Headquarters,
Johnstown Castle Estate,
County Wexford, Ireland

GREENHOUSE GAS EMISSIONS PERMIT

Permit Register Number: IE-GHG108-10403-3

Operator: SMARTPLY EUROPE DESIGNATED ACTIVITY COMPANY
Belview
Slieverue
Waterford
X91 PX75

Installation Name: Smartply Europe

Site Name: Smartply Europe

Location: Belview
Slieverue
Kilkenny
Ireland

Introductory Note

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

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

Contact with Agency:

If you contact the Agency about this Greenhouse Gas Emissions Permit please quote the following reference: Greenhouse Gas Emissions Permit Nº IE-GHG108-10403.

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
P0001-04

Status Log

Current Permit

Permit number	Date application received	Date Permit issued	Comment
IE-GHG108-10403-3	18 October 2017	30 January 2018	Update of the Operator name to SMARTPLY EUROPE DESIGNATED ACTIVIY COMPANY. Inclusion of the source streams Wax, MDI, Release Agent and MPU resin. Inclusion of the emission source S17 Emergency Diesel CAT Generator.

Previous Permits

Permit number	Change Type	Date application received	Date Permit issued	Comment
IE-GHG108-10403-1	GHG Permit Application	23 September 2013	21 October 2013	
IE-GHG108-10403-2	GHG Variation	22 December 2014	06 May 2015	Inclusion of an additional emission source for gas oil (S16) Mosa welders. Inclusion of the source stream Acetylene and emission source S15 Oxy Acetylene Welding and Cutting Sets.

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)	SMARTPLY EUROPE DESIGNATED ACTIVITY COMPANY
"operator"	Any person who operates or controls an installation or to whom decisive economic power over the functioning of the installation has been delegated.
Person	Any natural or legal person.
Reportable emissions	The total releases to the atmosphere of carbon dioxide (expressed in tonnes of carbon dioxide equivalent) from the emission sources specified in Table 2 and arising from the Schedule 1 activities which are specified in Table 1.
The Regulations	European Communities (Greenhouse Gas Emissions Trading) Regulations 2012 (S.I. No 490 of 2012) and any amendments or revisions thereto.
The Verifier	A legal person or another legal entity carrying out verification activities pursuant to Regulation (EU) No 600/2012 and accredited by a national accreditation body pursuant to Regulation (EC) No 765/2008 and Regulation (EU) No 600/2012 or a natural person otherwise authorised, without prejudice to Article 5(2) of Regulation (EC) No 765/2008, at the time a verification report is issued.
The Registry	The Registry as provided for under Article 19 of Directive 2003/87/EC.

Schedule 1	Schedule 1 to the Regulations.

Reasons for the Decision

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

Activities Permitted

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

The Operator:

SMARTPLY EUROPE DESIGNATED ACTIVITY COMPANY
Belview
Slieverue
Waterford
X91 PX75

Company Registration Number: 205747

to carry out the following

Categories of activity:

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

at the following installation(s):

Smartply Europe **Installation number:** 84

located at

Belview
Slieverue
Kilkenny
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.: 84

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

Directly Associated Activity Description
(S14) Wastewater Treatment

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

Table 2 Emission Sources and Capacities:

Emission Source Reference	Emission Source Description	Capacity	Capacity Units
S1	Dryer 1 Wood Burner	11.7	MW
S2	Dryer 2 Wood Burner	11.7	MW
S3	Dryer 3 Wood Burner	11.7	MW
S4	Dryer 4 Wood Burner	11.7	MW
S5	Geka Biomass Burning Furnace	11.71	MW
S6	Geka Diesel Back-up Burner	8.78	MW
S7	Emergency Diesel Fire Pump	0.15	MW

Emission Source Reference	Emission Source Description	Capacity	Capacity Units
S8	Gas-fired Office Heating Burner 1	0.07	MW
S9	Gas-fired Office Heating Burner 2	0.07	MW
S10	Dryer 1 Emergency Diesel Burner	14.6	MW
S11	Dryer 2 Emergency Diesel Burner	14.6	MW
S12	Dryer 3 Emergency Diesel Burner	14.6	MW
S13	Dryer 4 Emergency Diesel Burner	14.6	MW
S15	Oxy Acetylene Welding and Cutting Sets	0.01	MW
S16	Mosa diesel welding machine	0.01	MW
S17	Emergency Diesel CAT Generator	2.5	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 30 January 2018:

PRESENT when the seal of the Agency was affixed hereto:

_____

Ms. Annette Prendergast
Inspector/ Authorised Person

Appendix 1 to Greenhouse Gas Emissions Permit Number IE-GHG108-10403

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	Smartply Europe
Site name	Smartply Europe
Address	Belview Slieverue Kilkenny Ireland
Grid reference of site main entrance	266053E, 113721N
Licence held pursuant to the Environmental Protection Agency Act 1992, as amended.	Yes

IPC/IE Licence Register Number	Licence holder	Competent body
P0001-04	SmartPly Europe Ltd	EPA

Has the regulated activity commenced at the Installation?	Yes
Date of Regulated Activity commencement	01 January 2008

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	SMARTPLY EUROPE DESIGNATED ACTIVITY COMPANY
Company Registration Number	205747

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

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

Title	[redacted]
Forename	
Surname	
Position	Environmental Officer

Registered office address

Address Line 1	Belview
Address Line 2	N/A
City/Town	Slieverue
County	Waterford
Postcode	X91 PX75

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	Coillte Cuideachta Ghníomhaíochta Ainmnithe

Holding company address

Address Line 1	Dublin Road
Address Line 2	N/A
City/Town	Newtownmountkennedy
County	Wicklow
Postcode	N/A
Company registration number	138108
Is the holding company principal address different to the	No

holding company address?

(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	[redacted]
Address / Email Address	Belview Slieverue Kilkenny X91 PX75 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.

The SmartPly Europe production process involves the processing of coniferous pulpwood logs from forest thinnings. The logs are fed into the plant on a continuous basis where they are debarked and flaked. The flake is dried in four dryers, which operate in parallel, using heat supplied from a wood suspension burner at the inlet to each dryer. Each burner has a thermal input capacity of 11.7MW (total of 46.8MW). On start-up, the burners are initially fired-up using LPG before switching to wood fuel. A stand-by emergency diesel burner is also in place for each dryer to be used when wood fuel is not available. The total thermal input capacity of the four diesel burners is 58.4MW. This capacity is not additive to the biomass wood fuel capacity as the back-up burners are only used instead of burning biomass . Dried flake is then further processed and conveyed to a thermal oil heated continuous press where the flake is pressed under heat and pressure to form the wood-based panels. The thermal oil is heated by the Geka biomass burning furnace which has a thermal input capacity of 11.71MW. A Geka diesel back-up burner is also in place in the event of any issue with the supply of biomass wood fuel. The back-up burner has a thermal input capacity of 8.78MW. As with the Dryer back-up burners, this capacity is not additive to the biomass wood fuel capacity as the back-up burner is only used instead of burning biomass. Two small LPG fired burners are used for office heating, each with a thermal input capacity of 0.0701MW (total of 0.1402MW). A diesel run emergency stand-by fire pump is also in place as emergency back-up to the main electrically driven fire pump. The diesel pump has a thermal input capacity of 0.155MW. The on-site Maintenance Department utilise Oxy Acetylene welding and cutting sets resulting in the use of acetylene and also a Mosa welding machine that uses diesel in small quantities. SmartPly installed an emergency diesel electric generator in 2016 to be used in the event of a power failure, with thermal input capacity of 2.5MW. This new generator was not put into service in 2016.

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
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)	72.92	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
SmartPly GHG October 2017 Model (1).pdf	Site Layout with Emission Points and Sources

i. Estimated Annual Emissions

Detail of the estimated annual emission of CO_2 equivalent. This information enables categorisation of the installation in accordance with Article 19 of the MRR and is based on the average verified annual emissions of the previous trading period data OR if this data is not available or is inappropriate a conservative estimate of annual average emissions including transferred CO_2 excluding CO_2 from biomass.

Estimated Annual Emissions (tonnes $CO_{2(e)}$) 2364.4

Installation Category: A

6. Emissions Details

j. About your emissions

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

k. Emission Sources

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

Emission Source Reference	Emission Source Description
S1	Dryer 1 Wood Burner
S2	Dryer 2 Wood Burner
S3	Dryer 3 Wood Burner
S4	Dryer 4 Wood Burner
S5	Geka Biomass Burning Furnace
S6	Geka Diesel Back-up Burner
S7	Emergency Diesel Fire Pump
S8	Gas-fired Office Heating Burner 1
S9	Gas-fired Office Heating Burner 2
S10	Dryer 1 Emergency Diesel Burner
S11	Dryer 2 Emergency Diesel Burner
S12	Dryer 3 Emergency Diesel Burner

Emission Source Reference	Emission Source Description
S13	Dryer 4 Emergency Diesel Burner
S14	Wastewater Treatment
S15	Oxy Acetylene Welding and Cutting Sets
S16	Mosa diesel welding machine
S17	Emergency Diesel CAT Generator

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

Emission Source Reference	Emission Source Description
S1	Dryer 1 Wood Burner
S2	Dryer 2 Wood Burner
S3	Dryer 3 Wood Burner
S4	Dryer 4 Wood Burner
S5	Geka Biomass Burning Furnace
S6	Geka Diesel Back-up Burner
S7	Emergency Diesel Fire Pump
S8	Gas-fired Office Heating Burner 1
S9	Gas-fired Office Heating Burner 2
S10	Dryer 1 Emergency Diesel Burner
S11	Dryer 2 Emergency Diesel Burner
S12	Dryer 3 Emergency Diesel Burner
S13	Dryer 4 Emergency Diesel Burner
S15	Oxy Acetylene Welding and Cutting Sets
S16	Mosa diesel welding machine
S17	Emergency Diesel CAT Generator

I. Emission Points

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

Emission Point Reference	Emission Point Description
EP1	Combined WESP 1 & 2 Outlets
EP2	Geka Diesel Back-up Burner Outlet
EP3	Emergency Diesel Fire Pump Exhaust
EP4	Gas-fired Office Heating Burner 1 & 2 Exhaust

Emission Point Reference	Emission Point Description
EP5	WWTP
EP6	Oxy Acetylene Welding and Cutting Sets
EP7	Mosa diesel welding machine
EP8	Emergency Diesel CAT Generator

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
Biomass	Combustion: Solid fuels	Biomass
Diesel	Combustion: Commercial standard fuels	Gas/Diesel Oil
LPG	Combustion: Commercial standard fuels	Liquefied Petroleum Gases
WWTP	Other	WWTP
Acetylene	Combustion: Other gaseous & liquid fuels	Acetylene
Wax	Other	Fossil Fraction of Biomass
MDI - Methylene diphenyl diisocyanate	Other	Fossil Fraction of Biomass
Release Agent	Other	Biomass
MPU - Micronized Polyurethane Resin	Other	Fossil Fraction of Biomass

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
Biomass	S1,S2,S3,S4,S5	EP1	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)
Diesel	S6,S7,S10,S11,S12,S13,S16, S17	EP1,EP2,EP3,EP7,EP8	Combustion of fuels in installations with a total rated thermal input

Source streams (Fuel / Material)	**Emission Source Refs.**	**Emission Point Refs.**	**Annex 1 Activity**
			exceeding 20 MW (except in installations for the incineration of hazardous or municipal waste)
LPG	S1,S10,S11,S12,S13,S2,S3,S4,S8,S9	EP1,EP4	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)
Acetylene	S15	EP6	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)
Wax	S1,S2,S3,S4,S5	EP1	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)
MDI - Methylene diphenyl diisocyanate	S1,S2,S3,S4,S5	EP1	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)
Release Agent	S1,S2,S3,S4,S5	EP1	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)
MPU - Micronized Polyurethane Resin	S1,S2,S3,S4,S5	EP1	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
WWTP	S14	EP5

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 CO_2 but exclude CO_2 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_2O	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 CO_2 emissions:

The calculation approach used at SmartPly is as follows:

(A) Diesel fuel: The site has two 70,000L storage tanks for diesel which are used to supply fuel to all on-site users. Diesel dispensed in measured and recorded using a Rototech Fuel Management system. Diesel is supplied to the four Dryer emergency back-up burners (S10-S413 the Geka emergency back-up burner (S6), the Emergency Diesel Fire Pump (S7), the maintenance Mosa welding machine (S16) , the CAT emergency diesel electric generator and transport diesel to the loaders. There are also two small 1,000L buffer storage tanks; one for the Emergency Diesel Fire Pump and one for the CAT diesel electric generator. These small tanks are topped-up as required from the 70,000l storage tanks. Diesel deliveries are made via bulk tankers to the site and are weighed in and out between off-loading to each of the two 70,000L storage tanks. Volumes delivered are recorded internally and cross checked against weigbridge weights and supplier invoices. Volumes delivered are totalled and adjusted for year end stock inventory. The fuel used by each of the users on site is measured & recorded using the Rototech fuel management system. Transport diesel is excluded using the Rototech Fuel Management System. The total is used to calculate tCO2 emissions using the formula: EM = AD x EF x OF.

(B) LPG fuel: The site has one 9,200L storage tank for LPG which is used to supply fuel to the four wood burners when starting up (S1-S4), and to the four diesel burners (S10-S13) when starting up, and to the two Gas-fired Office Heating Burners (S8 & S9). One 4,600L storage tank is used to supply LPG to on-site mobile equipment. LPG deliveries are made via bulk tankers to the site and are weighed in and out using the on-site weighbridge. The volume of LPG off-loaded to each tank is printed on the delivery docket. Volumes delivered are recorded internally and cross checked against weigbridge weights and supplier invoices. Volumes delivered are totalled and adjusted for year end stock inventory. The net quantity is then used to calculate tCO2 emissions using the formula: EM = AD x EF x OF.

(C) Biomass fuel: Wood biomass is derived from various stages in the process and is combusted in the four Dryers (S1-S4) and in the Geka Biomass Burning Furnace. Timber logs received at the plant, and any excess biomass sent off-site, is weighed in and out using the on-site weighbridge. Biomass fuel used is calculated from annual timber consumption and production quantities. The moisture content of representative samples of flake and fines and finished OSB is determined using moisture meters and drying in oven. The NCV for flake and fines is based on a dry weight and the NCV for bark is based on the as is weight. Emissions are then calculated using the formula: EM = AD x EF x OF.

The fossil fraction in the biomass arising from added resins and wax, is calculated and verified by cross-reference to the total resin and waxes measured over the weighbridge. All wood, resin and wax intakes to SmartPly are measured on a weighbridge. The weighbridge is calibrated and verified once per year.

Each Biomass stream is either measured or calculated by mass balance as follows:

- Timber intake is measured on weighbridge

- Timber moisture measured in laboratory

- Bark sold measured on weighbridge

- Total Bark % is calculated by mass balance

- Wax and resins intake is measured on weighbridge

- The volume of accumulated wood fuel on site is measured by IR meter. The material is sampled to determine the average bulk density for calculation of weight.

- Wood waste shipped off site is measured on weighbridge

- Reject flake is measured. The number of Front Loader buckets of known weight are recorded each shift from each fire dump and the number of master panels of known dimensions that are rejected to the Board Breaker are counted automatically by the press outfeed system.

- Panel trim and sawdust arising is calculated from measured trim saws positions.

- The screened fines for dryer fuel is calculated by mass balance difference, i.e. Wood in (as measured) minus the sum of the wood outlet streams (as measured).

For the fossil fraction the NCV and EF is determined from the manufacturers data and this will be reconfirmed annually with the manufacturer. Where a sustainability cert. to verify that the release agent complies with the renewable energy services directive for its use as a biofuel, is not available emissions will be reported as fossil using manufacturers data for NCV and EF. Annually it will be checked that the biomass fraction is greater than 97%. This must be attached to the AEM report every year.

Emissions are then calculated using the formula: EM = AD x EF x OF.

(D) Acetylene: Acetylene is utilised in the Oxy Acetylene Welding and Cutting sets and the annual usage is calculated from supplier invoices. Emissions are then calculated using the formula: EM = AD x EF x OF.

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
Biomass,Diesel,LPG, Wax,MDI - Methylene diphenyl diisocyanate,Releas e Agent,MPU - Micronized Polyurethane Resin	S1,S10,S11,S12,S13, S16,S17,S2,S3,S4,S5 ,S6,S7,S8,S9	GHG108-WB001	Weighbridge	400 - 60,000	Kg	0.2	At site entrance
LPG	S1,S10,S11,S12,S13, S2,S3,S4,S8,S9	GHG108-CG02	Level gauge	0 - 100	%	0.68	LPG Process Tank
LPG	S1,S10,S11,S12,S13, S2,S3,S4,S8,S9	LPG Truck Meter	Orifice meter	90 - 450	l/min	0.10	LPG Delivery Trucks
Diesel	S10,S11,S12,S13,S6	GHG108-PS001 & GHG108-PS002	Level gauge	0 - 100	%	0.08	Diesel Process Tank 1 and Diesel Process Tank 2
Diesel	S7	GHG108-DSL004	Tank dip	0 - 1000	Litres	N/A	Diesel Tank 4 Emergency Fire Pump
Acetylene	S15	Supplier Acetylene Cylinder	Acetylene Cylinder	m3	0 - 8.73	N/A	N/A
Diesel	S16	NA	Estimate	N/A	N/A	N/A	N/A
Diesel	S17	GHG108-DSL005	Tank dip	0 - 1000	Litres	N/A	Emergency Diesel CAT Generator

Source Stream Refs.	Emission Source Refs.	Measurement Device Ref.	Type of Measurement Device	Measurement Range	Metering Range Units	Specified Uncertainty (+/- %)	Location
							Room
Diesel	S6,S10,S11,S12,S13	GHG108-PS002.1	Ovalrad meter	0 - 70	lts/min	0.5	Diesel Process Tank 2
Diesel	S17	GHG108-DSL005.1	Level gauge	95-1000	mm	0.5	Diesel tank for Emergency Diesel CAT Generator
Diesel	S7,S16,S17	Rotech (FMS)	Fuel dispenser	0-70	l/min	0.5	On-Site

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
Biomass,Diesel,LPG,Wax,MDI - Methylene diphenyl diisocyanate,Release Agent,MPU - Micronized Polyurethane Resin	GHG108-WB001	Batch	Operator	N/A	N/A	N/A
LPG	GHG108-CG02	Batch	Trade partner	Yes	Yes	Yes
LPG	LPG Truck Meter	Batch	Trade partner	Yes	Yes	Yes
Diesel	GHG108-PS001 & GHG108-PS002	Batch	Operator	N/A	N/A	N/A
Diesel	GHG108-DSL004	Batch	Operator	N/A	N/A	N/A
Acetylene	Supplier Acetylene Cylinder	Batch	Trade partner	Yes	Yes	Yes
Diesel	NA	Batch	Operator	N/A	No	N/A
Diesel	GHG108-DSL005	Batch	Operator	N/A	N/A	N/A
Diesel	GHG108-PS002.1	Batch	Operator	N/A	N/A	N/A

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
Diesel	GHG108-DSL005.1	Continual	Operator	N/A	N/A	N/A
Diesel	Rotech (FMS)	Batch	Operator	N/A	N/A	N/A

t. Applied Tiers

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

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

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

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

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

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

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

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

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

Source Stream Refs.	**Emission Source Refs.**	**Measurement Device Refs.**	**Overall Metering Uncertainty (less than +/- %)**	**Applied Monitoring Approach**	**Activity Data Tier Applied**	**Net Calorific Value Tier Applied**	**Emission Factor Tier Applied**	**Carbon Content Tier Applied**	**Oxidation Factor Tier Applied**	**Conversion Factor Tier Applied**	**Biomass Fraction Tier Applied**	**Estimated Emissions $tCO_{2(e)}$**	**% of Total Estimated Emissions**	**Source Category**	**Highest Tiers Applied**	**Justification for not applying the highest tiers**	**Improvement Plan Reference (where applicable)**
Biomass	S1,S2,S3,S4,S5	GHG108-WB001	<1.5%	Standard	2	No tier	1	N/A	N/A	N/A	N/A	0	0	De-minimis	Yes	n/a	n/a
Diesel	S6,S7,S10,S11,S12,S13,S17	GHG108-DSL004,GHG108-DSL005,GHG108-DSL005.1,GHG108-PS001 & GHG108-PS002,GHG108-WB001	<1.5%	Standard	2	2a	2a	N/A	1	N/A	N/A	683.86	28.96	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)
		,Rotech (FMS)															
LPG	S1,S2,S3,S4,S8,S9,S10,S11,S12,S13	GHG108-CG02,LPG Truck Meter	<1.5%	Standard	2	2a	2a	N/A	1	N/A	N/A	183.27	7.76	De-minimis	Yes	n/a	n/a
Acetylene	S15	Supplier Acetylene Cylinder	N/A	Standard	No tier	1	1	N/A	1	N/A	N/A	1	0.04	De-minimis	Yes	n/a	n/a
Diesel	S16	NA	N/A	Standard	No tier	2a	2a	N/A	1	N/A	N/A	3	0.13	De-minimis	Yes	n/a	n/a
Wax	S1,S2,S3,S4,S5	GHG108-WB001,NA	<1.5%	Standard	2	1	1	N/A	1	N/A	N/A	400.33	16.95	Major	Yes	n/a	n/a
MDI - Methylene	S1,S2,S3,S4,S5	GHG108-WB001	<1.5%	Standard	2	1	1	N/A	1	N/A	N/A	965.66	40.89	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)**
diphenyl diisocyanate																	
Release Agent	S1,S2,S3,S4,S5	GHG108-WB001	<1.5%	Standard	2	1	1	N/A	N/A	N/A	N/A	0	0	De-minimis	Yes	n/a	n/a
MPU - Micronized Polyurethane Resin	S1,S2,S3,S4,S5	GHG108-WB001	<1.5%	Standard	2	1	1	N/A	1	N/A	N/A	124.33	5.26	Minor	Yes	n/a	n/a

Total Estimated Emissions for Calculation (tonnes $CO_{2(e)}$) 2361.45

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
Biomass	S1,S2,S3,S4,S5	2	No tier	1	N/A	N/A	N/A	N/A
Diesel	S6,S7,S10,S11,S12,S13,S17	2	2a	2a	N/A	1	N/A	N/A
LPG	S1,S2,S3,S4,S8,S9,S10,S11,S12,S13	2	2a	2a	N/A	1	N/A	N/A
Acetylene	S15	No tier	1	1	N/A	1	N/A	N/A
Diesel	S16	No tier	2a	2a	N/A	1	N/A	N/A
Wax	S1,S2,S3,S4,S5	2	1	1	N/A	1	N/A	N/A
MDI - Methylene diphenyl diisocyanate	S1,S2,S3,S4,S5	2	1	1	N/A	1	N/A	N/A
Release Agent	S1,S2,S3,S4,S5	2	1	1	N/A	N/A	N/A	N/A
MPU - Micronized Polyurethane Resin	S1,S2,S3,S4,S5	2	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)
Diesel	S10,S11,S12,S13,S16,S17,S6,S7	NCV, EF, Oxidation Factor	Ireland's National Greenhouse Gas Inventory	N/A
LPG	S1,S2,S3,S4,S8,S9,S10,S11,S12,S13	NCV, EF, Oxidation Factor	Ireland's National Greenhouse Gas Inventory	N/A
Biomass	S1,S2,S3,S4,S5	NCV	EU Altener II Project Publication - Wood Fuels Basic Information Pack	18.5 GJ/t for flake and fines, 6.0 GJ/t for bark
Biomass	S1,S2,S3,S4,S5	EF	MRR Annex VI	0 tCO2/TJ
Acetylene	S15	NCV, EF, Oxidation Factor	Ireland's Tier 1 Country Specific Factors	N/A
MDI - Methylene diphenyl diisocyanate,MPU - Micronized Polyurethane Resin,Release Agent,Wax	S1,S2,S3,S4,S5	NCV, EF	Supplier's technical data information	N/A
MDI - Methylene diphenyl diisocyanate,MPU - Micronized Polyurethane Resin,Release Agent,Wax	S1,S2,S3,S4,S5	OxF	MRR	1

Sampling and Analysis

Do you undertake sampling and analysis of any of the parameters used in the calculation of your CO_2 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**
Environmental Officer	Overall Monitoring and Reporting Plan and AEM Report
Environmental Officer	AEM Report data spreadsheets and calculating CO2 emissions.

Attachment	**Description**
N/A	N/A

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.

Title of procedure	GHG Emissions Control System
Reference for procedure	ENVP051
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The objective of the procedure is to identify risks and implement controls to ensure that the annual emissions report is free from any omissions and errors and is in conformance with the monitoring and reporting plan and associated documents. This includes details of responsibilities and management of competency.
Post or department responsible for the procedure and for any data generated	Environmental Officer
Location where records are kept	Hard copy at SmartPly Plant & soft copy on SmartPly IT network
Name of IT system used	N/A
List of EN or other standards applied	N/A

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:

Title of procedure	GHG Emissions Control System
Reference for procedure	ENVP051
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The objective of the procedure is to identify risks and implement controls to ensure that the annual emissions report is free from any omissions and errors and is in conformance with the monitoring and reporting plan and associated documents. This includes details of the evaluation of the monitoring and reporting plan for appropriateness. The monitoring plan's appropriateness is evaluated on a regular basis and the evaluation covers the following: Checking the list of emissions sources and source streams, ensuring completeness of the emissions and source

	streams and that all relevant changes in the nature and functioning of the installation will be included in the monitoring plan; Assessing compliance with the uncertainty thresholds for activity data and other parameters (where applicable) for the applied tiers for each source stream and emission source; and assessment of potential measures for improvement of the monitoring methodology applied."
Post or department responsible for the procedure and for any data generated	Environmental Officer
Location where records are kept	Hard copy at SmartPly Plant & soft copy on SmartPly IT network
Name of IT system used	N/A
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	Method of Calculating Biomass fossil fraction, Biomass usage, Diesel usage, Propane usage, Acetylene Usage.
Reference for procedure	ENVP049 & ENVP050 & ENVP055
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The procedures document the methods used to determine the volumes of Diesel, LPG, Acetylene and Biomass, including fosil fraction, used at SmartPly in order to calculate annual green house gas emissions.
Post or department responsible for the procedure and for any data generated	Environmental Officer
Location where records are kept	Hard copy at SmartPly Plant & soft copy on SmartPly IT network
Name of IT system used	N/A
List of EN or other standards applied	N/A
List of primary data sources	Weighbridge weigh data, supplier invoices and internal records for diesel, LPG and acetylene usage. Production records for biomass generated and moisture data for biomass moisture levels and production records for fossil fraction of biomass.
Description of the relevant processing steps for each specific data flow activity. 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	The calculation approach used at SmartPly is as follows: (A) Diesel fuel: The site has two 70,000L storage tanks for diesel which are used to supply fuel to all on-site users. Diesel dispensed in measured and recorded using a Rototech Fuel Management system. Diesel is supplied to the four Dryer emergency back-up burners (S1-S4), the Geka emergency back-up burner (S6), the Emergency Diesel Fire Pump (S7), the maintenance Mosa welding machine

(S16) and the CAT emergency diesel electric generator. There are also two small 1,000L buffer storage tanks; one for the Emergency Diesel Fire Pump and one for the CAT diesel electric generator. These small tanks are topped-up as required from the 70,000l storage tanks. Diesel deliveries are made via bulk tankers to the site and are weighed in and out between off-loading to each of the two 70,000L storage tanks. Volumes delivered are recorded internally and cross checked against weigbridge weights and supplier invoices. Volumes delivered are totalled and adjusted for year end stock inventory. The fuel used by each of the users on site is measured & recorded using the Rototech fuel management system. Transport diesel is excluded using the Rototech Fuel Management System. The total is used to calculate tCO2 emissions using the formula: EM = AD x EF x OF.

(B) LPG fuel: The site has one 9,200L storage tank for LPG which is used to supply fuel to the four wood burners when starting up (S1-S4), and to the four diesel burners (S10-S13) when starting up, and to the two Gas-fired Office Heating Burners (S8 & S9). One 4,600L storage tank is used to supply LPG to on-site mobile equipment. LPG deliveries are made via bulk tankers to the site and are weighed in and out using the on-site weighbridge. The volume of LPG off-loaded to each tank is printed on the delivery docket. Volumes delivered are recorded internally and cross checked against weigbridge weights and supplier invoices. Volumes delivered are totalled and adjusted for year end stock inventory. The net quantity is then used to calculate tCO2 emissions using the formula: EM = AD x EF x OF.

(C) Biomass fuel: Wood biomass is derived from various stages in the process and is combusted in the four Dryers (S1-S4) and in the Geka Biomass Burning Furnace. Timber logs received at the plant, and any excess biomass sent off-site, is weighed in and out using the on-site weighbridge. Biomass fuel used is calculated from annual timber consumption and production quantities. The moisture content of representative samples of flake and fines and finished OSB is determined using moisture meters and drying in oven. The NCV for flake and fines is based on a dry weight and the NCV for bark is based on the as is weight. Emissions are then calculated using the formula: EM = AD x EF x OF.

The fossil fraction in the biomass arising from added resins and wax, is calculated and verified by cross-reference to the total resin and waxes measured over the weighbridge. All wood, resin and wax intakes to SmartPly are measured on a weighbridge. The weighbridge is calibrated and verified

once per year.

Each Biomass stream is either measured or calculated by mass balance as follows:

- Timber intake is measured on weighbridge

- Timber moisture measured in laboratory

- Bark sold measured on weighbridge

- Total Bark % is calculated by mass balance

- Wax and resins intake is measured on weighbridge

- The volume of accumulated wood fuel on site is measured by IR meter. The material is sampled to determine the average bulk density for calculation of weight.

- Wood waste shipped off site is measured on weighbridge

- Reject flake is measured. The number of Front Loader buckets of known weight are recorded each shift from each fire dump and the number of master panels of known dimensions that are rejected to the Board Breaker are counted automatically by the press outfeed system.

- Panel trim and sawdust arising is calculated from measured trim saws positions.

- The screened fines for dryer fuel is calculated by mass balance difference, i.e. Wood in (as measured) minus the sum of the wood outlet streams (as measured).

For the fossil fraction the NCV and EF is determined from the manufacturers data and this will be reconfirmed annually with the manufacturer. Where a sustainability cert. to verify that the release agent complies with the renewable energy services directive for its use as a biofuel, is not available emissions will be reported as fossil using manufacturers data for NCV and EF. Annually it will be checked that the biomass fraction is greater than 97%. This must be attached to the AEM report every year.

Emissions are then calculated using the formula: EM = AD x

EF x OF.

(D) Acetylene: Acetylene is utilised in the Oxy Acetylene Welding and Cutting sets and the annual usage is calculated from supplier invoices. Emissions are then calculated using the formula: EM = AD x EF x OF.

Submit relevant documents to record data flow activities

Attachment	**Description**
GHG Process Flow Sheet.pdf	Process Flow Diagram

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	GHG Emissions Control System
Reference for procedure	ENVP051
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The objective of the procedure is to identify risks and implement controls to ensure that the annual emissions report is free from any omissions and errors and is in conformance with the monitoring and reporting plan and associated documents.
Post or department responsible for the procedure and for any data generated	Environmental Officer
Location where records are kept	Hard copy at SmartPly Plant & soft copy on SmartPly IT network
Name of IT system used	N/A
List of EN or other standards applied	N/A

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	GHG Emissions Control System
Reference for procedure	ENVP051
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The objective of the procedure is to identify risks and implement controls to ensure that the annual emissions report is free from any omissions and errors and is in conformance with the monitoring and reporting plan and

	associated documents. This includes details of calibrations and checks on measuring equipment. All relevant measurement equipment is maintained, calibrated and checked at regular intervals. Where non-compliance with required performance is identified appropriate corrective and preventative actions are taken.
Post or department responsible for the procedure and for any data generated	Environmental Officer
Location where records are kept	Hard copy at SmartPly Plant & soft copy on SmartPly IT network
Name of IT system used	N/A
List of EN or other standards applied	N/A

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	GHG Emissions Control System
Reference for procedure	ENVP051
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The objective of the procedure is to identify risks and implement controls to ensure that the annual emissions report is free from any omissions and errors and is in conformance with the monitoring and reporting plan and associated documents. This includes details of methods for validation of data flow activities and IT checks and controls. The procedure describes how information technology used for data flow activities is tested and controlled, including access control, back-up, recovery and security.
Post or department responsible for the procedure and for any data generated	Environmental Officer
Location where records are kept	Hard copy at SmartPly Plant & soft copy on SmartPly IT network
Name of IT system used	N/A
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	GHG Emissions Control System
Reference for procedure	ENVP051
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The objective of the procedure is to identify risks and implement controls to ensure that the annual emissions

	report is free from any omissions and errors and is in conformance with the monitoring and reporting plan and associated documents. This includes details of internal audit and methods for validation of data. Regular internal reviews and validation of data is undertaken which includes a check on whether data is complete, comparisons with data over previous years, comparison of fuel consumption with product throughput and criteria for rejecting data.
Post or department responsible for the procedure and for any data generated	Environmental Officer
Location where records are kept	Hard copy at SmartPly Plant & soft copy on SmartPly IT network
Name of IT system used	N/A
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	Environmental Non-conformance/Incident & Corrective/Preventive Action Procedure
Reference for procedure	ENVP036
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	This procedure applies to the investigation, correction, prevention and reporting of non-conformances and potential non-conformances with SmartPly's Industrial Emissions Licence, GHG permit or other legal requirements.
Post or department responsible for the procedure and for any data generated	Environmental Officer
Location where records are kept	Hard copy at SmartPly Plant & soft copy on SmartPly IT network
Name of IT system used	N/A
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	GHG Emissions Control System
Reference for procedure	ENVP051
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The objective of the procedure is to identify risks and implement controls to ensure that the annual emissions report is free from any omissions and errors and is in conformance with the monitoring and reporting plan and

	associated documents. This includes details of any outsourced processes where applicable.
Post or department responsible for the procedure and for any data generated	Environmental Officer
Location where records are kept	Hard copy at SmartPly Plant & soft copy on SmartPly IT network
Name of IT system used	N/A
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	Reporting and Record Keeping
Reference for procedure	ENVP027
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The procedure defines the method required to maintain documents and records as required to ensure compliance with all requirements of the current Greenhouse Gas Emissions Permit and associated documents and guidelines. The procedure details that in accordance with Article 66 of the MRR data and information stipulated in Annex IX of relevance to the installation is stored on site for 10 years and made readily available upon request by the EPA or Verifier.
Post or department responsible for the procedure and for any data generated	Environmental Officer
Location where records are kept	Hard copy at SmartPly Plant & soft copy on SmartPly IT network
Name of IT system used	N/A
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?	No

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	GHG Emissions Control System
Reference for procedure	ENVP051
Diagram reference	N/A
Brief description of procedure. The description should cover the essential parameters and operations performed	The objective of the procedure is to identify risks and implement controls to ensure that the annual emissions report is free from any omissions and errors and is in conformance with the monitoring and reporting plan and associated documents. This includes an assessment to identify any changes to the capacity, activity level and operation of the installation. 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 under Commission Decision 2011/278/EC . Where such changes are identified the application form amending amounts allocated free of charge is completed and submitted to the EPA by 31 December.
Post or department responsible for the procedure and for	Environmental Officer

any data generated	
Location where records are kept	Hard copy at SmartPly Plant & soft copy on SmartPly IT network
Name of IT system used	N/A

13. Abbreviations

ll. Abbreviations Acronyms or definitions

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

Abbreviation	Definition
N/A	N/A

14. Additional Information

Any other information:

Attachment	Description
Biomass NCVs.pdf	Biomass NCV reference document
2017 Metering Uncertainty Sources Summary.pdf	Metering Uncertainty Summary
SmartPly Weighbridge Certs.pdf	Weighbridge Certificates (In and Out weighbridge)
SMARTPLY EUROPE DESIGNATED ACTIVITY COMPANY.pdf	CRO Certificate

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.