EPA Application Form

7.4.1 - Emissions to Atmosphere - Main and Fugitive Emissions - Attachment

Organisation Name: *	William Connolly & Sons Unlimited Company
Application I.D.: *	P1069-01

Amendments to this Application Form Attachment

Version No.	Date	Amendment since previous version	Reason
V.1.0	July 2017	N/A	Online application form attachment
As above	Mar 2017	Identification of required fields	Assist correct completion of attachment

EMISSIONS TO ATMOSPHERE

Emissions to air/atmosphere include the following:

Main Emissions
Main emissions include all emissions of environmental significance. Where a **mass emission threshold** is specified in a BAT document (BAT Conclusions, National BAT note or BREF), emissions which exceed this threshold prior to abatement are regarded as significant, i.e., 'main emissions'. (In some cases emissions below the threshold can still be significant and qualify as Main Emissions).

Minor Emissions
Emissions below the mass emission threshold may be considered minor emissions and therefore do not generally need to be specifically controlled by the conditions or schedules of the licence (i.e., setting of ELVs, abatement control measures, or monitoring requirements). Emissions may also be deemed minor by virtue of their source/nature (e.g., laboratory fume hoods, workspace extractions, passive vents from storage tanks, HVAC exhausts), or composition (e.g., water vapour emissions).
For combustion plant such as boilers, these can be considered minor where the rated thermal input is < 1MW where natural gas is the main fuel, and for liquid and solid fuels where its < 250kW.

In completing the separate '*Emissions to Atmosphere - Minor and Potentia*l' attachment for minor emissions, the applicant should supply sufficient information to justify the determination of the emission as minor. Notwithstanding this guidance, the Agency may consider any emission to be significant (i.e., a main emission) on the basis of environmental impact.

Fugitive Emissions
Fugitive emissions include emissions from non-point sources and diffuse sources.

Potential Emissions
These are emissions which only operate under abnormal process conditions. Typical examples include bursting discs, pressure relief valves, and emergency generators. Bypasses and flares may also fall within this category, depending on how they are operated or designed to operate. Although the Agency does not normally set controls in licences for potential emissions, it may do so for the purposes of environmental protection.

This attachment collects information on main and fugitive emissions to atmosphere. Waste gas means the final gaseous emission from a stack or abatement equipment.

For minor and potential emissions to atmosphere, complete the separate '*Emissions to Atmosphere - Minor and Potentia*l' attachment.

Main Emissions to Atmosphere - Waste Gas Emission Point Details - one row per emission point *

Complete the following table with summary details for all main emission points to atmosphere.

(Guidance on completing the table is included in Note i at the end of this attachment)

The applicant should address in particular any emissions which may contain the principal polluting substances listed in the First Schedule of Environmental Protection Agency (Integrated Pollution Control) (Licensing) Regulations 2013/ (Industrial Emissions)(Licensing) Regulations 2013.

Please note that the determination of any emission limit values and monitoring requirements in a proposed licence if granted will be based on the information supplied hereunder.

NOTE: Information on this document includes all mitigation measures (stack height increases, abatement changes, replacement dryers) that will be in place by Harvest season 2023 (i.e. 1 July 2023). This is presented in Air Dispersion Modelling Report as Scenario 4.

Emission Point Code	Emission Point Grid Ref.		Typical Days Usage/Year	Measures to reduce /minimise / prevent emissions (list techniques) [1] *Where EQS considerations require measures stricter than BAT, highlight these measures in **bold***	Source of Waste Gases [2]	Minimum Discharge Height Above Ground (m)	Reference Conditions			
	Easting [3]	Northing [4]					Pressure [5]	Temp. (K) [6]	% Oxygen [7]	Moisture [8]
BOILERS										
A1-1	268010	54262	12 months	None	Duty Boiler	18	101.325kPa	273.15K	3%	dry

[1] Detailed descriptions and schematics of all abatement systems should be included in the Operational Report (Tab 4.8 – '*Reports*').

[2] **Options:** Boiler, Gas Turbine, Incineration, Co-Incineration, CHP, Kiln, Engine, Indirect drying activity (e.g. milk drying), Other Combustion activity (e.g., oven), Distillation/Chemical reaction, Solvent based coating activity, Other coating activity (provide description), Composting Tunnels, General extraction from buildings **or** Other (provide a description if '**Other**' is selected).

[3] **Six Digit GPS Irish National Grid Reference.**

[4] **Six Digit GPS Irish National Grid Reference**.

[5] **Options:** 101.325kPa **or** No correction.

[6] **Options:** 273.15K or No correction.

[7] **Options:** 3%, 6%, 10%, 11%, 15%, 18% **or** No correction.

[8] **Options:** Wet **or** Dry.

Emission Point Code	Emission Point Grid Ref.		Typical Days Usage/Year	Measures to reduce /minimise / prevent emissions (list techniques) [1] *Where EQS considerations require measures stricter than BAT, highlight these measures in **bold***	Source of Waste Gases [2]	Minimum Discharge Height Above Ground (m)	Reference Conditions			
	Easting [3]	Northing [4]					Pressure [5]	Temp. (K) [6]	% Oxygen [7]	Moisture [8]
A1-2	268009	154263	12 months	none	Stan-by Boiler	18	101.325kPa	273.15K	3%	dry
FEED MILL										
A2-1	268010	154262	12 months	Cyclone	Cuber 1	30	101.325kPa	273.15K	3%	dry
A2-2	268009	154263	12 months	Cyclone	Cuber 2	30	101.325kPa	273.15K	3%	dry
A2-3	268034	154204	12 months	Cyclone	Cuber 3	30	101.325kPa	273.15K	No correction	Wet
A2-4	268041	154209	12 months	Cyclone	Cuber 4	30	101.325kPa	273.15K	No correction	Wet
A2-6	268001	154209	12months	Cyclone and Sock filter	Flaker 1	25	101.325kPa	273.15K	No correction	Wet
A2-7	268000	154209	12months	Cyclone and Sock filter	Flaker 1	25	101.325kPa	273.15K	No correction	Wet
A2-8	268005	154207	12months	Cyclone and Sock filter	Flaker 2	23.5	101.325kPa	273.15K	No correction	Wet

Emission Point Code	Emission Point Grid Ref.		Typical Days Usage/Year	Measures to reduce /minimise / prevent emissions (list techniques) [1] *Where EQS considerations require measures stricter than BAT, highlight these measures in **bold***	Source of Waste Gases [2]	Minimum Discharge Height Above Ground (m)	Reference Conditions			
	Easting [3]	Northing [4]					Pressure [5]	Temp. (K) [6]	% Oxygen [7]	Moisture [8]
A2-9	267998	154208	12months	Cyclone and Sock filter	Flaker 2	25	101.325kPa	273.15K	No correction	Wet
A2-10	268003	154219	12months	Cyclone	Flaker Cyclone	26	101.325kPa	273.15K	No correction	Wet
A2-11	268010	154224	12months	Cyclone	Flaker Cyclone	16.5	101.325kPa	273.15K	No correction	Wet
A2-12	268007	154241	12months	Cyclone	Cyclone GVRSA and GVRSB	30.5	101.325kPa	273.15K	No correction	Wet
A2-13	268006	154243	12months	None	Fines	25	101.325kPa	273.15K	No correction	Wet
A2-15	267993	154259	12months	Cyclone	Soya Grinder	3	101.325kPa	273.15K	No correction	Wet
A2-16	268005	154239	12months	Cyclone	Soya Extruder	15.5	101.325kPa	273.15K	No correction	Wet
A2-17	267985	154228	12months	Cyclone	Soya Cyclone - Bin Filling	14.5	101.325kPa	273.15K	No correction	Wet

Emission Point Code	Emission Point Grid Ref.		Typical Days Usage/Year	Measures to reduce /minimise / prevent emissions (list techniques) [1] *Where EQS considerations require measures stricter than BAT, highlight these measures in **bold***	Source of Waste Gases [2]	Minimum Discharge Height Above Ground (m)	Reference Conditions			
	Easting [3]	Northing [4]					Pressure [5]	Temp. (K) [6]	% Oxygen [7]	Moisture [8]
A2-18	268008	154203	12months	Sock Filter	Grinder 1	25	101.325kPa	273.15K	No correction	Wet
A2-19	268007	154205	12months	Sock Filter	Grinder 3	25	101.325kPa	273.15K	No correction	Wet
A2-20	268006	154206	12months	Sock Filter	Grinder 4 - Dust Extraction	25	101.325kPa	273.15K	No correction	Wet
A2-21	268025	154164	12months	Sock Filter	Main Intake Grain	25	101.325kPa	273.15K	No correction	Wet
A2-22	268002	154238	12months	Cyclone	Extruder Vent	15.5	101.325kPa	273.15K	No correction	Wet
A2-23	268002	154244	12months	None	Extruder Dryer/ Cooler Vent	15.5	101.325kPa	273.15K	No correction	Wet
A2-26	268007	154203	12months	Cyclone	Flaker Clean 1	26	101.325kPa	273.15K	No correction	Wet
A2-53 (Oat Cleaner)	268043	154236	12months	Bag filter	OatMill Cleaner	30	101.325kPa	273.15K	No correction	Wet

Emission Point Code	Emission Point Grid Ref.		Typical Days Usage/Year	Measures to reduce /minimise / prevent emissions (list techniques) [1] *Where EQS considerations require measures stricter than BAT, highlight these measures in **bold***	Source of Waste Gases [2]	Minimum Discharge Height Above Ground (m)	Reference Conditions			
	Easting [3]	Northing [4]					Pressure [5]	Temp. (K) [6]	% Oxygen [7]	Moisture [8]
DRYERS										
A2-30A	267972	154247	2 months	None	Dryer 2	8	101.325kPa	273.15K	No correction	Wet
A2-30B	267972	154246	2 months	None	Dryer 2	8	101.325kPa	273.15K	No correction	Wet
A2-31	267971	154252	2 months	None	Dryer 2 – pre-cleaner	14.5	101.325kPa	273.15K	No correction	Wet
A2-32	268028	154447	2 months	Cyclone	Dryer 5	13	101.325kPa	273.15K	No correction	Wet
A2-33	268042	154460	2 months	Cyclone	Dryer 5	22	101.325kPa	273.15K	No correction	Wet
A2-34	268040	154461	2 months	Cyclone	Dryer 5	22	101.325kPa	273.15K	No correction	Wet
A2-35	268038	154459	2 months	Cyclone	Dryer 5	22	101.325kPa	273.15K	No correction	Wet

Emission Point Code	Emission Point Grid Ref.		Typical Days Usage/Year	Measures to reduce /minimise / prevent emissions (list techniques) [1] *Where EQS considerations require measures stricter than BAT, highlight these measures in **bold***	Source of Waste Gases [2]	Minimum Discharge Height Above Ground (m)	Reference Conditions			
	Easting [3]	Northing [4]					Pressure [5]	Temp. (K) [6]	% Oxygen [7]	Moisture [8]
A2-36	268038	154462	2 months	Cyclone	Dryer 5	22	101.325kPa	273.15K	No correction	Wet
A2-37	268037	154463	2 months	Cyclone	Dryer 5	22	101.325kPa	273.15K	No correction	Wet
A2-38	268029	154417	2 months	Cyclone	Dryer 4A2	12	101.325kPa	273.15K	No correction	Wet
A2-39	268030	154418	2 months	Cyclone	Dryer 4A1	12	101.325kPa	273.15K	No correction	Wet
A2-40	268005	154443	2 months	Cyclone	Dryer 4/5 pre-cleaner	14.3	101.325kPa	273.15K	No correction	Wet
A2-41	268013	154424	2 months	Cyclone	Dryer 4B	22.1	101.325kPa	273.15K	No correction	Wet
A2-42	268016	154422	2 months	Cyclone	Dryer 4B	22.1	101.325kPa	273.15K	No correction	Wet
A2-45A	268045	154531	2 months	Fabric filter	Replacement Dryer 6	24	101.325kPa	273.15K	No correction	Wet

Emission Point Code	Emission Point Grid Ref.		Typical Days Usage/Year	Measures to reduce /minimise / prevent emissions (list techniques) [1] *Where EQS considerations require measures stricter than BAT, highlight these measures in **bold***	Source of Waste Gases [2]	Minimum Discharge Height Above Ground (m)	Reference Conditions			
	Easting [3]	Northing [4]					Pressure [5]	Temp. (K) [6]	% Oxygen [7]	Moisture [8]
A2-45B	268047	154535	2 months	Fabric filter	Replacement Dryer 6	24	101.325kPa	273.15K	No correction	Wet
A2-46A	268049	154539	2 months	Fabric filter	Replacement Dryer 6	24	101.325kPa	273.15K	No correction	Wet
A2-46B	268051	154543	2 months	Fabric filter	Replacement Dryer 6	24	101.325kPa	273.15K	No correction	Wet
A2-46C	268053	154549	2 months	Cyclone	Replacement Dryer 6	24	101.325kPa	273.15K	No correction	Wet
A2-50A	268025	154587	2months	Fabric filter	Replacement Dryer 1	24	101.325kPa	273.15K	No correction	Wet
A2-50B	268028	154587	2months	Fabric filter	Replacement Dryer 1	24	101.325kPa	273.15K	No correction	Wet
A2-51A	268098	154577	2months	Fabric filter	Replacement Dryer 3	24	101.325kPa	273.15K	No correction	Wet
A2-51B	268100	154579	2months	Fabric filter	Replacement Dryer 3	24	101.325kPa	273.15K	No correction	Wet

Emission Point Code	Emission Point Grid Ref.		Typical Days Usage/Year	Measures to reduce /minimise / prevent emissions (list techniques) [1] *Where EQS considerations require measures stricter than BAT, highlight these measures in **bold***	Source of Waste Gases [2]	Minimum Discharge Height Above Ground (m)	Reference Conditions			
	Easting [3]	Northing [4]					Pressure [5]	Temp. (K) [6]	% Oxygen [7]	Moisture [8]
A2-52	268102	154576	2months	Cyclone	Replacement Dryer 1/3 Pre-cleaner	24	101.325kPa	273.15K	No correction	Wet
SEED PLANT										
A2-48	268022	154392	6months	Screening and Dressing Seeds	Dryer (seed plant)	14.45	101.325kPa	273.15K	No correction	Wet
A2-49	268019	154392	6months	Cyclone	Dryer (seed plant)	14.45	101.325kPa	273.15K	No correction	Wet

*add rows to the table as necessary

Emission Points from Combustion, Incineration or Co-incineration Sources Only

Complete the table below for each emission point to atmosphere from a combustion source, waste incineration or co-incineration plant

Emission Point Code	**Primary Fuel Type** [9] (where applicable)	**Secondary Fuel Type** [10] (where applicable)	**LCP Plant Reference** (where applicable)	**Waste incineration or co-incineration plant reference** (where applicable)
A1-1	LPG	None	n/a	n/a
A1-2	LPG	None	n/a	n/a

*add rows to the table as necessary

[9] **Options:** Coal, Lignite, Heavy Fuel Oil, Other Fuel Oil, Peat, Natural Gas, Biogas, Solid Biomass, Waste, Gas Oil, Other **or** None
[10] **Options:** Coal, Lignite, Heavy Fuel Oil, Other Fuel Oil, Peat, Natural Gas, Biogas, Solid Biomass, Waste, Gas Oil, Other **or** None

Emission Points with Solvent Emissions Only

Complete the table below for each emission point associated with a solvent activity

Emission Point Code	Are specific Hazardous Substances [11] Emitted?	Mass Flow of Emitted Hazardous Substances (g/hour)	Halogenated VOCs [12] Emitted?	Mass Flow of Emitted Halogenated VOCs (g/hour)
n/a				

*add rows to the table as necessary

[11] Emissions of volatile organic compounds referred to in Article 58 (Substances or mixtures which, because of their content of volatile organic compounds classified as carcinogens, mutagens, or toxic to reproduction under Regulation (EC) No. 1272/2008, are assigned or need to carry the hazard statements H340, H350,H350i, H360D or H360F) of the Industrial Emissions Directive.

[12] Halogenated volatile organic compounds which are assigned or need to carry the hazard statements H341 or H351.

Waste Gas Emission Monitoring Points

Complete the table below for each emission point, by entering the Emission Point Code, the associated Monitoring Point Code and the grid reference of the Monitoring Point. *

Emission Point Code	Monitoring Point Code [13]	Monitoring Point Grid Reference	
		Easting [14]	Northing [15]
All emission points are the same as in main emission points table above.	All monitoring points codes are the same as Emission Point Codes.	All co-ordinates are the same as for the emission points, listed in the table above.	

*add rows to the table as necessary

[13] To include monitoring and sampling points
[14] Six Digit GPS Irish National Grid Reference
[15] Six Digit GPS Irish National Grid Reference

Waste Gas - Abatement /Treatment Control

Complete the table below for each emission point with an abatement/treatment system (one table per emission point)

Emission Point Code: **All points**

Control[16] parameter	Monitoring to be carried out [17]	Additional notes (where relevant)
Air flow	Flow meter/ pitot tube	For all emission points that have cyclone
Differential pressure	Differential pressure	For all emission points that have fabric filters

*add rows to the table as necessary

[16] List the operating parameters of the treatment/abatement system which control its function.
[17] List the monitoring of the control parameter to be carried out.

Waste Gas Emissions

Complete the table below for all main emission points to atmosphere (include one row for each identified parameter) *

Emission Point Code	Parameter	Monitoring Point Code	Proposed Emission Limits [18]					BAT Associated Emission Range (if applicable)	Sampling / Monitoring EPA Guidance for Monitoring - AG2 Index of Preferred Methods		
			Max. Hourly [19]	Max. Daily [20]	Average Month [21]	Average Annual [22]	How was the Proposed Emission Limit Derived?		Proposed Monitoring Frequency	Proposed Monitoring and Analysis Method [23]	Compliant with BAT Monitoring Requirement?
Boilers											
A1-1	NOx	A1-1	200mg/Nm3	n/a	n/a	n/a	Monitoring and MCPD	Medium Combustion Plant Directive	Annual	Flue Gas Analyser	Yes
A1-1	Volumetric Flow	A1-1	10,000Nm3/hr	n/a	n/a	n/a	Estimate	n/a	Annual	Analyser	Yes
A1-2	NOx	A1-2	200mg/Nm3	n/a	n/a	n/a	Monitoring and MCPD	Medium Combustion Plant Directive	Annual	Flue Gas Analyser	Yes

[18] For emissions outside the BAT Conclusion, BREF or BAT guidance limit, a full evaluation of the existing abatement/treatment system must be provided. **A planned programme of improvement towards meeting upgraded standards is required**. This should highlight specific goals and a time scale, together with options for modification, upgrading or replacement as required to bring emissions within the limits set out in the BAT Conclusion(s), BREF(s) or BAT guidance note(s). These notes can be found on the EPA website at www.epa.ie.

[19] Specify the proposed limit **and** the units.

[20] Specify the proposed limit **and** the units.

[21] Specify the proposed limit **and** the units.

[22] Specify the proposed limit **and** the units.

[23] For continuous monitoring 'EN15267 approved CEMS' is the standard method. For periodic monitoring please refer to the EPA guidance document 'AG2 Index of Preferred Methods'.

Emission Point Code	Parameter	Monitoring Point Code	Proposed Emission Limits [18]					BAT Associated Emission Range (if applicable)	Sampling / Monitoring EPA Guidance for Monitoring - AG2 Index of Preferred Methods		
			Max. Hourly [19]	Max. Daily [20]	Average Month [21]	Average Annual [22]	How was the Proposed Emission Limit Derived?		Proposed Monitoring Frequency	Proposed Monitoring and Analysis Method [23]	Compliant with BAT Monitoring Requirement?
A1-2	Volumetric Flow	A1-2	5,000 Nm3/hr	n/a	n/a	n/a	Estimate	n/a	Annual	Analyser	Yes

Emission Point Code	Parameter	Monitoring Point Code	Proposed Emission Limits [24]					BAT Associated Emission Range (if applicable)	Sampling / Monitoring EPA Guidance for Monitoring - AG2 Index of Preferred Methods		
			Max. Hourly[25]	Max. Daily [26]	Average Month[27]	Average Annual[28]	How was the Proposed Emission Limit Derived?		Proposed Monitoring Frequency	Proposed Monitoring and Analysis Method [29]	Compliant with BAT Monitoring Requirement?
Feed Mill – Total Particulates											
A2-1	Total Particulates	A2-1	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	<2-20	Annual	EN 13284-1	Yes
A2-2	Total Particulates	A2-2	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	<2-20	Annual	EN 13284-1	Yes

[24] For emissions outside the BAT Conclusion, BREF or BAT guidance limit, a full evaluation of the existing abatement/treatment system must be provided. **A planned programme of improvement towards meeting upgraded standards is required**. This should highlight specific goals and a time scale, together with options for modification, upgrading or replacement as required to bring emissions within the limits set out in the BAT Conclusion(s), BREF(s) or BAT guidance note(s). These notes can be found on the EPA website at www.epa.ie.

[25] Specify the proposed limit **and** the units.

[26] Specify the proposed limit **and** the units.

[27] Specify the proposed limit **and** the units.

[28] Specify the proposed limit **and** the units.

[29] For continuous monitoring 'EN15267 approved CEMS' is the standard method. For periodic monitoring please refer to the EPA guidance document 'AG2 Index of Preferred Methods'.

Emission Point Code	Parameter	Monitoring Point Code	Proposed Emission Limits [24]					BAT Associated Emission Range (if applicable)	Sampling / Monitoring EPA Guidance for Monitoring - AG2 Index of Preferred Methods		
			Max. Hourly[25]	Max. Daily [26]	Average Month[27]	Average Annual[28]	How was the Proposed Emission Limit Derived?		Proposed Monitoring Frequency	Proposed Monitoring and Analysis Method [29]	Compliant with BAT Monitoring Requirement?
A2-3	Total Particulates	A2-3	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	<2-20	Annual	EN 13284-1	Yes
A2-4	Total Particulates	A2-4	5 mg/Nm3	n/a	n/a	n/a	Based on Cubers 1 – 3	<2-20	Annual	EN 13284-1	Yes
A2-6	Total Particulates	A2-6	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	<2-20	Annual	EN 13284-1	Yes
A2-7	Total Particulates	A2-7	20 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	<2-20	Annual	EN 13284-1	Yes
A2-8	Total Particulates	A2-8	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	<2-20	Annual	EN 13284-1	Yes
A2-9	Total Particulates	A2-9	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	<2-20	Annual	EN 13284-1	Yes
A2-10	Total Particulates	A2-10	20 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	<2-20	Annual	EN 13284-1	Yes
A2-11	Total Particulates	A2-11	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	<2-20	Annual	EN 13284-1	Yes
A2-12	Total Particulates	A2-12	10 mg/Nm3	n/a	n/a	n/a	Estimate	<2-20	Annual	EN 13284-1	Yes
A2-13	Total Particulates	A2-13	10 mg/Nm3	n/a	n/a	n/a	Estimate	<2-20	Annual	EN 13284-1	Yes
A2-15	Total Particulates	A2-15	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	<2-10	Annual	EN 13284-1	Yes

Emission Point Code	Parameter	Monitoring Point Code	Proposed Emission Limits [24]					BAT Associated Emission Range (if applicable)	Sampling / Monitoring EPA Guidance for Monitoring - AG2 Index of Preferred Methods		
			Max. Hourly[25]	Max. Daily [26]	Average Month[27]	Average Annual[28]	How was the Proposed Emission Limit Derived?		Proposed Monitoring Frequency	Proposed Monitoring and Analysis Method [29]	Compliant with BAT Monitoring Requirement?
A2-16	Total Particulates	A2-16	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	<2-20	Annual	EN 13284-1	Yes
A2-17	Total Particulates	A2-17	10 mg/Nm3	n/a	n/a	n/a	Estimate	<2-20	Annual	EN 13284-1	Yes
A2-18	Total Particulates	A2-18	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	<2-10	Annual	EN 13284-1	Yes
A2-19	Total Particulates	A2-19	5 mg/Nm3	n/a	n/a	n/a	Based on A-17 ad A-18	<2-10	Annual	EN 13284-1	Yes
A2-20	Total Particulates	A2-20	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	<2-10	Annual	EN 13284-1	Yes
A2-21	Total Particulates	A2-21	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	<2-20	Annual	EN 13284-1	Yes
A2-22	Total Particulates	A2-22	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	<2-20	Annual	EN 13284-1	Yes
A2-23	Total Particulates	A2-23	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	<2-20	Annual	EN 13284-1	Yes
A2-26	Total Particulates	A2-26	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	<2-20	Annual	EN 13284-1	Yes
A2-53 (Oat Cleaner)	Total Particulates	A2-53 (Oat Cleaner)	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	<2-20	Annual	EN 13284-1	Yes
Dryers – total Particulates											
A2-30A	Total Particulates	A2-30A	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	n/a	Annual	EN 13284-1	Yes

Emission Point Code	Parameter	Monitoring Point Code	Proposed Emission Limits [24]					BAT Associated Emission Range (if applicable)	Sampling / Monitoring EPA Guidance for Monitoring - AG2 Index of Preferred Methods		
			Max. Hourly[25]	Max. Daily [26]	Average Month[27]	Average Annual[28]	How was the Proposed Emission Limit Derived?		Proposed Monitoring Frequency	Proposed Monitoring and Analysis Method [29]	Compliant with BAT Monitoring Requirement?
A2-30B	Total Particulates	A2-30B	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	n/a	Annual	EN 13284-1	Yes
A2-31	Total Particulates	A2-31	10 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	n/a	Annual	EN 13284-1	Yes
A2-32	Total Particulates	A2-32	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	n/a	Annual	EN 13284-1	Yes
A2-33	Total Particulates	A2-33	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	n/a	Annual	EN 13284-1	Yes
A2-34	Total Particulates	A2-34	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	n/a	Annual	EN 13284-1	Yes
A2-35	Total Particulates	A2-35	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	n/a	Annual	EN 13284-1	Yes
A2-36	Total Particulates	A2-36	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	n/a	Annual	EN 13284-1	Yes
A2-37	Total Particulates	A2-37	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	n/a	Annual	EN 13284-1	Yes
A2-38	Total Particulates	A2-38	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	n/a	Annual	EN 13284-1	Yes
A2-39	Total Particulates	A2-39	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	n/a	Annual	EN 13284-1	Yes
A2-40	Total Particulates	A2-40	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	n/a	Annual	EN 13284-1	Yes
A2-41	Total Particulates	A2-41	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	n/a	Annual	EN 13284-1	Yes

Emission Point Code	Parameter	Monitoring Point Code	Proposed Emission Limits [24]					BAT Associated Emission Range (if applicable)	Sampling / Monitoring EPA Guidance for Monitoring - AG2 Index of Preferred Methods		
			Max. Hourly[25]	Max. Daily [26]	Average Month[27]	Average Annual[28]	How was the Proposed Emission Limit Derived?		Proposed Monitoring Frequency	Proposed Monitoring and Analysis Method [29]	Compliant with BAT Monitoring Requirement?
A2-42	Total Particulates	A2-42	5 mg/Nm3	n/a	n/a	n/a	Monitoring & modelling	n/a	Annual	EN 13284-1	Yes
A2-45A	Total Particulates	A2-45A	1.36 kg/hr	n/a	n/a	n/a	Estimate	n/a	Annual	EN 13284-1	Yes
A2-45B	Total Particulates	A2-45B	1.36 kg/hr	n/a	n/a	n/a	Estimate	n/a	Annual	EN 13284-1	Yes
A2-46A	Total Particulates	A2-46A	1.36 kg/hr	n/a	n/a	n/a	Estimate	n/a	Annual	EN 13284-1	Yes
A2-46B	Total Particulates	A2-46B	1.36 kg/hr	n/a	n/a	n/a	Estimate	n/a	Annual	EN 13284-1	Yes
A2-46C	Total Particulates	A2-46C	0.2 kg/hr	n/a	n/a	n/a	Estimate	n/a	Annual	EN 13284-1	Yes
A2-50A	Total Particulates	A2-50A	1.36 kg/hr	n/a	n/a	n/a	Estimate	n/a	Annual	EN 13284-1	Yes
A2-50B	Total Particulates	A2-50B	1.36 kg/hr	n/a	n/a	n/a	Estimate	n/a	Annual	EN 13284-1	Yes
A2-51A	Total Particulates	A2-51A	1.36 kg/hr	n/a	n/a	n/a	Estimate	n/a	Annual	EN 13284-1	Yes
A2-51B	Total Particulates	A2-51B	1.36 kg/hr	n/a	n/a	n/a	Estimate	n/a	Annual	EN 13284-1	Yes
A2-52	Total Particulates	A2-52	0.2 kg/hr	n/a	n/a	n/a	Estimate	n/a	Annual	EN 13284-1	Yes
Seed Plant – Total Particulates											
A2-48	Total Particulates	A2-48	10 mg/Nm3	n/a	n/a	n/a	Estimate	<2-20	Annual	EN 13284-1	Yes

Emission Point Code	Parameter	Monitoring Point Code	Proposed Emission Limits [24]					BAT Associated Emission Range (if applicable)	Sampling / Monitoring EPA Guidance for Monitoring - AG2 Index of Preferred Methods		
			Max. Hourly[25]	Max. Daily [26]	Average Month[27]	Average Annual[28]	How was the Proposed Emission Limit Derived?		Proposed Monitoring Frequency	Proposed Monitoring and Analysis Method [29]	Compliant with BAT Monitoring Requirement?
A2-49	Total Particulates	A2-49	10 mg/Nm3	n/a	n/a	n/a	Estimate	<2-20	Annual	EN 13284-1	Yes
Feed Mill – Volumetric Flow											
A2-1	Volumetric Flow	A2-1	26,000 Nm3/hr	n/a	n/a	n/a	Monitoring	n/a	Annual	EN 16911-1	Yes
A2-2	Volumetric Flow	A2-2	24,000 Nm3/hr	n/a	n/a	n/a	Monitoring	n/a	Annual	EN 16911-1	Yes
A2-3	Volumetric Flow	A2-3	28,000 Nm3/hr	n/a	n/a	n/a	Monitoring	n/a	Annual	EN 16911-1	Yes
A2-4	Volumetric Flow	A2-4	28,000 Nm3/hr	n/a	n/a	n/a	Based on Cubers 1 – 3	n/a	Annual	EN 16911-1	Yes
A2-6	Volumetric Flow	A2-6	18,000 Nm3/hr	n/a	n/a	n/a	Monitoring	n/a	Annual	EN 16911-1	Yes
A2-7	Volumetric Flow	A2-7	12,000 Nm3/hr	n/a	n/a	n/a	Monitoring	n/a	Annual	EN 16911-1	Yes
A2-8	Volumetric Flow	A2-8	15,000 Nm3/hr	n/a	n/a	n/a	Monitoring	n/a	Annual	EN 16911-1	Yes
A2-9	Volumetric Flow	A2-9	3,000 Nm3/hr	n/a	n/a	n/a	Monitoring	n/a	Annual	EN 16911-1	Yes
A2-10	Volumetric Flow	A2-10	30,000 Nm3/hr	n/a	n/a	n/a	Monitoring	n/a	Annual	EN 16911-1	Yes

Emission Point Code	Parameter	Monitoring Point Code	Proposed Emission Limits [24]					BAT Associated Emission Range (if applicable)	Sampling / Monitoring EPA Guidance for Monitoring - AG2 Index of Preferred Methods		
			Max. Hourly[25]	Max. Daily [26]	Average Month[27]	Average Annual[28]	How was the Proposed Emission Limit Derived?		Proposed Monitoring Frequency	Proposed Monitoring and Analysis Method [29]	Compliant with BAT Monitoring Requirement?
A2-11	Volumetric Flow	A2-11	10,000 Nm3/hr	n/a	n/a	n/a	Monitoring	n/a	Annual	EN 16911-1	Yes
A2-12	Volumetric Flow	A2-12	26,000 Nm3/hr	n/a	n/a	n/a	Estimate	n/a	Annual	EN 16911-1	Yes
A2-13	Volumetric Flow	A2-13	12,000 Nm3/hr	n/a	n/a	n/a	Estimate	n/a	Annual	EN 16911-1	Yes
A2-15	Volumetric Flow	A2-15	5,000 Nm3/hr	n/a	n/a	n/a	Monitoring	n/a	Annual	EN 16911-1	Yes
A2-16	Volumetric Flow	A2-16	6,000 Nm3/hr	n/a	n/a	n/a	Monitoring	n/a	Annual	EN 16911-1	Yes
A2-17	Volumetric Flow	A2-17	3,000 Nm3/hr	n/a	n/a	n/a	Estimate	n/a	Annual	EN 16911-1	Yes
A2-18	Volumetric Flow	A2-18	7,000 Nm3/hr	n/a	n/a	n/a	Monitoring	n/a	Annual	EN 16911-1	Yes
A2-19	Volumetric Flow	A2-19	6,500 Nm3/hr	n/a	n/a	n/a	Based on A-17 ad A-18	n/a	Annual	EN 16911-1	Yes
A2-20	Volumetric Flow	A2-20	8,000 Nm3/hr	n/a	n/a	n/a	Monitoring	n/a	Annual	EN 16911-1	Yes
A2-21	Volumetric Flow	A2-21	6,500 Nm3/hr	n/a	n/a	n/a	Monitoring	n/a	Annual	EN 16911-1	Yes
A2-22	Volumetric Flow	A2-22	14,000 Nm3/hr	n/a	n/a	n/a	Monitoring	n/a	Annual	EN 16911-1	Yes

Emission Point Code	Parameter	Monitoring Point Code	Proposed Emission Limits [24]					BAT Associated Emission Range (if applicable)	Sampling / Monitoring EPA Guidance for Monitoring - AG2 Index of Preferred Methods		
			Max. Hourly[25]	Max. Daily [26]	Average Month[27]	Average Annual[28]	How was the Proposed Emission Limit Derived?		Proposed Monitoring Frequency	Proposed Monitoring and Analysis Method [29]	Compliant with BAT Monitoring Requirement?
A2-23	Volumetric Flow	A2-23	28,000 Nm3/hr	n/a	n/a	n/a	Monitoring	n/a	Annual	EN 16911-1	Yes
A2-26	Volumetric Flow	A2-26	15,000 Nm3/hr	n/a	n/a	n/a	Monitoring	n/a	Annual	EN 16911-1	Yes
A2-53 (Oat Cleaner)	Volumetric Flow	A2-53 (Oat Cleaner)	27,000 Nm3/hr	n/a	n/a	n/a	Monitoring	n/a	Annual	EN 16911-1	Yes
DRYERS – Volumetric Flow											
A2-30A	Volumetric Flow	A2-30A	59,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-30B	Volumetric Flow	A2-30B	59,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-31	Volumetric Flow	A2-31	2,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-32	Volumetric Flow	A2-32	10,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-33	Volumetric Flow	A2-33	42,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-34	Volumetric Flow	A2-34	39,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-35	Volumetric Flow	A2-35	32,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes

Emission Point Code	Parameter	Monitoring Point Code	Proposed Emission Limits [24]					BAT Associated Emission Range (if applicable)	Sampling / Monitoring EPA Guidance for Monitoring - AG2 Index of Preferred Methods		
			Max. Hourly[25]	Max. Daily [26]	Average Month[27]	Average Annual[28]	How was the Proposed Emission Limit Derived?		Proposed Monitoring Frequency	Proposed Monitoring and Analysis Method [29]	Compliant with BAT Monitoring Requirement?
A2-36	Volumetric Flow	A2-36	39,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-37	Volumetric Flow	A2-37	39,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-38	Volumetric Flow	A2-38	53,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-39	Volumetric Flow	A2-39	83,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-40	Volumetric Flow	A2-40	10,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-41	Volumetric Flow	A2-41	59,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-42	Volumetric Flow	A2-42	78,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-45A	Volumetric Flow	A2-45A	136,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-45B	Volumetric Flow	A2-45B	136,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-46A	Volumetric Flow	A2-46A	136,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-46B	Volumetric Flow	A2-46B	136,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes

Emission Point Code	Parameter	Monitoring Point Code	Proposed Emission Limits [24]					BAT Associated Emission Range (if applicable)	Sampling / Monitoring EPA Guidance for Monitoring - AG2 Index of Preferred Methods		
			Max. Hourly[25]	Max. Daily [26]	Average Month[27]	Average Annual[28]	How was the Proposed Emission Limit Derived?		Proposed Monitoring Frequency	Proposed Monitoring and Analysis Method [29]	Compliant with BAT Monitoring Requirement?
A2-46C	Volumetric Flow	A2-46C	20,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-50A	Volumetric Flow	A2-50A	136,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-50B	Volumetric Flow	A2-50B	136,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-51A	Volumetric Flow	A2-51A	136,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-51B	Volumetric Flow	A2-51B	136,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
A2-52	Volumetric Flow	A2-52	20,000 Nm3/hr	n/a	n/a	n/a	Manufacturer specification	n/a	Annual	EN 16911-1	Yes
SEED PLANT - Volumetric Flow											
A2-48	Volumetric Flow	A2-48	20,000 Nm3/hr	n/a	n/a	n/a	Estimate	n/a	Annual	EN 16911-1	Yes
A2-49	Volumetric Flow	A2-49	10,000 Nm3/hr	n/a	n/a	n/a	Estimate	n/a	Annual	EN 16911-1	Yes

** For continuous monitoring 'EN15267 approved CEMS' is the standard method. For periodic monitoring please refer to the EPA guidance document 'AG2 Index of Preferred Methods' linked above*

*add rows to the table as necessary

Minor and/or Potential Emissions to Atmosphere [30]

Are there any minor **or** potential emission point(s) to atmosphere at the installation/facility? (**Yes/No**) *	**Yes**

If '**Yes**' complete and upload the ***Emissions to Atmosphere – Minor and Potential Emissions*** template with details of minor and potential emissions (select Document Type: '**Minor - Potential Emissions**' in the application form)

Emissions to Atmosphere - Minor - Potential Emissions file name:	Previously submitted with the IE application: "18 03 16 EPA Application Emissions to Air- Minor and Potential Section 7.2.pdf"

[30] Refer to page 3 for guidance on what constitutes a minor or potential emission.

Fugitive Emission to Atmosphere

Fugitive emissions must be controlled by way of appropriate controls and techniques to minimise emissions.
(Additional information on fugitive emission is included in Note ii at the end of this attachment)

Are there any sources of fugitive emissions at the installation/facility?[31] (**Yes/No**) *

If '**Yes**' provide summary details of the fugitive emissions in the table below:

Type of Fugitive Emission	Emission Type Applicable? (Yes/No)	Description of fugitive emissions source(s)	Maximum Level	Units	Descriptor/Location
Dust	**Yes**	During harvest season, deliveries of grain, as well as stockpiles of grain in the yards and fields around the plant are key sources of fugitive emissions.	350	*mg/m²/day*	*Dust deposition*
VOC [32]	**No**	n/a	n/a	%	*of solvent input*
Ammonia	**No**	n/a	n/a	*ug/m³*	*at the nearest European Site*
Nitrogen	**No**	n/a	n/a	*kgN/ha/yr*	*at the nearest European Site*
Odour	**Yes**	Feed Mill sources, in particular Cubers, and any steam processes.	3 OU_E/m3	*Odour Units*	***At sensitive receptors***

31 For waste activities, dust and odour emissions should be considered and described in the table below where applicable.

32 In relation to activities listed in Chapter V (for installations using Organic Solvents) of the Industrial Emissions Directive (2010/75/EU):

- specify how the requirements in relation to fugitive emissions will be met.

Provide details of the techniques to be used to reduce / minimise / prevent fugitive emissions in text bow below

- Dust Management Plan will be prepared for the Site and implemented before the Harvest Season 2022.
- Although currently, odour is not an issue, and no complaints were ever received, Odour Management Plan will also be prepared within 1 year of IEL being issued.

Note i Complete the table for each emission point having regard to the guidance hereunder.

The following convention should be observed when labelling emission points:

Boiler Emissions	A1-1, A1-2, A1-3,…etc.
Main Emissions	A2-1, A2-2, A2-3,…etc.
Minor Emissions	A3-1, A3-2, A3-3,...etc. (NOTE: Minor emission points are to be included in the '*Emissions to Atmosphere - Minor and Potential*' attachment)
Potential Emissions	A4-1, A4-2, A4-3,…etc. (NOTE: Potential emission points are to be included in the '*Emissions to Atmosphere - Minor and Potential*' attachment)

A National Grid Reference (12 digit, 6E, 6N) must be provided for each emission point.
Measures are usually required to reduce, minimise or prevent emissions from occurring. They may involve the application of a single technique or a combination of techniques including process integrated, recovery, abatement and treatment techniques. List all techniques proposed/employed. Technique(s) employed must comply with BAT. Highlight additional measures required for the purposes of protecting the environment i.e. AQS considerations. The measures or techniques to be taken must be capable of complying with the proposed/known emission level(s).
The measures required shall be informed by the following:
1. BAT techniques with BAT-AEL
2. BAT techniques without BAT-AEL
3. Stricter measures/techniques than BAT (due to AQS)
4. BAT determined by competent authority in consultation with the applicant
5. Measures to minimise pollution over long distances or in the territory of other states.
6. Emerging techniques
7. Less strict measures than BAT (due to derogation)
8. Other measures

Select from the drop down list the source of the emission as it helps explain the nature of the emission.
Particular attention should be paid to ensuring that emissions data (volumetric flow and pollutant concentrations) are presented at the required reference conditions for oxygen, temperature, pressure and moisture.

Note ii **Fugitive emissions include the following:**

- Dust from area sources such as a quarry.
- Odour from volume sources such as a pig unit, waste water treatment plant, waste handling etc.
- VOCs from processes using solvent not captured in waste gases.
- Ammonia and nitrogen from pig and poultry units.

Processes that can give rise to fugitive emissions include:

o Leaks from valve seals, pump seals and flanges;
o Breathing and working losses from liquid storage facilities;
o Dust emissions from solids stored in the open;
o Loading and unloading operations;
o Cleaning operations; and,
o Emissions from waste water treatment (e.g. volatile organics).

The measures taken to reduce/ prevent fugitive emissions to atmosphere must be addressed, and the facilities and operations required to control emissions must be detailed.