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**INDUSTRIAL EMISSIONS LICENCE
Recommended Determination**

Licence Register Number:	P0606-04
Company Register Number:	459400
Licensee:	SSE Generation Ireland Limited
Location of Installation:	Great Island Generating Station, Campile New Ross County Wexford

INTRODUCTION

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

SSE Great Island is a 795-megawatt (thermal input) gas-fired, combined cycle gas turbine (CCGT) power station located in the townland of Great Island, approximately 15km south of New Ross, County Wexford. The station is located on the confluence of the River Suir and Barrow Estuary. The CCGT entered commercial operation in 2015, replacing the former oil-fired station at the site.

The major emission to air is waste gas from the turbine stack. Emissions to surface water include cooling water, treated foul water, process water (demineralisation plant effluent, boiler blowdown) and wash water from the cooling water intake screens.

The revision of the licence is concerned with the authorisation of the discharge of wash water at the cooling water intake screens as well as a storm water discharge. The licence has also been updated in line with Commission Implementing Decision (EU) 2017/1442 establishing best available techniques for large combustion plant.

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

1.1. Combustion of fuels in installations with a total rated thermal input of 50 MW or more

This licence sets out in detail the conditions under which SSE Generation Ireland Limited will operate and manage this installation.

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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.

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.
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), Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for large combustion plants . 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.
BOD	5 day Biochemical Oxygen Demand (without nitrification suppression).
CCGT	Combined Cycle Gas Turbine.
CEN	Comité Européen De Normalisation – European Committee for Standardisation.
COD	Chemical Oxygen Demand.
Combustion Plant	Any technical apparatus in which fuels are oxidised in order to use the heat thus generated.
Compliance Point	The point (location, depth) at which a compliance value should be met. Generally it is represented by a borehole or monitoring well from which representative groundwater samples can be obtained.
Compliance Value	The concentration of a substance and associated compliance regime that, when not exceeded at the compliance point, will prevent pollution and/or achieve water quality objectives at the receptor.
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.
Daily average	Average over a period of 24 hours of valid hourly averages obtained by continuous measurements
Day	Any 24-hour period.
Daytime	0700hrs to 1900hrs.
dB(A)	Decibels (A weighted).
Diffuse Emissions	Non-channelled emissions which can result from ‘area’ sources (e.g. tanks) or ‘point’ sources (e.g. pipe flanges).
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.
Emission limits	Those limits, including concentration limits and deposition rates, established in <i>Schedule B: Emission Limits</i> , 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.
Fortnightly	A minimum of 24 times per year, at approximately two-week intervals.
Gas Oil	Gas oil as defined in DIRECTIVE (EU) 2016/802 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 May 2016 relating to a reduction in the sulphur content of certain liquid fuels.
GC/MS	Gas chromatography/mass spectroscopy.
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.
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.
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 trigger level specified in this licence which is attained or exceeded; (v) any compliance value specified in this licence which is attained or exceeded; and, (vi) any indication that environmental pollution has, or may have, taken place.
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).
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.
Irish Water	Irish Water, Colvill House, 24/26 Talbot Street, Dublin 1.
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	SSE Generation Ireland Limited, Red Oak South, South County Business Park, Leopardstown, Dublin 18, CRO Number: 459400

Local Authority	Wexford County Council.
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.
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.
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.
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).
Potential emissions	Emissions which take place only under abnormal operating conditions. Examples include emissions from overpressure valves, bursting discs, and emergency 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.
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) as updated 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.

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.
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.
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 <i>Schedule B: Emission Limits</i> , 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 agreed by the Agency.
Storm water	Rain water run-off from roof and non-process areas.
The Agency	Environmental Protection Agency.
TOC	Total organic carbon.
Trade effluent	Trade effluent has the meaning given in the Water Services Act, 2007.
Trigger level	A parameter value, the achievement or exceedance of which requires certain actions to be taken by the licensee.
Unabated Operation	Means operation where the abatement equipment is not functioning because it has broken down or has malfunctioned and is giving rise to emissions which exceed the emission limit values in this licence. This refers to all abatement equipment for a given pollutant.
Valid (hourly average)	An 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.
Water Services Authority	Wexford County Council.
Weekly	During all weeks of plant operation and, in the case of emissions, when emissions are taking place; with at least one measurement in any one week.
WWTP	Waste water treatment plant.
Yearly average	Average over a period of one year of valid hourly averages obtained by continuous measurements.

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 activity will not adversely affect the integrity of any European Site, and has decided to impose conditions for the purposes of ensuring it does not do so. It has determined that the activity, 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 (EU) **2017/1442 of 31 July 2017** establishing best available techniques (BAT) conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for **large combustion plants** as a reference when setting licence conditions.

The Agency accordingly proposes to grant a licence to SSE Generation Ireland Limited to carry on the activity 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: P0606-03*.

In reaching this decision the Agency has considered the documentation relating to: **the existing licence, Register Number: P0606-03**; the review application, Register Number: P0606-04 and the supporting documentation received from the applicant; the submissions received; the Inspector's Report dated **01 February 2022** and has carried out an Environmental Impact Assessment (EIA) and an Appropriate Assessment of the likely significant effects of the activity on European Sites.

It is considered that the Inspector's Report contains a fair and reasonable examination, evaluation and analysis of the likely significant effects of the activity 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 activity, if managed, operated and controlled in accordance with the licence will not result in the contravention of any relevant environmental quality standards or cause environmental pollution.

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 is likely to have a significant effect on any European Site. In this context, particular attention was paid to the European Sites at **River Barrow and River Nore SAC (Site Code: 002162)** and **Lower River Suir SAC (Site Code: 002137)**.

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 cannot 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 required, and for this reason determined to require the applicant to submit a Natura Impact Statement.

This determination is based on the activity's proximity to European Sites - having particular regard to emissions to surface water, which discharge to a European Site.

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 activity, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site, in particular **River Barrow and River Nore SAC (Site Code: 002162)** and **Lower River Suir SAC (Site Code: 002137)**, 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:

- **The licence specifies emission limit values and controls for emissions to air. These emission limit values are supported by air dispersion modelling that has demonstrated that the impact of emissions from the installation will be significantly below relevant air quality standards for the protection of ecosystems. It should also be noted that there will be no change to the nature and quantity of air emissions permitted from the activity as part of this review.**
- **There will be no increase in permitted noise emissions from the activity. The licence specifies noise emission limit values at noise sensitive locations.**
- **The licence requires that all storm water discharges, other than from roofs, from the installation pass through a silt trap and oil separator in advance of discharge. The licence also requires the licensee to maintain trigger levels for storm water emissions and a response programme to address exceedances.**
- **The licence contains standard conditions in relation to the storage and management of materials and wastes.**
- **Condition 9 of the licence 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 licence specifies emission limit values for process emissions to surface water. It has been demonstrated that these limits are sufficient to prevent significant effects on the conservation objectives of the relevant European sites.**

The Agency is satisfied that no reasonable scientific doubt remains as to the absence of adverse effects on the integrity of those European Sites **River Barrow and River Nore SAC (Site Code: 002162) and Lower River Suir SAC (Site Code: 002137).**

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 proposes to determine the review of the existing licence (P0606-03) granted to:

SSE Generation Ireland Limited, Red Oak South, South County Business Park, Leopardstown, Dublin 18, CRO Number: 459400

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

- Combustion of fuels in installations with a total rated thermal input of 50MW or more

at Great Island Generating Station, Campile, New Ross, County Wexford 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 1.5 of this licence and subject to the conditions of this licence.
- 1.2 The licensee shall carry on the licensed activity 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 **blue** on Drawing No. **859_0802_0011 submitted as part of the application on 07th May 2021**. Any reference in this licence to “installation” shall mean the area thus outlined in **blue**. The licensed activity shall be carried on only within the area outlined.
- 1.4 All activities which are directly associated with, and technically connected to the licensed activity, whether operated by the licensee or by another party, shall be subject to the conditions of this licence, and the licensee shall bear full responsibility for any breach of these conditions.
- 1.5 No alteration to, or reconstruction in respect of, the activity, or any part thereof, that would, or is likely to, result in
- (i) a material change or increase in:
- the nature or quantity of any emission;
 - the abatement/treatment or recovery systems;
 - the range of processes to be carried out;
 - the fuels, raw materials, intermediates, products or wastes generated, or
- (ii) any changes in:
- site management, infrastructure or control with adverse environmental significance,
- shall be carried out or commenced without prior notice to, and without the approval of, the Agency.
- 1.6 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.
- 1.7 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.
- 1.8 This licence shall have effect in lieu of the licence granted on **16th March 2011** (Register No **P0606-03**).

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 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), which shall incorporate energy efficiency management, within six months of the date of grant of this licence. 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 Commitment of management, including senior management.

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.

2.2.2.4 The necessary procedures, objectives and targets, in conjunction with financial planning and investment.

2.2.2.5 Procedures that ensure employee involvement in ensuring compliance with environmental legislation.

2.2.2.6 A procedure for checking performance by sectoral benchmarking on a regular basis including energy efficiency.

2.2.2.7 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 reduction in effluent generation;
- (iv) the use of cleaner technology, cleaner production;
- (v) the prevention, reduction and minimisation of waste including waste reduction targets;
- (vi) the impacts from eventual decommissioning of the installation;
- (vii) the reduction of chlorine emissions to water including alternatives to the use of biocide for maintaining the cooling water system;**
- (viii) chlorine dosing of cooling water after it has passed through the band-screens; and**
- (ix) the reduction of fish entrainment and fish impingement including measures for the safe passage of fish in the vicinity of the cooling water intake back to the estuary.**

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.

2.2.2.8 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 2.2.2.7 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, 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.

2.2.2.9 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.

2.2.2.10 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.

2.2.2.11 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.

2.2.2.12 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.

2.2.2.13 Public Awareness and Communications Programme

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

2.2.2.14 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.

2.2.2.15 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.

2.2.2.16 Other Than Normal Operation Conditions (OTNOC)

The licensee shall establish, maintain and implement a management plan in order to reduce emissions to air and/or to water 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 10 and BAT 11 of Commission Implementing Decision of 2017/1442 establishing Best Available Techniques (BAT) Conclusions for Large Combustion Plant.

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 or 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 in advance of the commencement of the licensed activities in that component, 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 name of the licence holder;
 - (iv) an emergency out of hours contact telephone number;
 - (v) this licence reference number; and
 - (vi) where environmental information relating to the installation can be obtained.
- 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. All drainage from bunded areas shall be diverted for collection and safe disposal, unless it can be deemed uncontaminated and does not exceed the trigger levels set for storm water emissions under Condition 6.13.
- 3.9.4 All inlets, outlets, vent pipes, valves and gauges must be within the bunded area.
- 3.9.5 All tanks, containers and drums shall be labelled to clearly indicate their contents.
- 3.9.6 All bunds shall be uniquely identified and labelled at the bund.
- 3.9.7 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 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 by-pass separator.
- The separator shall be in accordance with I.S. EN-858-2: 2003 (separator systems for light liquids).
- 3.12 Fire-water Retention
- 3.12.1 The licensee shall carry out a risk assessment to determine if the activity should have a fire-water retention facility. The licensee shall submit a report to the Agency for

- approval on the findings and recommendations of the assessment within nine months of the date of grant of this licence.
- 3.12.2 In the event that a significant risk exists for the release of contaminated fire-water, the licensee shall, based on the findings of the risk assessment, prepare and implement, with the approval of the Agency, a suitable risk management programme. The risk management programme shall be fully implemented within six months of date of notification by the Agency.
- 3.12.3 The licensee shall examine (based upon the findings of the risk assessment in Condition 3.12.1) as part of the response programme in Condition 3.12.2 the need to provide automatic diversion of storm water for collection.
- 3.12.4 The licensee shall have regard to any guidelines issued by the Agency with regard to firewater retention when carrying out the requirements of Conditions 3.12.1 and 3.12.2.
- 3.13 All pump sumps, storage tanks 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) from the date of grant of this licence.
- 3.14 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.
- 3.15 Groundwater Monitoring Wells
- 3.15.1 The licensee shall maintain the groundwater monitoring wells.
- 3.15.2 All wellheads at the installation shall be adequately protected to prevent contamination or physical damage.
- 3.15.3 The licensee shall submit a proposal to the Agency for agreement prior to decommissioning any groundwater monitoring well(s). The proposal shall also include details of the location of the replacement groundwater monitoring well(s).
- 3.16 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.
- 3.17 The licensee shall provide and maintain a Wastewater Treatment plant at the installation for the treatment of sanitary effluent arising on-site. Any waste water treatment system and percolation area shall satisfy the criteria set out in the Wastewater Treatment Manuals - Treatment Systems for Small Communities, Business, Leisure Centres and Hotels (p.e. 10-500), published by the Environmental Protection Agency.
- 3.18 Natural gas shall be used in the gas turbine on site. In the event of an interruption to the supply of natural gas, or for testing purposes as may be required by the Commission for Regulation of Utilities, gas oil may be used.
- 3.19 Malfunction or breakdown of abatement equipment
- 3.19.1 The licensee shall notify the Agency within 48 hours after the malfunction or breakdown of abatement equipment.
- 3.19.2 In the event of a breakdown or malfunction of any abatement or control equipment the licensee shall:
- (i) Reduce or close down operations where a return to normal operation is not achieved within 24 hours, such action shall be undertaken in liaison with the Commission for Regulation of Utilities (CRU) or in accordance with the Grid Code or as otherwise approved by the Agency; or
 - (ii) Operate the plant using low polluting fuels.
- 3.19.3 The licensee shall record the duration of unabated operation.

- 3.19.4 Under no circumstances shall the cumulative duration of unabated operation in any twelve-month period exceed 120 hours without prior written approval of the Agency.
- 3.19.5 For unabated operation, the licensee shall operate in accordance with the ‘EPA Guidance on Unabated Operation at Large Combustion Plants Licensed by the EPA’ under Regulation 15 of S.I. No. 566 (European Union (Large Combustion Plants) Regulations 2012) (2016).
- 3.20 The licensee shall determine the duration of start-up and shut-down periods for the power plant. These periods shall be determined in accordance with the provisions of Commission Implementing Decision of 7th May 2012 concerning the determination of these periods for the purposes of Directive 2010/75/EU on industrial emissions.
- 3.21 The licensee shall maintain an area of 14,000 m² within the site boundary, as identified in the drawing entitled ‘proposed CCS storage location’ **or at another location as agreed by the Agency**, to provide for the option to retrofit suitable and adequate carbon capture technology for the removal of carbon from emission point A2-1.
- 3.22 Emergency diesel generators shall not be operated for more than 500 hours per year as a rolling average over five years.**

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:
- (i) The value of the 95% confidence intervals determined at the emission limit values shall not exceed the following percentages of the **monthly average** emission limit value:

Carbon monoxide (CO)	10%
Nitrogen oxides (NO _x)	20%
 - (ii) The validated hourly and daily average values shall be determined from the measured valid hourly average values after subtraction of the confidence interval specified in Condition 4.1.1 (i) above.

Values measured during start-up and shut-down periods shall be excluded when calculating average emission values.

Any day’s results in which more than three hourly average values are invalid due to malfunction or maintenance of the continuous measurement system shall be invalidated. If more than 10 days a year are invalidated the licensee shall take action as appropriate to improve the reliability of the continuous monitoring system.
 - (iii) 95% of all the validated hourly average values over the year shall not exceed the **hourly average** emission limit value.
 - (iv) **No validated daily, monthly or yearly average value shall exceed the relevant emission limit value.**
- 4.1.2 Non-Continuous Monitoring:
- (i) For flow, no hourly or daily mean value, calculated on the basis of appropriate spot readings, shall exceed the relevant emission limit value.
 - (ii) For nitrogen oxides and carbon monoxide, no 60-minute mean value shall exceed the **hourly average** emission limit value.

- (iii) For all other parameters, no 60-minute mean value shall exceed the **daily average** 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 non-combustion sources:
Temperature 273K, Pressure 101.3 kPa (no correction for oxygen or water content).
- 4.2.2 From combustion sources:
Gas turbine - Temperature 273K, Pressure 101.3 kPa, dry gas; 15% oxygen content.
Auxiliary boiler - Temperature 273K, Pressure 101.3 kPa, dry gas; 3% oxygen content for liquid and gaseous fuels.
- 4.3 Emission limit values for emissions to sewer/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) No flow value shall exceed the specific limit.
- (ii) No pH value shall deviate from the specified range.
- (iii) No temperature value shall exceed the limit value.
- 4.3.2 Composite Sampling
- (i) No pH value shall deviate from the specified range.
- (ii) For parameters other than pH 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 and temperature, 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 The licensee shall ensure that all or any of the following:
- Vermin
 - Birds
 - Flies
 - Mud
 - Litter

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.

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

Condition 6. Control and Monitoring

- 6.1 The licensee shall carry out such sampling, analyses, measurements, examinations, maintenance and calibrations as set out below and as in accordance with *Schedule C: Control 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 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.
- 6.3 For continuous monitoring of emissions to air, the licensee shall:
- (i) ensure that the automated measuring systems shall be subject to parallel measurements with the reference methods at least once per year; and
 - (ii) 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.
- 6.8 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 an appropriate combination of best available techniques. 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 In the case of new bunding structures, tanks, underground pipelines and containers installed on site, the testing for integrity and water tightness shall be undertaken in advance of utilisation;
- 6.10.2 testing shall be carried out by a suitably qualified and experienced person;
- 6.10.3 testing shall be carried out in accordance with any guidance published by the Agency;
- 6.10.4 testing shall be carried out at least once every three years thereafter and reported to the Agency on each occasion;
- 6.10.5 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
- 6.10.6 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. A log of such inspections shall be maintained. 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 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 developed within six months of the date of grant of this licence and maintained thereafter. A log of such inspections shall be maintained.
- 6.13 Storm Water
- 6.13.1 A visual examination of the storm water discharges shall be carried out daily. A log of such inspections shall be maintained.
- 6.13.2 The licensee shall, within six months of commencement of the activity, establish suitable trigger levels for **suspended solids and Total Petroleum Hydrocarbons (TPH)** in storm water discharges. The licensee shall have a response programme to address any exceedance of the trigger values such that storm waters exceeding these levels will be diverted for retention and suitable disposal. The licensee shall have regard to the Environmental Protection Agency “Guidance on the setting of trigger values for storm water discharges to off-site surface waters at EPA IPPC and Waste licensed facilities” when establishing the suitable trigger levels.
- 6.14 Ground Water

Within eighteen months of the date of grant of this licence, the licensee shall, in line with the criteria set out in the Guidance on the Authorisation of Discharges to Groundwater, published by the Environmental Protection Agency, review the most relevant hydrogeological assessment report for the installation or where relevant, arrange for an assessment of the installation, by an appropriately qualified consultant/professional, to demonstrate compliance with the European Communities Environmental Objectives (Groundwater) Regulations 2010, S.I. No. 9 of 2010 as amended. A report on the review or assessment report with recommendations shall be submitted to the Agency for approval. Further to the hydrogeological review or assessment, any actions (including the setting of groundwater compliance values, if appropriate) required to demonstrate compliance with the European Communities Environmental Objectives (Groundwater) Regulations 2010 as amended, shall be implemented within a period to be agreed by the Agency.

6.15 Noise

The licensee shall carry out a noise survey of the site operations annually. 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.

6.16 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.

6.17 The licensee shall, within six months of the date of grant of this licence, develop and establish a Data Management System for collation, archiving, assessing and graphically presenting the monitoring data generated as a result of this licence.

6.18 Groundwater and Soil Monitoring

The licensee shall carry out monitoring for relevant hazardous substances in soil and groundwater at the site of the installation. Monitoring shall be carried out in accordance with Schedule C.5 of this licence. 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.

6.19 Receiving Water Monitoring

The licensee shall determine, for approval by the Agency a suitable receiving water monitoring point within six months of date of grant of licence.

Reason: <i>To provide for the protection of the environment by way of treatment and monitoring of emissions.</i>

Condition 7. Resource Use and Energy Efficiency

7.1 The licensee shall carry out an audit of the energy efficiency of the site as required by the Agency. The audit shall be carried out in accordance with the guidance published by the Agency, "Guidance Note on Energy Efficiency Auditing".

7.2 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.

7.3 The licensee shall identify opportunities for reduction in the quantity of water used on site including recycling and reuse initiatives, wherever possible. Reductions in water usage shall be

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

- 7.4 The licensee shall undertake an assessment of the efficiency of use of raw materials in all processes, **including the quantity and location of biocide dosing**, having particular regard to the reduction in waste generated **and emissions to water**. 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.
- 7.5 The licensee shall determine the net electrical efficiency of the combustion plant by carrying out a performance test at full load, according to EN standards, after the commissioning of the unit and after each modification that could significantly affect the net electrical efficiency of the unit. 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.

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 Waste sent off-site for recovery or disposal
- 8.2.1 Waste sent off-site for recovery or disposal shall be transported only by an authorised waste contractor. The waste shall be transported from the site of the activity to the site of recovery/disposal only in a manner that will not adversely affect the environment and in accordance with the appropriate National and European legislation and protocols.
- 8.2.2 Waste sent off-site for recovery or disposal shall be transferred only to an appropriate facility.
- 8.3 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.
- 8.4 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 Waste for disposal/recovery off-site shall be analysed in accordance with *Schedule C: Control and Monitoring*, of this licence.
- 8.7 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.
- 8.8 The licensee shall neither import waste into the State nor export waste out of the State except in accordance with the relevant provisions of Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14th June 2006 on shipments of waste and associated national regulations.

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

Condition 9. Accident Prevention and Emergency Response

- 9.1 The licensee shall 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. The procedure shall also address operations in times of National Electrical System Emergency. 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.

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.
- 10.2.2 The licensee shall maintain a fully detailed and costed plan for the closure, restoration and long-term aftercare of the site or part thereof.
- 10.2.3 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, 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 submission, 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 release of environmental significance to atmosphere from any potential emissions point including bypasses; or
 - (iii) 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 Irish Water and the Local Authority in a manner prescribed by Irish Water, 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) Inland Fisheries Ireland in the case of discharges to receiving waters.
 - (ii) Marine Institute (MI), Sea Fisheries Protection Authority (SFPA), Food Safety Authority of Ireland (FSAI) and An Bord Iascaigh Mhara (BIM) in the case of discharges to or likely to impact a shellfish water.

- (iii) 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. All monitoring results shall be recorded, processed and presented in such a way as to enable the Agency to verify compliance with the operating conditions and emission limit values which are included in the licence.
- 11.9 The licensee shall as a minimum ensure that the following documents are accessible at the site:
- (i) the licences 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; and
 - (viii) 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, by the 31st March of each year, an AER covering the previous calendar year. This report, which shall be to the satisfaction of the Agency, shall include as a minimum the information specified in *Schedule D: Annual Environmental Report*, of this licence and shall be prepared in accordance with any relevant guidelines issued by the Agency.
- 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 as a minimum contain details of the following:
- (i) the tonnages and LoW Code for the waste materials 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 waste 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 submit report(s) electronically as required by the conditions of this licence to the Agency.
- 11.13 All reports shall be certified accurate and representative by the installation manager or a nominated, suitably qualified and experienced deputy.
- 11.14 The licensee shall report the total annual emissions of SO₂, NO_x, CO₂ and particulates annually as part of the AER. When continuous monitoring is used, the licensee shall add up separately for each substance the mass emitted each day, on the basis of the volumetric flow rates of waste gases. Where continuous monitoring is not in use, estimates of the total annual emissions shall be determined by the operator on a basis acceptable to the Agency.
- 11.15 The licensee shall report the total annual amount of energy input, related to the net calorific value, broken down in terms of natural gas, and gas oil, annually as part of the AER.
- 11.16 The licensee shall maintain a record which shall be available to authorised persons from the Agency, of the following:
- (i) the sulphur content of all gas oil delivered to the site;
 - (ii) all hours of operation of the combustion plant;
 - (iii) all start-up and shut-down periods;
 - (iv) all periods when the combustion plant operates on gas oil; and
 - (v) the net amount of electricity generated at the installation.

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 **€15,933**, 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.

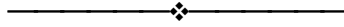
12.2 Environmental Liabilities

- 12.2.1 The licensee shall arrange for the revision, by an independent and appropriately qualified consultant, 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 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

There are no limitations on the installation specified in the Schedule



SCHEDULE B: Emission Limits

B.1 Emissions to Air

Emission Point Reference No: A2-1 CCGT Main Stack (when firing on natural gas)
Location: 268894E, 114576N
Volume to be emitted: Maximum rate per hour: 2,756,520 m³
Minimum discharges height: 60 m above ground

Parameter	Reference Period	Emission Limit Value (mg/m ³)
Nitrogen oxides (as NO ₂)	Hourly average	100
	Daily average	50
	Monthly average	50
	Yearly average	40
Carbon monoxide (CO)	Hourly average	200 ^{Note 1}
	Daily average	110 ^{Note 1}
	Monthly average	100 ^{Note 1}
	Yearly average	100 ^{Note 1}

Note 1: Emission limit value only applies above 70% load.



Emission Point Reference No: A2-1 CCGT Main Stack (when firing on gas oil)
Location: 268894E, 114576N
Volume to be emitted: Maximum rate per hour: 2,987,280 m³
Minimum discharges height: 60 m above ground

Parameter	Reference Period	Emission Limit Value (mg/m ³)
Nitrogen oxides (as NO ₂)	Hourly average	180 ^{Note 1}
	Daily average	99 ^{Note 2}
	Monthly average	90 ^{Note 1}
	Yearly average	-
Carbon monoxide (CO)	Hourly average	200 ^{Note 1}
	Daily average	110 ^{Note 1}
	Monthly average	100 ^{Note 1}
	Yearly average	-
Dust	Hourly average	-
	Daily average	10 ^{Note 3}
	Monthly average	-
	Yearly average	5 ^{Note 4}
Oxides of sulphur (as SO ₂)	Hourly average	-
	Daily average	50
	Monthly average	-
	Yearly average	50

Note 1: Emission limit value does not apply when the turbine is operated less than 500 hours per year.

Note 2: When the turbine is operated less than 500 hours per year a daily average emission limit value of 120 mg/m³ shall apply.

Note 3: When the turbine is operated less than 500 hours per year an emission limit value of 20 mg/m³ shall apply.

Note 4: Emission limit value does not apply when the turbine is operated less than 1,500 hours per year.



Emission Point Reference No: A3-1 Auxiliary Boiler Stack
Location: E 268912, N114563
Volume to be emitted: Maximum rate per hour: 20,000 m³
Minimum discharges height: 30 m above ground

Parameter	Emission Limit Value (mg/m ³)
Nitrogen oxides (as NO ₂)	200 ^{Note 1, Note 2}

Note 1: Emission limit value applies from 01 January 2025

Note 2: Emission limit value does not apply when the auxiliary boilers operate for a combined total of less than 500 operating hours per year, as a rolling average over a period of five years.



B.2 Emissions to Water

Emission Point Reference No: SW2-Condenser Cooling Water
Name of Receiving Waters: Barrow Estuary
Location: 269030E,114580N
Volume to be emitted: Maximum rate per hour: 33,000 m³

Parameter	Emission Limit Value
Temperature	12°C above estuarine water 10°C (98%ile of hourly values over a year)
Thermal Load	330 MW _{th} (maximum) 316 MW _{th} (98%ile of hourly values over a year)
Chlorine	0.3 mg/l

Emission Point Reference No: SW3a (Foul Water Treatment System)
Name of Receiving Waters: Barrow Estuary
Location of Final Discharge: 268905E, 114524N
Location of Compliance Point: To be agreed by the Agency^{Note1}
Volume to be emitted: Maximum in any one day: 9.5m³

Parameter	Emission Limit Value
pH	6-10
BOD	25 mg/l
Suspended Solids	35 mg/l
Ammonia	5 mg/l
Total Phosphorus	2 mg/l

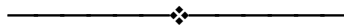
Note 1: This shall be located at a point upstream of the connection with the storm water discharge SW3b.

Emission Point Reference No: SW8-Cooling Water Screen Wash water
Name of Receiving Waters: Barrow Estuary
Location: 268621E, 114560N
Volume to be emitted: Maximum in any one day: 1,970m³

Parameter	Emission Limit Value
Chlorine	0.3 mg/l

Emission Point Reference No: SW13-Process Waste Water
Name of Receiving Waters: Barrow Estuary
Location: 268951E,114600N

Parameter	Emission Limit Value
pH	6-9
BOD	20 mg/l
Suspended Solids	30 mg/l
Total Dissolved Solids	5,000 mg/l
Mineral Oil	20 mg/l
Ammonia (as N)	5 mg/l
Total Phosphorus (as P)	5 mg/l



B.3 Emissions to Sewer

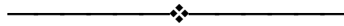
There shall be no process effluent emissions to sewer.



B.4 Noise Emissions

Daytime dB L _{Ar,T} (30 minutes)	Evening time dB L _{Ar,T} (30 minutes)	Night-time dB L _{Aeq,T} (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

Emission Point Reference No: A2-1 (Gas Turbine Main Stack)
Description of Treatment: Dry Low NOx burner (when fuelled on natural gas)
 Water Injection (when fuelled on gas oil)

Control Parameter	Monitoring	Key Equipment ^{Note 1}
NOx	Continuous	Dry low NOx burners (when fuelled on natural gas) Water injection (when fuelled on gas oil)
CO, O ₂ , pressure, temperature,	Continuous	Controlled combustion
Water vapour ^{Note 2}	Continuous	

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

Note 2: Measurement of water vapour content is not required where the sampled gas is dried before analysis.



C.1.2. Monitoring of Emissions to Air

Emission Point Reference No: A2-1 (Gas Turbine Main Stack) ^{Note 1}

Parameter	Monitoring Frequency	Analysis Method/Technique
Nitrogen Oxides (as NO ₂)	Continuous	In-situ proprietary continuous emission monitoring system.
Flow	Continuous	In-situ proprietary continuous emission monitoring system.
Carbon monoxide	Continuous	In-situ proprietary continuous emission monitoring system.
Temperature	Continuous	In-situ proprietary continuous emission monitoring system.
Oxygen content	Continuous	In-situ proprietary continuous emission monitoring system.
Sulphur dioxide	Biannually ^{Note 2, Note 3}	Standard Equipment.
Dust	Biannually ^{Note 2}	Standard Equipment.

Note 1: Continuous measurements systems shall be subject to control by means of parallel measurements with the reference methods at least once a year.

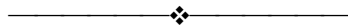
Note 2: Once per annum while operating on natural gas and once per annum operating on gas oil.

Note 3: As an alternative, other procedures, verified and approved by the Agency, may be used to determine the SO₂ emissions. Such procedures shall use relevant CEN standards or, if CEN standards are not available, ISO, national or other international standards which ensure the provision of data of an equivalent scientific quality.



Emission Point Reference No: A3-1 (Auxiliary Boiler Stack)

Parameter	Monitoring Frequency	Analysis Method/Technique
Nitrogen Oxides (as NO ₂)	Annually	Standard Method
Carbon monoxide (CO)	Annually	Standard Method
Volumetric flow	Annually	Standard Method

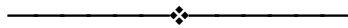


C.2.1. Control of Emissions to Water

Emission Point Reference No: SW2

Control Parameter	Monitoring	Key Equipment ^{Note 1}
Temperature	Continuous	On-line Temperature probe
Flow	Continuous	Calculation from pump usage

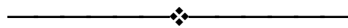
Note 1: The licensee shall maintain appropriate access to standby and/or spares to ensure the operation of the monitoring system.



Emission Point Reference No: SW13
Description of Treatment: pH balancing

Control Parameter	Monitoring	Key Equipment ^{Note 1}
pH	Continuous	Dosing pumps Agitator pH meter/recorder
Flow	Continuous	Pump and Recorder
Conductivity	Continuous	Standard Equipment
Temperature	Continuous	On-line Temperature probe

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



C.2.2. Monitoring of Emissions to Water

Emission Point Reference No: SW2

Control Parameter	Monitoring Frequency	Analysis Method/Technique
Flow	Continuous	Calculation from pump usage with recorder
Temperature	Continuous	On-line temperature probe with recorder
Chlorine	Daily Grab sample ^{Note 1}	Standard Method

Note 1: Sampling shall take place at an appropriate interval after chlorine dosing. The interval to be used shall be agreed in writing by the Agency.

Emission Point Reference No: SW3a

Control Parameter	Monitoring Frequency	Key Equipment/Technique
Flow	Continuous	Standard method or alternative to be agreed by the Agency
pH	Continuous	On-line pH probe with recorder
BOD	Biannually	Standard Method
Suspended solids	Biannually	Standard Method
Ammonia	Biannually	Standard Method
Total Phosphorus	Biannually	Standard Method

Emission Point Reference No: SW8

Control Parameter	Monitoring Frequency	Key Equipment/Technique
Chlorine	Daily Grab sample ^{Note 1}	Standard Method
Flow	Continuous	Standard method or alternative to be agreed by the Agency

Note 1: Sampling shall take place at an appropriate interval after chlorine dosing. The interval to be used shall be agreed in writing by the Agency.

Emission Point Reference No:

SW13^{Note 1}

Control Parameter	Monitoring Frequency	Key Equipment/Technique
Flow	While discharging	Calculation from pump run time and recorder
pH	Continuous (while discharging)	On-line pH probe with recorder
Ammonia (as N)	Monthly ^{Note 2}	Standard Method
Suspended solids	Monthly ^{Note 2}	Standard Method
Temperature	Continuous	On-line temperature probe with recorder
TOC	Continuous	Standard Method
Total Phosphorus (as P)	Monthly	Standard Method
BOD	Monthly	Standard Method
Total Dissolved Solids	Monthly	Standard Method
Mineral Oil	Monthly	Standard Method
COD	Monthly	Standard Method
TPH	Monthly	Standard Method
Toxicity	Note 3	To be agreed by the Agency

Note 1: Samples shall be collected on a 24-hour flow proportional composite sampling basis.

Note 2: During the discharge of condensate polisher effluent.

Note 3: The licensee shall agree the scope of toxicity testing of the effluent and carry out the test within twelve months **of the date of grant of the licence** and as required by the Agency thereafter.



C.2.3. Monitoring of Storm Water Emissions

Emission Point Reference No:

SW1, SW3b^{Note 1}, SW4, SW7, SW12

Control Parameter	Monitoring Frequency	Key Equipment/Technique
Visual Inspection	Daily	Sample and examine for colour and odour
pH	Daily	On-line pH probe with recorder
TPH	Monthly	Standard Method
Suspended Solids	Monthly	Standard Method

Note 1: The monitoring point for SW3b shall be located at a point upstream of the connection with the foul water discharge SW3a.



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 Noise Monitoring

No additional noise monitoring is required in this schedule.



C.5 Ambient Monitoring

Groundwater Monitoring

Location: BH2, BH3, MW101, MW102, MW103, MW106, MW107, MW200, MW202

Parameter	Monitoring Frequency	Analysis Method/Techniques
pH	Annually	pH electrode/meter
Coliforms	Annually	Standard Method
Vanadium	Annually	Standard Method
Ammonia ^{Note 1}	Annually	Standard Method
Mineral Oil	Annually	Standard Method
Arsenic	Annually	Standard Method
Total Petroleum Hydrocarbons	Annually	Standard Method
Aluminium	Annually	Standard Method
Polyaromatic hydrocarbons	Annually	Standard Method
Relevant Hazardous Substances ^{Note 2}	Every five years	Standard Method

Note 1: Only relates to BH2, BH3, MW106, MW200 & MW202

Note 2: Groundwater monitoring for relevant hazardous substances shall be in accordance with Condition 6.18.

Location: BH5, BH7, BH9 and BH10

Parameter	Monitoring Frequency	Analysis Method/Techniques
pH	Biennially	pH electrode/meter
Ammonia	Biennially	Standard Method
Vanadium	Annually	Standard Method
Lead	Biennially	Standard Method
Chromium	Biennially	Standard Method
Total Petroleum Hydrocarbons	Biennially	Standard Method
Polyaromatic hydrocarbons	Biennially	Standard Method
Relevant Hazardous Substances ^{Note 1}	Every five years	Standard Method

Note 1: Groundwater monitoring for relevant hazardous substances shall be in accordance with Condition 6.18.

Receiving Water Monitoring

Location: ASW1- To be agreed by the Agency^{Note 1}

Parameter	Monitoring Frequency	Analysis Method/Techniques
Trichloromethane	Quarterly	Standard Method

Note 1: Monitoring location to be agreed within six months from date of grant of licence.



Soil Monitoring

Location: As per the 'Baseline Report' or alternative monitoring location(s) as agreed 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 6.18



SCHEDULE D: Annual Environmental Report

Annual Environmental Report Content <small>Note 1 & 2</small>
Environment Management objectives and targets summary. Energy and water use and generation summary. Complaints summary. Incidents Summary. Emissions Summary. Waste Management Summary. Total annual emissions of SO ₂ , NO _x , CO ₂ and particulates. Total amount of energy input related to the net calorific value, per fuel type. Any other items specified 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



Signed on behalf of the said Agency _____

On the xx day of xxxxx, 202X xxxxxxxxxxxx **Authorised Person**