



Headquarters,
Johnstown Castle Estate,
County Wexford, Ireland

GREENHOUSE GAS EMISSIONS PERMIT

Permit Register Number:	IE-GHG002-10335-4
Operator:	Saint-Gobain Construction Products (Ireland) Limited Unit 4 Kilcarbery Business Park Nangor Road Dublin 22
Installation Name:	Kingscourt Works
Site Name:	Kingscourt Works
Location:	Navan Road Kingscourt Cavan 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-GHG002-10335.

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
P0519-03

Status Log

Current Permit

Permit number	Date application received	Date Permit issued	Comment
IE-GHG002-10335-4	30 September 2015	03 February 2016	<ol style="list-style-type: none"> 1. Change of operator name from Gypsum Industries Limited to Saint-Gobain Construction Products (Ireland) Limited. Corresponding update of IED reference. 2. Removal of S26 & S36 and inclusion of (S40, S41 & S42) all minor emission sources. 3. Minor update to emission points (Canteen removed, BE17 & BE18 added) 4. Update of capacities for S29, S30, S35, & S37 following audit reviews. The total capacity is now 60.35 MW. 5. Update to management procedures and references following internal audit.

Previous Permits

Permit number	Change Type	Date application received	Date Permit issued	Comment
IE-GHG002-10335-1	GHG Permit Application	30 November 2012	29 April 2013	

Permit number	Change Type	Date application received	Date Permit issued	Comment
IE-GHG002-10335-2	GHG Variation	10 April 2014	10 April 2014	Update of Annex I Activity Category to drying or calcination of gypsum or production of plaster boards and other gypsum products, where combustion units with a total rated thermal input exceeding 20 MW are operated.
IE-GHG002-10335-3	GHG Variation	15 December 2014	27 January 2015	<ol style="list-style-type: none">1. Change to Service Contact title.2. Correction of total thermal input capacity from 61 to 60.46 MW).3. Update to management procedures and references.

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)	Saint-Gobain Construction Products (Ireland) 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 issues this Greenhouse Gas Emissions Permit, subject to any subsequent revisions, corrections or modifications it deems appropriate, to:

The Operator:

Saint-Gobain Construction Products (Ireland) Limited
Unit 4 Kilcarbery Business Park
Nangor Road
Dublin 22

Company Registration Number: 11815

to carry out the following

Categories of activity:

Annex 1 Activity

Drying or calcination of gypsum or production of plaster boards and other gypsum products, where combustion units with a total rated thermal input exceeding 20 MW are operated

at the following installation(s):

Kingscourt Works **Installation number: 2**

located at

Navan Road
Kingscourt
Cavan
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.: 2

Activity Description
Drying or calcination of gypsum or production of plaster boards and other gypsum products, where combustion units with a total rated thermal input exceeding 20 MW are operated
Directly Associated Activity Description
N/A

- 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	Precipitator (PM-RM-008-1)	0.75	MW
S2	Precipitator (PM-RM-008-2)	0.75	MW
S3	Precipitator (PM-RM-008-3)	0.75	MW
S4	Precipitator (PM-RM-008-4)	0.75	MW
S5	Raymond Mill 5 (PM-R5-18)	2.78	MW
S6	Precipitator (PM-K3-SB-003)	2.1	MW
S7	Precipitator (PM-K4-SB-005)	2.1	MW

Emission Source Reference	Emission Source Description	Capacity	Capacity Units
S8	Precipitator (PM-K5-SB-007)	2.1	MW
S9	Precipitator (PM-K3-BB-002)	2.95	MW
S10	Precipitator (PM-K4-BB-004)	2.95	MW
S11	Precipitator (PM-K5-BB-006)	2.95	MW
S12	Conical Kettle 6 (PM-K6-19)	8.8	MW
S13	Vermiculite & Perlite Expander (No1)	1.17	MW
S14	Vermiculite & Perlite Expander (No3)	1.17	MW
S15	Board Plant Dryer (BP-CV-13)	1.3	MW
S16	Board Plant Dryer (BP-CV-14)	1.3	MW
S17	Board Plant Dryer (BP-CV-15)	1.3	MW
S18	Board Plant Dryer (BP-CV-16)	1.3	MW
S19	Board Dryer Plant (BP-CV-17)	1.3	MW
S21	Board Plant Dryer (BP-Z1-010/1)	8.5	MW
S22	Board Plant Dryer (BP-Z2-011/1)	8.5	MW
S23	Board Plant Dryer (BP-Z3-012/1)	4.1	MW

Emission Source Reference	Emission Source Description	Capacity	Capacity Units
S24	Office Boiler 1	0.12	MW
S25	Office Boiler 2	0.06	MW
S27	Lab (Various)	0.1	MW
S28	Gas Heater #1 Plaster Mill DIY	0.03	MW
S29	Gas Heater #2 Plaster Mill DIY	0.01	MW
S30	Gas Heater #3 Plaster Mill DIY	0.01	MW
S31	Gas Heater #1 Board Plant Foiling Area	0.02	MW
S32	Gas Heater #2 Board Plant Foiling Area	0.03	MW
S33	Gas Heater #3 Board Plant Foiling Area	0.02	MW
S34	Gas Heater #4 Board Plant Foiling Area	0.03	MW
S35	Gas Heater #1 (Plaster Mill Bagging)	0.03	MW
S37	Gas Heater (Engineering Workshop)	0.09	MW
S38	Gas Boiler 1 (Amenities Room)	0.03	MW
S39	Gas Boiler 2 (Amenities Room)	0.03	MW
S40	Gas Heater #1 Board Plant Sorting Area	0.03	MW

Emission Source Reference	Emission Source Description	Capacity	Capacity Units
S41	Gas Heater #2 Board Plant Sorting Area	0.03	MW
S42	Acetylene	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 03 February 2016:

PRESENT when the seal of the Agency was affixed hereto:

Ms. Annette Prendergast
Inspector/ Authorised Person

Appendix 1 to Greenhouse Gas Emissions Permit Number IE-GHG002-10335

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	Kingscourt Works
Site name	Kingscourt Works
Address	Navan Road Kingscourt Cavan Ireland

Grid reference of site main entrance	278653E, 292145N
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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
P0519-03	Saint-Gobain Construction Products (Ireland) 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 Saint-Gobain Construction Products (Ireland) Limited

Company Registration Number 11815

Operator Legal status

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

(c) Company / Corporate Body

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

Trading / business name Gyproc

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

Title Mr
Forename Patrick
Surname O'Connor
Position Operations Director

Registered office address

Address Line 1 Unit 4 Kilcarbery Business Park
Address Line 2 Nangor Road
City/Town Dublin 22
County N/A
Postcode N/A

Principal office address

Is the principal office address different to the registered office address? Yes

Address Line 1 Navan Road
Address Line 2 N/A
City/Town Kingscourt
County Cavan
Postcode N/A
Company registration number 11815

Holding company

Does the company belong to a holding company? Yes

Holding company name Skiptex Limited

Holding company address

Address Line 1	Saint-Gobain House
Address Line 2	Binley Business Park
City/Town	Coventry
County	N/A
Postcode	CV3 2TT, United Kingdom
Company registration number	01820308

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**

Name	Mr Patrick O'Connor
Address / Email Address	Saint-Gobain Construction Products (Ireland) Limited Navan Road Kingscourt Cavan 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.

Saint-Gobain Construction Products (Ireland) Limited operates a stand alone manufacturing site producing plaster based products. The installation has two main process steps - the production of plasters and the conversion of plasters into plasterboard.

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
Drying or calcination of gypsum or production of plaster boards and other gypsum products, where combustion units with a total rated thermal input exceeding 20 MW are operated	60.35	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
(6) KCENV MN8 Rev.0-Layout A1 R1.pdf	Revision 1 Emission points with added table detailing Source streams

Emission Source Reference	Emission Source Description
S14	Vermiculite & Perlite Expander (No3)
S15	Board Plant Dryer (BP-CV-13)
S16	Board Plant Dryer (BP-CV-14)
S17	Board Plant Dryer (BP-CV-15)
S18	Board Plant Dryer (BP-CV-16)
S19	Board Dryer Plant (BP-CV-17)
S21	Board Plant Dryer (BP-Z1-010/1)
S22	Board Plant Dryer (BP-Z2-011/1)
S23	Board Plant Dryer (BP-Z3-012/1)
S5	Raymond Mill 5 (PM-R5-18)
S24	Office Boiler 1
S25	Office Boiler 2
S27	Lab (Various)
S28	Gas Heater #1 Plaster Mill DIY
S29	Gas Heater #2 Plaster Mill DIY
S30	Gas Heater #3 Plaster Mill DIY
S31	Gas Heater #1 Board Plant Foiling Area
S32	Gas Heater #2 Board Plant Foiling Area
S33	Gas Heater #3 Board Plant Foiling Area
S34	Gas Heater #4 Board Plant Foiling Area
S35	Gas Heater #1 (Plaster Mill Bagging)
S37	Gas Heater (Engineering Workshop)
S38	Gas Boiler 1 (Amenities Room)
S39	Gas Boiler 2 (Amenities Room)
S40	Gas Heater #1 Board Plant Sorting Area
S41	Gas Heater #2 Board Plant Sorting Area
S42	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	Precipitator (PM-RM-008-1)
S2	Precipitator (PM-RM-008-2)
S3	Precipitator (PM-RM-008-3)
S4	Precipitator (PM-RM-008-4)
S5	Raymond Mill 5 (PM-R5-18)

Emission Source Reference	Emission Source Description
S6	Precipitator (PM-K3-SB-003)
S7	Precipitator (PM-K4-SB-005)
S8	Precipitator (PM-K5-SB-007)
S9	Precipitator (PM-K3-BB-002)
S10	Precipitator (PM-K4-BB-004)
S11	Precipitator (PM-K5-BB-006)
S12	Conical Kettle 6 (PM-K6-19)
S13	Vermiculite & Perlite Expander (No1)
S14	Vermiculite & Perlite Expander (No3)
S15	Board Plant Dryer (BP-CV-13)
S16	Board Plant Dryer (BP-CV-14)
S17	Board Plant Dryer (BP-CV-15)
S18	Board Plant Dryer (BP-CV-16)
S19	Board Dryer Plant (BP-CV-17)
S21	Board Plant Dryer (BP-Z1-010/1)
S22	Board Plant Dryer (BP-Z2-011/1)
S23	Board Plant Dryer (BP-Z3-012/1)
S24	Office Boiler 1
S25	Office Boiler 2
S27	Lab (Various)
S28	Gas Heater #1 Plaster Mill DIY
S29	Gas Heater #2 Plaster Mill DIY
S30	Gas Heater #3 Plaster Mill DIY
S31	Gas Heater #1 Board Plant Foiling Area
S32	Gas Heater #2 Board Plant Foiling Area
S33	Gas Heater #3 Board Plant Foiling Area
S34	Gas Heater #4 Board Plant Foiling Area
S35	Gas Heater #1 (Plaster Mill Bagging)
S37	Gas Heater (Engineering Workshop)
S38	Gas Boiler 1 (Amenities Room)
S39	Gas Boiler 2 (Amenities Room)
S40	Gas Heater #1 Board Plant Sorting Area
S41	Gas Heater #2 Board Plant Sorting Area
S42	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
AE1	Precipitator Stack
AE8	K6 Stack
AE9	Raymond Mill 5 Stack
AE10	Vermiculite and Perlite Expander Stack
BE1	Board Plant Dryer Heat Exchanger Exhaust Stack
BE9	Office Boilers Stack
BE10	Office Boiler Stack
BE11	Radiant Gas Heaters Foiling
BE12	Radiant Gas Heaters Mill DIY
BE13	Radiant Gas Heaters Mill Bagging
BE14	Radiant Gas Heater (Engineering Workshop)
BE15	Amenities Building Boiler 1 Stack
BE16	Amenities Building Boiler 2 Stack
LAB	Lab Bunsen Burner
BE17	Radiant Gas Heaters Board Plant Sorting Area
BE18	Acetylene Cutting / Welding Engineering Workshop

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
NG 1	Combustion: Other gaseous & liquid fuels	Natural Gas
GO 1	Combustion: Commercial standard fuels	Gas/Diesel Oil
PG 1	Combustion: Other gaseous & liquid fuels	Liquefied Petroleum Gases
ACTYL 1	Combustion: Other gaseous & liquid fuels	Acetylene

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
NG 1	S1,S2,S3,S4,S6,S7,S8,S9,S10,S11,S12,S13,S14,S15,S16,S17,S18,S19,S21,S22,S23,S25,S28,S29,S30,S31,S32,S33,S34,S35,S37,S38,S39,S40,S41	AE1,AE10,AE8,AE9,BE1,BE11,BE12,BE13,BE14,BE15,BE17	Drying or calcination of gypsum or production of plaster boards and other gypsum products, where combustion units with a total rated thermal input exceeding 20 MW are operated
GO 1	S24,S25	BE10,BE9	where combustion units with a total rated thermal input exceeding 20 MW are operated,Drying or calcination of gypsum or production of plaster boards and other gypsum products
PG 1	S27	LAB	Drying or calcination of gypsum or production of plaster boards and other gypsum products, where combustion units with a total rated thermal input exceeding 20 MW are operated
ACTYL 1	S42	BE18	Drying or calcination of gypsum or production of plaster boards and other gypsum products, where combustion units with a total rated thermal input exceeding 20 MW are operated

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? No

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:

Natural gas is used extensively throughout the site and accounts for 99.5% of the combustion activities at GIL. Records of monthly gas invoices are used to quantify overall gas usage in the site. Gas invoices are calculated using the Gas Networks Ireland flow meter situated in the AGI at Ballynaclose. The energy consumption at GIL is calculated by multiplying the volume of gas used by its calorific value. The calorific value is calculated by a chromatograph located at Brownsbarn, 30km from the Ballynaclose AGI. An average daily calorific value is used in the calculation of consumption.

The KWH and gas volume are recorded in a spreadsheet on a monthly basis. These figures are used to quantify the tonnes of CO₂ produced.

Gas oil: is used in the office heating oil tank on site. Emissions related to gas oil are determined by means of routine examination of the invoice's from the supplying company and reference to the national standards published for NCV and EF. Records of monthly gas oil invoices for the office tank are used to quantify overall gas oil usage, taking into account the closing stock oil 'remaining' in the office heating tank at year end. A stock level measurement 'dip' shall be recorded at current year end to provide a final 'closing stock' measure, this will be used to record an 'opening stock' measure on the Excel spreadsheet maintained on Environmental 'V' drive for the incoming year.

Propane gas: is used in the Lab on site. Propane usage on site is calculated by reference to invoiced quantities. As consumption is very low a "note here" approach has been adopted. This assumes that any propane purchased during the year is combusted. Data for NCV and EF are taken from the latest national inventory data as submitted to the UNFCCC.

Acetylene: Records of acetylene usage will be measured on an annual basis by recording the opening stocks, closing stocks and purchases during the reporting period. As consumption is very low a "note here" approach has been adopted. This CO₂ emission will be monitored by reference to supplier's invoices and the nationally published calculation factors for NCV and EF.

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
NG 1	S1,S10,S11,S12,S13,S14,S15,S16,S17,S18,S19,S2,S21,S22,S23,S28,S29,S3,S30,S31,S32,S33,S34,S35,S37,S38,S39,S4,S40,S41,S5,S6,S7,S8,S9	BG-001-(TP)	Turbine meter	8000	Sm3 h-1	1	Ballinaclose AGI
GO 1	S24,S25	GO1	meter	N/A	litres	N/A	N/A
PG 1	S27	PG1	Invoice	N/A	n/A	N/A	N/A
ACTYL 1	S42	ACTYL 1	Invoice	n/a	n/a	n/a	n/a

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
NG 1	BG-001-(TP)	Continual	Trade partner		Yes	Yes	Yes
GO 1	GO1	Batch	Trade partner		Yes	Yes	Yes
PG 1	PG1	Batch	Trade partner		Yes	Yes	Yes
ACTYL 1	ACTYL 1	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)
NG 1	S1,S2,S3,S4,S6,S7,S8,S9,S10,S11,S12,S13,S14,S15,S16,S17,S18,S19,S21,S22,S23,S5,S28,S29,S30,S31,S32,S33,S34,S35,S37,S38,S39,S40,S41	BG-001-(TP)	<1.5%	Standard	4	2b	2a	N/A	1	N/A	N/A	15681	99.87	Major	Yes	n/a	n/a
GO 1	S24,S25	GO1	<2.5%	Standard	No tier	2a	2a	N/A	1	N/A	N/A	19	0.12	De-minimis	Yes	n/a	n/a
PG 1	S27	PG1	<2.5%	Standard	No tier	2a	2a	N/A	1	N/A	N/A	1	0.01	De-minimis	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)
ACTYL 1	S42	ACTYL 1	<2.5%	Standard	No tier	1	1	N/A	1	N/A	N/A	1	0.01	De-minimis	Yes	n/a	n/a

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

15702

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
NG 1	S1,S2,S3,S4,S6,S7,S8,S9,S10,S11,S12,S13,S14,S15,S16,S17,S18,S19,S21,S22,S23,S5,S28,S29,S30,S31,S32,S33,S34,S35,S37,S38,S39,S40,S41	4	2b	2a	N/A	1	N/A	N/A
GO 1	S24,S25	No tier	2a	2a	N/A	1	N/A	N/A
PG 1	S27	No tier	2a	2a	N/A	1	N/A	N/A
ACTYL 1	S42	No tier	1	1	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)
GO 1	S24,S25	NCV,EF,OxF	Ireland's National Greenhouse Gas Inventory	n/a
PG 1	S27	NCV,EF,OxF	Ireland's National Greenhouse Gas Inventory	n/a
NG 1	S1,S10,S11,S12,S13,S14,S15,S16,S17,S18,S19,S2,S21,S22,S23,S28,S29,S3,S30,S31,S32,S33,S34,S35,S37,S38,S39,S4,S40,S41,S5,S6,S7,S8,S9	EF,OxF	Ireland's National Greenhouse Gas Inventory	n/a
ACTYL 1	S42	Oxf, NCV & EF	As published by the 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? No

11. Management

x. 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
Energy Champion	Collection of month end data detailing site CO2 emissions and entering required data in 'standard' Spreadsheets as maintained on company Environmental 'V' drive Preparation of monthly and annual AER data and Draft reports for the site.
Technical Manager	Audit of Monthly Data prepared by Energy Champion. Audit of Annual AER data and report prior to submission to licencing authority

Attachment	Description
Org chart 2015.pptx	Organisational Chart Senior Management Team & Technical Department

y. 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.

<p>Title of procedure Reference for procedure</p>	<p>Assignment of Responsibilities GHG2013-1 [QPulse document: 'IMSP4 Management Organisation and Responsibility Revision No 9' Keyword:GHG2013-1]</p>
<p>Diagram reference Brief description of procedure. The description should cover the essential parameters and operations performed</p>	<p>N/A Outlines who is responsible for management of monitoring and reporting of greenhouse gas emissions and that they are competent.</p> <p>At Gypsum Industries there is a requirement to monitor, record and report on the consumption of Carbon Producing fossil fuels consumed for the generation of heat on site. A number of roles have been assigned responsibilities for the implementation of procedures necessary to the successful discharge of the companies obligations.</p>
<p>Post or department responsible for the procedure and for any data generated Location where records are kept Name of IT system used</p>	<p>EHS Systems and Maintenance Manager Technical Department QPulse software Data Management System, company I.T. shared database 'V' drive.</p>
<p>List of EN or other standards applied</p>	<p>N/A</p>

z. 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:

<p>Title of procedure Reference for procedure</p>	<p>Monitoring Plan Appropriateness – Description of Activities GHG2013-2 [QPulse Document: ENV 031 'Monitoring and Reporting requirements for Green House Gas Emissions, Revision No. 6' Keyword:GHG2013-2]</p>
<p>Diagram reference Brief description of procedure. The description should cover the essential parameters and operations performed</p>	<p>N/A Outlines requirements for Monitoring and Reporting Plan submission to evaluate the monitoring plan's appropriateness in particular, any potential measures for the improvement of the monitoring methodology and</p>

specifically;

Natural Gas: Natural gas consumption is monitored by reference the metering and consumption data provided by Vayu the commercial supplier. This data is sourced from a third party certified and calibrated set of instruments under the control of Gas Networks Ireland the national gas infrastructure company.

Gas oil: Emissions related to Gas oil are determined by means of routine examination of the invoice's from the supplying company and reference to the national standards published for NCV and EF. Reference is made to Opening/Closing stock in the annual report at start / end of year.

Propane Gas: Propane Gas is consumed on site in the Laboratory for the use of Bunsen burners.This CO2 emission is monitored by reference to suppliers invoices and the nationally published standards for NCV and EF.

Acetylene: is delivered, as and when required, in cylinder form and used for cutting/welding activities on site.This CO2 emission is monitored by reference to suppliers invoices and the nationally published standards for NCV and EF.

Post or department responsible for the procedure and for any data generated	Technical Manager
Location where records are kept	Technical Department
Name of IT system used	QPulse software Data Management System and company I.T. shared database 'V' drive.
List of EN or other standards applied	N/A

aa. Data Flow Activities

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

Title of procedure	Data Flow Activities
Reference for procedure	GHG2013-3 [QPulse Document: ENV 057 'Green House Data Flow activities' Revision No. 1' keyword: GHG2013-3]
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	Outlines how the data is collated and calculated. The data flow activities are shown for each source stream in data flow diagrams which show how the data management procedures link together.

Data is collected from a number of sources on a monthly

<p>Post or department responsible for the procedure and for any data generated</p>	<p>basis and collated using defined spreadsheets to calculate and monitor the energy consumption and Green house gas emissions of GIL Technical Dept</p>
<p>Location where records are kept</p>	<p>Technical Department</p>
<p>Name of IT system used</p>	<p>QPulse software Data Management System, company IT shared data base 'V' drive</p>
<p>List of EN or other standards applied</p>	<p>EN 50,001</p>
<p>List of primary data sources</p>	<p>Gas Networks Ireland AGI Meter Calibration Certs</p>
	<p>Supplier Invoices</p>
	<p>National Inventory data as submitted to the UNFCCC (accessible through EPA website)</p>
<p>Description of the relevant processing steps for each specific data flow activity.</p>	<p>The Natural gas emissions are calculated using the Gas Networks Ireland flow meter (BG-001-(TP)) situated in the AGI at Ballnaclose just outside the perimeter of the factory.</p>
<p>Identify each step in the data flow and include the formulas and data used to determine emissions from the primary data. Include details of any relevant electronic data processing and storage systems and other inputs (including manual inputs) and confirm how outputs of data flow activities are recorded</p>	<p>This turbine flow meter is corrected for both temperature and pressure. The energy consumption at GIL is then calculated by multiplying the volume of the gas used by its calorific value. This data is input to a spreadsheet provided by the EPA .</p>
	<p>Gas Oil consumption is calculated by reference to invoiced quantities. As consumption is very low a "no tier" approach has been adopted. The spreadsheet accounts for Opening stock and closing stock in the oil storage tank which subtracted from all Gas Oil purchased in a reporting year to determine the actual quantity combusted during this period. Data for NCV and EF are taken from the latest National Inventory data as submitted to the UNFCCC.</p>
	<p>Propane consumption is calculated by reference to invoiced quantities. As consumption is very low a "no tier" approach has been adopted. This assumes that any propane purchased in a reporting year is all combusted during that period. Data for NCV and EF are taken from the latest National Inventory data as submitted to the UNFCCC</p>
	<p>Acetylene consumption is calculated by reference to invoiced quantities. As consumption is very low a "no tier" approach has been adopted. This assumes that any Acetylene purchased in a reporting year is all combusted during that period. Data for NCV and EF are taken from the latest National Inventory data as submitted to the UNFCCC</p>

Submit relevant documents to record data flow activities

Attachment	Description
IMSP4 Rev 9 Organisation and Responsibility.docx	Updated revision 9 of controlled document
ENV031 Rev 6 Monitoring and Reporting for GHG.doc	Updated Revision 6 of controlled document
ENV057 Rev No 3 Green House Gas Data flow activities.doc	Updated Revision 3 of controlled document
ENV54 Rev 6 Assessing & Controlling the risks.docx	Updated revision Number 6 of controlled document
ENV 22 Rev 9 Non conformance Corrective and Preventive Action.doc	Revision Number 9 of controlled document
ENV 20 Revision No 11 Management Review for {GHG 2013-12}.doc	Updated Revision No 11 of controlled document

bb. 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	Assessing and controlling risks
Reference for procedure	GHG2013-4 [QPulse Document: ENV 054 'Risk Assessment GHG' keyword: GHG2013-4]
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	Describes how assessments of inherent risks and control risks are undertaken when establishing the control system. Outlays the requirement for assessments QA/QC checks to be carried out prior to submitting annual reports and plans to the EPA.
Post or department responsible for the procedure and for any data generated	Technical Manager
Location where records are kept	EHS Department
Name of IT system used	QPulse software Data Management System, company IT shared data base 'V' drive
List of EN or other standards applied	ISO 9001

cc. 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	Quality Assurance of Metering and Monitoring GHG2013-5 [QPulse Document: ENV 031 'Monitoring and Reporting requirements for Green House Gas Emissions' keyword: GHG2013-5]
Diagram reference Brief description of procedure. The description should cover the essential parameters and operations performed	N/A All meters are traceable to national standards by means of regular and routine calibrations. Company Procedure ENV 031 describes the procedure for the accurate measurement and recording of energy data relating to Green House Gas emissions at the Kingscourt process site.
Post or department responsible for the procedure and for any data generated	Technical Manager
Location where records are kept	Technical Department
Name of IT system used	QPulse software Data Management System, company IT shared data base 'V' drive
List of EN or other standards applied	ISO 9951:1993, ISO 6976:1995,

dd. 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 Reference for procedure	Quality Assurance of IT used for Data Flow GHG2013-6 [QPulse Document: IMSP9 'Records Management and Retention Policy' Rev. No. 3, keyword: GHG2013-6]
Diagram reference Brief description of procedure. The description should cover the essential parameters and operations performed	N/A The GIL system is a modern IT system maintained by the Saint Gobain Technical Services department on a centralised service basis. Servers and other critical infrastructure is safeguarded by controlling access to the rooms where it is held to authorised personnel and by the installation of appropriate fire detection and suppression systems. Backup procedures are routinely run with all data maintained for a minimum of 5 days.
Post or department responsible for the procedure and for any data generated	EHS Systems and Maintenance Manager
Location where records are kept	Technical Department
Name of IT system used	QPulse software Data Management System, company IT shared data base 'V' drive
List of EN or other standards applied	N/A

ee. 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	Review and Validation of Data
Reference for procedure	GHG2013-7 [QPulse Document: ENV 031 'Monitoring and Reporting requirements for Green House Gas Emissions' Rev.No 6 keyword:GHG2013-7]
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	Company Procedure ENV 31 describes how the year end reconciliation takes place to ensure that all relevant data is tested for veracity including the examination of trends and audit of fuel invoices.
Post or department responsible for the procedure and for any data generated	Technical Manager
Location where records are kept	Technical Department
Name of IT system used	QPulse software Data Management System, company IT shared data base 'V' drive
List of EN or other standards applied	N/A

ff. 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	Corrections and Corrective Activities
Reference for procedure	GHG2013-8 [QPulse Document: ENV 022 'Non-Conformance, Preventative and Preventative Action' Rev. No. 9, keyword:GHG2013-8]
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	In the event of a suspicion over the validity of the data the Energy Champion will alert the Technical Manager who will in the first instance review the data under question by the Energy Champion. Should the immediate cause of the suspicion not be readily identifiable the Technical Manager will convene a working team to use the analysis and root cause identification tool-set of WCM to identify erroneous data. The findings of any such investigation will be documented and recorded on the company data management system Q Pulse.
Post or department responsible for the procedure and for any data generated	EHS Systems and Maintenance Manager
Location where records are kept	Technical Department
Name of IT system used	QPulse software Data Management System, company IT shared data base 'V' drive

List of EN or other standards applied N/A

gg. 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	Control of Outsourced Activities
Reference for procedure	GHG2013-9 [QPulse Document: ENV 031 'Monitoring and Reporting requirements for Green House Gas Emissions' Rev. No.6 keyword:GHG2013-9]
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The only equipment that is subject to control of outsourced activities is the metering by Gas Networks Ireland of the main incoming natural gas supply. GIL control this by means of internal procedure ENV031 which calls for GIL to examine the calibration certificate for this meter on an annual basis.
Post or department responsible for the procedure and for any data generated	Technical Manager
Location where records are kept	Technical Department
Name of IT system used	QPulse software Data Management System, company IT shared data base 'V' drive
List of EN or other standards applied	N/A

hh. Record Keeping and Documentation

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

Title of procedure	Record Keeping and Documentation
Reference for procedure	GHG2013-10 [QPulse Document: IMSP9 'Records Management and Retention Policy' Rev. No. 3 keyword: GHG2013-10]
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	GIL operate a system for maintaining and using business records including those required for the Quality and Environmental Management Systems (ISO 9001, ISO 14001 & OHSAS 18001). This is fully described by internal procedure IMSP9.
Post or department responsible for the procedure and for any data generated	EHS Systems and Maintenance Manager
Location where records are kept	Technical Department
Name of IT system used	QPulse software Data Management System, company IT shared data base 'V' drive
List of EN or other standards applied	N/A

ii. 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

jj. 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: EN 14001

12. Changes in Operation

kk. 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 Significant Changes
Reference for procedure	GHG2013-12 [QPulse Document ENV 020 'Management Review of Environmental and Energy Management System' keyword: GHG2013-12]
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	This procedure covers the the process for the management and control of EHS permits and licences and specifies the reporting and monitoring requirements defined in the permits held by GIL. This procedure requires any installation changes/alterations to be notified to the EPA e.g. a significant capacity extension, a significant capacity reduction, cessation of operation or partial cessation of operation. At the time of the preparation of the AER the Energy Champion and Technical Manager formally review the list of emission points and emitter capacity to determine its validity.
Post or department responsible for the procedure and for any data generated	EHS and Systems Manager
Location where records are kept	EHS & Technical Department
Name of IT system used	QPulse software Data Management System , company IT shared data base 'V' drive

13. Abbreviations

II. Abbreviations Acronyms or definitions

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

Abbreviation	Definition
GIL	Saint-Gobain Construction Products (Ireland) Limited
NCV	Net Calorific Value
OxF	Oxidation Factor
EF	Emission Factor
Kwh	Kilowatt Hour
AER	Annual Emissions Report
I.T.	Information Technology
'V' drive	Company data base shared drive accessible to assigned personnel

14. Additional Information

Any other information:

Attachment	Description
Metering Uncertainty Calculations KC.docx	Metering uncertainty calculation
photo of K6 burner nameplate.pdf	Photo of nameplate on K6 burner with burner rating
Specification for K6 and photo of nameplate.tif	Operations & Maintenance manual page 9 of 33 Technical Specification K6
(10) Gas Calibration Cert 2015.pdf	Updated Gas Calibration Certificate 2015

15. Confidentiality

mm. 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.