

EPA Application Form

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

Organisation Name: *

Amazon Data Services Ireland Limited

Application I.D.: *

LA011866

Authorisation Application Form

Amendments to this Application Form Attachment

Version No.	Date	Amendment since previous version	Reason
V.1.1.0	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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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.

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

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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 Point Code ⁽¹⁾	Easting ⁽²⁾	Northing ⁽³⁾	Description of source of emission(s)	Emission details ⁽⁴⁾				Abatement system employed (if relevant)
				Parameter/ Material	mg/Nm ³⁽⁵⁾	kg/h	kg/year	
Existing Installation								
A3-1	718406	740436	Emergency Generator 1 - (Building W) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-2	718401	740436	Emergency Generator 2 - (Building W) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-3	718395	740437	Emergency Generator 3 - (Building W) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-4	718280	740440	Emergency Generator 4 - (Building W) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-5	718279	740436	Emergency Generator 5 - (Building W) - (5.44 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 minor 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. 0oC/101.3kPa). Wet/dry should be clearly stated. Include reference oxygen conditions for combustion sources.

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Emission Point Code (1)	Easting (2)	Northing (3)	Description of source of emission(s)	Emission details (4)				Abatement system employed (if relevant)
				Parameter/ Material	mg/Nm ³⁽⁵⁾	kg/h	kg/year	
A3-6	718276	740410	Emergency Generator 6 - (Building W) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-7	718275	740405	Emergency Generator 7 - (Building W) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-8	718386	740346	Emergency Generator 8 - (Building W) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-9	718391	740345	Emergency Generator 9 - (Building W) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-10	718289	740331	Emergency Generator 10 - (Building W) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-11	718292	740330	Emergency Generator 11 - (Building W) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-12	718288	740325	Emergency Generator 12 - (Building W) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-13	718292	740325	Emergency Generator 13 - (Building W) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-14	718305	740638	Emergency Generator 14 - (Building X) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-15	718309	740638	Emergency Generator 15 - (Building X) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-16	718313	740637	Emergency Generator 16 - (Building X) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A

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Emission Point Code (1)	Easting (2)	Northing (3)	Description of source of emission(s)	Emission details (4)				Abatement system employed (if relevant)
				Parameter/ Material	mg/Nm ³⁽⁵⁾	kg/h	kg/year	
A3-17	718317	740637	Emergency Generator 17 - (Building X) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-18	718321	740636	Emergency Generator 18 - (Building X) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-19	718325	740636	Emergency Generator 19 - (Building X) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-20	718329	740635	Emergency Generator 20 - (Building X) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-21	718333	740635	Emergency Generator 21 - (Building X) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-22	718338	740634	Emergency Generator 22 - (Building X) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-23	718342	740634	Emergency Generator 23 - (Building X) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-24	718357	740632	Emergency Generator 24 - (Building X) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-25	718361	740631	Emergency Generator 25 - (Building X) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-26	718365	740631	Emergency Generator 26 - (Building X) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-27	718370	740630	Emergency Generator 27 - (Building X) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A

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Emission Point Code (1)	Easting (2)	Northing (3)	Description of source of emission(s)	Emission details (4)				Abatement system employed (if relevant)
				Parameter/ Material	mg/Nm ³⁽⁵⁾	kg/h	kg/year	
A3-28	718374	740630	Emergency Generator 28 - (Building X) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-29	718378	740629	Emergency Generator 29 - (Building X) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-30	718382	740629	Emergency Generator 30 - (Building X) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-31	718386	740628	Emergency Generator 31 - (Building X) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-32	718390	740628	Emergency Generator 32 - (Building X) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-33	718394	740627	Emergency Generator 33 - (Building X) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-34	718345	740600	Emergency Generator 34 - (Building Y) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-35	718346	740601	Emergency Generator 35 - (Building Y) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-36	718347	740599	Emergency Generator 36 - (Building Y) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-37	718363	740598	Emergency Generator 37 - (Building Y) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-38	718364	740599	Emergency Generator 38 - (Building Y) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A

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Emission Point Code (1)	Easting (2)	Northing (3)	Description of source of emission(s)	Emission details (4)				Abatement system employed (if relevant)
				Parameter/ Material	mg/Nm ³⁽⁵⁾	kg/h	kg/year	
A3-39	718365	740599	Emergency Generator 39 - (Building Y) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-40	718365	740597	Emergency Generator 40 - (Building Y) - (5.44 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
Extended Installation (new emissions to atmosphere)								
A3-41	718498	740267	Emergency Generator 41 - (Building U) - (6.49 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	SCR Abatement
A3-42	718498	740266	Emergency Generator 42 - (Building U) - (6.49 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	SCR Abatement
A3-43	718496	740252	Emergency Generator 43 - (Building U) - (6.49 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	SCR Abatement
A3-44	718495	740251	Emergency Generator 44 - (Building U) - (6.49 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	SCR Abatement
A3-45	718494	740242	Emergency Generator 45 - (Building U) - (6.49 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	SCR Abatement
A3-46	718494	740242	Emergency Generator 46 - (Building U) - (6.49 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	SCR Abatement
A3-47	718491	740227	Emergency Generator 47 - (Building U) - (6.49 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	SCR Abatement
A3-48	718491	740227	Emergency Generator 48 - (Building U) - (6.49 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	SCR Abatement
A3-49	718490	740218	Emergency Generator 49 - (Building U) - (6.49 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	SCR Abatement

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Emission Point Code (1)	Easting (2)	Northing (3)	Description of source of emission(s)	Emission details (4)				Abatement system employed (if relevant)
				Parameter/ Material	mg/Nm ³⁽⁵⁾	kg/h	kg/year	
A3-50	718489	740217	Emergency Generator 50 - (Building U) - (6.49 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	SCR Abatement
A3-51	718489	740216	Emergency Generator 51 - (Building U) - (2.19 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	N/A
A3-52	718569	740154	Emergency Generator 52 - (Building V) - (3.6 MWth)	NO _x , CO, SO ₂ , PM _{10/2.5}	No ELV	No ELV	No ELV	SCR Abatement

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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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 potential emissions to atmosphere

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

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Emission Point Code ⁶	Description of source of emission	Malfunction which could cause an emission	Emission details (Potential max. emissions) ⁽⁷⁾		
			Parameter/Material	mg/Nm ³	kg/hour
A4-8	Bulk Fuel Tank Breathing Vent 8 (Building W) - (Bulk Tank m3)	Storage tank over-pressurisation during emergency event (i.e. fire)	Diesel vapour (trace)	Not monitored	Not monitored
A4-9	Bulk Fuel Tank Breathing Vent 9 (Building U) - (Bulk Tank m3)	Storage tank over-pressurisation during emergency event (i.e. fire)	Diesel vapour (trace)	Not monitored	Not monitored
A4-10	Diesel Powered Fire Pump - (Building X & Y) - (0.337 MWth)	Fire at the Installation	NO _x , CO, SO ₂ , PM _{10/2.5}	Not monitored	Not monitored
A4-11	Diesel Powered Fire Pump - (Building X & Y) - (0.337 MWth)	Fire at the Installation	NO _x , CO, SO ₂ , PM _{10/2.5}	Not monitored	Not monitored
A4-12	Diesel Powered Fire Pump - (Building W) - (0.423 MWth)	Fire at the Installation	NO _x , CO, SO ₂ , PM _{10/2.5}	Not monitored	Not monitored
A4-13	Diesel Powered Fire Pump - (Building W) - (0.423 MWth)	Fire at the Installation	NO _x , CO, SO ₂ , PM _{10/2.5}	Not monitored	Not monitored
A4-14	Diesel Powered Fire Pump - (Building U & V) - (0.57 MWth)	Fire at the Installation	NO _x , CO, SO ₂ , PM _{10/2.5}	Not monitored	Not monitored
A4-15	Diesel Powered Fire Pump - (Building U & V) - (0.57 MWth)	Fire at the Installation	NO _x , CO, SO ₂ , PM _{10/2.5}	Not monitored	Not monitored