



Headquarters,
Johnstown Castle Estate,
County Wexford, Ireland

GREENHOUSE GAS EMISSIONS PERMIT

Permit Register Number: IE-GHG101-10399-3

Operator: Glanbia Ireland Designated Activity
Company
Glanbia House
Ring Road
Kilkenny
R95E866

Installation Name: Glanbia Ireland DAC Ballyragget

Site Name: Glanbia Ireland DAC Ballyragget

Location: Glanbia Ireland DAC Ballyragget
Ballyragget
County Kilkenny
Ireland

Introductory Note

This introductory note does not form a part of the Greenhouse Gas Emissions Permit.

This Greenhouse Gas Emissions Permit authorises the holder to undertake named activities resulting in emissions of Carbon Dioxide from the listed emission sources. It also contains requirements that must be met in respect of such emissions, including monitoring and reporting requirements. This Greenhouse Gas Emissions Permit places an obligation on the Operator to surrender allowances to the Agency equal to the annual reportable emissions of carbon dioxide equivalent from the installation in each calendar year, no later than four months after the end of each such year.

Contact with Agency:

If you contact the Agency about this Greenhouse Gas Emissions Permit please quote the following reference: Greenhouse Gas Emissions Permit N^o IE-GHG101-10399.

All correspondence in relation to this permit should be addressed to:

Email: help.ets@epa.ie

By Post: Climate Change Unit, Environmental Protection Agency
P.O. Box 3000, Johnstown Castle Estate,
Co. Wexford

Updating of the permit:

This Greenhouse Gas Emissions Permit may be updated by the Agency, subject to compliance with Condition 2. The current Greenhouse Gas Emissions Permit will normally be available on the Agency's website at www.epa.ie and [ETSWAP](#).

Surrender of the permit:

Before this Greenhouse Gas Emissions Permit can be wholly or partially surrendered, a written application must be made to the on-line ETS portal, and written permission received from, the Agency through [ETSWAP](#).

Transfer of the permit or part of the permit:

Before this Greenhouse Gas Emissions Permit can be wholly or partially transferred to another Operator a joint written application to transfer this Greenhouse Gas Emissions Permit must be made (by both the existing and proposed Operators) to, and written permission received from, the Agency through the on-line ETS portal [ETSWAP](#).

Licence held pursuant to the Environmental Protection Agency Act 1992, as amended. (as of the date of this permit):

IPC/IE Licence Register Number
P0359-03

Status Log

Current Permit

Permit number	Date application received	Date Permit issued	Comment
IE-GHG101-10399-3	14 December 2017	17 May 2018	Change in Operator name to Glanbia Ireland Designated Activity Company. Change in Operator address. Change in site name and installation name to Glanbia Ireland DAC Ballyragget.

Previous Permits

Permit number	Change Type	Date application received	Date Permit issued	Comment
IE-GHG101-10399-1	GHG Permit Application	02 July 2013	15 July 2013	
IE-GHG101-10399-2	GHG Variation	05 January 2016	09 March 2016	Update of the approach description in relation to the calculation of emissions from Natural Gas combustion.

End of Introductory Note

Glossary of Terms

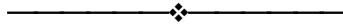
For the purposes of this permit the terms listed in the left hand column shall have the meaning given in the right hand column below:

The Agency	Environmental Protection Agency.
Agreement	Agreement in writing.
Allowance	Permission to emit to the atmosphere one tonne of carbon dioxide equivalent during a specified period issued for the purposes of Directive 2003/87/EC by the Agency or by a designated national competent authority of a Member State of the European Union.
Annual Reportable Emissions	Reportable Emissions of carbon dioxide made in any calendar year commencing from 1 January 2005 or the year of commencement of the activity, whichever is the later.
A & V Regulation	Commission Regulation (EU) No 600/2012 of 21 June 2012 on the verification of greenhouse gas emission reports and tonne-kilometre reports and the accreditation of verifiers pursuant to Directive 2003/87/EC of the European Parliament and of the Council and any amendments or revisions thereto.
Category A Installation	As defined in Article 19.2 (a) of the M&R Regulation.
Category B Installation	As defined in Article 19.2 (b) of the M&R Regulation.
Category C Installation	As defined in Article 19.2 (c) of the M&R Regulation.
The Directive	Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC.
Emissions	The release of greenhouse gases into the atmosphere from sources in an installation.
EPA	Environmental Protection Agency.
Fall-Back Methodology	As defined in Article 22 of the M&R Regulation.
GHG	Greenhouse gas.
GHG Permit	Greenhouse gas emissions permit.
Greenhouse Gas	Any of the gases in Schedule 2 of the Regulations.
IPC/IE	Integrated Pollution Control/Industrial Emissions.
Installation	Any stationary technical unit where one or more activities listed in Schedule 1 to the Regulations are carried out. Also any other directly associated activities which have a technical connection with the activities carried out on that site and which could have an effect on emissions and pollution. References to an installation include references to part of an installation.

Installation with low emissions	As defined in Article 47 of the M&R Regulation.
Major Source Streams	As defined in Article 19.3 (c) of the M&R Regulation.
M&R Regulation	Commission Regulation (EU) No 601/2012 of 21 June 2012 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and any amendments or revisions thereto.
Mis-statement	An omission, misrepresentation or error in the Operators reported data, not considering the uncertainty permissible pursuant to Article 12(1)(a) of Regulation (EU) no 601/2012.
N/A	Not applicable.
Monitoring Plan	The Plan submitted and approved in accordance with Condition 3.1 of this permit and attached at Appendix 1.
Non-conformity	Any act or omission by the Operator, either intentional or unintentional, that is contrary to the greenhouse gas emissions permit and the requirements of the Monitoring Plan.
The National Administrator	The person so designated in accordance with the requirements of any Regulations adopted as provided for under Article 19.3 of Directive 2003/87/EC.
The Operator (for the purposes of this permit)	Glanbia Ireland Designated Activity Company
“operator”	Any person who operates or controls an installation or to whom decisive economic power over the functioning of the installation has been delegated.
Person	Any natural or legal person.
Reportable emissions	The total releases to the atmosphere of carbon dioxide (expressed in tonnes of carbon dioxide equivalent) from the emission sources specified in Table 2 and arising from the Schedule 1 activities which are specified in Table 1.
The Regulations	European Communities (Greenhouse Gas Emissions Trading) Regulations 2012 (S.I. No 490 of 2012) and any amendments or revisions thereto.
The Verifier	A legal person or another legal entity carrying out verification activities pursuant to Regulation (EU) No 600/2012 and accredited by a national accreditation body pursuant to Regulation (EC) No 765/2008 and Regulation (EU) No 600/2012 or a natural person otherwise authorised, without prejudice to Article 5(2) of Regulation (EC) No 765/2008, at the time a verification report is issued.
The Registry	The Registry as provided for under Article 19 of Directive 2003/87/EC.

Schedule 1

Schedule 1 to the Regulations.



Reasons for the Decision

The Agency is satisfied, on the basis of the information available, that subject to compliance with the conditions of this permit, the Operator is capable of monitoring and reporting emissions in accordance with the requirements of the Regulations.

Activities Permitted

Pursuant to the Regulations the Agency transfers this Greenhouse Gas Emissions Permit, subject to any subsequent revisions, corrections or modifications it deems appropriate, to:

The Operator:

Glanbia Ireland Designated Activity Company
Glanbia House
Ring Road
Kilkenny
R95E866

Company Registration Number: 501098

from

The Former Operator:

Glanbia plc
Glanbia Ingredients

Ballyragget
Kilkenny

to carry out the following

Categories of activity:

Annex 1 Activity
Combustion of fuels in installations with a total rated thermal input exceeding 20 MW (except in installations for the incineration of hazardous or municipal waste)

at the following installation(s):

Glanbia Ireland DAC Ballyragget **Installation number: 79**

located at

Glanbia Ireland DAC Ballyragget
Ballyragget
County Kilkenny
Ireland

subject to the five conditions contained herein, with the reasons therefor and associated tables attached thereto.

In accordance with Joint Declaration made to the Agency on 08 May 2013, *Glanbia Ireland Designated Activity Company* is deemed to have assumed and accepted all liabilities, requirements and obligations provided for in or arising under the permit, regardless of how and in respect of what period, including the period 2005-2012, prior to the transfer of the permit, that may arise.

Conditions

Condition 1. The Permitted Installation

- 1.1 This permit is being granted in substitution for the previous GHG permit granted to the Operator as listed in the Status Log of this GHG permit.
- 1.2 The Operator is authorised to undertake the activities and/or the directly associated activities specified in Table 1 below resulting in the emission of carbon dioxide:

Table 1 - Activities which are listed in Schedule 1 of the Regulations and other directly associated activities carried out on the site:

Installation No.: 79

Activity Description
Combustion of fuels in installations with a total rated thermal input exceeding 20 MW (except in installations for the incineration of hazardous or municipal waste)

Directly Associated Activity Description
(S16) Wastewater Treatment

- 1.3 Carbon dioxide from Schedule 1 activities shall be emitted to atmosphere only from the emission sources as listed in Table 2 below:

Table 2 Emission Sources and Capacities:

Emission Source Reference	Emission Source Description	Capacity	Capacity Units
s1	Turbine 1(CHP 1 bypass)	18.66	MW
s2	Turbine 2(CHP 2 bypass)	18.66	MW
s3	Boiler 1 (CHP 1)	20.92	MW
s4	Boiler 2 (CHP 2)	20.92	MW
s5	Boiler 3	15.72	MW
s6	Boiler 4	15.72	MW
s7	Boiler 5	12	MW

Emission Source Reference	Emission Source Description	Capacity	Capacity Units
s8	Boiler 6	17.06	MW
s9	Niro 1 Thermoheater	1.75	MW
s10	Niro 2 Thermoheater	2.25	MW
s11	Niro3 Thermoheater	3.6	MW
s12	Admin Boiler	0.32	MW
s13	Ballyconra Boiler	0.18	MW
s14	Canteen exhaust	0.09	MW
s15	Lab exhaust	0.09	MW

- 1.4 The activity shall be controlled, operated and maintained so that emissions of carbon dioxide shall take place only as set out in this GHG Emissions Permit. The permit does not control emissions of gases other than carbon dioxide. All agreed plans, programmes and methodologies required to be carried out under the terms of this permit, become part of this permit.
- 1.5 This GHG Permit is for the purposes of GHG emissions permitting under the European Communities (Greenhouse Gas Emissions Trading) Regulations 2012 and any amendments to the same only and nothing in this permit shall be construed as negating the Operator's statutory obligations or requirements under any other enactments or regulations unless specifically amended by the Regulations.
- 1.6 Any reference in this permit to 'installation' shall mean the installation as described in the Greenhouse Gas Emissions Permit application and any amendments approved by the Agency.

Reason: To describe the installation and clarify the scope of this permit.

Condition 2. Notification

- 2.1 No alteration to, or reconstruction in respect of, the activity or any part thereof which would, or is likely to, result in a change in:
- 2.1.1 the nature or functioning of the installation;
 - 2.1.2 the capacity of the installation as detailed in this permit;

2.1.3 the fuels used at the installation;

2.1.4 the range of activities to be carried out at the installation

that may require updating of the GHG permit shall be carried out or commenced without prior notice to and without the prior written agreement of the Agency.

2.2 The Operator shall notify the Agency in writing of the cessation of all or part of any activity listed in Table 1 of this permit no later than one month from the date of cessation or by 31 December of the year of cessation, whichever is sooner.

2.3 The Operator shall apply for an update of this GHG Permit where there is a change to the Operator name and/or registered address of the Operator, within seven days of the change.

2.4 For installations or parts of installations which have not come into operation when the application for this permit was made the Operator shall notify the Agency of the date of commencement of the activity within seven days of commencement.

2.5 The Operator shall notify the Agency in writing within three days of becoming aware of any factors which may prevent compliance with the conditions of this permit.

2.6 The Operator shall submit to the Agency by 21 January of each year a declaration of operability. The declaration submitted shall be in the format required by the Agency.

2.7 All notifications required under Condition 2 above shall be made to the address given in the Explanatory Note included with this permit.

2.8 The Operator shall submit to the Agency by 31 December of each year all relevant information about any planned or effective changes to the capacity, activity level and operation of an installation. The information submitted shall be in the format required by the Agency.

Reason: To provide for the notification of updated information on the activity.

Condition 3. Monitoring and Reporting

3.1 The Operator shall monitor and record greenhouse gas emissions on site in accordance with the M&R Regulation and the approved Monitoring Plan attached at Appendix 1 to this GHG permit and in compliance with any other guidance approved by the Agency for the purposes of implementing the Directive and/or the Regulations.

3.2 The Operator shall modify the monitoring plan in any of the following situations:

3.2.1 new emissions occur due to new activities carried out or due to the use of new fuels or materials not yet contained in the monitoring plan;

3.2.2 the change of availability of data, due to the use of new measurement instrument types, sampling methods or analysis methods, or for other reasons, leads to higher accuracy in the determination of emissions;

3.2.3 data resulting from the previously applied monitoring methodology has been found incorrect;

3.2.4 changing the monitoring plan improves the accuracy of the reported data, unless this is technically not feasible or incurs unreasonable costs;

3.2.5 the monitoring plan is not in conformity with the requirements of the M&R Regulation and the Agency requests a change;

3.2.6 it is necessary to respond to the suggestions for improvement of the monitoring plan contained in the verification report.

The Operator shall notify any proposals for modification of the monitoring plan to the Agency without undue delay. Any significant modifications of the monitoring plan, as defined in Article 15 of the M&R Regulation, shall be subject to approval by the Agency. Where approved these changes shall be implemented within a timeframe agreed by the Agency.

3.3 Temporary changes to the monitoring methodology:

3.3.1 Where it is for technical reasons temporarily not feasible to apply the tier in the monitoring plan for the activity data or each calculation factor of a fuel or material stream as approved by the Agency, the Operator shall apply the highest achievable tier until the conditions for application of the tier approved in the monitoring plan have been restored. The Operator shall take all necessary measures to allow the prompt restoration of the tier in the approved monitoring plan. The Operator shall notify the temporary change to the monitoring methodology without undue delay to the Agency specifying:

- (i) The reasons for the deviation from the tier;
- (ii) in detail, the interim monitoring methodology applied by the Operator to determine the emissions until the conditions for the application of the tier in the monitoring plan have been restored;
- (iii) the measures the Operator is taking to restore the conditions for the application of the tier in the approved monitoring plan;
- (iv) the anticipated point in time when application of the approved tier will be resumed.

3.3.2 A record of all non-compliances with the approved monitoring plan shall be maintained on-site and shall be available on-site for inspection by authorised persons of the Agency and/or by the Verifier at all reasonable times.

3.4 The Operator shall appoint a Verifier to ensure that, before their submission, the reports required by Condition 3.5 below are verified in accordance with the criteria set out in Schedule 5 of the Regulations, the A&V Regulation and any more detailed requirements of the Agency.

3.5 The written report of the verified annual reportable emissions and the verification report in respect of each calendar year shall be submitted to the Agency by the Operator no later than 31 March of the following year. The reports shall be in the format required by the Agency and meet the criteria set out in the M&R and A&V Regulations.

3.6 The Operator shall enter the verified annual reportable emissions figure for the preceding year into the Registry no later than 31 March of the following year. This figure shall be electronically approved by the Verifier in the registry no later than 31 March of each year.

3.7 Where an Operator is applying the Fall-Back methodology, the Operator shall assess and quantify each year the uncertainties of all parameters used for the determination of the annual emissions in accordance with the ISO Guide to the Expression of Uncertainty in Measurement or another equivalent internationally accepted standard and include the verified results in the written report of the verified annual reportable emissions to be submitted to the Agency by 31 March each year.

3.8 An Operator shall submit to the Agency for approval a report containing the information detailed in (i) or (ii) below, where appropriate, by the following deadlines:

- (a) for a category A installation, by 30 June every four years;
- (b) for a category B installation, by 30 June every two years;
- (c) for a category C installation, by 30 June every year.

(i) Where the Operator does not apply at least the tiers required pursuant to the first subparagraph of Article 26(1) and to Article 41(1) of the M&R Regulation, the Operator shall

provide a justification as to why it is technically not feasible or would incur unreasonable costs to apply the required tiers. Where evidence is found that measures needed for reaching those tiers have become technically feasible and do not incur unreasonable costs, the Operator shall notify the Agency of appropriate modifications to the monitoring plan and submit proposals for implementing appropriate measures and its timing.

- (ii) Where the Operator applies a fall-back monitoring methodology, the Operator shall provide a justification as to why it is technically not feasible or would incur unreasonable costs to apply at least tier 1 for one or more major or minor source streams. Where evidence is found that measures needed for reaching at least tier 1 for those source streams have become technically feasible and do not incur unreasonable costs, the Operator shall notify the Agency of appropriate modifications to the monitoring plan, submit proposals and a timeframe for implementing appropriate measures.

- 3.9 Where the verification report states outstanding non conformities, misstatements or recommendations for improvements the Operator shall submit a report to the Agency for approval by 30 June of the year in which the verification report is issued. This requirement does not apply to the Operator of an installation with low emissions where the verification report contains recommendations for improvements only. The report shall describe how and when the Operator has rectified or plans to rectify the non-conformities identified and to implement recommended improvements. Where recommended improvements would not lead to an improvement of the monitoring methodology this must be justified by the Operator. Where the recommended improvements would incur unreasonable costs the Operator shall provide evidence of the unreasonable nature of the costs. The Operator shall implement the improvements specified by the Agency in response to the report submitted in accordance with this Condition in accordance with a timeframe set by the Agency.
- 3.10 The Operator shall make available to the Verifier and to the Agency any information and data relating to emissions of carbon dioxide which are required in order to verify the reports referred to in Condition 3.5 above or as required by the Agency to facilitate it in establishing benchmarks and/or best practice guidance.
- 3.11 Provision shall also be made for the transfer of environmental information, in relation to this permit, to the Agency's computer system, as may be requested by the Agency.
- 3.12 The Operator shall retain all information as specified in the M&R Regulation for a period of at least 10 years after the submission of the relevant annual report. This shall include all annual emissions reports submitted by the Former Operator(s) in respect of the installation.
- 3.13 A record of independent confirmation of capacities listed in this permit shall be available on-site for inspection by authorised persons of the Agency at all reasonable times.
- 3.14 The Operator shall keep records of all modifications of the monitoring plan. The records shall include the information specified in Article 16.3 of the M&R Regulation.
- 3.15 The Operator shall ensure that members of the public can view a copy of this permit and any reports submitted to the Agency in accordance with this permit at all reasonable times. This requirement shall be integrated with the requirements of any public information programme approved by the Agency in relation to any other permit or licence held by the Operator for the site.
- 3.16 Any discrepancies with regard to reports submitted by the Former Operator(s) in respect of this installation become the liability of the Operator.

Reason: *To provide for monitoring and reporting in accordance with the Regulations.*

Condition 4. Allowances

4.1 Surrender of Allowances

- 4.1.1 The Operator shall, by 30 April in each year, surrender to the Agency, or other appropriate body specified by the Agency, allowances equal to the annual reportable emissions in the preceding calendar year.
- 4.1.2 The number of allowances to be surrendered shall be the annual reportable emissions for the preceding calendar year plus such allowances as may be necessary to cover any earlier calendar year in respect of which allowances remain outstanding and due, including any liabilities arising from the period before the permit was transferred. This includes allowances to cover the amount of any annual reportable emissions in respect of which allowances were not surrendered in accordance with Condition 4.1.1 in the previous year, and the amount of any reportable emissions which were discovered during the previous year to have been unreported in reports submitted under Condition 3 in that or in earlier years.
- 4.1.3 In relation to activities or parts of activities which have ceased to take place and have been notified to the Agency in accordance with Condition 2.2 above, the Operator shall surrender to the Agency allowances equal to the annual reportable emissions from such activities in the preceding calendar year or part thereof, together with such allowances as may be necessary to cover any earlier calendar year in respect of which allowances remain outstanding and due as described in Condition 4.1.2 above.
- 4.1.4 The Operator may, from 2008 onwards, subject to the provisions of the Regulations and the relevant National Allocation Plan for that compliance year, surrender emission reduction units (ERUs) and certified emission reduction units (CERs) in place of allowances.

4.2 The holding, transfer, surrender and cancellation of allowances shall be in accordance with the requirements of any Regulations adopted as provided for under Article 19.3 of Directive 2003/87/EC, any amendment or revision to the same and any guidance issued by the Agency or the National Administrator.

4.3 The Operator shall provide the National Administrator with all the necessary information for the opening of an Operator holding account for the installation described in Condition 1 of this permit within twenty working days of the issue of this permit, unless such an account is already open.

Reason: To provide for the surrendering, holding, transfer and cancellation of allowances in respect of reported emissions.

Condition 5. Penalties

5.1 Any Operator who fails to comply with Condition 4.1 above shall be subject to the provisions of the Regulations, including, but not limited to the payment of penalties.

Reason: To provide for the payment of excess emissions penalties as required under the Regulations.

Sealed by the seal of the Agency on this the 17 May 2018:

PRESENT when the seal of the Agency was affixed hereto:

Ms. Annette Prendergast
Inspector/ Authorised Person

Appendix 1 to Greenhouse Gas Emissions Permit Number IE-GHG101-10399

Monitoring Plan

1. Guidelines & Conditions

1. Directive 2003/87/EC as amended by Directive 2009/29/EC (hereinafter "the (revised) EU ETS Directive") requires operators of installations which are included in the European Greenhouse Gas Emission Trading Scheme (the EU ETS) to hold a valid GHG emission permit issued by the relevant Competent Authority and to monitor and report their emissions and have the reports verified by an independent and accredited verifier.

The Directive can be downloaded from:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2003L0087:20090625:EN:PDF>

2. The Monitoring and Reporting Regulation (Commission Regulation (EU) No 601/2012) (hereinafter the "MRR") defines further requirements for monitoring and reporting.

The MRR can be downloaded from:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:181:0030:0104:EN:PDF>

Article 12 of the MRR sets out specific requirements for the content and submission of the monitoring plan and its updates. Article 12 outlines the importance of the Monitoring plan as follows:

The monitoring plan shall consist of a detailed complete and transparent documentation of the monitoring methodology of a specific installation [or aircraft operator] and shall contain at least the elements laid down in Annex I.

Furthermore Article 74(1) states:

Member States may require the operator and aircraft operator to use electronic templates or specific file formats for submission of monitoring plans and changes to the monitoring plan as well as for submission of annual emissions reports tonne-kilometre data reports verification reports and improvement reports. Those templates or file format specifications established by the Member States shall at least contain the information contained in electronic templates or file format specifications published by the Commission

3. All Commission guidance documents on the Monitoring and Reporting Regulation will be published at the link below as they become available:

http://ec.europa.eu/clima/policies/ets/monitoring/index_en.htm

(a) Information sources:

EU Websites:

EU-Legislation: <http://eur-lex.europa.eu/en/index.htm>

EU ETS general: http://ec.europa.eu/clima/policies/ets/index_en.htm

Monitoring and Reporting in the EU ETS: http://ec.europa.eu/clima/policies/ets/monitoring/index_en.htm

Environmental Protection Agency Website:

<http://www.epa.ie>

Environmental Protection Agency Contact:

GHGpermit@epa.ie

2. Application Details

The Installation Name, Site Name and the address of the site of the installation are detailed below. The Site Name and address can be updated from the Organisation Details Page on the ETSWAP website. The Installation Name can only be updated by your Competent Authority.

Installation name	Glanbia Ireland DAC Ballyragget
Site name	Glanbia Ireland DAC Ballyragget
Address	Glanbia Ireland DAC Ballyragget Ballyragget County Kilkenny Ireland

Grid reference of site main entrance	E243910 N172126
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Licence held pursuant to the Environmental Protection Agency Act 1992, as amended.	Yes
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IPC/IE Licence Register Number	Licence holder	Competent body
P0359-03	Glanbia Ingredients Ireland Ltd (Ballyragget)	EPA

Has the regulated activity commenced at the Installation? Yes

Date of Regulated Activity commencement	01 January 2008
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This information is only required to identify the first relevant reporting year of an installation. If the installation was in operation from the beginning of 2008 and held a Greenhouse Gas Emissions Permit from this point, 1 January 2008 will be used where the actual date of commencement is not readily known.

3. About the Operator

The information about the "Operator" is listed below. The "Operator" is defined as the person who it is proposed will have control over the relevant Regulated Activities in the installation in respect of which this application is being made.

(b) Operator Details

The name of the operator and where applicable the company registration number are detailed below. These details can only be updated by the Environmental Protection Agency.

Operator name Glanbia Ireland Designated Activity Company

Company Registration Number 501098

Operator Legal status

The legal status of the operator is: Company / Corporate Body

(c) Company / Corporate Body

Is the trading / business name different to the operator name? Yes

Trading / business name Glanbia Ireland DAC. (Ballyragget)

Details of the individual authorised to submit this application on behalf of the company / corporate body.

Title	█
Forename	█
Surname	█
Position	Sustainability Manager

Registered office address

Address Line 1	Glanbia House
Address Line 2	N/A
City/Town	Ring Road
County	Kilkenny
Postcode	R95E866

Principal office address

Is the principal office address different to the registered office address? No

Holding company

Does the company belong to a holding company? No

(d) Operator Authority

Does the operator named above have the authority and ability to:

- | | |
|---|-----|
| a. manage site operations through having day-to-day control of plant operation including the manner and rate of operation | Yes |
| b. ensure that permit conditions are effectively complied with | Yes |
| c. control monitor and report specified emissions | Yes |

- d. be responsible for trading in Allowances so that at the end of a reporting period allowances can be balanced against reported emissions. Yes

4. Service Contact

e. Service Contact

Name	
Address / Email Address	Glanbia House Ring Road Kilkenny Ireland

5. Installation Activities

f. Installation Description

Below is a description of the installation and its activities, a brief outline description of the site and the installation and the location of the installation on the site. The description also includes a non-technical summary of the activities carried out at the installation briefly describing each activity performed and the technical units used within each activity.

Glanbia Ireland DAC Ballyragget is a dairy ingredients processing site. It is the largest integrated dairy processing facility in Europe. It essentially comprises of seven different processing units 1. Dairy 2. Butter 3 MPC (Milk Protein Concentrate) 4. Casein 5. Cheese 6 Whey and 7. WPI (Whey Protein Isolate). A number of products such as Casein would be considered products covered by the Carbon Leakage rule. The plant also consists of compressors, refrigeration plant, water treatment and waste water treatment. The Ballyragget processing facility is powered by a Gas Fired CHP plant (2x5MW turbines). All of the steam produced is consumed on site. At certain times of the year electricity is imported and exported from the site but on balance the site is a net user of electricity.

g. Annex 1 Activities

The table below lists the technical details for each Annex 1 activity carried out at the installation.

Note that 'capacity' in this context means:

- Rated thermal input (for combustion installations) which is defined as the rate at which fuel can be burned at the maximum continuous rating of the installation multiplied by the calorific value of the fuel and expressed as megawatts thermal.
- Production capacity for those specified Annex I activities for which production capacity determines ETS eligibility.

j. About your emissions

Annex I of the Monitoring and Reporting Regulations (MRR) requires that monitoring plans include a description of "the installation" and activities to be carried out and monitored including a list of emission sources and source streams. The information provided in this template relates to the Annex I activity(ies) comprised in the installation in question and should relate to a single installation. It includes any activities carried out by the operator and does not include related activities carried out by other operators.

k. Emission Sources

The table below lists all the emission sources at the installation, which may include directly associated activities/excluded activities.

Emission Source Reference	Emission Source Description
s1	Turbine 1(CHP 1 bypass)
s2	Turbine 2(CHP 2 bypass)
s3	Boiler 1 (CHP 1)
s4	Boiler 2 (CHP 2)
s5	Boiler 3
s6	Boiler 4
s7	Boiler 5
s8	Boiler 6
s9	Niro 1 Thermoheater
s10	Niro 2 Thermoheater
s11	Niro3 Thermoheater
s12	Admin Boiler
s13	Ballyconra Boiler
s14	Canteen exhaust
s15	Lab exhaust
S16	Wastewater Treatment

The table below lists the emission sources which are linked to the Regulated Activities at the installation.

Emission Source Reference	Emission Source Description
s1	Turbine 1(CHP 1 bypass)
s2	Turbine 2(CHP 2 bypass)
s3	Boiler 1 (CHP 1)
s4	Boiler 2 (CHP 2)
s5	Boiler 3
s6	Boiler 4
s7	Boiler 5

Emission Source Reference	Emission Source Description
s8	Boiler 6
s9	Niro 1 Thermoheater
s10	Niro 2 Thermoheater
s11	Niro3 Thermoheater
s12	Admin Boiler
s13	Ballyconra Boiler
s14	Canteen exhaust
s15	Lab exhaust

I. Emission Points

The table below lists all the emission points at the installation, which may include directly associated activities/excluded activities.

Emission Point Reference	Emission Point Description
EP1	Turbine 1(CHP 1 bypass)
EP2	Turbine 2(CHP 2 bypass)
EP3	Boiler 1 (CHP 1)
EP4	Boiler 2 (CHP 2)
EP5	Boiler 3
EP6	Boiler 4
EP7	Boiler 5
EP8	Boiler 6
EP9	Niro 1 Thermoheater
EP10	Niro 2 Thermoheater
EP11	Niro 3 Thermoheater
EP12	Admin Boiler
EP13	Ballyconra Boiler
EP14	Canteen Exhaust
EP15	Lab Exhaust
EP16	WWTP

m. Source Streams (fuels and/or materials)

The table below lists the source streams which are used in Schedule 1 Activities at the installation.

Source Stream Reference	Source Stream Type	Source Stream Description
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Source Stream Reference	Source Stream Type	Source Stream Description
F1(Natural Gas)	Combustion: Other gaseous & liquid fuels	Natural Gas
F2 (Kerosene)	Combustion: Commercial standard fuels	Kerosene (other than jet kerosene)
F3 (LPG)	Combustion: Other gaseous & liquid fuels	Liquefied Petroleum Gases
F5	Other	Wastewater treatment
F4 (Gas Oil)	Combustion: Commercial standard fuels	Gas/Diesel Oil

n. Emissions Summary

The table below provides a summary of the emission source and source stream details in the installation.

Source streams (Fuel / Material)	Emission Source Refs.	Emission Point Refs.	Annex 1 Activity
F1(Natural Gas)	s1,s10,s11,s12,s2,s3,s4,s5,s6,s7,s8,s9	EP1,EP2,EP3,EP4,EP5,EP6,EP7,EP8,EP9,EP10,EP11,EP12	Combustion of fuels in installations with a total rated thermal input exceeding 20 MW (except in installations for the incineration of hazardous or municipal waste)
F2 (Kerosene)	s13	EP13	Combustion of fuels in installations with a total rated thermal input exceeding 20 MW (except in installations for the incineration of hazardous or municipal waste)
F3 (LPG)	s14,s15,s5,s6,s7,s8	EP14,EP15,EP5,EP6,EP7,EP8	Combustion of fuels in installations with a total rated thermal input exceeding 20 MW (except in installations for the incineration of hazardous or municipal waste)
F4 (Gas Oil)	s5,s6,s7,s8	EP5,EP6,EP7,EP8	Combustion of fuels in installations with a total rated thermal input exceeding 20 MW (except in installations for the incineration of hazardous or municipal waste)

o. Excluded Activities

Certain activities that result in greenhouse gas emissions may be excluded under the EU ETS Directive for example truly mobile sources such as vehicle emissions.

Do you have any excluded activities which need to be identified in your monitoring plan? Yes

Detail of these activities:

Source Stream Refs	Emission Source Ref	Emission Point Ref
F5	S16	EP16

7. Low Emissions Eligibility

p. Low Emissions Eligibility

The operator may submit a simplified monitoring plan for an installation where no nitrous oxide activities are carried out and it can be demonstrated that:

(a) the average verified annual emissions of the installation during the previous trading period was less than 25 000 tonnes CO_{2(e)} per year or;

(b) where this data is not available or inappropriate a conservative estimate shows that emissions for the next 5 years will be less than 25 000 tonnes CO_{2(e)} per year.

Note: the above data shall include transferred CO₂ but exclude CO₂ stemming from biomass.

Does the installation satisfy the criteria for installations with low emissions (as defined by Article 47 of the MRR)? No

8. Monitoring Approaches

q. Monitoring Approaches

Emissions may be determined using either a calculation based methodology ("calculation") or measurement based methodology ("measurement") except where the use of a specific methodology is mandatory according to the provisions of the MRR. [MRR Article 21].

Note: the operator may subject to competent authority approval combine measurement and calculation for different sources. The operator is required to ensure and demonstrate that neither gaps nor double counting of reportable emissions occurs.

Please specify whether or not you propose to apply the following monitoring approaches. Select all monitoring approaches that are applicable to you. The consecutive sections will become mandatory based on the selected approaches.

Calculation Yes

Measurement	No
Fall-back approach	No
Monitoring of N ₂ O	No
Monitoring of PFC	No
Monitoring of transferred / inherent CO ₂	No

9. Calculation

r. Approach Description

The calculation approach including formulae used to determine annual CO₂ emissions:

Introduction

The Glanbia Ingredients Ireland site Ballyragget is involved in the EU Emissions Trading Scheme. As a consequence the CO₂ emissions associated with the processing fuels consumed must be calculated on an annual basis. These emissions will be verified by an independent auditor at least once a year prior to notifying and surrendering the equivalent amount of CO₂ credits to the appropriate body.

Purpose: To establish and maintain a system whereby, the CO₂ emissions are calculated for the GII Sites

Scope: Applies to GII installation activities and emission points currently identified within the current and relevant GHG permit.

Responsibility Sustainability Manager

Procedure

- If the fuels used on site are commercially traded fuels, calibration certificates will be required to be maintained on-site to demonstrate compliance with the required tier levels.
- If Diesel / Gas Oil fuel types are delivered in large quantities then the amounts will be cross checked with the weighbridge records.
- Calibration certificates will be maintained for the weighbridge
- The calculations take into account the EPA guidance with respect to values for the Emission Factors, Net Calorific Values & Oxidation Factors.
- Density is taken as per the fuels bills.
- The following Calculations will be carried out on a monthly basis Jan-Dec inclusive per fuel with respect to the annual consumption of:-
 - a. Gas *
 - b. Propane
 - c. Diesel / Gas Oil

- d. Kerosene
- Final TCO2 A+ Final TCO2 B+ Final TCO2 C+ Final TCO2 D = annual CO2 emissions
- A. Gas Calculations (Ballyragget)
1. On a monthly basis the C&I dept of Bord Gais Eireann will supply the monthly gas report. This report shows gas consumption on an hourly basis and is broken down as per the different properties of the Gas
 2. The Headings on this BGE report can be manipulated to give the following columns
 - a. Timestamp – Showing date & hour
 - b. Turbine Vol 1 (m3 x 100)
 - c. Hourly Steam Take 1
 - d. Turbine Vol 2 (m3 x 100)
 - e. Hourly Steam Take 2
 - f. CV (MJ/M3)
 - g. Sample gas “SG”
 - h. CO2 (%)
 - i. Methane (%)
 - j. Ethane (%)
 - k. Propane (%)
 - l. No-Butane (%)
 - m. Iso-Butane (%)
 - n. No-Pentane (%)
 - o. Neo-Pentane (%)
 - p. Hexane (%)
 - q. Nitrogen (%)

Step 1 Calculate Net CV (MJ/M3) using the method detailed in ISO 6976

Step 2 For Each gas listed G-Q inclusive ascertain the:-

1. Molecular Weight

Example: Methane (CH₄)

Molecular Weight = $C + (H \times 4)$,

Where C = 12.011

Where H = 1.008

Molecular weight of CH₄ = 16.043

2. Total Gas Component Weight broken down into

- a. Weight (gm)
- b. Carbon weight (gm)
- c. Hydrogen weight (gm)

Example: Methane (CH₄)

a. Weight (gm)

$= i \times 10 \times \text{Molecular weight} / 23.645$

Where under the Ideal Gas Law of $PV = nRT$

1mol of ideal gas occupies this volume (litres) at STP: = 22.414

ST: 0

SP: 1.03125

Corrected to 15degC = $23.645 = 22.414 \times 288.14 / 273.14$ where 273.14k=0°C

b. Carbon weight (gm)

$= \text{Weight} \times C / \text{Molecular weight}$

c. Hydrogen weight (gm)

$= \text{Weight} \times (H \times 4) / \text{Molecular weight}$

Step 3 Total CO₂ (gm) /SCM =

$(\text{Sum carbon weight (gm)}) \times (\text{Molecular figure for carbon dioxide})$

$/ (\text{Molecular figure for Carbon})$

Where Molecular figure for Carbon Dioxide = $C + (O \times 2) = 12.011 + (15.999 \times 2) = 44.009$

Step 4 Tonnes CO₂ / hr = $\text{Total CO}_2 \text{ (gm) /SCM} \times (c+e) \times 100 / 1000000$

Step 5 Tonnes CO₂ / hr with Oxidation factor = $\text{Tonnes CO}_2 \text{ / hr} \times \text{Oxidation factor}$

Oxidation factor must be agreed as per M&R Regulation = 1

In the event that Bord Gas Eireann cannot give data for a specific hour, the EPA should be notified in accordance with the permit requirements, of the missing data and agree an alternative methodology to calculate data for the missing hours data.

Any incidents of missing data should be noted in the Annual Installation Emissions Report.

Suggested methodology for calculation of the missing hours could be to take the best available data for the 2 hours immediately prior and the available data for the 2 hours immediately after and use the average figure of the 4 hours as the hourly data for the missing hour, alternatively if available, Dalkia information for these missing hours may be more accurate. With respect to gaps/a change in the % proportion of the gas elements revert to Bord Gais to seek an amended / suggested best fit data and amend accordingly.

Step 6 The NCV must be calculated using ISO 6976 guidance methodology to calculate both gross and net calorific value of natural gas from component analysis data this method and an emission factor calculated TCO2/TJ

Step 7 Tonnes CO2 / Day = Sum(Tonnes CO2 / hr with Oxidation factor) per 24hr day from 0.00hrs to 23.00hrs

Step 8 Tonnes CO2 / Month = Sum Tonnes CO2 / Day of the month per calendar month

Step 9 Annual CO2= Sum Tonnes CO2 /month for January – December inclusive

b. Propane Calculations

1. Litres (as per Invoices)
2. $KT = L \cdot (\text{density}) \cdot 10^{-6}$
3. Convert to TJ = $KT \cdot NCV$
4. Emission Factor
5. Preliminary CO2 tonnes = $TJ \cdot EF$
6. Oxidation factor
7. Final CO2 tonnes = Preliminary CO2 tonnes * Oxidation factor

Litres

(from Invoices)	KT	TJ	Emission Factor	Prelim TCO2	Oxidation
Factor	Final TCo2				

c. Diesel / Gas Oil Calculation

2. Litres (as per Invoices)
2. Kgs (from weighbridge)
3. $KT = ((L \cdot (\text{density})) + \text{kgs}) \cdot 10^{-6}$
4. Convert to TJ = $KT \cdot NCV$

5. Emission Factor

6. Preliminary CO2 tonnes = TJ*EF

7. Oxidation factor

8. Final CO2 tonnes = Preliminary CO2 tonnes * Oxidation factor

Litres

(from Invoices) Kgs from weighbridge kT TJ Emission Factor Prelim TCO2 Oxidation

Factor Final TCo2

d. Kerosene Calculations

1. Litres (as per Invoices)

2. $KT = L * (\text{density}) * 10^{-6}$

3. Convert to TJ = $KT * NCV$

4. Emission Factor

5. Preliminary CO2 tonnes = TJ*EF

6. Oxidation factor

7. Final CO2 tonnes = Preliminary CO2 tonnes * Oxidation factor

Litres

(from Invoices) kT TJ Emission Factor Prelim TCO2 Oxidation

Factor Final TCo2

s. Measurement Devices

Below is a description of the specification and location of the measurement systems used for each source stream where emissions are determined by calculation

Also a description of all measurement devices including sub-meters and meters used to deduct non-Annex I activities to be used for each source and source stream.

Source Stream Refs.	Emission Source Refs.	Measurement Device Ref.	Type of Measurement Device	Measurement Range	Metering Range Units	Specified Uncertainty (+/- %)	Location
F1(Natural Gas)	s1,s2,s3,s4,s5,s6,s7,s8,s9,s10,s11,s12	MD1 / MD5	Turbine Flow meter	19 Bar 13400	Sm ³ /h	1	Ballyconra AGI
F3 (LPG)	s14,s15,s5,s6,s7,s8	MD2	Invoice/ bottle units	n/a	Litres	n/a	Fuel File
F2 (Kerosene)	s13	MD3	Invoices / Bottle Units	n/a	Litres	n/a	fuel file
F4 (Gas Oil)	s5,s6,s7,s8	MD4	Invoices / Weighbridge	+/-1Kg	Litres/Kgs	1	Fuel File / Site Entrance

Source Stream Refs.	Measurement Device Ref.	Determination Method	Instrument Control Of	Under	Conditions Of Article 29(1) Satisfied	Invoices Used To Determine Amount Of Fuel Or Material	Trade Partner And Operator Independent
F1(Natural Gas)	MD1 / MD5	Continual	Trade partner		Yes	Yes	Yes
F3 (LPG)	MD2	Batch	Trade partner		Yes	Yes	Yes
F2 (Kerosene)	MD3	Batch	Trade partner		Yes	Yes	Yes
F4 (Gas Oil)	MD4	Batch	Trade partner		Yes	Yes	Yes

t. Applied Tiers

The table below identifies the tiers applied against the relevant input data for each source stream and confirms whether a standard (MRR Article 24) or mass balance (MRR Article 25) approach is applied.

(i) The highest tiers as defined in Annex II of the MRR should be used by Category B and C installations to determine the activity data and each calculation factor (except the oxidation factor and conversion factor) for each major source stream. Category A installations should apply as a minimum the tiers listed in Annex V.

(ii) Operators may apply a tier one level lower than those referred to in sub paragraph (i) above for Category C installations and up to two levels lower for Category A and B installations with a minimum of tier 1 if the operator can demonstrate to the satisfaction of the competent authority that this is not technically feasible or would lead to unreasonable cost to apply the higher tier. The justification for not applying the higher tier should be recorded when completing the tier table.

(iii) The competent authority may allow an operator to apply even lower tiers than those referred to in the sub paragraph (ii) with a minimum of tier 1 for a transition period of up to three years if the operator can demonstrate to the satisfaction of the competent authority that this is not technically feasible or would lead to unreasonable cost to apply the higher tier and provides an improvement plan detailing how and by when at least the tier referred to in sub paragraph (ii) will be achieved. The improvement plan should be referenced in subsequent table and provided to the competent authority at the time of submission of this plan.

(iv) For minor source streams operators shall apply the highest tier which is technically feasible and will not lead to unreasonable costs with a minimum of tier 1 for activity data and each calculation factor. For de-minimis source streams operators may use conservative estimations rather than tiers unless a defined tier can be achieved without additional effort (MRR Article 26(2)).

(v) Installations with low emissions as identified in section 6(d) may apply as a minimum tier 1 for determining activity data and calculation factors for all source streams unless higher accuracy is achievable without additional effort.

* Note 1: For commercial standard fuels the minimum tiers listed in Annex V of the MRR may be applied for all activities in all installations.

* Note 2: If you are intending to apply a fall-back approach please complete the table below and select "n/a" for the tiers to be applied for each source stream where a fall-back approach is used. Section 10 "Fall-back" must also be completed for these source streams.

* Note 3: For biomass or mixed fuels the emission factor is the preliminary emission factor as defined in Definition 35 Article 3 of the MRR.

Source Stream Refs.	Emission Source Refs.	Measurement Device Refs.	Overall Metering Uncertainty (less than +/- %)	Applied Monitoring Approach	Activity Data Tier Applied	Net Calorific Value Tier Applied	Emission Factor Tier Applied	Carbon Content Tier Applied	Oxidation Factor Tier Applied	Conversion Factor Tier Applied	Biomass Fraction Tier Applied	Estimated Emissions tCO _{2(e)}	% of Total Estimated Emissions	Source Category	Highest Tiers Applied	Justification for not applying the highest tiers	Improvement Plan Reference (where applicable)
F1(Natural Gas)	s1,s2,s3,s4,s5,s6,s7,s8,s9,s10,s11,s12	MD1 / MD5	<1.5%	Standard	4	3	3	N/A	1	N/A	N/A	79000	99.89	Major	Yes	n/a	n/a
F2 (Kerosene)	s13	MD3	N/A	Standard	No tier	2a	2a	N/A	1	N/A	N/A	14	0.02	De-minimis	Yes	n/a	n/a
F3 (LPG)	s5,s6,s7,s8,s14,s15	MD2	N/A	Standard	No tier	2a	2a	N/A	1	N/A	N/A	8	0.01	De-minimis	Yes	n/a	n/a
F4 (Gas Oil)	s5,s6,s7,s8	MD4	N/A	Standard	No tier	2a	2a	N/A	1	N/A	N/A	63	0.08	De-minimis	Yes	n/a	n/a

Total Estimated Emissions for Calculation (tonnes CO_{2(e)})

79085

u. Uncertainty Calculations

The table below lists evidence attached to the application that demonstrates compliance with the applied tiers in accordance with Article 12 of the MRR.

Attachment	Description
GEMS_BRG_SOP_24_Calculation approach used to determine overall meter uncertainty March 13.pdf	SOP 24

v. Applied tiers

Applied tiers for each source stream

Source Stream Ref.	Emission Source Refs.	Activity Data Tier Applied	Net Calorific Value Tier Applied	Emission Factor Tier Applied	Carbon Content Tier Applied	Oxidation Factor Tier Applied	Conversion Factor Tier Applied	Biomass Fraction Tier Applied
F1(Natural Gas)	s1,s2,s3,s4,s5,s6,s7,s8,s9,s10,s11,s12	4	3	3	N/A	1	N/A	N/A
F2 (Kerosene)	s13	No tier	2a	2a	N/A	1	N/A	N/A
F3 (LPG)	s5,s6,s7,s8,s14,s15	No tier	2a	2a	N/A	1	N/A	N/A
F4 (Gas Oil)	s5,s6,s7,s8	No tier	2a	2a	N/A	1	N/A	N/A

w. Justification for Applied tiers

Justifications for the applied tiers for each major source stream where highest tiers are not currently achieved.

Source Stream Ref.	Emission Source Refs.	Justification for the applied tier	Improvement Plan Reference (where applicable)
N/A	N/A	N/A	N/A

10. Calculation Factors

x. Default Values

The table below lists, for each parameter, where default values are to be used for calculation factors.

Source Stream Refs.	Emission Source Refs.	Parameter	Reference Source	Default Value applied (where appropriate)
F2 (Kerosene),F4 (Gas Oil)	s13,s5,s6,s7,s8	EF,NCV	National Inventory	n/a
F3 (LPG)	s14,s15,s5,s6,s7,s8	EF,NCV	National Inventory	n/a
F1(Natural Gas),F2 (Kerosene),F3 (LPG),F4 (Gas Oil)	s1,s10,s11,s12,s13,s14,s15,s2,s3,s4,s5,s6,s7,s8,s9	OxF	MRR	n/a

Sampling and Analysis

Do you undertake sampling and analysis of any of the parameters used in the calculation of your CO₂ emissions? Yes

y. Analysis

The table below lists, for each source stream, where calculation factors are to be determined by analysis.

Source Stream Refs.	Emission Source Refs.	Parameter	Method of Analysis	Frequency	Laboratory Name	Laboratory ISO17025 Accredited	Evidence Reference
F1	s1,s2,s3,s4,s5,s6,s7,s8,s9,s10,s11,s12	NCV,EF	Gas Chromatography with Thermal conductivity detection	Continuous	EffecTech	Yes	n/a

Detail about the written procedures for the above analysis.

Where a number of procedures are used details of an overarching procedure which covers the quality assurance of analyses methods and links together individual analytical methods is listed.

Title of procedure	Gas Quality Measurement System Audit
Reference for procedure	Ballyconra AGI Audit Report
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The relevant EN standards EN ISO 10723:2012 (Natural Gas performance evaluation for analytical systems) and EN ISO 6976:2005 (Natural Gas calculation of calorific value, density relative density and Wobbe-index) are applied. The relevant EN/ISO standard for the determination of composition with defined uncertainty by gas chromatography are also detailed
Post or department responsible for the procedure and for any data generated	Bord Gais
Location where records are kept	Sustainability Manager - Environmental Drive
Name of IT system used	Environmental Drive
List of EN or other standards applied	ISO 10723:2012 / ISO 6976:2005 / ISO 17025/ ISO 9001

z. Sampling Plan

Details about the procedure covering the sampling plan for the analysis table above.

The procedure below covers the elements of a sampling plan as required by Article 33 of the MRR. Where a number of procedures are used, details of an overarching procedure which covers the sampling methods and links together individual sampling methods are listed.

Attachment	Description
Effectech 0590 ISO 17025 Accreditation.pdf	Efectech ISO 025 certificate
Cert of Reg - IS EN ISO 9001.2008 - GWR - to 19Nov2014.pdf	Bord Gais ISO 9001 Cert
Ballyconra AGI Audit Report 2012.pdf	Audit Report
17_0050_01 Inspection Report Ballyconra 2017 (H-16D360400 90).pdf	Ballyconra chromatograph Audit Report 2017

Title of procedure	Description of natural Gas Sampling system to gas Chromatograph
Reference for procedure	Response from Bord Gais 120413
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The sampling system to the GC is part of the overall system to design and supply the flow metering and GC system by Honeywell RMG , World suppliers in Oil and Gas metering systems. It is designed and built to Gas industry best practice but it isn't necessary designed and built to comply to EN ISO 10715 Natural Gas.
	Effectively there is a Vendor Supplied sample probe that

feeds the gas sample at line pressure (Approx 60 Bar) to a heated pressure let down panel that reduces the pressure of sample to approx. 2 Bar and is fed in a SS tubing to the GC . Effectech Ltd as part of the 10723 Performance evaluation test, audited the Sampling system, I have attached this audit (Ballyconra AGI Audit report) for Ballyconra gas Sampling system.

Post or department responsible for the procedure and for any data generated	Bord Gais
Location where records are kept	Bord Gais and forwarded to the Sustainability Manager , GILL
Name of IT system used	N/A
List of EN or other standards applied	ISO 17025, ISO 9001

aa. Sampling Plan Appropriateness

The procedure to be used to revise the appropriateness of the sampling plan.

Title of procedure	Gas QualityMeasurement System Audit
Reference for procedure	Ballyconra AGI Audit Report
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The relevant EN standards EN ISO 10723:2012 (Natural Gas performance evaluation of on-line analytical systems) and EN ISO 6976:2005 (Natural Gas calculation of calorific value, density relative density and Wobbe-index) are applied. The relevant EN/ISO standard for the determination of composition with defined uncertainty by gas chromatography is also detailed.
Post or department responsible for the procedure and for any data generated	Bord Gais
Location where records are kept	Sustainability Manager - Environmental Drive
Name of IT system used	N/A
List of EN or other standards applied	N/A

Are stock estimates carried out as part of the emission calculations?	Yes
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bb. Year-end reconciliations

The procedure to be used to estimate stocks at the beginning/end of a reporting period where applicable. This should include any source streams monitored using batch metering e.g. where invoices are used.

Title of procedure	Approach used to determine annual CO2 emissions
Reference for procedure	SOP 22
Diagram reference	N/A
Brief description of procedure.	This procedure outlines how invoiced fuels use is converted to carbon emissions on an annual basis and includes the requirements for fuel stocks at the beginning and close of every year to be measured by an independent suitable third party.
Post or department responsible for the procedure and for any data generated	Sustainability manager
Location where records are kept	Fuel Stock Log
Name of IT system used	N/A
List of EN or other standards applied	N/A

cc. Tracking Instruments

The procedure used to keep track of instruments installed in the installation used for determining activity data.

Title of procedure	N/A
Reference for procedure	N/A
Diagram reference	N/A
Brief description of procedure.	N/A
Post or department responsible for the procedure and for any data generated	N/A
Location where records are kept	N/A
Name of IT system used	N/A
List of EN or other standards applied	N/A

11. Management

dd. Monitoring and Reporting Responsibilities

Responsibilities for monitoring and reporting emissions from the installation are listed below:

Relevant job titles/posts and provide a succinct summary of their role relevant to monitoring and reporting are listed below.

Job Title / Post	Responsibilities
Chief Executive Office	PRC
Finance Director	AAR
Sustainability Manager GII	<p>PAR</p> <p>Calculation of the Ballyragget emissions on a monthly basis.</p> <p>Arranging and preparing for the verified audits.</p> <p>Proposing and surrendering emissions.</p> <p>Carbon Trading</p> <p>Completion of the Ballyragget MRR report</p> <p>Overall responsibility for the management of Carbon and the EU Emissions Trading Scheme within GII</p>
EHS Manager Ballyragget	<p>SAR</p> <p>Auditor of the Monthly Carbon Calculations</p> <p>Technical support and advise</p>
Head Of Operations South	Operations Manager Ballyragget. Manage site operations through having day-to-day control of plant operation including the manner and rate of operation

Attachment	Description
GII SMT 2012.ppt	Overview of GII Carbon responsibilities and Senior Management Team

ee. Assignment of Responsibilities

Details of the procedure used for managing the assignment of responsibilities for monitoring and reporting within the installation and for managing the competencies of responsible personnel in accordance with Article 58(3)(c) of the MRR:

This procedure identifies how the monitoring and reporting responsibilities for the roles identified above are assigned and how training and reviews are undertaken.

Title of procedure	The assignment of EUETS responsibilities within GII.doc within GII
Reference for procedure	GEMS_GII_SOP_46_
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	<p>PURPOSE:</p> <p>To establish and maintain procedures that identify the roles and responsibilities related to the maintenance and compliance of the GII aspect of the EU Emissions Trading scheme. To clarify the segregation of duties in data flow activities as well as identify and maintain necessary competencies within the organisation. Ensure that necessary roles are assigned to the most appropriate persons to protect the organisation and all involved from any potential risk of fraud or non compliance whether it be deliberate or otherwise.</p> <p>SCOPE: This procedure applies to all EU ETS activities within GII, where GII consists of a Dairy Processing facility at Virginia Co. Cavan and Ballyragget Co. Kilkenny.</p>
Post or department responsible for the procedure and for any data generated	Sustainability Manager
Location where records are kept	Sustainability Managers Office. Office of the Environment Sections administration officer
Name of IT system used	N/A
List of EN or other standards applied	ISO50001 ; ISO14001

ff. Monitoring Plan Appropriateness

Details of the procedure used for regular evaluation of the monitoring plan's appropriateness covering in particular any potential measures for the improvement of the monitoring methodology:

Title of procedure	Monitoring and Measurement
Reference for procedure	SOP 14

Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	Purpose To ensure Glanbia Ingredients monitor and measure all key characteristics of its operations that can have a significant impact on the environment, energy use and carbon emissions. Scope: This procedure applies to all processing activities and services performed by Glanbia Ingredients Ballyragget which may affect energy usage and environmental quality. The monitoring plan appropriateness is reviewed by on-site personnel periodically and prior to any changes in emission sources, source streams and metering fuel analysis. All reviews should cover checking emission sources and source streams for completeness and that any changes have been taken into account, assessing compliance with uncertainty thresholds for activity data and assessing potential measures for improvement of monitoring methodology. this is to ensure compliance with Article 69.1 of the Monitoring and Reporting Regulation.
Post or department responsible for the procedure and for any data generated	Environmentay Manager in association with the Sustainability Manager
Location where records are kept	Records specific to the Eu ETS and Carbon Emissions will be maintained in the Sustainability Managers Office.
Name of IT system used	N/A
List of EN or other standards applied	ISO 14001 ISO 50001

gg. Data Flow Activities

Details of the procedures used to manage data flow activities in accordance with Article 57 of the MRR:

Title of procedure	Procedure to Record Fuel Stock and to Manage Data Flow Activities
Reference for procedure	BRG SOP 23
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	Purpose To ensure that Fuel Stock Measurements and data flow activities are correct and systematically recorded and reported correctly and held on file for a minimum of 10 years.
Post or department responsible for the procedure and for any data generated	Sustainability Manager
Location where records are kept	Environmental Drive and the Fuel file in the Environmental Admin Office - Ballyragget

<p>Name of IT system used List of EN or other standards applied</p>	<p>Glanbia Shared Services ISO 14001</p>	
<p>List of primary data sources</p>	<p>ISO 50001 Related Records/Templates Responsible Role</p>	<p>Location</p>
	<ul style="list-style-type: none"> • Weighbridge dockets Environmental Admin Office 	<p>Fuel File - Sustainability manager</p>
	<ul style="list-style-type: none"> • Calibration certificates Software Engineer 	<p>Project Office</p>
	<ul style="list-style-type: none"> • Fuel stock audits Admin Office 	<p>Fuel File - Environmental Sustainability manager</p>
	<ul style="list-style-type: none"> • Fuel delivery logs & Calculated Emissions 	<p>Z:\Emissions Trading\Fuel Data Sustainability manager</p>
	<ul style="list-style-type: none"> • Fuel invoice logs & Calculated Emissions 	<p>Z:\Emissions Trading\Fuel Data Sustainability manager</p>
	<ul style="list-style-type: none"> • Fuel stock log 	<p>Z:\Emissions Trading\Fuel Data & Calculated Emissions Sustainability manager</p>
	<ul style="list-style-type: none"> • Environmental Management Programme Z:\Energy IS393 Folder 	<p>Environmental Co- ordinator</p>
	<ul style="list-style-type: none"> • Environmental Audit Programme Z:\Energy IS393 Folder 	<p>Environmental Co- ordinator</p>
	<ul style="list-style-type: none"> • Management Review Meeting Minutes 	<p>Z:\Energy IS393 Folder Environmental Co-ordinator</p>
<p>Description of the relevant processing steps for each specific data flow activity.</p>	<p>See attached SOP 23 and SOP 22 (PDFs in the additional information section)</p>	
<p>Identify each step in the data flow and include the formulas and data used to determine emissions from the primary data. Include details of any relevant electronic data processing and storage systems and other inputs (including</p>		

manual inputs) and confirm how outputs of data flow activities are recorded

Submit relevant documents to record data flow activities

Attachment	Description
N/A	N/A

hh. Assessing and Controlling Risks

Details of the procedures used to assess inherent risks and control risks in accordance with Article 58 of the MRR:

<p>Title of procedure Reference for procedure Diagram reference Brief description of procedure. The description should cover the essential parameters and operations performed</p>	<p>Assessing and Controlling risks Related to the EU ETS SOP 12 N/A Purpose</p> <p>To Establish, document, implement and maintain an effective control system to ensure that the annual emission report does not contain misstatements and is in conformity with the monitoring plan and the commissions regulation (EU) No 601/2012 of June 2012 on the monitoring and reporting of GHG emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council.</p> <p>1. Ensuring that qualified people are available to run and manage the system (segregation of duties in the data flow activities and control activities as well as management of necessary competencies)</p> <p>See also: SOP 46 – Assignment of EU ETS Responsibilities with GII and SOP 23 - Procedure to Record Fuel Stock and to Manage Data Flow Activities</p> <p>2. Establishing that fuel Measuring devices take accurate measurements (Quality assurance of Measurement Equipment)</p> <p>See also: SOP 22 - Calculation Approach used to determine annual CO2 emissions</p> <p>SOP 23 - Procedure to Record Fuel Stock and to Manage Data Flow Activities</p>
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SOP 24 - Calculation approach used to determine overall meter uncertainty

3. Making certain that Data is entered correctly (Keeping records and documentation including the management of document versions)

See also: SOP08 - Document Control Procedure

4. Avoiding Calculation errors (Internal reviews and validation of data) (Corrections and Corrective Action) See also: SOP07 - Corrective and Preventative action procedure

5. Loss of Data

6. Bórd Gáis sending the incorrect data See also: SOP 22 - Calculation Approach used to determine annual CO2 emissions

Post or department responsible for the procedure and for any data generated
Location where records are kept

Sustainability Manager assisted by the Environmental Services Manager BRG
Environmental Admin Office ; Sustainability Managers Office ; Emissions trading folder on the GII environmental drive

Name of IT system used
List of EN or other standards applied

Glanbia Shared Services
ISO 14001

ISO 50001

ii. Quality Assurance of Metering / Measuring Equipment

Details of the procedures used to ensure quality assurance of measuring equipment in accordance with Article 58 and 59 of the MRR.

Title of procedure
Reference for procedure
Diagram reference
Brief description of procedure. The description should cover the essential parameters and operations performed

All of the relevant Procedures are contained within the Calibration Procedures Manual
See all in the Calibration Procedure Manual
N/A
Contents of the Calibration Procedures Manual

Section 20 Introduction, Section 30 Amendments , Section 40 Calibration Procedure, Section 50 Calibration Equipment, Section 60 Out of Calibration Procedure, Section 60A Non Conformance Reports, Section 70 Vendor Listing, Section 80 Vendor Specifications, Section 90 Certs for Calibration Equipment.

Post or department responsible for the procedure and for any data generated	Software Engineer - Projects
Location where records are kept	Project Office
Name of IT system used	Glanbia Shared Services
List of EN or other standards applied	N/A

jj. Quality Assurance of Information Technology used for Data Flow Activities

Details of the procedures used to ensure quality assurance of information technology used for data flow activities in accordance with Article 58 and 60 of the MRR:

Title of procedure	Glanbia Group IT Services - Procedures & Service Level Agreement
Reference for procedure	Q215- Glanbia PLC
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	<p>As an overview</p> <ol style="list-style-type: none"> 1. SAP ERP Software implementation is managed through a very rigorous change request and change control process. 2. Requests for changes are logged by Business Units. 3. Changes are evaluated for scope, effort and impact. 4. An estimate of effort and cost is provided and signed off. 5. Development is scheduled for implementation via the Glanbia Development Team; the schedule is signed off with the Business Unit. 6. Development and initial unit testing is carried out on the DEV (development) platform. 7. Changes are then transported to the QAS (Quality Assurance) platform and testing by the Business Unit is requested. 8. Business unit carries out QAS testing and requests re-work if required or authorises transport to PRD (Production live system) if testing is satisfactory. 9. The change is transported to the PRD system and is then in live operation. <p>Access to use SAP transactions is role based where user access to specific transactions are authorised by their manager and counter signed by the Business Unit IT</p>

manager. Training for end users is provided by the business lead or key user in the business. Glanbia’s SAP system is hosted in a Class A data centre in City West, Dublin where an agreed documented process is in place for backup and restore of data. Business continuity is ensured by the provision within the Data Centre of redundant communications hardware and software, application and database servers mirroring the live system which can be invoked in the event of failure. A detailed procedure is in place for invoking redundancy. The procedures attached that relates to this matter includes 1. Glanbia Group IT Services - Procedures & Service Level Agreement whose table of Contents includes Introduction, Responsibilities, Group Technology Services, Local System Services, Local System Services, Software Application Management Services, Service Desk Services, Change Request Management, Service Report. 2. Change request Processes. 3. Glanbia Information security policy. 4. Glanbia IT identity management policy all of which have been attached as additional information.

Post or department responsible for the procedure and for any data generated	Glanbia Group Manager of Information Technology
Location where records are kept	Sharepoint
Name of IT system used	Glanbia Shared Services
List of EN or other standards applied	N/A

kk. Review and Validation of Data

Details of the procedures used to ensure regular internal reviews and validation of data in accordance with Articles 58 and 62 of the MRR.

Title of procedure	Procedure to Manage Data Flow Activities and to Record Fuel Stock and Calculation approach used to determine Annual CO2 Emissions
Reference for procedure	SOP 23 and SOP 22
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	SOP 23 Illustrates the flow of data activities with purchase records to ensure that Fuel Stock Measurements are correct and systematically recorded and reported correctly. SOP 22 maintains a system whereby, the CO2 emissions are calculated for the GII Sites. This SOP includes details on internal review and validation of data on how completeness of data is checked, how missing data is calculated.
Post or department responsible for the procedure and for any data generated	Sustainability Manager & Environmental Services Manager
Location where records are kept	Fuel File - Environmental Administrators Office
Name of IT system used	Shared Services
List of EN or other standards applied	ISO 14001 and ISO 50001

II. Corrections and Corrective Actions

Details of the procedures used to handle corrections and corrective actions in accordance with Articles 58 and 63 of the MRR:

<p>Title of procedure</p> <p>Reference for procedure</p> <p>Diagram reference</p> <p>Brief description of procedure. The description should cover the essential parameters and operations performed</p>	<p>Corrective and Preventative action procedure</p> <p>SOP 7</p> <p>N/A</p> <p>Purpose</p> <p>Firstly to establish, implement and maintain a procedure for monitoring the conformity of the Environmental and Energy Management System with legal and other requirements. Secondly to ensure that non-conformances are investigated, documented and appropriate action taken using a risk based approach. Thirdly to ensure that lessons are learnt from historical corrective action and that preventative actions are adapted.</p> <p>Scope</p> <p>Applies to all non-conformances arising from GI Ballyragget Environmental and Energy Management System non-compliances or breaches of IPPC Licence Conditions, ETS Permit, Monitoring and Reporting Plan & Regulations, AIER, Notification and Reporting Requirements to the EPA Environment and Energy policy, objectives, targets, programmes or documented procedures.</p> <p>Responsibility, Operations Manager, Plant Managers, Environmental Energy, Health and Safety Services Manger, Assistant Environmental Services Manager, Sustainability Manager, Environmental Coordinator, Employees.</p> <p>Procedure</p> <p>Note: In the event that an energy related non-conformance is identified, it is noted in the balance score card as part of the weekly energy reports. The weekly energy report is reviewed at the Management weekly meeting which is chaired by the operations manager. The operations manager will investigate the cause of the energy non-conformance and then decide the corrective action that should be taken and the timescale allotted for completion. In the event that an ETS related non-conformance is identified it shall be recorded and rectified by the Sustainability Manager and signed off by the Environment Services Manager. The sustainability manager shall take into consideration SOP 22 Calculation Approach used to determine annual CO2 emissions and SOP 23 Procedure to</p>
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manage data flow activities and to record fuel stock. The “person responsible” for carrying out the corrective/preventative action is the plant manager who in turn my allocate responsibility out. The plant manager is ultimately responsible for reporting back to the operations manager and closing out of the energy non-conformance.

Post or department responsible for the procedure and for any data generated Sustainability Manager

Location where records are kept Fuel File - Environmental Administrators Office

Name of IT system used Glanbia Shared Services

List of EN or other standards applied ISO 14001

ISO 50001

mm. Control of Outsourced Activities

Details of the procedures used to control outsourced processes in accordance with Articles 59 and 64 of the MRR.

Title of procedure Procedure to Manage Data Flow Activities and to Record Fuel Stock

Reference for procedure SOP 23

Diagram reference N/A

Brief description of procedure. The description should cover the essential parameters and operations performed Gas - Major Fuel - Outsourced data fuel to Bord Gais (Cross checked by BRG Meters)

- Required to submit a copy of the annual validation report “Performance Check Report” of the gas chromatographs carried out by an EN ISO 17025:2005 accredited laboratory using ISO 10723:1995 to the installation.
- Upon receipt a copy of the report must be submitted to the Agency.
- An up to date copy of the Bord Gais ISO 19001 accreditation must also be kept on file.

Post or department responsible for the procedure and for any data generated Sustainability Manager

Location where records are kept Emissions trading folder on the GII environmental drive

Name of IT system used Glanbia Shared Services

List of EN or other standards applied ISO 14001

ISO 50001

EN ISO 17025:2005

ISO 10723:1995

nn. Record Keeping and Documentation

Details of the procedures used to manage record keeping and documentation:

Title of procedure	Procedure to Manage Data Flow Activities and to Record Fuel Stock also Control of Environmental & Energy Records
Reference for procedure	SOP 23 also SOP 06
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	Purpose SOP 23

To ensure that Fuel Stock Measurements are correct and systematically recorded and reported correctly and held on file for a minimum of 10 years.

Related Records/Templates Responsible Role	Location
<ul style="list-style-type: none"> • Weighbridge dockets Environmental Admin Office 	Fuel File - Sustainability manager
<ul style="list-style-type: none"> • Calibration certificates Software Engineer 	Project Office
<ul style="list-style-type: none"> • Fuel stock audits Admin Office Sustainability manager 	Fuel File - Environmental
<ul style="list-style-type: none"> • Fuel delivery logs & Calculated Emissions 	Z:\Emissions Trading\Fuel Data Sustainability manager
<ul style="list-style-type: none"> • Fuel invoice logs & Calculated Emissions 	Z:\Emissions Trading\Fuel Data Sustainability manager
<ul style="list-style-type: none"> • Fuel stock log 	Z:\Emissions Trading\Fuel Data & Calculated Emissions Sustainability manager
<ul style="list-style-type: none"> • Environmental Management Programme 	
	Z:\Energy IS393 Folder Environmental Co-ordinator
<ul style="list-style-type: none"> • Environmental Audit Programme 	
	Z:\Energy IS393 Folder Environmental Co-

ordinator

- Management Review Meeting Minutes Z:\Energy IS393 Folder Environmental Co-ordinator
- Also see Y: \Emissions Trading \Fuel Data & Calculated Emissions \BRG
- The worksheet “Year” “Summary” will have the CO2 information for all fuels consumed on site for the said year.. This can be found in Y: \Emissions trading \Fuel Data & Calculated Emissions \BRG\Year\2yearBrg overview sheet
- For fuels Propane (LPG), Kerosene, Gas Oil, the Emission factor Oxidation Factor and NCV should be taken for the appropriate year from “The Country Specific Net Calorific Values and CO2 Emission Factor for use in the Annual Installations Emissions Report” (AIER) which can be found on the EPA website www.epa.ie

Purpose SOP 06

To establish, implement and retain records necessary to the GILL Ballyragget Environmental and Energy Management System, while conforming to the procedures for controlling all documents required under the relevant IPPC Licence, EU ETS Permit, Monitoring and Reporting Plan, Monitoring and Reporting Regulations, ISO14001 Standard, ISO50001 Standard, and SEAI Energy agreement.

Scope

The scope applies to all GILL Ballyragget manuals, procedures, documents and reports that are used to implement the GILL Ballyragget Environmental and Energy Management System.

Description

While Environmental records should in good practice be retained for 7 years we will save all material for 10 years since it is a requirement of Article 66 of the EU ETS Monitoring and Reporting Regulations that all relevant data and information as listed in Annex IX be retained for a 10 year period.

Post or department responsible for the procedure and for any data generated Sustainability manager
 Location where records are kept As described in the SOP and in the description above.
 Name of IT system used Glanbia Shared Services
 List of EN or other standards applied ISO 14001
 ISO 500001

oo. Risk Assessment

The results of a risk assessment that demonstrates that the control activities and procedures are commensurate with the risks identified:

Attachment	Description
GEMS_BRG_SOP_12_Assessing and controlling risks related to the EU ETS Nov 12.doc	Assessing and controlling risk SOP

pp. Environmental Management System

Does your organisation have a documented Environmental Management System? Yes

Is the Environmental Management System certified by an accredited organisation? Yes

The standard to which the Environmental Management System is certified: ISO 14001 and the ISO 50001

12. Changes in Operation

qq. Changes in Operation

Article 24(1) of Commission Decision 2011/278/EC requires that Member States must ensure that all relevant information about any planned or effective changes to the capacity activity level and operation of an installation is submitted by the operator to the competent authority by 31 December each year. Article 12(3) of the MRR further provides that Member States may require information to be included in the monitoring plan of an installation for the purposes of meeting these requirements.

Details of the procedure used to ensure regular reviews are carried out to identify any planned or effective changes to the capacity activity level and operation of the installation that have an impact on the installation's allocation:

The procedure specified below cover the following:

- planning and carrying out regular checks to determine whether any planned or effective changes to the capacity activity level and operation of an installation are relevant under Commission Decision 2011/278/EC; and
- Procedures to ensure such information is submitted to the competent authority by 31 December of each year.

<p>Title of procedure Reference for procedure Diagram reference Brief description of procedure. The description should cover the essential parameters and operations performed</p>	<p>Change Management Process Flow SOP 19 N/A The purpose of this procedure is to review and record change proposed by the site management team. Once a change has been approved the change must be notified to the Sustainability Manager who will then assess this change and determine whether any planned or effective changes to the capacity, activity level and operation of an installation are relevant under Commission Decision 2011/278/EC; and ensure that such information is submitted to the competent authority by 31 December of each year.</p>
<p>Post or department responsible for the procedure and for any data generated</p>	<p>The BRG Operations Manager is responsible for the procedure. The sustainability manager is responsible for any data generated with respect to the EUETS activity level and operation of the installation that have an impact on the installations allocation however, this is totally dependent on the information recieved from the Environmental Services Manager. in conjunction with the projects team.</p>
<p>Location where records are kept</p>	<p>Maintenance Managers Office Copy in the Sustainability Managers Office</p>
<p>Name of IT system used</p>	<p>Glanbia Shared Services.</p>

13. Abbreviations

rr. Abbreviations Acronyms or definitions

Abbreviations acronyms or definitions that have been used in this monitoring plan:

Abbreviation	Definition
GII	Glanbia Ingredients Ireland Ltd

Abbreviation	Definition
BRG	Glanbia Ingredients Ballyragget
VIR	Glanbia Ingredients Virginia
SMT	Senior Management Team

14. Additional Information

Any other information:

Attachment	Description
GII Annoucement 26 Nov 2012.docx	Operator Name is GII and not Glanbia PLC
GEMS_BRG_SOP_14_Monitoring and Measurement March 13.pdf	PDF SOP 14
GEMS_BRG_SOP_23_Procedure to Manage Data Activity flow and to Record Fuel Stock mar13.pdf	PDF SOP 23
GEMS_GII_SOP_22_Calculation approach used to determine annual CO2 emissions v10.pdf	PDF SOP 22
CR Process.docx	Change Request Process
Glanbia information security policy.docx	Glanbia information security policy
Glanbia IT Identity Management Policy.docx	Glanbia IT identiity Management Policy
Procedures & service level agreement governing the provision of services by glanbia group IT to the business units.pdf	Procedures & service level agreement governing the provision of services by Glanbia group It to the business units
GEMS_BRG_SOP_06_Control of Environmental and Energy Records July 13.pdf	PDF SOP 06
Certificate 12_007_08 Ballyconra AGI RMG 115492.pdf	Calibration cert 115492
Calibration report Ballyconra 2012.pdf	Calibration report Ballyconra 2012
Ballyconra Str 1 & 2 March 2012.pdf	Ballyconra Str 1 & 2
Ballyconra Metering System Summary, 09-Jan-13.pdf	Ballyconra Metering System Summary
Glanbia Ballyconra Metering Summary 2018.pdf	Gas Metering Summary 2018

15. Confidentiality

ss. Confidentiality Statement

It is the Environmental Protection Agency's policy to make information received by it in the course of its work open to inspection by any person on request. This is in accordance with the provisions of the European Communities (Access to Information on the Environment) Regulations 2007 to 2011.

In the event that you considered that some of the information being submitted of a confidential nature, then the nature of this information and the reasons why it should be considered confidential, with reference to the European Communities (Access to Information on the Environment) Regulations 2007 to 2011 and any amendments must be explicitly requested using the facility below. The Board of the Environmental Protection Agency will consider the requests and if the information can be deemed as confidential and necessary.

Notwithstanding any request for confidentiality, the Environmental Protection Agency explicitly reserves the right to release data to the Commission, including emissions and allocations to the public, on the basis that the data will be used for the purposes foreseen in Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC.

Please tick this box if you consider that any part of your form should be treated as commercially confidential/sensitive: false

END of Appendix I.