



Headquarters,
Johnstown Castle Estate,
County Wexford, Ireland

GREENHOUSE GAS EMISSIONS PERMIT

Permit Register Number:	IE-GHG180-10504-3
Operator:	C&D Foods Unlimited Company Edgeworthstown (Mostrim) Co. Longford N39AK40
Installation Name:	C&D Foods
Site Name:	C&D Foods
Location:	Tinnynarr Edgeworthstown Co. Longford 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-GHG180-10504.

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
P0908-01

Status Log

Current Permit

Permit number	Date application received	Date Permit issued	Comment
IE-GHG180-10504-3	17 June 2019	24 July 2019	<p>1) Propane and Butane corrected to Commercial Standard Fuels.</p> <p>2) Activity Data for Tallow updated to Tier 4.</p> <p>3) Amendment to measurement devices table in relation to stocktake methodology for HFO and Tallow.</p>

Previous Permits

Permit number	Change Type	Date application received	Date Permit issued	Comment
IE-GHG180-10504-1	GHG Permit Application	26 November 2015	15 January 2016	
IE-GHG180-10504-2	GHG Variation	03 October 2017	04 October 2018	<p>Addition of emission source R&D Laboratory and related source stream butane.</p> <p>Update of date of commencement of regulated activity.</p> <p>Operator name changed to C&D Foods Unlimited Company.</p> <p>Installation Number added.</p>

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)	C&D Foods Unlimited 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 issues this Greenhouse Gas Emissions Permit, subject to any subsequent revisions, corrections or modifications it deems appropriate, to:

The Operator:

C&D Foods Unlimited Company
Edgeworthstown (Mostrim)
Co. Longford
N39AK40

Company Registration Number: 26191

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)
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at the following installation(s):

C&D Foods **Installation number:** 209047

located at

Tinnynarr
Edgeworthstown
Co. Longford
Ireland

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

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.: 209047

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
(WWTP) Wastewater Treatment Plant

- 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
BEP1	Boiler 1	14.38	MW
BEP2	Boiler 2	12.4	MW
W1	Welding Equipment	0.01	MW
R&D LAB	Laboratory burning Butane in product test	0.01	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.
- 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.

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. 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 24 July 2019:

PRESENT when the seal of the Agency was affixed hereto:

Dr Suzanne Monaghan
Inspector/ Authorised Person

Appendix 1 to Greenhouse Gas Emissions Permit Number IE-GHG180-10504

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	C&D Foods
Site name	C&D Foods
Address	Tinnynarr Edgeworthstown Co. Longford Ireland

Grid reference of site main entrance	E225076 N272178
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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
P0908-01	C & D Foods	Environmental Protection Agency

Has the regulated activity commenced at the Installation? Yes

Date of Regulated Activity commencement	14 March 2016
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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 C&D Foods Unlimited Company

Company Registration Number 26191

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? No

Registered office address

Address Line 1	Edgeworthstown (Mostrim)
Address Line 2	N/A
City/Town	Co. Longford
County	N/A
Postcode	N39AK40

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

Address

Tinnynarr
Edgeworthstown
County Longford
N39 AK40
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.

C&D Foods manufactures sterile wet pet food in pouch and aluminium tray formats. The facility supplies own label pet food to the major retailers in the UK which accounts for the majority of production, with some customers in Ireland and mainland Europe. C&D Foods commissioned a new state of the art pouch facility in 2008, and an expansion to the pouch plant was completed in November 2014 with further expansion planned for March 2016. Meat material, both fresh and frozen is supplied to site and stored in refrigerated storage until required by production. Minor ingredients, both wet and dry are stored at ambient temperatures. According to the production schedule these ingredients are transported to the production area. Depending on the product specification, meat materials are minced/diced and are then combined with the minor ingredients prior to filling into aluminium tray or pouch format. After filling, the pet food is heat sterilised in retort equipment before final packaging for shipment. The finished product is stored at ambient conditions prior to shipping off-site.

A variety of on-site utilities support the manufacturing operations including: two dual fuel boilers (BEP1 and BEP2) operating on both HFO and Tallow; refrigeration, heating and cooling plant; electrical supply including switchroom(s) & transformers; compressed air supply plant; water purification plant; process effluent treatment plant; surface water, foul water, and process effluent drainage networks.

The additional thermal input capacity (BEP2) was in response to the expansion of the pouch plant of 2 new filling lines in 2016 and 2017. There also a number of support functions and facilities on site including management & administration offices, quality laboratories, an R&D facility, a maintenance workshop, and staff welfare facilities (canteens & sanitary facilities). The facility currently operates on a 24 hours per day, 7 days per week basis, all year around (excluding shutdowns).

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:

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
BEP1	Boiler 1
BEP2	Boiler 2
W1	Welding Equipment
WWTP	Wastewater Treatment Plant
R&D LAB	Laboratory burning Butane in product test

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

Emission Source Reference	Emission Source Description
BEP1	Boiler 1
BEP2	Boiler 2
W1	Welding Equipment
R&D LAB	Laboratory burning Butane in product test

l. 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
BEP1	Boiler Emission Point 1
BEP2	Boiler Emission Point 2
W1	Welding equipment
WWTP	WWTP
R&D LAB	Burner in R&D Lab

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
HFO	Combustion: Other gaseous & liquid fuels	Fuel Oil
Tallow	Combustion: Other gaseous & liquid fuels	Other Liquid Biofuels
ACET	Combustion: Other gaseous & liquid fuels	Acetylene
PRP	Combustion: Commercial standard fuels	Propane
N/A	Other	N/A
BUT	Combustion: Commercial standard fuels	Butane

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
HFO	BEP1,BEP2	BEP1,BEP2	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)
Tallow	BEP1,BEP2	BEP1,BEP2	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)
PRP	BEP1,BEP2	BEP1,BEP2	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)
ACET	W1	W1	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)
BUT	R&D LAB	R&D LAB	Combustion of fuels in

Source streams (Fuel / Material)	Emission Source Refs.	Emission Point Refs.	Annex 1 Activity
			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
N/A	WWTP	WWTP

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)? Yes

If the installation is an installation with low emissions as defined above there are a number of special provisions which may be applied to provide a simplified monitoring plan. These provisions are set out in Article 47 of the MRR.

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:

BEP1 and BEP2 are dual fuel boilers which can run on both heavy fuel oil and tallow. Propane is used for boiler ignition and current usage is about one cylinder per annum. Acetylene is used for welding and current usage is approximately one cylinder per annum. Butane is used in the R&D lab and current usage is approximately one cylinder per annum.

To calculate the tonnes of HFO/Tallow consumed per year = Quantity delivered throughout the year (in tonnes –recorded from the weighbridge)+ Opening Stock 1 January (in tonnes (litres * density)) – Closing Stock 31 December (in tonnes (litres * density)). The density of the fuel is obtained from the specified fuel SDS sheet. An end of year stocktake is carried out on the storage tanks.

For Heavy Fuel Oil:

(HFO) Fuel consumed (t)*Country Specific NCV/1000 (TJ/t)*Country Specific Emission Factor (tCO₂/TJ)* Oxidation factor (1.0)=CO₂ arising from HFO. The country specific NCV and emission factors are available on the EPA website.

For Tallow:

(Tallow) fuel consumed (t)* NCV (from laboratory analysis) * Emission Factor (this is 0t CO₂/TJ as a valid sustainability certificate will be obtained for each category of Tallow if and when it is used each year from the supplier of this bioliquid and submitted to the EPA)* Oxidation factor (1.0)= CO₂ arising from Tallow

For Propane

The quantity of propane used is determined based on invoices from the vendor and it is assumed that all purchases are consumed within that year.

(Propane) fuel consumed (t)* Country Specific NCV/1000 (TJ/t)*Country Specific Emission Factor (tCO₂/TJ)* Oxidation factor (1.0)= CO₂ arising from Propane

For Butane

The quantity of butane used is determined based on invoices from the vendor and it is assumed that all purchases are consumed within that year.

(Butane) fuel consumed (t)* Country Specific NCV/1000 (TJ/t)*Country Specific Emission Factor (tCO₂/TJ)* Oxidation factor (1.0)= CO₂ arising from Butane

For Acetylene

The quantity of acetylene used is determined based on invoices from the vendor and it is assumed that all purchases are consumed within that year.

(Acetylene) fuel consumed (t)* Tier 1 NCV/1000 (TJ/t)*Tier 1 Emission Factor (tCO₂/TJ)* Oxidation factor (1.0)= CO₂ arising from Acetylene

The country specific emission factors and NCV for Heavy Fuel Oil, propane and butane and Tier 1 NCV and emission factor for acetylene are obtained on the EPA website

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
HFO,Tallow	BEP1,BEP2	M1	C&D Foods Weighbridge	0 - 50,000kg	Kg	0.12	C&D Foods Rear Security Entrance
ACET,PRP,BUT	BEP1,BEP2,W1,R&D LAB	M3	Invoices	N/A	N/A	N/A	Suppliers invoices.
Tallow	BEP1,BEP2	M4	Tank dip	N/A	litres	10	Tallow Storage tanks
HFO	BEP1,BEP2	M2	Tank dip	N/A	litres	10	HFO Storage Tank

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
HFO,Tallow	M1	Batch	Operator		N/A	N/A	N/A
ACET,PRP,BUT	M3	Batch	Trade partner		Yes	Yes	Yes
Tallow	M4	Batch	Operator		N/A	N/A	N/A
HFO	M2	Batch	Operator		N/A	N/A	N/A

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)
HFO	BEP1,B EP2	M1,M2	<1.5%	Standard	4	2a	2a	N/A	1	N/A	N/A	19600	99.99	Major	N/A	n/a	n/a
Tallow	BEP1,B EP2	M1,M4	<1.5%	Standard	4	No tier	1	N/A	1	N/A	N/A	0	0	De-minimis	N/A	n/a	n/a
PRP	BEP1,B EP2	M3	N/A	Standard	No tier	2a	2a	n/a	1	n/a	n/a	1	0.01	De-minimis	N/A	n/a	n/a
ACET	W1	M3	N/A	Standard	No tier	1	1	n/a	1	n/a	n/a	0.1	0	De-minimis	N/A	n/a	n/a
BUT	R&D LAB	M3	N/A	Standard	No tier	2a	2a	n/a	1	n/a	n/a	0.1	0	De-minimis	N/A	n/a	n/a

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

19601.2

u. 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
HFO	BEP1,BEP2	4	2a	2a	N/A	1	N/A	N/A
Tallow	BEP1,BEP2	4	No tier	1	N/A	1	N/A	N/A
PRP	BEP1,BEP2	No tier	2a	2a	n/a	1	n/a	n/a
ACET	W1	No tier	1	1	n/a	1	n/a	n/a
BUT	R&D LAB	No tier	2a	2a	n/a	1	n/a	n/a

v. 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

w. 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)
HFO,PRP	BEP1,BEP2	NCV and Emission Factor	Irish National Green House Gas Inventory	n/a
ACET	W1	NCV and EF	EPA Website	n/a
ACET,HFO,PRP,Tallow	BEP1,BEP2,W1	OxF	Monitoring and Reporting Regulation	n/a
BUT	R&D LAB	NCV & EF	Country Specific NCV & EF from EPA	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

x. 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
Tallow	BEP1,BEP2	NCV	Standard method for Determination of NCV	Annual	ASG Laboratory Germany or alternative	Yes	N/A

Source Stream Refs.	Emission Source Refs.	Parameter	Method of Analysis	Frequency	Laboratory Name	Laboratory ISO17025 Accredited	Evidence Reference
					laboratory agreed by EPA		

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	Procedure for sampling tallow
Reference for procedure	SOP 11.5 Procedure for sampling tallow
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	A representative sample of the tallow combusted on site is taken on an annual basis and sent for analysis to determine net calorific value. Where Category 1 and Category 3 Tallow are used a sample of both must be sampled on an annual basis. Once the certificate is received the Net Calorific value is entered into GHG database. All results of samples will be kept on file for a minimum of 10 years.
Post or department responsible for the procedure and for any data generated	Technical Manger
Location where records are kept	Y:\ISO\Ireland\12. C&D Foods\1. EMS\Manual 2 SOP's\11. Green House Gas\C&D GHG SOPs
Name of IT system used	N/A
List of EN or other standards applied	N/A

y. 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
EMS605 Procedure to sample Tallow Rev 2.docx	EMS605 Procedure to sample Tallow Rev 2
SOP 11.5 Procedure to sample Tallow Rev 2.0.docx	SOP 11.5 Procedure to sample tallow Rev 2.0

Title of procedure	Procedure for sampling tallow
Reference for procedure	SOP 11.5 Procedure for sampling tallow
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	A representative sample of the Tallow combusted on site is taken on an annual basis and sent off to an accredited laboratory for analysis for calorific value. Where Category 1 and Category 3 Tallow are used a sample of both is sampled on an annual basis. Once the Analysis Cert is received the Net Calorific value is entered into GHG database. All results of samples will be kept on file for a minimum of 10 years.
Post or department responsible for the procedure and for any data generated	Env Personnel, General Manager
Location where records are kept	Y:\ISO\Ireland\12. C&D Foods\1. EMS\Manual 2 SOP's\11. Green House Gas\C&D GHG SOPs
Name of IT system used	N/A
List of EN or other standards applied	N/A

z. Sampling Plan Appropriateness

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

Title of procedure	Procedure to Ensure Monitoring Plan Appropriateness at C&D Foods
Reference for procedure	SOP 11.13 Procedure to Ensure Monitoring Plan Appropriateness at C&D Foods
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	<p>The sampling plan's appropriateness is evaluated on a regular basis and the evaluation of compliance with Article 33 of the Monitoring and Reporting Regulation covers the following:</p> <ul style="list-style-type: none"> -Assessment of the completeness of the plan to ensure it contains information on the preparation of samples, responsibilities, locations, frequencies and quantities, and methodologies for the storage and transport of samples. -Review and assessment of whether the plan ensures that the derived samples are representative for the relevant batch or delivery period and free from bias. -Review analytical results and where these indicate that the heterogeneity of the fuel significantly differs from the information on heterogeneity on which the plan was based, adapt the relevant elements of the sampling plan to address this with the agreement of the laboratory carrying out the analysis and subject to the approval of the EPA. -Ensuring that the sampling plan is updated regularly if any change of source streams or of the properties of source streams occur <p>over time.</p>
Post or department responsible for the procedure and for any data generated	Env Personnel, General Manager
Location where records are kept	Y:\ISO\Ireland\12. C&D Foods\1. EMS\Manual 2 SOP's\11. Green House Gas\C&D GHG SOPs
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

aa. 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	Procedure for Recording Stock at C&D Foods
Reference for procedure	SOP 11.3 Procedure for Recording Stock at C&D Foods
Diagram reference	N/A
Brief description of procedure.	An annual stock take is to be undertaken on all fuel storage tanks by the manager or another designated person in the presence of an Independent third party stock take consultant. The stock take will be undertaken as close as possible to the 1st January of each year and no later than six weeks after the start of the New Year. The independent third party stock take consultant will provide verified data from the stock take for record purposes within 14 days of the stock take. These records are to be kept in the greenhouse emissions folder for a period of at least 10 years.
Post or department responsible for the procedure and for any data generated	Env Personnel, General Manager
Location where records are kept	Y:\ISO\Ireland\12. C&D Foods\1. EMS\Manual 2 SOP's\11. Green House Gas\C&D GHG SOPs
Name of IT system used	N/A
List of EN or other standards applied	N/A

bb. Tracking Instruments

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

Title of procedure	Calibration Requirements for Green House Gas
Reference for procedure	SOP 11.9 Calibration Requirements for Green House Gas
Diagram reference	N/A
Brief description of procedure.	M1 C&D Foods Weigh Bridge is maintained, calibrated and checked at regular intervals. Where non-compliance with required performance is identified appropriate corrective and preventative actions are taken. This procedure details the Calibration requirements for M1 C&D Foods Weighbridge at C&D Foods. On an annual basis the Facilities Engineer will organise calibration of the weighbridge. A copy of the Calibration cert will be given to Technical Manager to be made available during Verification of Annual AEM Report.
Post or department responsible for the procedure and for any data generated	Facilities Engineer
Location where records are kept	Y:\ISO\Ireland\12. C&D Foods\1. EMS\Manual 2 SOP's\11. Green House Gas\C&D GHG SOPs
Name of IT system used	N/A
List of EN or other standards applied	N/A

11. Management

cc. 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
Technical Manager	Responsible for complying with all Green House Gas Permit Conditions Emission Monitoring Plans and any legislation relating to Green House Gas as advised by the EPA. Review Annually of all data collated prior to submission.
General Manager	Liaise with Technical Manager on any proposed changes to site and be aware of all permit conditions in relation to site changes. Ensure that the adequate resources are available to allow smooth running of the processes required to comply with the GHG Permit.
Facilities Engineer	Responsibility for operation of C&D Foods boilers in an efficient manner. Regular Maintenance of for M1 C&D Foods Weighbridge and organisation of annual calibration of M1 C&D Foods Weighbridge. Report any suspected inaccuracies in the weighbridge to the Technical Manager.
Security Personnel	Responsibility of ensuring that all deliveries of HFO and Tallow are weighed correctly on the weigh bridge and that the weighbridge dockets are completed correctly and promptly delivered to the GHG Administrator. Report any suspected inaccuracies in the weighbridge to the Technical manager and the Facilities Engineer immediately
GHG Administrator:	Gathering and filing of all weigh bridge dockets for HFO, Tallow and invoices for propane, butane and acetylene and entering of this data accurately into the GHG database. Filling of all HFO and Tallow invoices and crosschecking the weights against the C&D Foods weighbridge dockets. Liaise with Technical Manager in relation to reports to be submitted to EPA . Review all data with Technical Manager at the end of the reporting year and review all data prior to submission to the EPA. The GHG administrator will store all weigh bridge dockets and a copy of same, for deliveries of HFO, tallow, propane, butane and acetylene in the GHG folders for annual Review. Invoices for HFO, tallow, propane, butane and acetylene will also be stored in these files.

Attachment	Description
Organisational Chart for GHG Permit C&D Foods.pptx	Organisational Chart for GHG Permit C&D Foods

dd. 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	Procedure for Assignment of Responsibilities for Green House Gas
Reference for procedure	SOP 11.12 Procedure for Assignment of Responsibilities for Green House Gas
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The purpose of this document is to establish a procedure for assigning and identifying personnel to carry out monitoring and reporting in relation to Green House Gas permit conditions. The procedure ensures that responsible persons are assigned for data flow activities and for control activities in a way to segregate conflicting duties. The responsibilities of each person is outlined above. Training and bi-annual reviews will be undertaken ensuring all personnel are adequately trained in the collection and interpretation of the data.
Post or department responsible for the procedure and for any data generated	Technical manager / General Manager
Location where records are kept	T/Environmental/2. EMS/Procedures/ EMS6/EMS 611 Procedure to Ensure Monitoring Plan Appropriateness at C&D Foods
Name of IT system used	N/A
List of EN or other standards applied	ISO14001

ee. 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	Procedure to Ensure Monitoring Plan Appropriateness at C&D Foods
Reference for procedure	SOP 11.13 Procedure to Ensure Monitoring Plan Appropriateness at C&D Foods
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The monitoring plan's appropriateness is evaluated on a regular basis and the evaluation covers the following: Checking the list of emissions sources and source

	streams, ensuring completeness of the emissions and source streams and that all relevant changes in the nature and functioning of the installation will be included in the monitoring plan; Assessing compliance with the uncertainty thresholds for activity data and other parameters (where applicable) for the applied tiers for each source stream and emission source; and assessment of potential measures for improvement of the monitoring methodology applied. All emissions sources and source streams are checked regularly against the Monitoring Plan. Any changes are noted by the Technical Manager. The site will then submit a new Monitoring Plan as required.
Post or department responsible for the procedure and for any data generated	Env Personnel and ENV Manager
Location where records are kept	Y:\ISO\Ireland\12. C&D Foods\1. EMS\Manual 2 SOP's\11. Green House Gas\C&D GHG SOPs
Name of IT system used	N/A
List of EN or other standards applied	N/A

ff. 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 for Data Collection & Record Keeping at C&D Foods
Reference for procedure	SOP 11.2 Procedure for Data Collection & Record Keeping at C&D Foods
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	Heavy Fuel Oil and Tallow entering the site must be logged on the weigh bridge docket. The fuel type must be specified for each delivery load. All loads must be weighed on M1 C&D Foods weighbridge before entering the site. Following offloading the lorry must reweigh on the M1 C&D Foods weighbridge prior to departing off site and the net weight recorded. The weighbridge docket is given to the GHG administrator. All of the above information is transferred from the weighbridge docket and is recorded to the GHG excel sheets (designated for GHG fuel/ usage) in p/Environmental/EMS/Procedures/EMS6/Data and later checked against weights recorded on HFO invoices or tallow invoices. All files, Fuel Invoices (HFO, Tallow, Propane, Butane and acetylene) Stock take records, Monitoring Plans, Verified AEM reports, Calibration Certs and Tallow Records are held on file in the Environmental Office at C&D Foods. This information will be transferred on a regular basis to ensure that the appropriate procedures are being adhered to by security at all times. At the end of the year all information is collated and entered in AEM report and submitted to Independent verifier for verification. Prior to submission to the verifier the Technical

Manager will meet with the GHG administrator and review all data collated. Once verified, the AEM Report is submitted to EPA by 31st March. All data and information stipulated in Annex IX of the Monitoring and Reporting Regulation (MRR) of relevance to the installation in accordance with the requirements of Article 66 of the MRR are kept in C&D Foods for a minimum of 10 Years and made readily available upon request of the EPA or Verifier.

Post or department responsible for the procedure and for any data generated	Env Personnel and ENV Manager
Location where records are kept	Y:\ISO\Ireland\12. C&D Foods\1. EMS\Manual 2 SOP's\11. Green House Gas\C&D GHG SOPs
Name of IT system used	N/A
List of EN or other standards applied	N/A
List of primary data sources	M1 C&D Foods weighbridge
Description of the relevant processing steps for each specific data flow activity.	Steps to be followed when entering HFO and Tallow weights and gas invoices (propane ,butane and acetylene) into GHG Database. The weight from the weigh bridge docket is entered into the GHG Database together with the weigh bridge docket number. For propane, butane and acetylene the litres of gas per cylinder is entered. GHG database is made up of 3 spreadsheets. Sheet 1, the weighbridge docket number, date of delivery, the weight and the total are entered on a weekly basis for HFO and Tallow. HFO is measured in tonnes, Tallow in tonnes. The weekly total figure carries over to Sheet 2. Sheet 2 shows the fuel tonnage taking into account the opening stock plus a weekly allocation of fuel. These 2 figures are taken away from each other which show our credit figure. The debit figure on Week 1 shows our allocation taken away from our opening stock. Going forward on a weekly basis, the debit figure is added to the credit figure of each week which gives the debit figure for the proceeding week. Sheet 3 calculates the tonnes of carbon dioxide emitted using the density factor of the fuel which we get from the specified fuel SDS sheet, the oxidation factor and country specific NCV and Emission factor from the EPA website. The calorific value for Tallow is taken from the Certificate of Analysis. The total amount of fuel used in a particular week is multiplied by the net calorific value which gives the total TJ's (when HFO or tonnes used it is /1000). The total TJs is multiplied by the emission factor and the oxidation factor which in turn shows the tonnes of carbon dioxide emitted. Once Invoices are received for fuels these are cross checked against the weighbridge docket values ensuring accuracy of Information to be reported in Annual Installation Emission Report.
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 manual inputs) and confirm how outputs of data flow activities are recorded	

Submit relevant documents to record data flow activities

Attachment	Description
ERF 11.12A Data Flow Green House Gas Rev 2.0.xlsx	ERF 11.12A Data Flow Green House gas Rev 2.0

gg. Assessing and Controlling Risks

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

Title of procedure Reference for procedure Diagram reference	Green House Gas Risk Assessment SOP 11.7 Green House Gas Risk assessment T/Environmental/2. EMS/Procedures/ ERF/ ERF54 Green house Gas Risk Assessment Rev 1
Brief description of procedure. The description should cover the essential parameters and operations performed	This risk assesment details the Hazards identified in incorrect recording of GHG emissions under the following headings
Post or department responsible for the procedure and for any data generated Location where records are kept	Weighbridge doesn't work; Weigh bridge docket not given to GHG administrator on time ; Propane, Butane and Acetylene invoices are not given to GHG administrator on time;Ensure all Metering Devices are Calibrated;Transfer of GHG information to Database. These are all deemed as low risk due to the control measures in place. Env Personnel/ Env Manager
Name of IT system used List of EN or other standards applied	Y:\ISO\Ireland\12. C&D Foods\1. EMS\Manual 2 SOP's\11. Green House Gas\C&D GHG SOPs n/a ISO14001

hh. 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	Calibration Requirements for Green House Gas SOP 11.9 Calibration Requirements for Green House Gas N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	M1 C&D Foods Weigh Bridge is used at C&D Foods for Green House Gas requirements. It is maintained, calibrated and checked at regular intervals. Where non-compliance

	with required performance is identified appropriate corrective and preventative actions are taken. This procedure details the Calibration requirements for M1 C&D Foods Weighbridge at C&D Foods. On an annual basis the Facilities Engineer will organise calibration of the weighbridge. A copy of the Calibration cert will be given to Technical Manager for Verification of Annual AIER Report.
Post or department responsible for the procedure and for any data generated	Facilities Engineer
Location where records are kept	Y:\ISO\Ireland\12. C&D Foods\1. EMS\Manual 2 SOP's\11. Green House Gas\C&D GHG SOPs
Name of IT system used	N/A
List of EN or other standards applied	ISO14001

ii. 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	Procedure to Ensure Quality Assurance of Information Technology
Reference for procedure	SOP 11.14 Procedure to Ensure Quality Assurance of Information Technology
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The information Technology used in C&D Foods include a server, computers and a printer. All invoices, EPA correspondence, permits, procedures are stored on the server in designated folders. The server is scheduled to back up every evening. The server is housed in a fire proof cabinet. Blank Templates of all calculation sheets are stored on server. All documentation relating to Green House Gas is also kept on hardcopy. The Server is serviced and maintained by the site IT Department. All computers have a login name and password to ensure all data is secure.
Post or department responsible for the procedure and for any data generated	Technical Manager
Location where records are kept	Y:\ISO\Ireland\12. C&D Foods\1. EMS\Manual 2 SOP's\11. Green House Gas\C&D GHG SOPs
Name of IT system used	N/A
List of EN or other standards applied	N/A

jj. 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.

<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>Review of Green House Gases for C&D Foods</p> <p>SOP 11.6 Review of Green House Gases for C&D Foods</p> <p>N/A</p> <p>A meeting will be held within 6 months of the start of the Greenhouse monitoring proposal. The meeting will review progress to date in the following areas:</p> <ol style="list-style-type: none"> 1.The monitoring of data collection for fuel used on site. 2.The assessment of work procedures in accordance with the procedure as outlined in the Monitoring plan. 3.The collation of data in accordance with the Monitoring plan, to undertake the verification of data collected i.e. Cross checking weighbridge dockets and invoices and ensuring the necessary signage is in place on tanks and emission sources. 4.To make sure the provision is made for stock takes, to ensure adequate drawings are in place to show fuel flow, storage and fuel use locations. 5.To ensure all personnel are adequately trained in the collection and interpretation of the data. 6.Liaise with General Manager Ref any changes proposed to site. 7.To ensure that the conditions of the GHG permit are adhered to. <ul style="list-style-type: none"> •Ensure Monitoring Plan is reviewed and updated as required by permit •AEM Report is verified by independent verifier and submitted to EPA by 31st March annually. •Any malfunction of equipment is reported to EPA if alternative is not agreed in plan. 8.Regular internal reviews and validation of data is undertaken which includes a check on whether data is complete, comparisons with data over previous years, comparison of fuel consumption with product throughput and criteria for rejecting data. 9.Regular reviews are also 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 under Commission Decision
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2011/278/EC.

10 Partial Cessation, if the activity level falls 50% below the HAL (Historic Activity Level) and there was no physical changes to production affecting consumption of net then a partial cessation has occurred and site will have to complete application form and submit to EPA. This does not need to be if there were physical changes to the installation process this would lead to a Significant capacity reduction an application would have to be submitted and verified before EPA submission.

Where such changes are identified the application form amending amounts allocated free of charge is completed and submitted to the EPA by 31 December.

Post or department responsible for the procedure and for any data generated	Technical Manager
Location where records are kept	T/Environmental/2. EMS/Procedures/ EMS6/EMS606
Name of IT system used	Review of Green House Gases for C&D Foods
List of EN or other standards applied	N/A ISO14001

kk. 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:

Title of procedure	Procedure for notification to the EPA with respect to conditions of the GHG Permit
Reference for procedure	SOP 11.7 Procedure for notification to the EPA with respect to conditions of the GHG Permit
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	<p>1.All relevant personnel must have a good working knowledge of the GHG permit be familiar with each condition and how the system is maintained, recorded, reported and verified.</p> <p>2.In the event of a breakdown or malfunction of all agreed equipment used to monitor or record the emissions for Green House Gas the site shall put in place an interim monitoring and reporting methodology and inform the agency in writing, in accordance with permit conditions, without undue delay.</p> <p>3.Any non compliance of any condition of the permit</p>

including the Monitoring plan must be highlighted as soon as possible and reported to the Agency.

Post or department responsible for the procedure and for any data generated	Technical Manager
Location where records are kept	Y:\ISO\Ireland\12. C&D Foods\1. EMS\Manual 2 SOP's\11. Green House Gas\C&D GHG SOPs
Name of IT system used	N/A
List of EN or other standards applied	ISO14001

II. 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	N/A
Reference for procedure	N/A
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	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

mm. Record Keeping and Documentation

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

Title of procedure	Procedure for Data Collection & Record Keeping at C&D Foods
Reference for procedure	SOP 11.2 Procedure for Data Collection & Record Keeping at C&D Foods
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	<p>1. Heavy Fuel Oil and Tallow entering the site must be logged on the weigh bridge docket.</p> <p>2. The fuel type must be specified for each delivery load.</p> <p>3. All loads must be weighed on M1 C&D Foods weighbridge before entering the site.</p> <p>4. Following offloading the lorry must reweigh on the M1 C&D Foods weighbridge prior to departing off site and the</p>

net weight recorded.

5.The weigh bridge docket is given to the GHG administrator.

6.All of the above information is transferred from the weighbridge docket and is recorded to the GHG excel sheets (designated for GHG fuel/ usage) in p/Environmental/EMS/Procedures/EMS6/Data and later checked against weights recorded on HFO invoices or tallow invoices

7. All fuel invoices (including HFO, Tallow, Propane, Butane and acetylene), GHG Monitoring Plans, Verified AEM reports, Calibration Certs and Tallow Records are held on file in the Environmental Office at C&D Foods.

8.This information will be transferred on a regular basis to ensure that the appropriate procedures are being adhered to by security at all times.

9.At the end of the year all information is collated and entered in AEM report and submitted to Independent verifier for verification. Prior to submission to the verifier the Technical Manager meet with the GHG administrator and review all data collated.

10.Once verified AEM Report is submitted to EPA by 31st March

11. All data and information stipulated in Annex IX of the Monitoring and Reporting Regulation (MRR) of relevance to the installation in accordance with the requirements of Article 66 of the MRR are kept in C&D Foods for a minimum of 10 Years and made readily available upon request of the EPA or Verifier.

Post or department responsible for the procedure and for any data generated	Technical Manager / GHG Administrator / Security
Location where records are kept	Y:\ISO\Ireland\12. C&D Foods\1. EMS\Manual 2 SOP's\11. Green House Gas\C&D GHG SOPs
Name of IT system used	N/A
List of EN or other standards applied	ISO14001

nn. Risk Assessment

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

Attachment	Description
N/A	N/A

oo. 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: ISO14001

12. Changes in Operation

pp. 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.

Title of procedure	Review of Green House Gases for C&D Foods
Reference for procedure	SOP 11.6 Review of Green House Gases for C&D Foods
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	A meeting will be held within 6 months of the start of the Greenhouse monitoring proposal. The meeting will include

a review of the following areas:

Liaise with General Manager Ref any changes proposed to site. Regular reviews are also 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 under Commission Decision 2011/278/EC. Where such changes are identified the application form amending amounts allocated free of charge is completed and submitted to the EPA by 31 December.

Going forward this formal meeting will be on an annual basis and will be a component of the Environmental Annual Review. 5.10 Partial Cessation, if the activity level falls 50% below the HAL (Historic Activity Level and there was no physical changes to production affecting consumption of net then a partial cessation has occurred and site will have to complete application form and submit to EPA. This does not need to be verified.

5.11 If there were physical changes to the installation process this would lead to a Significant capacity reduction an application would have to be submitted and verified before EPA submission.

Obviously if there are any major changes on site that affect the GHG permit additional meetings will be held.

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

Location where records are kept

Name of IT system used

Technical Manager / General manager

T/Environmental/2.EMS/Procedures/EMS6/EMS606 Review of Green House Gases for C&D Foods

N/A

13. Abbreviations

qq. Abbreviations Acronyms or definitions

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

Abbreviation	Definition
BEP1	Boiler Emission Point 1
BEP2	Boiler Emission Point 2
HFO	Heavy Fuel Oil

14. Additional Information

Any other information:

Attachment	Description
C&D Foods Danstoker Boiler Thermal Capacity.pdf	BEP2 Thermal Input Capacity
C&D Foods Wellman Robey Boiler Thermal Capacity.pdf	BEP1 Thermal Input Capacity
M1 CD Foods Weighbridge.pdf	CD Food Weighbridge Calibration Certificate
ISCC Certificate Waterford Proteins 20072016.pdf	ISCC Certificate Waterford Proteins 20072016
C&D Foods COMPANY REG CERT.pdf	C&D Foods COMPANY REG CERT
CD Foods Weighbridge March 2018.pdf	CD Foods Weighbridge March 2018
C&D.pdf	Verified AEM report with Improvement Report
C&D Weighbridge 2019.pdf	C&D Weighbridge 2019

15. Confidentiality

rr. 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.