



Headquarters,
Johnstown Castle Estate,
County Wexford, Ireland

GREENHOUSE GAS EMISSIONS PERMIT

Permit Register Number:	IE-GHG045-10366-4
Operator:	Premier Periclase Limited Boyne Road Drogheda Louth A92 X865
Installation Name:	RHI Magnesita Drogheda Plant
Site Name:	RHI Magnesita Drogheda Plant
Location:	Boyne Road Drogheda Louth A92 X865 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-GHG045-10366.

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
P0376-02

Status Log

Current Permit

Permit number	Date application received	Date Permit issued	Comment
IE-GHG045-10366-4	14 November 2018	07 January 2020	<ol style="list-style-type: none"> 1. Two emission sources (S13 Control Room Heating Boiler on Diesel, S14 Attendants Room Boiler on Kerosene) were moved to Natural Gas. 2. Kerosene was removed as a source stream. 3. Measurement Device MD15 (Kerosene level gauge) was removed. 4. The Site Name and Installation Name have changed to RHI Magnesita Drogheda Plant. 5. Diesel Generator Shaft Kiln (S9) was decommissioned.

Previous Permits

Permit number	Change Type	Date application received	Date Permit issued	Comment
IE-GHG045-10366-1	GHG Permit Application	06 February 2014	26 February 2014	

Permit number	Change Type	Date application received	Date Permit issued	Comment
IE-GHG045-10366-2	GHG Variation	15 December 2014	27 February 2015	<p>1. Tier change for natural gas NCV & EF to the higher tier.</p> <p>2. Addition of a new measurement devices (weighbridges MD24, MD25 & MD26) for limestone and Pet Coke.</p> <p>3. Addition of a new source stream (M5 CA) - Slaker Grits.</p> <p>4. Changes to the way quantities of the lime kiln waste streams (M2, M3 & M4 CA) are calculated.</p>
IE-GHG045-10366-3	GHG Variation	22 December 2015	02 March 2016	<p>1. Addition of a new measurement device – (MD27).</p> <p>2. Removal of redundant measurement devices (MD3).</p> <p>3. Updates to metering uncertainty for three de minimis source streams - Diesel (F3 DSL), Kerosene (F4 KER) and Sodium Carbonate (M5 Na).</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)	Premier Periclase Limited
“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:

Premier Periclase Limited
Boyne Road
Drogheda
Louth
A92 X865

Company Registration Number: 59188

from

The Former Operator:

CRH Public Company Limited
42 Fitzwilliam Square

Dublin 2
Dublin

to carry out the following

Categories of activity:

Annex 1 Activity
Production of lime or calcination of dolomite or magnesite in rotary kilns or in other furnaces with a production capacity exceeding 50 tonnes per day
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):

RHI Magnesita Drogheda Plant **Installation number:** 36

located at

Boyne Road
Drogheda
Louth
A92 X865
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 19 September 2011, *Premier Periclase Limited* 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 2005-2011, 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.: 36

Activity Description
Production of lime or calcination of dolomite or magnesite in rotary kilns or in other furnaces with a production capacity exceeding 50 tonnes per day
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) Seawater Degassing

- 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	Shaft Kiln 1	3.79	MW
S2	Shaft Kiln 2	3.79	MW
S3	Multi-Hearth Furnace 1	19.9	MW
S4	Multi-Hearth Furnace 2	19.9	MW
S5	Lime Kiln	596	tonnes/day
S6	Boiler 1	1.25	MW
S7	Boiler 2	1.25	MW

Emission Source Reference	Emission Source Description	Capacity	Capacity Units
S8	Diesel Generator - Lime Kiln	0.19	MW
S10	Diesel Generator - Wet End	0.17	MW
S11	Administration Heating Boiler North	0.47	MW
S12	Administration Heating Boiler South	0.07	MW
S13	Control Room Heating Boiler	1	MW
S14	Attendant's Room Boiler	1	MW
S15	Petcoke Heater	0.35	MW
S17	Acetylene	0.1	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 07 January 2020:

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-GHG045-10366

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	RHI Magnesita Drogheda Plant
Site name	RHI Magnesita Drogheda Plant
Address	Boyne Road Drogheda Louth A92 X865 Ireland

Grid reference of site main entrance	E311033, N275935
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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
P0376-02	Premier Periclase Limited	Environmental Protection Agency

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 Premier Periclase Limited

Company Registration Number 59188

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	Boyne Road
Address Line 2	N/A
City/Town	Drogheda
County	Louth
Postcode	A92 X865

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? Yes

Holding company name Dutch US Holding B.V.

Holding company address

Address Line 1	Velperweg 81
Address Line 2	N/A
City/Town	Arnhem -6824
County	N/A
Postcode	The Netherlands
Company registration number	N/A

Is the holding company principal address different to the holding company address? 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	Boyne Road Drogheda Louth A92 X865 Ireland
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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.

The purpose of the installation is the manufacture Sintermagnesia, also known as Periclase or Deadburned Magnesia (DBM). The raw materials used in the process are seawater, limestone and energy. The site is located just outside Drogheda, Co. Louth on the banks of the River Boyne. It is a single operation site, with a number of emission sources based on site - 1 x rotary kiln for production of Lime, 2 x multiple hearth furnaces (MHF) and 2 x vertical shaft kilns for Sintermagnesia production. (All of the aforementioned emission sources S1, S2, S3, S4 and S5 emit to one emission point A2-4)

The installation is licensed to carry out the following categories of activity:

- (a) Combustion installations with a rated thermal output exceeding 20 MW (except hazardous or municipal waste installations).

The fuels used in the plant are petcoke (lime kiln) and natural gas (lime kiln, MHFs, shaft kilns & admin building central heating). Gas oil (Diesel) is used for small back-up generators and acetylene for mobile welding.

(b) Process and installations for the production of cement clinker in rotary kilns with a production capacity exceeding 500 Tonnes per day or lime in rotary kilns with a production capacity exceeding 50 Tonnes per day or in other furnaces with a production capacity exceeding 50 Tonnes per day.

The process materials giving rise to CO2 come from the calcination (burning) Limestone and of Sodium Carbonate (Na2CO3) as a process additive. Method A: Input based, the emission factor and activity data related to the amount of material input into the process is used for the CO2 determination.

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.

Annex 1 Activity	Total Capacity	Capacity units	Specified Emissions
Production of lime or calcination of dolomite or magnesite in rotary kilns or in other furnaces with a production capacity exceeding 50 tonnes per day	596	tonnes/day	Carbon Dioxide
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)	53.23	MW	Carbon Dioxide

h. Site Diagram

The table below lists attachments (if available) that provide a simple diagram showing emissions sources source streams sampling points and metering/measurement equipment.

Attachment	Description
Premier Periclase 2015 AMCE (hi res), 26-01-15.jpg	Premier Periclase 2015 site map revised 26-01-15

Emission Source Reference	Emission Source Description
S16	Seawater Degassing
S17	Acetylene

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

Emission Source Reference	Emission Source Description
S1	Shaft Kiln 1
S2	Shaft Kiln 2
S3	Multi-Hearth Furnace 1
S4	Multi-Hearth Furnace 2
S5	Lime Kiln
S6	Boiler 1
S7	Boiler 2
S8	Diesel Generator - Lime Kiln
S10	Diesel Generator - Wet End
S11	Administration Heating Boiler North
S12	Administration Heating Boiler South
S13	Control Room Heating Boiler
S14	Attendant's Room Boiler
S15	Petcoke Heater
S17	Acetylene

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
A2-4	Main Exhaust Stack
A1-1	Boiler House Stack 1
A1-2	Boiler House Stack 2
G-1	Lime Kiln Emergency Generator
G-2	Wet End Emergency Generator
CH-1	Main Office Central Heating Boiler - North Stack
CH-2	Main Office Central Heating Boiler - South Stack
CH-3	Central Control Room Central Heating Boiler Stack

Emission Point Reference	Emission Point Description
CH-4	Attendants Room Central Heating Boiler Stack
PC-1	Petcoke Heater Stack
SWD-1	Seawater Degassing Tower
ACET-001	Welding - Various

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
M1 CA Limestone	Lime / dolomite / magnesite: Carbonates (Method A)	Limestone
M5 Na Sod Carb	Other	Sodium Carbonate
F1 Nat Gas	Combustion: Other gaseous & liquid fuels	Natural Gas
F2 PET	Combustion: Solid fuels	Petroleum Coke
F3 DSL	Combustion: Commercial standard fuels	Gas/Diesel Oil
SWD1	Other	Seawater degassing
M2 CA Lime Dust	Lime / dolomite / magnesite: Carbonates (Method A)	Lime Dust
M3 CA Reject Stone	Lime / dolomite / magnesite: Carbonates (Method A)	Reject Stone
M4 CA Pre Heater Stone	Lime / dolomite / magnesite: Carbonates (Method A)	Pre-heater stone
F5 ACET	Combustion: Other gaseous & liquid fuels	Acetylene
M5 CA Slaker Grits	Lime / dolomite / magnesite: Carbonates (Method A)	Slaker Grits

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
M1 CA Limestone	S5	A2-4	Production of lime or calcination of dolomite or magnesite in rotary kilns or in other furnaces with a production capacity

Source streams (Fuel / Material)	Emission Source Refs.	Emission Point Refs.	Annex 1 Activity
			exceeding 50 tonnes per day
M5 Na Sod Carb	S1,S2	A2-4	Production of lime or calcination of dolomite or magnesite in rotary kilns or in other furnaces with a production capacity exceeding 50 tonnes per day
F1 Nat Gas	S1,S11,S12,S13,S14,S15,S2,S3,S4,S6,S7	A1-1,A1-2,A2-4,CH-1,CH-2,CH-3,CH-4,PC-1	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)
F1 Nat Gas	S5	A2-4	Production of lime or calcination of dolomite or magnesite in rotary kilns or in other furnaces with a production capacity exceeding 50 tonnes per day
F2 PET	S5	A2-4	Production of lime or calcination of dolomite or magnesite in rotary kilns or in other furnaces with a production capacity exceeding 50 tonnes per day
F3 DSL	S10,S8	G-1,G-2	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)
F5 ACET	S17	ACET-001	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
SWD1	S16	SWD-1

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:

The calculation approach used at the installation is done as required by Article 24(1) and is as follows:

$$\text{Activity data} * \text{emission factor} * \text{oxidation factor} = \text{emissions}$$

a) Combustion:

F2 Petcoke:

Activity data (NCV, mass balance, sampling & analysis) * Emission Factor (sampling & analysis) * Oxidation (tier 1).

F1 Natural gas:

Activity data * Emission Factor * Oxidation factor (tier 1). The net calorific value (NCV) and emission factor (EF) are calculated from monthly component data supplied by the supplier (BGN) from the gas chromatograph, which is located in the BGN AGI (above ground installation) directly adjacent to the Premier Periclase site. The data is supplied as a data file and contains the hourly gas flow readings and CV values for each day of the month. In addition, the file also contains specific gravity data and the individual gas fractions in the gas mixture (CO₂, N₂ and other gases from Methane to Hexane). The hourly gas volume readings are corrected to 273.15K and 101.325kPa. The NCV TJ/Nm³ (weighted average of (total of hourly gas volume * total of hourly Calorific Value TJ/Nm³)) and the EF TCO₂/TJ are calculated for the month (defined as from 06.00 hours on 1st of month to 06.00 hours on 01st of following month). In calculating the Emission Factor for conversion of Tonnes Carbon into CO₂ a conversion factor of 3.664 Tonnes CO₂/T Carbon is used.

$$\text{CO}_2 \text{ Tonnes} = \text{fuel flow (Nm}^3\text{)} * \text{NCV (TJ/Nm}^3\text{)} * \text{EF (TCO}_2\text{/TJ)} * \text{Oxidation Factor (1.0)}$$

The Natural Gas metering system at Premier Periclase consists of two meter sets in parallel, each having a turbine volume meter and pressure/temperature sensor for correction. The combined uncertainty for each meter set is 1.41%, as is standard across the GNI Network for customers of the size of PPL.

In 2013 PPL had no access to data from the BGN gas chromatograph and therefore a derogation was sought to use the lower tier 2b for NCV. In 2014, data from the GNI gas chromatograph was made available to the installation and the highest tier (3) will be used for NCV calculation. The gas chromatographs from which the hourly gas volume, CV and composition data is taken are located in the GNI AGI, which is located directly adjacent to the Installation site. The meters and chromatographs are maintained and calibrated by GNI and the information is collated and sent to Premier Periclase in the first week of February each year as per process agreed with EPA. This calibration ensures compliance with Art.32 of MRR in relation to requirements for online gas chromatographs.

Other fuels:

Diesel (F3 Gas Oil) is a De Minimis fuel source that is only used by the installation for running back-up generators for various parts of the plant. They're used very infrequently so it's difficult to get accurate fuel consumption data for them. The Diesel usage is calculated using data supplied by The Cummins Engine Company for their generators based on the same rated capacity as the ones installed at the installation.

Acetylene calculation - Acetylene is used for welding around the site. Usage is calculated by the number of cylinders of gas delivered to the installation based on supplier invoices. The NCV & EF values are taken from the country specific data issued annually by EPA. The amount of Acetylene gas consumed is calculated as follows:

VOLUMER PER CYLINDER (from supplier) * NUMBER OF CYLINDERS USED

Converted to tonnes of Acetylene by DENSITY (ex. supplier)/VOLUME

F3 Gas oil, F5 Acetylene: Activity data (NCV, mass balance & Inventory figure)* Emission Factor (Inventory figure) * Oxidation (tier 1)= t CO2

b)Process: M1 Limestone, M5 Sodium Carbonate

Method A: Input based, the emission factor and activity data related to the amount of material input into the process is used for the CO2 determination.

Emission Factors: The determination of the amount of relevant carbonates in each relevant input material shall be carried out according Articles 32 to 35. Stoichiometric ratios as listed in section 2 of Annex VI shall be used to convert composition data into emission factors from each source stream.

Conversion factor: Carbonates and other carbon leaving (reject stone, kiln dust, grit & preheater stone) the process are considered by means of a conversion factor with a value between 0 and 1. The operator determines through analysis the conversion for all inputs and attributes unconverted materials or other carbon to the remaining inputs. The additional determination of relevant chemical parameters of the products is carried out in accordance with Articles 32 to 35 and with reference to Section 4 of Annex II or Section 10 of Annex IV.

The activity data and calculation factors of each batch, to which the analyses relate, are first used for the calculation formula according to Article 24(1). The resulting emissions for each batch are then summed up to the annual emissions value of the source stream.

There is a change to the way quantities of the Lime Kiln waste streams (M2 Lime Dust, M3 Reject Stone, M4 Pre-heater Stone and M5 Slaker Grits) are calculated. The original permit (IE-GHG045-10366-1) stated that all loads of these materials are taken over the installation weighbridge (MD10) before going to the on-site landfill. For environmental and safety reasons this has been stopped. Now, the number of loads taken to the landfill is recorded and the quantity

moved is calculated from the [number of loads x average weight per load (calculated from historical data)]. The use of the installation weighbridge (MD10) is retained in the permit in case it is needed in the future.

c) In cases b), weighted average calculation factors are determined for reporting.

d) The emissions of all source streams are added up to give the annual emissions of the installation.

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 Nat Gas	S1,S2,S3,S4,S5,S6,S7,S11,S12,S13,S14,S15	MD1 (GNI)	Turbine meter	200-20,000	Sm ³ /hr	1.41	Bord Gais AGI - external
F3 DSL	S10,S8	MD14	Calculation based on run-times	n/a	n/a	n/a	On-site
F2 PET,M2 CA Lime Dust,M3 CA Reject Stone,M4 CA Pre Heater Stone,M5 CA Slaker Grits	S5	MD10	Premier Periclase Weighbridge	20 - 50,000	Kg	1.01	Across from main locker room, plant no. 11804
F2 PET	S5	MD11	Monthly Stock Survey (including Total Station Geodimeter System 500)	n/a	Tonnes	5.0	SLR Consulting
F2 PET	S5	MD12	Level gauge	0-40	m	2.0	Top of milled Petcoke silos
F2 PET	S5	MD13	Weighscale	0 - 420	Grams	0.45	Premier Periclase laboratory
M1 CA Limestone	S5	MD16	Weighbridge	0-50,000	Kg	0.24	Roadstone Quarry, Duleek
F1 Nat Gas	S1,S2,S3,S4,S5,S6,S7	MD2 (GNI)	Turbine meter	200-20,000	Sm ³ /hr	1.41	Bord Gais AGI -

Source Stream Refs.	Emission Source Refs.	Measurement Device Ref.	Type of Measurement Device	Measurement Range	Metering Range Units	Specified Uncertainty (+/- %)	Location
	7,S11,S12,S15						external
M5 Na Sod Carb	S1,S2	MD20	Calculated from opening & closing stock and deliveries	n/a	Tonnes	N/A	Production Materials Report ex. SAP system
M1 CA Limestone	S5	MD23	Weighbridge	0-50,000	Kg	0.24	Roadstone Quarry, Mullaghcrone
F5 ACET	S17	ACET-Invoices	Invoices	n/a	n/a	N/A	Accounts (supplier records)
M1 CA Limestone	S5	MD24	Weighbridge	0 - 50,000	Kg	0.24	Lagan Cement quarry, Kinnegad
F2 PET	S5	MD25	Weighbridge	0 - 50,000	Kg	0.21	Lissan Coal Company, Belfast Port, Northern Ireland
F2 PET	S5	MD26	Weighbridge	0 - 50,000	kg	0.24	Irish Cement Terminal, Ringsend, Dublin
F2 PET	S5	MD27	Draft survey by surveyor appointed by shipper / supplier	0 - 4,000	Tonnes	0.5	Unicoal - draft survey carried out by agent (surveyor) appointed by shipper. Draft survey done at loading port.

Source Stream Refs.	Measurement Device Ref.	Determination Method	Instrument Under Control Of	Conditions Of Article 29(1) Satisfied	Invoices Used To Determine Amount Of Fuel Or Material	Trade Partner And Operator Independent
F1 Nat Gas	MD1 (GNI)	Continual	Trade partner	Yes	Yes	Yes
F3 DSL	MD14	Batch	Operator	N/A	N/A	N/A
F2 PET,M2 CA Lime Dust,M3 CA Reject Stone,M4 CA Pre Heater Stone,M5 CA Slaker Grits	MD10	Batch	Operator	N/A	N/A	N/A
F2 PET	MD11	Batch	Trade partner	Yes	No	Yes
F2 PET	MD12	Continual	Operator	N/A	N/A	N/A
F2 PET	MD13	Batch	Operator	N/A	N/A	N/A
M1 CA Limestone	MD16	Batch	Trade partner	Yes	Yes	Yes
F1 Nat Gas	MD2 (GNI)	Continual	Trade partner	Yes	Yes	Yes
M5 Na Sod Carb	MD20	Batch	Operator	N/A	N/A	N/A
M1 CA Limestone	MD23	Batch	Trade partner	Yes	Yes	Yes
F5 ACET	ACET-Invoices	Batch	Trade partner	Yes	Yes	Yes
M1 CA Limestone	MD24	Batch	Trade partner	Yes	Yes	Yes
F2 PET	MD25	Batch	Trade partner	Yes	Yes	Yes
F2 PET	MD26	Batch	Trade partner	Yes	Yes	Yes
F2 PET	MD27	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)
M1 CA Limestone	S5	MD16, MD23, MD24	<1.5%	Standard	3	N/A	1	N/A	N/A	1	N/A	97098	47.61	Major	Yes	n/a	n/a

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)
M5 Na Sod Carb	S1,S2	MD20	<5.0%	Standard	No tier	No tier	No tier	No tier	No tier	No tier	N/A	60	0.03	De-minimise	Yes	n/a	n/a
F2 PET	S5	MD10, MD11, MD12, MD13, MD25, MD26, MD27	<1.5%	Standard	4	3	3	N/A	1	N/A	N/A	53734	26.35	Major	Yes	n/a	n/a
F3 DSL	S10,S8	MD14	<5.0%	Standard	No tier	2a	2a	No tier	1	N/A	N/A	2	0	De-minimise	Yes	n/a	n/a
M2 CA Lime Dust	S5	MD10	<1.5%	Standard	No tier	No tier	No tier	No tier	No tier	No tier	N/A	2177	1.07	De-minimise	N/A	n/a	n/a
M3 CA Reject Stone	S5	MD10	<1.5%	Standard	No tier	No tier	No tier	No tier	No tier	No tier	N/A	6	0	De-minimise	N/A	n/a	n/a
M4 CA Pre Heater Stone	S5	MD10	<1.5%	Standard	No tier	No tier	No tier	No tier	No tier	No tier	N/A	216	0.11	De-minimise	N/A	n/a	n/a
F5	S17	ACET-	N/A	Standard	No tier	2a	2a	N/A	1	N/A	N/A	2	0	De-	Yes	n/a	n/a

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)
ACET		Invoices		rd										minimis			
M5 CA Slaker Grits	S5	MD10	<5.0%	Standard	No tier	No tier	No tier	No tier	No tier	No tier	N/A	34	0.02	De-minimis	N/A	n/a	n/a
F1 Nat Gas	S1,S11, S12,S13,S14,S15,S2,S3,S4,S5,S6,S7	MD1 (GNI), MD2 (GNI)	<1.5%	Standard	4	3	3	N/A	1	N/A	N/A	50613	24.82	Major	Yes	n/a	n/a

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

203942

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
SLR Stock Survey Uncertainty Statement, 23-11-12.pdf	SLR Stock Survey Uncertainty Statement
Unreasonable Costs Calculation, January 2013.docx	Unreasonable Cost Derogation Calculation
Uncertainty Associated with Gas Measurements 2014.pdf	Uncertainty associated with gas measurements
Uncertainty Associated With Measurement of Petcoke 2016.pdf	Uncertainty associated with measurement of Petcoke
Uncertainty Calculations for Lime Fines, Reject Lime & Preheater Stone 2016.pdf	Uncertainty calculation for Lime Fines, Reject Lime and Preheater Stone
Uncertainty Calculations for Limestone 2016.pdf	Uncertainty calculation for Limestone
NG Newtownstalaban Calibration Sheet 2018.pdf	BGN Newtownstalaban NG AGI calibration certs
Avery Weigh-Tronix - Weighbridge Calibration Cert 2018.pdf	RHIM (Premier Periclase) weighbridge calibration certificate
LCC weighbridge calibration cert 2017.pdf	LCC weighbridge calibration certificate

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
M1 CA Limestone	S5	3	N/A	1	N/A	N/A	1	N/A
M5 Na Sod Carb	S1,S2	No tier	No tier	No tier	No tier	No tier	No tier	N/A
F2 PET	S5	4	3	3	N/A	1	N/A	N/A
F3 DSL	S10,S8	No tier	2a	2a	No tier	1	N/A	N/A
M2 CA Lime Dust	S5	No tier	No tier	No tier	No tier	No tier	No tier	N/A
M3 CA Reject Stone	S5	No tier	No tier	No tier	No tier	No tier	No tier	N/A
M4 CA Pre Heater Stone	S5	No tier	No tier	No tier	No tier	No tier	No tier	N/A
F5 ACET	S17	No tier	2a	2a	N/A	1	N/A	N/A
M5 CA Slaker Grits	S5	No tier	No tier	No tier	No tier	No tier	No tier	N/A
F1 Nat Gas	S1,S11,S12,S13,S14,S15,S2,S3,S4,S5,S6,S7	4	3	3	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)
F3 DSL	S10,S8	NCV, EF & OxF	Ireland's National Greenhouse Gas Inventory	n/a
F5 ACET	S17	NCV, EF & OxF	Ireland's National Greenhouse Gas Inventory	n/a
F1 Nat Gas	S1,S11,S12,S13,S14,S15,S2,S3,S4,S5,S6,S7	OxF	Ireland's National Greenhouse Gas Inventory	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
M1 CA Limestone	S5	EF	Sampled as per site procedure QD13 PPL GHG-14.1. Analysis done by Methods C201	Every quarry blast (approx. 15 per year)	Lucideon (formerly Ceram)	Yes	n/a

Source Stream Refs.	Emission Source Refs.	Parameter	Method of Analysis	Frequency	Laboratory Name	Laboratory ISO17025 Accredited	Evidence Reference
			based on BSEN ISO 12677:2011, XRF analysis.				
M1 CA Limestone	S5	Conversion Factor	Sampling as per procedure QD13 PPL GHG-14.1. Analysis done by Methods C201 based on BSEN ISO 12677:2011, XRF analysis.	Quarterly	Lucideon (formerly Ceram)	Yes	n/a
F2 PET	S5	NCV	Sampled as per site procedure QD13 PPL GHG-14.4, Analysis done - Moisture (CA2), Ash (CA3), Total Moisture (SP1 & CA1), Volatile Matter (CA6), Sulphur (CA31), Chlorine (CA36), Gross Calorific Value (CA11), Carbon (CA9), Hydrogen (CA9) & Nitrogen (CA9)	Every 20,000 tonnes and at least six times per year	Socotec (formerly Environmental Scientifics Group Ltd.)	Yes	n/a
F2 PET	S5	EF	Sampled as per site procedure QD13 PPL GHG-14.4, Analysis done -	Every 20,000 tonnes and at least six times per year	Socotec (formerly Environmental Scientifics Group Ltd.)	Yes	n/a

Source Stream Refs.	Emission Source Refs.	Parameter	Method of Analysis	Frequency	Laboratory Name	Laboratory ISO17025 Accredited	Evidence Reference
			Moisture (CA2), Ash (CA3), Total Moisture (SP1 & CA1), Volatile Matter (CA6), Sulphur (CA31), Chlorine (CA36), Gross Calorific Value (CA11), Carbon (CA9), Hydrogen (CA9) & Nitrogen (CA9)				
M2 CA Lime Dust	S5	Conversion Factor	Sampled as per site procedure QD13 PPL GHG-14.3, Analysis as per EN459-2: 2010-09, Residual CO2 & TOC on quarterly sample	Monthly	IKM Institut fur Kalk- und Mortellforschung	Yes	n/a
M3 CA Reject Stone	S5	Conversion Factor	Sampled as per site procedure QD13 PPL GHG-14.3, Analysis as per EN459-2: 2010-09, Residual CO2.	Per kiln stop	IKM Institut fur Kalk -und Mortellforschung	Yes	n/a
M4 CA Pre Heater Stone	S5	Conversion Factor	Sampled as per site procedure QD13 PPL GHG-14.3, Analysis as per EN459-2: 2010-09,	As per kiln stop	IKM Institut fur Kalk -und Mortellforschung	Yes	n/a

Source Stream Refs.	Emission Source Refs.	Parameter	Method of Analysis	Frequency	Laboratory Name	Laboratory ISO17025 Accredited	Evidence Reference
			Residual CO2.				
M5 CA Slaker Grits	S5	Conversion Factor	Sampled as per site procedure QD13 PPL GHG-14.3, Analysis as per EN459-2: 2010-09, Residual CO2.	Quarterly	IKM Institut für Kalk-und Mortelforschung	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	Procedures for (1) Sequence & Interaction of Data Acquisition & Handling Activities, including Methods of Calculation & Measurement, (2) Outsourced Processes & (3) Details of External Materials Testing
Reference for procedure	QD13 PPL GHG-01, GHG-06 & GHG-09
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	Procedures outline the relevant inputs, calculations and outputs (GHG-01), minimum requirements for external analysis and lists approved suppliers (GHG-06) and types of materials tested & range of tests carried out (GHG-09).
Post or department responsible for the procedure and for any data generated	Technical Services Co-Ordinator
Location where records are kept	Main Server
Name of IT system used	Microsoft Office - Word & Excel
List of EN or other standards applied	EN 459, EN 12485, ASTM D 4931 & ASTM D 5865

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
QD13 PPL GHG 01 (V3).pdf	Sequence & Interaction of Data Acquisition and Handling Activities including Methods of
QD13 PPL GHG 06 (V3).pdf	Outsourced Processes
QD13 PPL GHG 09 (V3).pdf	Details of External Materials Testing
QD13 PPL GHG 14-1 (V3).pdf	Limestone sampling plan
QD13 PPL GHG 14-2 (V3).pdf	Lime sampling plan
QD13 PPL GHG 14-3 (V3).pdf	Lime Kiln waste streams sampling plan
QD13 PPL GHG 14-4 (V3).pdf	Petcoke sampling plan
QD13 PPL GHG 16 (V3).pdf	Revision of Sampling Plan
QD13 PPL GHG 17 (V3).pdf	Annual Stock Survey
SOCOTEC ISO 17025 Schedule 0001.pdf	Socotec ISO 17025 Testing Schedule 0001
IKM eV ISO 17025 accreditation certificate (EN)_30.11.2018.PDF	IKM ISO accreditation certificate (EN)
IKM eV ISO 17025 Testing Schedule (EN)_30.11.2018.PDF	IKM ISO 17025 Testing Schedule (EN)

Title of procedure	Sampling plans for Limestone, Lime, Lime kiln waste streams and Petcoke
Reference for procedure	QD13 PPL GHG-14.1, 14.2, 14.3 & 14.4
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	Sampling plans for Limestone, Lime, Lime kiln waste streams (Lime Kiln Dust, Pre-heater Stone & Reject Lime) and Petcoke
Post or department responsible for the procedure and for any data generated	Technical Services Co-Ordinator
Location where records are kept	Main Server
Name of IT system used	Microsoft Office - Word & Excel
List of EN or other standards applied	EN 459, EN 12485, ASTM D 4931 & ASTM D 5865

aa. Sampling Plan Appropriateness

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

Title of procedure	Greenhouse Gas Emissions (GHG) Procedure - Revision of Sampling Plan
Reference for procedure	QD13 PPL GHG-16
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	Procedure outlines the requirements for revising the sampling plans.
Post or department responsible for the procedure and for any data generated	Technical Services Co-Ordinator
Location where records are kept	Main Server
Name of IT system used	Microsoft Office - Word & Excel
List of EN or other standards applied	N/A

Are stock estimates carried out as part of the emission calculations? Yes

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	Greenhouse Gas Emissions (GHG) Trading Scheme - Annual Stock Survey
Reference for procedure	QD13 PPL GHG-17
Diagram reference	N/A
Brief description of procedure.	Procedure outlines the annual stock survey process and lists the current approved supplier.
Post or department responsible for the procedure and for any data generated	Technical Services Co-Ordinator
Location where records are kept	Main Server
Name of IT system used	Microsoft Office - Word & Excel
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	Greenhouse Gas Emissions (GHG) Trading Scheme - Monitoring, Reporting & Verification Procedures
Reference for procedure	QD13 PPL GHG-04 & GHG-18
Diagram reference	N/A
Brief description of procedure.	These procedures outline the measuring equipment under the operator's control and describes the procedure in the event of an error, failure or compromise of data and also the list of GHG related equipment for calibration at the installation along with the calibration frequency and approved contractors.
Post or department responsible for the procedure and for any data generated	Technical Services Co-Ordinator
Location where records are kept	Main Server
Name of IT system used	Microsoft Office - Word & Excel
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
Project Manager - Business Development	Co-ordination & collection of all data relevant to GHG monitoring and reporting to ensure company compliance with the scheme. Preparation of the AIER for audit by the verifier and submission to the EPA. Analysis of GHG data for senior management. Primary contact & liaison with EPA on all matters relating to GHG monitoring & reporting. Primary contact on EU ETS Registry.
Managing Director / Plant Manager	Overall responsibility for company compliance with the ETS. Review of annual submission
Operations Manager	Overall responsibility for raw materials & fuels use in plant, year-end stocks and allocation of resources. Primary contact on EU ETS Registry.
Chief Accountant / Plant Controller	Responsible for auditing and verification of invoiced quantities. Annual internal audit of data & calculations
Electrical Engineer	Overseeing maintenance & calibration of on-site weighbridge and logging & reporting of downtime for same.
Production Manager	Day to day operation of plant. Ensures that repairs, maintenance etc. of environmental related plant is done as necessary. Organisation of sampling & weighing of source streams as required.
EH&S Manager	Primary EPA contact for all non-GHG & ETS related matters. Overall responsibility for the company's Environmental Management System. Additional authorised contact on EU ETS Registry.
Laboratory Technician	Collect & prepare samples for external analysis by ISO 17025 accredited laboratories. In house analysis of same samples.

Attachment	Description
RHIM Drogheda (PPL) Organisation Chart - Nov 2018.xlsx	RHIM Drogheda (PPL) Organisation Chart

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	Greenhouse Gas Emissions (GHG) Trading Scheme - Roles and Responsibilities
Reference for procedure	QD13 PPL GHG-03
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	Procedure outlines the roles and responsibilities of the various plant personnel associated with the GHG system in Premier Periclase so to manage 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.
Post or department responsible for the procedure and for any data generated	Technical Services Co-Ordinator
Location where records are kept	Main Server
Name of IT system used	Microsoft Office - Word & Excel
List of EN or other standards applied	N/A

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	Greenhouse Gas Emissions (GHG) Trading Scheme - (1) Definition & Evaluation of the Control System & Monitoring Plan Appropriateness and (2) Monitoring Plan - Findings
Reference for procedure	QD13 PPL GHG-02 and GHG-10
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	Procedures outline the overall control system in place in the plant and puts in place a methodology for the review of the appropriateness of the current stated tiers and uncertainty threshold (GHG-02) and the annual Q4 internal audit and review of the continued relevancy of the Monitoring Plan (GHG-10) to ensure;
	- 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 of 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 are applied.

Post or department responsible for the procedure and for any data generated	Technical Services Co-Ordinator
Location where records are kept	Main Server
Name of IT system used	Microsoft Office - Word & Excel
List of EN or other standards applied	N/A

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	Greenhouse Gas Emissions (GHG) Trading Scheme - Emission Flow Charts
Reference for procedure	QD13 PPL GHG-12
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	Procedure outlines the process flow for the plant so as to manage data flow activities in accordance with Article 57 of the MRR.
Post or department responsible for the procedure and for any data generated	Technical Services Co-Ordinator
Location where records are kept	Main Server
Name of IT system used	Microsoft Office - Word & Excel
List of EN or other standards applied	N/A
List of primary data sources	M1 CA: EF - Limestone analysis determined by external laboratory as described by QD13 PPL GHG-06
	M1 CA: Conversion Factor - sampling & external testing under QD13 PPL GHG-14.1, 14.2, 14.3 & 14.4
	F2 PET: NCV - calorimetry method (ASTM 5865). Done for each shipment or every 20,000T
	F2 PET: EF - calculated from % Carbon analysis as per ASTM D 4931. Done for each shipment or every 20,000T
Description of the relevant processing steps for each specific data flow activity.	Refer to already attached procedure QD13 PPL GHG-01 & GHG-06 which describe - (1) relevant inputs, calculations & outputs of the GHG System and (2) minimum requirements for external analysis and lists the approved external suppliers.
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
QD13 PPL GHG 02 (V3).pdf	Definition and Evaluation of the Control System & Monitoring Plan Appropriateness
QD13 PPL GHG 03 (V4).pdf	Roles and Responsibilities
QD13 PPL GHG 10 (V3).pdf	Monitoring Plan - Findings
QD13 PPL GHG 12 (V3).pdf	Emission Flow Charts

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:

Title of procedure	GHG Monitoring & Reporting Procedures - Risk Assessment - Findings
Reference for procedure	QD13 PPL GHG-15
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	This procedure describes the method, storage location and actions to be taken following the annual risk assessment check so as to assess inherent risks and control risks in accordance with Article 58 of the MRR.
Post or department responsible for the procedure and for any data generated	Technical Services Co-Ordinator
Location where records are kept	Main Server
Name of IT system used	Microsoft Office - EXCEL
List of EN or other standards applied	N/A

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	Greenhouse Gas Emissions (GHG) Trading Scheme - (1) Quality Assurance of Measuring Equipment & Information Technology Used and (2) Calibration List
Reference for procedure	QD13 PPL GHG-04 & GHG-18

Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	These procedures outline the measuring equipment under the operator's control and describes the procedure in the event of an error, failure or compromise of data and also the list of GHG related equipment for calibration at the installation along with the calibration frequency and approved contractors so as to ensure quality assurance of measuring equipment in accordance with Article 58 and 59 of the MRR.
Post or department responsible for the procedure and for any data generated	Technical Services Co-Ordinator
Location where records are kept	Main Server
Name of IT system used	Microsoft Office - Word & Excel
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	Greenhouse Gas Emissions (GHG) Trading Scheme - Quality Assurance of Measuring Equipment & Information Technology Used
Reference for procedure	QD13 PP GHG-04
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	Procedure outlines the company's IT storage and back-up facilities and arrangements so as to ensure quality assurance of information technology used for data flow activities in accordance with Article 58 and 60 of the MRR.
Post or department responsible for the procedure and for any data generated	Technical Services Co-Ordinator
Location where records are kept	Main Server
Name of IT system used	Microsoft Office - Word & Excel
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	Greenhouse Gas Emissions (GHG) Trading Scheme - Internal Review Reported Data
Reference for procedure	QD13 PPL GHG-05
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	This procedure outlines the internal review and audit process for reported data, cross-checks & time frames so as to ensure regular internal reviews and validation of data in

Post or department responsible for the procedure and for any data generated	accordance with Articles 58 and 62 of the MRR. Technical Services Co-Ordinator
Location where records are kept	Main Server
Name of IT system used	Microsoft Office - Word & Excel
List of EN or other standards applied	N/A

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:

Title of procedure	Greenhouse Gas Emissions (GHG) Trading Scheme - Corrections and Corrective Actions
Reference for procedure	QD13 PPL GHG-07
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	Procedure outlines the procedure for dealing with corrections and corrective actions so as to handle corrections and corrective actions in accordance with Articles 58 and 63 of the MRR.
Post or department responsible for the procedure and for any data generated	Technical Services Co-Ordinator
Location where records are kept	Main Server
Name of IT system used	Microsoft Office - Word & Excel
List of EN or other standards applied	N/A

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	Greenhouse Gas Emissions (GHG) Trading Scheme - Outsourced Processes
Reference for procedure	QD13 PPL GHG-06
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	This procedure describes the minimum requirements for external analysis and lists the approved suppliers for the GHG system. It includes both laboratory services and calibration of equipment and it also sets out the checks carried out on incoming data so as to control outsourced processes in accordance with Articles 59 and 64 of the MRR.
Post or department responsible for the procedure and for any data generated	Technical Services Co-Ordinator
Location where records are kept	Main Server
Name of IT system used	Microsoft Office - Word & Excel
List of EN or other standards applied	All external services used are accredited to the appropriate

standard for the service provided and testing required, e.g. Environmental Scientifics Group Ltd. (ESG) are used for Petcoke analysis, Ceram for Limestone analysis and IKM for Lime and Lime kiln waste stream analysis. They are all accredited to ISO17025, copies of their ISO certificates are attached as supporting documents.

nn. Record Keeping and Documentation

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

Title of procedure	Greenhouse Gas Emissions (GHG) Trading Scheme - Records and Documentation
Reference for procedure	QD13 PPL GHG-08
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	Procedure outlines the method of developing, processing and retaining documents related to GHG activities so as to manage record keeping and documentation for a minimum of 10 years in accordance with Annex IX of the MRR.
Post or department responsible for the procedure and for any data generated	Technical Services Co-Ordinator
Location where records are kept	Main Server
Name of IT system used	Microsoft Office - Word & Excel
List of EN or other standards applied	N/A

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
RHIM Drogheda (Premier Periclase) EU ETS Phase III Risk Assessment V4.xlsx	GHG Risk Assessment
QD13 PPL GHG 04 (V3).pdf	Quality Assurance of Measuring Equipment and Information
QD13 PPL GHG 05 (V3).pdf	Internal Review of Reported Data
QD13 PPL GHG 07 (V3).pdf	Corrections and Corrective Actions
QD13 PPL GHG 08 (V3).pdf	Records and Documentation
QD13 PPL GHG 13 (V3).pdf	Reports, Timeframes and Notifications
QD13 PPL GHG 15 (V3).pdf	Risk Assessment - Findings
QD13 PPL GHG 18 (V3).docx	Calibration List
QD13 PPL GHG 19 (V3).pdf	Changes in Operation and Reduction in Capacity

pp. Environmental Management System

Does your organisation have a documented Environmental Management System? Yes

Is the Environmental Management System certified by an accredited organisation? No

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.

Title of procedure	Greenhouse Gas Emissions (GHG) Trading Scheme - Changes in Operation and Reduction in Capacity
Reference for procedure	QD13 PPL GHG-19
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	Procedure outlines the requirements to notify the EPA of any changes in operation or reduction in capacity so to 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.
Post or department responsible for the procedure and for	Technical Services Co-Ordinator

any data generated	
Location where records are kept	Main Server
Name of IT system used	Microsoft Office - Word & Excel

13. Abbreviations

rr. Abbreviations Acronyms or definitions

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

Abbreviation	Definition
PPL	Premier Periclase Ltd.
GHG	Greenhouse Gas
DBM	Deadburned Magnesia
QC	Quality Control
AGI	Above Ground Installation
GNI	Gas Networks Ireland
MHF / MHFs	Multi-hearth Furnace / Multi-Hearth Furnaces
Petcoke	Petroleum Coke
SK / SKs	Shaft Kiln / Shaft Kilns
RHIM	RHI Magnesita

14. Additional Information

Any other information:

Attachment	Description
Bureau Veritas statement on Draft Survey accuracy, 22-12-15.pdf	Draft survey report
Intertek DRAFT SURVEY-1 procedure.pdf	Intertek draft survey
19.0754 RHI MAgnesia Drogheda ISO 9000 certs, 17-09-18.pdf	RHIM Drogheda (Premier Periclase Ltd.) ISO 9001:2015 registration certificate
Socotec UKAS ISO17025 Cert.pdf	Socotec (Environmental Scientifics Group Ltd.) ISO 17025 accreditation certificate

Attachment	Description
SOCOTEC UKAS 0001.pdf	Socotec (Environment Scientifics Group Ltd.) ISO 17025 Schedule of Accreditation
IKM ISO 17025 - Akkreditierungsurkunde englisch 2014.PDF	IKM ISO 17025 Accreditation Certificate
Akkreditierungsurkunde Anlage englisch 2014.PDF	IKM ISO 17025 schedule of accreditation
Lucideon ISO 17025 - UKAS Certificate 17025 0013 2014.pdf	Lucideon ISO 17025 accreditation certificate
2018 GNI Newtownstalaban Metering Summary.pdf	MD1 and MD2 2018 GNI Metering Summary
Statement re non-use of Diesel & Kerosene for heating (CG), 02-12-15.pdf	S13 and S14 changed from Diesel to NG Jan 2015
PPL - Avery Weigh-Tronix Weighbridge Calibration Cert 2018.pdf	MD10 PP Weighbridge Calib Cert 2018
Uncertainty of Stockpile surveys as carried out by SLR for PPL, 23-11-12.pdf	MD11 SLR consult Stockpile survey SOP
Measurement of bulk cargoes - draught surveys.pdf	MD27 Draft Survey Measurement of Bulk Cargoes Carried out by shipper for MD27
Sartorius L420P balance calibration cert, 20-02-17 (Limestone LOD analysis).pdf	MD13 weighscale calibration cert 2017
Duleek (Roadstone) quarry weighbridge calibration cert 2018.pdf	MD16 Roadstone Duleek weighbridge calib cert 2018
Mullaghcrone (Roadstone) quarry weighbridge calibration cert 2018.pdf	MD23 Roadstone Mullaghcrone weighbridge calib cert 2018
LCC Belfast weighbridge calibration cert 2018.pdf	MD25 Lissan CC weighbridge calib cert 2018
Note on calc of Limestone factor.pdf	Note on calculation of Limestone factor
Procedure De Minimis Combustion Sources - Use in 2019 (V2 05-11-19).docx	Procedure for measuring activity level of de minimis emission sources
Shaft Kiln Standby Diesel Generator out of service (POR) 02-12-15 (002).pdf	Evidence that S9 is out of service
UKAS-Schedule-of-Accreditation-Lucideon at 28.11.19.pdf	Lucideon Schedule of Accreditation

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.