residual Oxidant)	To be approved by the Agency	To be approved by the Agency

C.2.2. Monitoring of Emissions to Water

Emission Point Reference No.: SW-1 Cooling Water Discharge

Control Parameter	Monitoring Frequency	Key Equipment/Technique
Flow [Note 1]	Continuous	On-line flow meter with recorder
Temperature	Continuous	On-line temperature probe with recorder
pH	Continuous	pH electrode/meter with recorder
Total residual chlorine	Hourly	Continuous Residual Chlorine Monitor
Biological	Biennially	As approved by the Agency
Toxicity [Note 2]	As may be required by the Agency	To be approved by the Agency

Note 1: Total effluent discharged over the 24-hour period in which the composite sample is collected shall be recorded.
Note 2: The number of toxic units (Tu) = 100/x hour EC/LC_{50} in percentage vol/vol so that higher Tu values reflect greater levels of toxicity. For test regimes where species death is not easily detected, immobilisation is considered equivalent to death.

C.2.3. Monitoring of Storm Water Emissions

Emission Point Reference No.: SE-1M Storm water overflow from attenuation tank discharges to Ringsend MWWTP

Parameter	Monitoring Frequency	Analysis Method/Technique
pH	Grab sample prior to discharge to Ringsend MWWTP	pH meter and recorder
TOC	Grab sample prior to discharge to Ringsend MWWTP	TOC analyser and recorder

C.3.1. Control of Emissions to Sewer

There shall be no process effluent emissions to sewer.

C.3.2. Monitoring of Emissions to Sewer

There shall be no process effluent emissions to sewer.

C.4 Monitoring of Incinerator Residues

Waste Class	Frequency	Parameter [Note 1]	Method
Liquid and solid material from the cleaning of the flue gas treatment system and storage areas	Per consignment	TOC, metals [Note2] and their compounds, chloride, fluoride, sulphate, dioxins/furans and dioxin-like PCBs.	Standard Method
Bottom ash, fly ash, boiler ash and flue gas treatment residues	Monthly [Note 3]	TOC, metals [Note2] and their compounds, chloride, fluoride, sulphate, dioxins/furans and dioxin-like PCBs.	Standard Method
To be approved by the Agency [Note 4]	To be approved by the Agency	To be approved by the Agency	To be approved by the Agency

Note 1: All analysis to be undertaken, where possible, at an accredited laboratory, employing accredited procedures. Where a non-accredited laboratory is used, the licensee shall record a written justification for doing so, including the reasons why an accredited laboratory was not available.
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: The TOC of the bottom ash and slag shall be determined on a weekly basis.
Note 4: Analytical requirements to be determined on a case by case basis.

C.5 Noise Monitoring

Location	Measurement	Frequency
NL01 to NL10 or as approved or required by the Agency.	$L_{Aeq,T}$ [30 minutes] $L_{AF10,T}$ [30 minutes] $L_{AF90,T}$ [30 minutes] Frequency Analysis (1/3 Octave band analysis	As required by the Agency

Period	Minimum Survey Duration
Daytime	A minimum of 3 sampling periods at each noise monitoring location. [Note 1]
Evening-time	A minimum of 1 sampling period at each noise monitoring location.
Night-time [Note 2]	A minimum of 2 sampling periods at each noise monitoring location.

Note 1: Sampling period is to be the time period T stated as per *Schedule B.4 Noise Emissions,* of this licence. This applies to day, evening and night time periods.
Note 2: Night-time measurements should be made between 2300hrs and 0400hrs, Sunday to Thursday, with 2300hrs being the preferred start time.

C.6 Meteorological Monitoring

Monitoring Location: Grid Reference: 319899 E, 233691 N (Embankment to the north of the installation).

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

Note 1: World Metrological Organisation Standards and Recommendations.

C.7 Ambient Monitoring

C.7.1 Groundwater Monitoring

Location: Well No. GW1 or alternative monitoring location(s) approved or as required by the Agency.

Parameter	Monitoring Frequency	Analysis Method/Techniques
pH	Annually	pH electrode/meter
Total Ammonia	Annually	Standard Method
Potassium	Annually	Standard Method
Metals (Cd, Tl, Hg, Pb, Cr, Cu, Mn, Ni, As, Co, V, Sn) and their compounds	Annually	Standard Method
Organohalogens Note 1	Annually	Standard Method
Relevant Hazardous Substances Note 2	Every five years	Standard Method

Note 1: Screening for priority pollutant substances (such as US EPA volatile and/or semi volatile compounds).
Note 2: Groundwater monitoring for relevant hazardous substances shall be in accordance with Condition 6.26 of this licence.

C.7.2 Receiving Water Monitoring

Location: Monitoring location as approved by the Agency

Parameter	Monitoring Frequency Note 1	Analysis Method/Techniques
Dissolved Oxygen	Biannually	To be approved or as required by the Agency.
Temperature	Biannually	
Total residual chlorine	Biannually	

Note 1: Monitoring period – June to September.

C.7.3 Soil Monitoring

Location: Monitoring location(s) as approved by the Agency

Parameter	Monitoring Frequency	Analysis Method/Techniques
Relevant Hazardous Substances Note 1	Every ten years	Standard Method

Note 1: Soil monitoring for relevant hazardous substances shall be in accordance with Condition 6.26 of this licence.

C.8 Environmental Performance Levels for unburnt substances in slags and bottom ashes from the incineration of waste

Parameter	Environmental Performance Level
TOC content in slags and bottom ashes Note 1	3 Dry wt-%
Loss of ignition of slags and bottom ashes Note 1	5 Dry wt-%

Note 1: Either the environmental performance level for TOC content or for the loss of ignition applies.

SCHEDULE D: Annual Environmental Report

Annual Environmental Report Content Note 1 & 2
Environment Management objectives and targets summary.
Energy and water use and generation summary.
Complaints summary.
Incidents Summary.
Emissions Summary.
Waste Management Summary.
Any other items specified in the licence conditions or by the Agency.

Note 1: Content may be revised subject to the agreement of the Agency.
Note 2: The AER shall be completed in accordance with current Agency guidance

Sealed by the seal of the Agency on this the 16th day of October 2023.

PRESENT when the seal of the Agency
Was affixed hereto:

Ray Cullinane

Ray Cullinane, Authorised Person