

EPA Application Form

7.4.2 - Emissions to Atmosphere - Minor and Potential Emissions - Attachment

Organisation Name: * Amazon Data Services Ireland Limited

Application I.D.: * LA009911

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 consistent completion of attachment
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^{*} indicates required field



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 <u>may</u> 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.

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 licenses 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 main and fugitive emissions to atmosphere, complete the separate 'Emissions to Atmosphere - Main and Fugitive Emissions' attachment.

^{*} indicates required field



EMISSIONS TO ATMOSPHERE - Minor Emissions - one row per emission point

In completing this attachment for minor emissions, the applicant should supply sufficient information to justify the determination of the emission as minor. Notwithstanding the guidance provided on minor emissions, the Agency may consider any emission to be significant (i.e., a main emission) on the basis of environmental impact.

Complete the table below with summary details for all minor emission points to atmosphere.

Emission	Easting (2)	Northing (3)	Loubbing (3)	Emission details (4)				Abatement system employed
Point Code			Description of source of emission(s)	Parameter/ Material	mg/Nm ³⁽⁵⁾	kg/h	kg/year	(if relevant)
A3-1	709922	728392	Emergency Generator 1 - (Building A) - (5.19 MWth)	NOx, CO, SO2, PM10/25e ^C	No ELV	No ELV	No ELV	N/A
A3-2	709948	728394	Emergency Generator 2 - (Building A) - (5.19 MWth)	NO _x , CO ₃ O ₂ PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-3	709952	728394	Emergency Generator 3 - (Building A) - (5.19 MWth)	MOx CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-4	710019	728399	Emergency Generator 4 - (Building A) (1)	NOx, CO, SO2, PM10/2.5	No ELV	No ELV	No ELV	N/A
A3-5	710023	728399	Emergency Generator 5 - (Building A) - (5.19 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-6	710049	728401	Emergency Generator 6 - (Building A) - (5.19 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A

⁽¹⁾ The following convention should be observed when labelling <u>minor</u> atmospheric emission points: A-1, A-2, A-3,...etc.

⁽²⁾ Six Digit GPS Irish National Grid Reference.

⁽³⁾ Six Digit GPS Irish National Grid Reference.

⁽⁴⁾ The maximum emission should be stated for each parameter emitted; the concentration should be based on the maximum 30 minute mean and must be the **PRE-ABATEMENT** level.

⁽⁵⁾ Concentrations should be based on Normal conditions of temperature and pressure, (i.e. 0oC101.3kPa). Wet/dry should be clearly stated. Include reference oxygen conditions for combustion sources.

^{*} indicates required field



Emission Point Code	Easting (2)	esting (2) Northing (3)	Description of source of emission(s)	Emission details (4)				Abatement system employed	
(1)			Description of source of emission(s)	Parameter/ Material	mg/Nm ³⁽⁵⁾	kg/h kg/year		(if relevant)	
A3-7	710053	728401	Emergency Generator 7 - (Building A) - (5.19 MWth)	NOx, CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-8	710080	728402	Emergency Generator 8 - (Building A) - (5.19 MWth)	NOx, CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-9	710083	728403	Emergency Generator 9 - (Building A) - (5.19 MWth)	NOx, CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-10	709922	728255	Emergency Generator 10 - (Building A) - (5.19 MWth)	NOx, CO, SO ₂ , PM ₁₀ , 12.5	No ELV	No ELV	No ELV	N/A	
A3-11	709949	728257	Emergency Generator 11 - (Building A) - (5.19 MWth)	NOx, CO, SO2, PM10/2.5	No ELV	No ELV	No ELV	N/A	
A3-12	709952	728258	Emergency Generator 12 - (Building A) - (5.19 MWth)	NOx, CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-13	709981	728259	Emergency Generator 13 - (Building A) (5.19 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-14	710021	728263	Emergency Generator 14 - (Building A) - (5.19 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-15	710026	728263	Emergency Generator 15 - (Building A) - (5.19 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-16	710051	728264	Emergency Generator 16 - (Building A) - (5.19 MWth)	NOx, CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-17	710070	728265	Emergency Generator 17 - (Building A) - (5.19 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	

^{*} indicates required field



Emission Point Code	Easting (2)	sting (2) Northing (3)	Northing (3) Description of source of emission(s)		Emission details (4)				
(1)			Description of source of emission(s)	Parameter/ Material	mg/Nm ³⁽⁵⁾	kg/h	kg/year	(if relevant)	
A3-18	710072	728266	Emergency Generator 18 - (Building A) - (5.19 MWth)	NOx, CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-19	710101	728267	Emergency Generator 19 - (Building A) - (5.19 MWth)	NOx, CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-20	710103	728268	Emergency Generator 20 - (Building A) - (5.19 MWth)	NOx, CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-21	709854	728332	Emergency Generator 21 - (Building A) - (5.19 MWth)	NOx, CO, SO ₂ , PM ₁₀ , 2.5	No ELV	No ELV	No ELV	N/A	
A3-22	709855	728332	Emergency Generator 22 - (Building A) - (5.19 MWth)	NOx, CO, SO2, PM10/2.5	No ELV	No ELV	No ELV	N/A	
A3-23	709868	728333	Emergency Generator 23 - (Building A) - (5.19 MWth)	NOx, CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-24	709869	728333	Emergency Generator 24 - (Building A) (5.19 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-25	709901	728564	Emergency Generator 25 - (Building B) - (5.19 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-26	709902	728564	Emergency Generator 26 - (Building B) - (5.19 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-27	709903	728565	Emergency Generator 27 - (Building B) - (5.19 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-28	709918	728566	Emergency Generator 28 - (Building B) - (5.19 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	

^{*} indicates required field



Emission Point Code	Easting (2)	Northing (3)	Description of source of emission(s)	Emission details ⁽⁴⁾				Abatement system employed	
(1)			Description of source of emission(s)	Parameter/ Material	mg/Nm ³⁽⁵⁾	kg/h	kg/year	(if relevant)	
A3-29	709919	728566	Emergency Generator 29 - (Building B) - (5.19 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-30	709934	728567	Emergency Generator 30 - (Building B) - (5.19 MWth)	NOx, CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-31	709934	728567	Emergency Generator 31 - (Building B) - (5.19 MWth)	NOx, CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-32	709949	728568	Emergency Generator 32 - (Building B) - (5.19 MWth)	NO _x , CO, SO ₂ , PM ₁₀ , 2.5	No ELV	No ELV	No ELV	N/A	
A3-33	709950	728568	Emergency Generator 33 - (Building B) - (5.19 MWth)	NOx, CO, SO2, PM10/2.5	No ELV	No ELV	No ELV	N/A	
A3-34	709965	728569	Emergency Generator 34 - (Building B) - (5.19 MWth)	MÖx, CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-35	709966	728569	Emergency Generator 35 - (Building By-	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-36	709981	728570	Emergency Generator 36 - (Building B) - (5.19 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-37	709982	728570	Emergency Generator 37 - (Building B) - (5.19 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-38	709892	728499	Emergency Generator 38 - (Building C) - (6.60 MWth)	NOx, CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-39	709892	728499	Emergency Generator 39 - (Building C) - (6.60 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	

^{*} indicates required field



Emission Point Code	Easting (2)	Northing (3)	Description of source of emission(s)	Emission details (4)				Abatement system employed	
(1)			Description of source of emission(s)	Parameter/ Material	mg/Nm ³⁽⁵⁾	kg/h kg/year		(if relevant)	
A3-40	709896	728500	Emergency Generator 40 - (Building C) - (6.60 MWth)	NOx, CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-41	709897	728500	Emergency Generator 41 - (Building C) - (6.60 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-42	709912	728501	Emergency Generator 42 - (Building C) - (6.60 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-43	709913	728501	Emergency Generator 43 - (Building C) - (6.60 MWth)	NO _x , CO, SO ₂ , PM ₁₀ , 2.5	No ELV	No ELV	No ELV	N/A	
A3-44	709917	728501	Emergency Generator 44 - (Building C) - (6.60 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-45	709917	728501	Emergency Generator 45 - (Building C) - (6.60 MWth)	CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-46	709925	728502	Emergency Generator 46 - (Building C) - (6.60 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-47	710127	728296	Diesel Powered Fire Pump Building A) - (0.42 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-48	710127	728294	Diesel Powered Fire Pump - (Building A) - (0.42 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-49	710057	728566	Diesel Powered Fire Pump - (Building B&C) - (0.42 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	
A3-50	710057	728566	Diesel Powered Fire Pump - (Building B&C) - (0.42 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A	

^{*} indicates required field



Note: Map(s)/drawing(s) uploaded under 'Site Plans' in Tab 3 of the application form should identify the emission and monitoring points.

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^{*} indicates required field



EMISSIONS TO ATMOSPHERE – Potential Emissions to Atmosphere

Potential emissions are emissions that are not active under normal operation and would include by-passes or pressure relief valves.

Complete the table below with summary details of all <u>potential emissions</u> to atmosphere

Emission Point Code ⁶	Description of source of emission	Malfunction which could cause an emission	Emission details (Potential max. emissions) ⁽⁷⁾							
Couc		Cinidaton	Parameter/Material	mg/Nm³	kg/hour					
	House Generator									
A4-1	Bulk Fuel Tank Breathing Vent 1 - (Bulk Tank m3)	Storage tank over-pressurisation during emergency event (i.e. fire)	Diesel vapour (trace)	Not monitored	Not monitored					
A4-2	Bulk Fuel Tank Breathing Vent 2 - (Bulk Tank m3)	Storage tank over-pressurisation during emergency event (i.e. fire)	Diesel vapour (trace)	Not monitored	Not monitored					
A4-3	Bulk Fuel Tank Breathing Vent 3 - (Bulk Tank m3)	Storage tank over-pressurisation during emergency event (i.e. fire)	Diesel vapour (trace)	Not monitored	Not monitored					
A4-4	Bulk Fuel Tank Breathing Vent 4 - (Bulk Tank m3)	Storage tank over-pressurisation during emergence event (i.e. fire)	Diesel vapour (trace)	Not monitored	Not monitored					
A4-5	Bulk Fuel Tank Breathing Vent 5 - (Bulk Tank m3)	Storage tank over-pressurisation during emergency event (i.e. fire)	Diesel vapour (trace)	Not monitored	Not monitored					
A4-6	Bulk Fuel Tank Breathing Vent 6 - (Bulk Tank m3)	Storage tank over-pressurisation during emergency event (i.e. fire)	Diesel vapour (trace)	Not monitored	Not monitored					
A4-7	Bulk Fuel Tank Breathing Vent 7 - (Bulk Tank m3)	Storage tank over-pressurisation during emergency event (i.e. fire)	Diesel vapour (trace)	Not monitored	Not monitored					

⁶ The following convention should be observed when labelling potential atmospheric emission points: A4-1, A4-2, A4-3,...etc.

⁷ Estimate the potential maximum emission for each malfunction identified.

^{*} indicates required field



Emission Point Code ⁶	Description of source of emission	Malfunction which could cause an emission	Emission details (Potential max. emissions) ⁽⁷⁾				
			Parameter/Material	mg/Nm³	kg/hour		
A4-8	Bulk Fuel Tank Breathing Vent 8 - (Bulk Tank m3)	Storage tank over-pressurisation during emergency event (i.e. fire)	Diesel vapour (trace)	Not monitored	Not monitored		

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