EPA Application Form

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

Organisation Name: *	Amazon Data Services Ireland Limited
Application I.D.: *	LA015550

* indicates required field

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

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.

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/Nm3(5)	kg/h	kg/year	
Existing Installation (Building A)								
A3-1	706693	773951	Emergency Generator 1 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-2	706694	773951	Emergency Generator 2 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-3	706708	773954	Emergency Generator 3 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-4	706709	773954	Emergency Generator 4 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-5	706718	773955	Emergency Generator 5 - (Building A) - (6.82 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. 0oC101.3kPa). Wet/dry should be clearly stated. Include reference oxygen conditions for combustion sources.

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	706719	773955	Emergency Generator 6 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-7	706733	773958	Emergency Generator 7 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-8	706734	773958	Emergency Generator 8 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-9	706743	773960	Emergency Generator 9 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-10	706744	773960	Emergency Generator 10 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-11	706758	773962	Emergency Generator 11 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-12	706759	773962	Emergency Generator 12 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-13	706768	773964	Emergency Generator 13 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-14	706769	773964	Emergency Generator 14 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-15	706783	773966	Emergency Generator 15 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-16	706784	773967	Emergency Generator 16 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A

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	706793	773968	Emergency Generator 17 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-18	706793	773968	Emergency Generator 18 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-19	706808	773971	Emergency Generator 19 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-20	706808	773971	Emergency Generator 20 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-21	706817	773972	Emergency Generator 21 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-22	706818	773972	Emergency Generator 22 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-23	706832	773975	Emergency Generator 23 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-24	706833	773975	Emergency Generator 24 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-25	706842	773977	Emergency Generator 25 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-26	706843	773977	Emergency Generator 26 - (Building A) - (6.82 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-27	706843	773977	Emergency Generator 27 - (Building A) - (1.55 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
Extended Installation (Building B)								

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	706582	774045	Emergency Generator 28 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-29	705583	774045	Emergency Generator 29- (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-30	706597	774047	Emergency Generator 30 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-31	706598	774048	Emergency Generator 31 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-32	706607	774049	Emergency Generator 32 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-33	706608	774049	Emergency Generator 33 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-34	706622	774052	Emergency Generator 34 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-35	706623	774052	Emergency Generator 35 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-36	796632	774053	Emergency Generator 36 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-37	706633	774053	Emergency Generator 37 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-38	706647	774056	Emergency Generator 38 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A

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	706648	774056	Emergency Generator 39 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-40	706657	774058	Emergency Generator 40 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-41	706657	774058	Emergency Generator 41 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-42	706672	774060	Emergency Generator 42 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-43	706672	774060	Emergency Generator 43 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-44	706682	774062	Emergency Generator 44 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-45	706682	774062	Emergency Generator 45 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-46	706697	774064	Emergency Generator 46 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-47	706697	774064	Emergency Generator 47 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-48	706706	774066	Emergency Generator 48 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-49	706707	774066	Emergency Generator 49 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A

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	706721	774069	Emergency Generator 50 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-51	706722	774069	Emergency Generator 51 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-52	706731	774070	Emergency Generator 52 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-53	706731	774070	Emergency Generator 53 - (Building B) - (6.79 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A
A3-54	706732	774071	Emergency Generator 54 - (Building B) - (2.02 MWth)	NO_x, CO, SO_2, $PM_{10/2.5}$	No ELV	No ELV	No ELV	N/A

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

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
Existing Installation (Building A)					
A4-1	Bulk Fuel Tank Breathing Vent 1 (Building A)- (Bulk Tank 40 m3)	Storage tank over-pressurisation during emergency event (i.e. fire)	Fuel vapour (trace)	Not monitored	Not monitored
A4-2	Fire Pump - (Building A) - (0.37 MWth)	Fire at the Installation	NO_x, CO, SO_2, $PM_{10/2.5}$	Not monitored	Not monitored
A4-3	Fire Pump - (Building A) - (0.37 MWth)	Fire at the Installation	NO_x, CO, SO_2, $PM_{10/2.5}$	Not monitored	Not monitored
Extended Installation (Building B)					
A4-4	Bulk Fuel Tank Breathing Vent 2 (Building B) - (Bulk Tank 40 m3)	Storage tank over-pressurisation during emergency event (i.e. fire)	Fuel 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.