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

TECHNICAL AMENDMENT B
To
INDUSTRIAL EMISSIONS LICENCE

Licence Register Number:	W0177-03
Company Register Number:	527552
Licensee:	Starrus Eco Holdings Limited
Location of Installation:	Carrignard Six Cross Roads Business Park Waterford City County Waterford

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 Licence Reg. No. W0177-03 granted on 24/08/2006, Technical Amendment A granted on 21/02/2013 and Section 76A(11) Amendment granted on 27/11/2015 as well as any amendments noted herein, any emissions from the activity will comply with and not contravene any of the requirements of Section 83(5) of the Environmental Protection Agency Act 1992 as amended.

The Agency has applied the Commission Implementing Decision of 10/08/2018 establishing Best Available Techniques (BAT) Conclusions, under Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions, for waste treatment (CID 2018/1147) as a reference when setting licence conditions and schedules.

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activity 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: Lower River Suir SAC (002137), Tramore Dunes and Backstrand SAC (000671), River Barrow and River Nore SAC (002162), Tramore Back Strand SPA (004027), Mid-Waterford Coast SPA (004193) and Seas off Wexford SPA (004237).

The activity is 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 can be excluded, on the basis of objective information, that the activity, 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 activity was not required.

This determination is based on the following reasons:

- the installation is not located within any European site;
- this amendment is for the purposes of updating the licence to ensure compliance with the Commission Implementing Decision for Waste Treatment (CID 2018/1147). This amendment updates the licence conditions and maintains or tightens the emission limit values to ensure the operation of the installation is in line with the latest developments in best available techniques (BAT) and to achieve a high level of protection of the environment; and
- the proposed changes do not substantially change the nature or extent of the operations at the installation.

Technical Amendment

In pursuance of the powers conferred on it by Section 96(1)(c) of the Environmental Protection Agency Act 1992 as amended, the Agency amends the licence, granted to Starrus Eco Holdings Limited, for an installation located at Carrignard, Six Cross Roads Business Park, Waterford City, County Waterford.

Henceforth, the licence shall be read in conjunction with the Technical Amendment A issued on 21/02/2013 and Section 76A(11) Amendment issued on 27/11/2015 and the amendments set out below.

This technical amendment is limited to the following: Glossary of Terms, Conditions and Schedules:

Amendments

Amended Glossary of Terms

Insert the following into the Glossary of Terms, of the existing licence or where relevant replace the existing term:

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

Accident	For the purpose of this licence an accident means an unplanned event that may result in pollution.
Air lock system	A system of two doors, one or other of which is closed at all times, that permits the delivery of waste whilst minimising the escape of fugitive emissions from the waste building.
Approval	Approval in writing/electronically.
BAT	Best Available Techniques (BAT), as described in the Commission Implementing Decision (CID) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment (2018/1147), under Directive 2010/75/EU of the European Parliament and of the Council. 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.
Biodegradable waste	Any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food, garden waste, sewage sludge, paper and paperboard, including biowaste.
Biodegradable municipal waste (BMW)	The biodegradable component of municipal waste, typically composed of food and garden waste, wood, paper, cardboard and textiles.
Biological treatment	Biological treatment involves composting, anaerobic digestion, mechanical biological treatment or any other process for stabilising and sanitising biodegradable waste, including pre-treatment processes.
Biowaste	Biodegradable garden and park waste, food and kitchen waste from households, restaurants, caterers and retail premises and comparable waste from food processing plants.
Channelled emissions	Emissions of pollutants into the environment through any kind of duct, pipe, stack, etc. This also includes emissions from open-top biofilters.
CID	Commission Implementing Decision (CID) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council.

Compliance testing	This constitutes periodical testing to determine whether a waste complies with waste acceptance criteria. The tests focus on key variables and behaviour identified by basic characterisation.
Commercial waste	As defined in Section 5(1) of the Waste Management Act 1996, as amended.
Continuous measurement	Measurement using an ‘automated measuring system’ permanently installed on site.
Diffuse Emissions	Non-channelled emissions which can result from ‘area’ sources (e.g. tanks) or ‘point’ sources (e.g. pipe flanges).
Direct discharge	Discharge to a receiving water body without further downstream waste water treatment.
Existing Plant	A plant that is not a new plant.
Fugitive Emissions	Diffuse emissions from ‘point’ sources.
Garden Waste	Means waste vegetative or organic material, including grass cuttings, waste material from pruning, leaves, plants, flowers and other similar small, or light, organic matter, produced from the care and maintenance of landscaped areas, gardens and parks.
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.
Hazardous waste	Hazardous waste as defined in point 2 of Article 3 of Directive 2008/98/EC.
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 trigger level specified in this licence which is attained or exceeded; (vi) any indication that environmental pollution has, or may have, taken place.
Indirect Discharge	Discharge which is not a direct discharge.
Liquid biodegradable waste	Waste of biological origin with a relatively high water content (e.g. fat separator contents, organic sludges, catering waste).

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.
Municipal Waste	As defined in Section 5(1) of the Waste Management Act 1996, as amended.
New plant	A plant first permitted at the site of the installation following the publication of the CID 2018/1147 or a complete replacement of a plant following the publication of the CID 2018/1147.
Odour Concentration	Number of European Odour Units (OU _E) in one cubic metre at standard conditions measured by dynamic olfactometry according to EN 13725.
Odour control system	Includes the biofilter, ducting, fans for inducing negative pressure in buildings and vessels, the main building, the fibre store building and outdoor vessels used for the storage of incoming waste.
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.
On-site verification of waste	Rapid check methods to confirm that a waste is the same as that which has been subjected to compliance testing and that which is described in any accompanying documents. It may merely consist of a visual inspection of a load of waste before and after unloading at the installation.
Output	The treated waste exiting the waste treatment plant.
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 emergency generators.
Recovery	Recovery as defined in Article 3(15) of Directive 2008/98/EC.
Residual Waste	The fraction of collected waste remaining after a treatment or diversion step, which generally requires further treatment or disposal, including mixed municipal waste.
Residues management plan	A residues management plan is part of the EMS (see BAT 1) and is an asset of measures to (1) minimise the generation of residues arising from the treatment of waste; (2) optimise the reuse, regeneration, recycling and/or recovery of energy of the residues, and (3) ensure the proper disposal of residues.
Sensitive receptor	Area which needs special protection, such as: - residential areas: - areas where human activities are carried out (e.g. neighbouring workplaces, schools, daycare centres, recreational areas, hospitals or nursing homes).

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.
Solid Recovered Fuel (SRF)	Fuel that has been produced in accordance with a technical standard from pre-treated non-hazardous municipal, commercial or industrial waste.
Storage	Includes holding of waste.
Temporary Storage	In relation to waste is a period of less than six months as defined in the Waste Management Act 1996, as amended.
Uisce Éireann	Uisce Éireann, Colvill House, 24/26 Talbot Street, Dublin 1.
Waste holder	Waste holder as defined in Article 3(6) of Directive 2008/98/EC of the European Parliament and of the Council.
Waste input	The incoming waste to be treated in the waste treatment plant.
Water-based liquid waste	Waste consisting of aqueous liquids, acids/alkalis or pumpable sludges (e.g. emulsions, waste acids, aqueous marine waste) which is not liquid biodegradable waste.

Amended Conditions

Replace Condition 1.1, of the existing licence with the following:

- 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 1.5 of this licence and subject to the conditions of this licence.

Replace Condition 1.6, of the existing licence with the following:

- 1.6 This licence is for the purpose of IE 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.

Replace Conditions 2.1 and 2.2, of the existing licence with the following:

2.1 Installation Management

- 2.1.1 The licensee shall employ a suitably qualified and experienced installation manager who shall be designated as the person in charge. The installation manager or a nominated, suitably qualified and experienced deputy shall be present on the installation 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), within six months of date of grant of this Technical Amendment. 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 Waste stream management using all of the techniques listed in BAT 2 of CID 2018/1147, within six months of date of grant of this Technical Amendment.
- 2.2.2.6 The maintenance of an inventory of waste water and waste gas streams that incorporates all of the features in BAT 3 of CID 2018/1147.
- 2.2.2.7 An accident and incident management plan using all of the techniques listed in BAT 21 of CID 2018/1147, within twelve months of date of grant of this Technical Amendment.
- 2.2.2.8 An odour management plan that incorporates all of the elements listed in BAT 12 of CID 2018/1147, within six months of date of grant of this Technical Amendment.
- 2.2.2.9 The maintenance of a residues management plan in order to reduce the quantity of waste sent for disposal, to be done in accordance with BAT 24 of CID 2018/1147, within six months of date of grant of this Technical Amendment.
- 2.2.2.10 The procedures required by this licence, including procedures for:
 - 2.2.2.10.1 ensuring compliance with environmental legislation;
 - 2.2.2.10.2 ensuring employee awareness of and involvement in complying with environmental legislation; and
 - 2.2.2.10.3 checking performance and developing performance indicators by sectoral benchmarking on a regular basis, including for energy efficiency.
- 2.2.2.11 Schedule of Environmental Objectives and Targets

The licensee shall Update 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;
 - (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.

2.2.2.12 Environmental Management Programme (EMP)

The licensee shall update and implement an EMP, including a time schedule, for achieving the Environmental Objectives and Targets prepared under Condition 2.2.2.11 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.

2.2.2.13 Documentation

- (i) The licensee shall update 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.

2.2.2.14 Corrective and Preventative Action

- (i) The licensee shall update 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.

2.2.2.15 Internal Audits

The licensee shall establish 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 2.2.2.13 above.

2.2.2.16 Awareness, Training and Competence

The licensee shall update and implement procedures for identifying training needs, and for providing appropriate training and communication to 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.

2.2.2.17 Public Awareness and Communications Programme

2.2.2.17.1 The licensee shall update and implement a Public Awareness and Communications Programme to ensure that members of the public can obtain information at the installation, at all reasonable times, concerning the environmental performance of the installation.

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

2.2.2.18 Maintenance Programme

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

2.2.2.19 Effective Process Control

The licensee shall update 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.

New Conditions

Append the following to Condition 3, of the existing licence:

- 3.23 The licensee shall ensure 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.
- 3.24 Where any Condition/Schedule of this licence specifies any later deadline for installation of any piece of infrastructure or equipment, Condition 3.23 shall apply as and from the deadline specified.

Amended Conditions

Replace Condition 5.2, of the existing licence with the following:

- 5.2 Emissions, including emissions giving rise to odours, from the activities carried on at the site shall not 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.

New Conditions

Append the following to Condition 6, of the existing licence:

- 6.18 For relevant emissions to water as identified by the inventory of waste water streams (see BAT 3), the licensee shall monitor key process parameters (e.g. waste water flow, pH, temperature, conductivity, and BOD) at key locations (e.g. at the inlet and /or outlet of the pretreatment, at the inlet to the final treatment, at the point where the emissions leaves the installation) in accordance with BAT 6 of CID 2018/1147, within six months of date of grant of this Technical Amendment.
- 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, in line with the elements listed in BAT 12 of CID 2018/1147, within six months of date of grant of this Technical Amendment.
 - 6.19.2 The plan shall be submitted to the Agency within six months of the date of grant of this Technical Amendment.
 - 6.19.3 The plan shall outline odour reduction and abatement measures.

- 6.19.4 The plan shall ensure all potential sources of odour at the installation are identified and potentially odorous emissions and nuisance caused by odour are prevented. The plan shall as a minimum address the odour abatement system and 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).
- 6.19.6 The plan shall be reviewed annually.
- 6.20 Odour
- 6.20.1 The licensee shall carry out a weekly odour survey of the site operations.
- 6.20.2 The licensee shall use one or a combination of the techniques listed in BAT 13 of CID 2018/1147 in order to prevent or, where that is not practicable to reduce odour emissions, within six months of date of grant of this Technical Amendment.
- 6.20.3 The odour survey programme shall be undertaken in accordance with the methodology specified in 'Air Guidance Note 5 (AG5) Odour Impact Assessment Guidance for EPA Licensed Sites' as published by the Agency.
- 6.21 The licensee shall prepare, maintain and implement a programme, to the satisfaction of the Agency, for the identification and reduction of diffuse emissions to air using an appropriate combination of best available techniques listed in BAT 14 of CID 2018/1147, within six months of date of grant of this Technical Amendment. This programme shall be included in the Environmental Management Programme.
- 6.22 The licensee shall use one or a combination of the techniques listed in BAT 18 of CID 2018/1147, in order to minimise noise emissions, within six months of date of grant of this Technical Amendment.
- 6.23 In order to reduce emissions to air of dust, and of particulate-bound metals, PCDD/F and dioxin-like PCBs, the licensee shall apply BAT 14d and to use one or a combination of the techniques listed in BAT 25, within six months of date of grant of this Technical Amendment.

Amended Condition

Replace Condition 7.3, of the existing licence with the following:

- 7.3 The licensee shall identify opportunities for reduction in the quantity of water used on site including recycling and reuse initiatives, wherever possible, using an appropriate combination of the techniques listed in BAT 19 of CID 2018/1147, within six months of date of grant of this Technical Amendment. In order to optimise water consumption, to reduce the volume of waste water generated and to prevent or, where that is not practicable, to reduce emissions to soil and water, reductions in water usage shall be incorporated into the Schedule of Environmental Objectives and Targets under Condition 2.

New Conditions

Append the following to Condition 7, of the existing licence:

- 7.5 The licensee shall monitor the consumption of water, energy and raw materials, as well as the generation of residues and wastewater annually, in accordance with the techniques listed in BAT 11 of CID 2018/1147, within six months of date of grant of this Technical Amendment.
- 7.6 In order to use energy efficiently, the licensee shall use both of the techniques listed in BAT 23 of CID 2018/1147, within six months of date of grant of this Technical Amendment.

Append the following to Condition 8, of the existing licence:

- 8.10 The licensee shall establish a Waste and Materials Storage Plan within six months of date of grant of this Technical Amendment and The Waste and Materials Storage Plan shall incorporate the following:
- a limit on the total quantity of waste to be stored at the installation at any one time; maximum stockpile sizes in designated storage areas including maximum volume, height, length, width and area, and minimum separation distances;
 - a limit on the maximum storage or holding period for each type of waste in designated storage areas;
 - limitations, as may be necessary, on waste storage arrangements to be used to prevent odour nuisance;
 - 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);
 - details of the drainage system super-imposed on the above drawing or plan;
 - a designated fire quarantine area that is:
 - available at all times to aid separation and management of wastes during a fire incident; and
 - is different to the quarantine area set aside for unacceptable wastes, and
 - the techniques listed in BAT 4 of CID 2018/1147, within six months of date of grant of this Technical Amendment.
- 8.11 The licensee shall establish and implement waste handling and transfer procedures in accordance with BAT 5 of CID 2018/1147, within six months of date of grant of this Technical Amendment.

Append the following to Condition 11, of the existing licence:

- 11.12 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.
- 11.13 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.
- 11.14 The licensee shall identify the technique, or combination of techniques where required, used for each BAT referenced in the Waste Treatment CID 2018/1147. The licensee shall prepare a report setting out the selected technique(s) used and submit this report as part of the AER.

Amended Schedule

SCHEDULE C: Control and Monitoring

Replace Schedule C.3.2. Monitoring of Emissions to Sewer, of the existing licence with the following:

C.3.2. Monitoring of Emissions to Sewer

Emission Point Reference No.: FW1

Parameter	Monitoring Frequency	Analysis Method/Technique Note 3
Flow	Continuous (totalised daily)	On-line flow meter with recorder
Temperature	Monthly	Temperature probe with recorder
pH	Monthly	pH electrode/meter and recorder
Chemical Oxygen Demand ^{Note 1}	Monthly	Standard Method
Biological Oxygen Demand	Monthly	Standard Method
Suspended Solids	Monthly	Gravimetric
Oils, Fats & Grease	Quarterly	Standard Method
Detergents (MBAS)	Monthly	Standard Method
PFOA ^{Note 2}	Biannually	Standard Method
PFOS ^{Note 2}	Biannually	Standard Method

Note 1: Either TOC or COD is monitored, TOC is the preferred option, because its monitoring does not rely on the use of very toxic compounds.

Note 2: The monitoring only applies when the substance concerned is identified as relevant in the waste water inventory mentioned in BAT 3.

Note 3: The licensee shall monitor emissions to water with at least the frequency given below, and in accordance with EN standards. If EN standards are not available, the licensee shall use ISO, national or other international standards that ensure the provision of data of an equivalent scientific quality.

This technical amendment shall be cited as Amendment B, to the licence.

Sealed by the Seal of the Agency on this the **XX day of July 2024**

PRESENT when the seal of the Agency was affixed hereto:

xxxxxxx, Authorised Person