

# **EPA Application Form**

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

Organisation Name: \* Amazon Data Services Ireland Limited

Application I.D.: \* LA009874

# **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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<sup>\*</sup> indicates required field

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#### **Authorisation Application Form**

#### **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.

<sup>\*</sup> 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	Emission Point Code (1)  Easting (2) Northing (3)		Louthing (3) Description of source of surjector(s)	Emission details (4)				Abatement system employed
			Description of source of emission(s)	Parameter/ Material	mg/Nm <sup>3(5)</sup>	kg/h	kg/year	(if relevant)
A3-1	708808	728572	Emergency Generator 1 - (Building A) - (6.46 MWth)	NOx, CO, SO2, PM10/25 <sup>C</sup>	No ELV	No ELV	No ELV	N/A
A3-2	708808	728571	Emergency Generator 2 - (Building A) - (6.46 MWth)	NO <sub>x</sub> , CO <sub>3</sub> O <sub>2</sub> PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-3	708808	728570	Emergency Generator 3 - (Building A) - (6.46 MWth)	NO <sub>x</sub> CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-4	708809	728570	Emergency Generator 4 - (Building A) (1)	NOx, CO, SO2, PM10/2.5	No ELV	No ELV	No ELV	N/A
A3-5	708815	728540	Emergency Generator 5 - (Building A) - (6.46 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-6	708814	728540	Emergency Generator 6 - (Building A) - (6.46 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A

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

<sup>(2)</sup> Six Digit GPS Irish National Grid Reference.

<sup>(3)</sup> Six Digit GPS Irish National Grid Reference.

<sup>(4)</sup> 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.

<sup>(5)</sup> 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.

<sup>\*</sup> indicates required field



Emission	Emission Point Code (1) Easting (2) Northing (		Description of source of emission(s)	Emission details (4)				Abatement system employed
			Description of source of emission(s)	Parameter/ Material	mg/Nm <sup>3(5)</sup>	kg/h	kg/year	(if relevant)
A3-7	708815	728539	Emergency Generator 7 - (Building A) - (6.46 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-8	708815	728538	Emergency Generator 8 - (Building A) - (6.46 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-9	708815	728538	Emergency Generator 9 - (Building A) - (6.46 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-10	708823	728500	Emergency Generator 10 - (Building A) - (6.46 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10</sub> , 2.5	No ELV	No ELV	No ELV	N/A
A3-11	708822	728500	Emergency Generator 11 - (Building A) - (6.46 MWth)	NOx, CO, SO2, PM10/2.5	No ELV	No ELV	No ELV	N/A
A3-12	708822	728499	Emergency Generator 12 - (Building A) - (6.46 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-13	708823	728499	Emergency Generator 13 - (Building A) (6.46 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-14	708829	728469	Emergency Generator 14 - (Building A) - (6.46 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-15	708828	728469	Emergency Generator 15 - (Building A) - (6.46 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-16	708829	728468	Emergency Generator 16 - (Building A) - (6.46 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-17	708829	728467	Emergency Generator 17 - (Building A) - (6.46 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A

<sup>\*</sup> indicates required field



Emission	Emission Point Code (1)  Easting (2) Northing (3)		Description of source of emission(s)	Emission details (4)				Abatement system employed
			Description of source of emission(s)	Parameter/ Material	mg/Nm <sup>3(5)</sup>	kg/h	kg/year	(if relevant)
A3-18	708829	728468	Emergency Generator 18 - (Building A) - (6.46 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-19	708857	728326	Emergency Generator 19 - (Building A) - (6.46 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-20	708858	728326	Emergency Generator 20 - (Building A) - (6.46 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-21	708858	728325	Emergency Generator 21 - (Building A) - (6.46 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10</sub> , 2.5	No ELV	No ELV	No ELV	N/A
A3-22	708858	728324	Emergency Generator 22 - (Building A) - (6.46 MWth)	NOx, CO, SO2, PM10/2.5	No ELV	No ELV	No ELV	N/A
A3-23	708858	728324	Emergency Generator 23 - (Building A) - (6.46 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-24	708865	728291	Emergency Generator 24 - (Building A) (6.46 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-25	708865	728291	Emergency Generator 25 - (Building A) - (6.46 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-26	708865	728290	Emergency Generator 26 - (Building A) - (6.46 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-27	708865	728290	Emergency Generator 27 - (Building A) - (6.46 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-28	708776	728547	Diesel Powered Emergency - Fire Sprinkler Pump 1 - (0.52 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A

<sup>\*</sup> indicates required field



Emission Point Code	Emission Point Code (1)  Easting (2)  Northing (		Description of source of emission(s)	Emission details (4)				Abatement system employed
			Description of source of emission(s)	Parameter/ Material	mg/Nm <sup>3(5)</sup>	kg/h	kg/year	(if relevant)
A3-29	708777	728543	Diesel Powered Emergency - Fire Sprinkler Pump 2 - (0.52 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-30	708774	728490	Emergency Generator 28 - (Building B) - (6.49 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-31	708774	728489	Emergency Generator 29 - (Building B) - (6.49 MWth)	NOx, CO, SO2, PM10/2.5	No ELV	No ELV	No ELV	N/A
A3-32	708776	728481	Emergency Generator 30 - (Building B) - (6.49 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10</sub> , 2.5	No ELV	No ELV	No ELV	N/A
A3-33	708776	728479	Emergency Generator 31 - (Building B) - (6.49 MWth)	NOx, CO, SO2, PM10/2.5	No ELV	No ELV	No ELV	N/A
A3-34	708779	728466	Emergency Generator 32 - (Building B) - (6.49 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-35	708779	728465	Emergency Generator 33 - (Building B) (6.49 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-36	708781	728456	Emergency Generator 34 - (Building B) - (6.49 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-37	708781	728455	Emergency Generator 35 - (Building B) - (6.49 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-38	708784	728441	Emergency Generator 36 - (Building B) - (6.49 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-39	708784	728440	Emergency Generator 37 - (Building B) - (6.49 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A

<sup>\*</sup> indicates required field



Emission	Emission Point Code Easting (2) Northir		Description of source of emission(s)	Emission detail		ls <sup>(4)</sup>		Abatement system employed
			Description of source of emission(s)	Parameter/ Material	mg/Nm <sup>3(5)</sup>	kg/h kg/year		(if relevant)
A3-40	708786	728431	Emergency Generator 38 - (Building B) - (6.49 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-41	708786	728430	Emergency Generator 39 - (Building B) - (6.49 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-42	708789	728416	Emergency Generator 40 - (Building B) - (6.49 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-43	708789	728415	Emergency Generator 41 - (Building B) - (6.49 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10</sub> , 2.5	No ELV	No ELV	No ELV	N/A
A3-44	708791	728407	Emergency Generator 42 - (Building B) - (6.49 MWth)	NOx, CO, SO2, PM10/2.5	No ELV	No ELV	No ELV	N/A
A3-45	708791	728405	Emergency Generator 43 - (Building B) - (6.49 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-46	708794	728392	Emergency Generator 44 - (Building B) (6.49 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-47	708794	728391	Emergency Generator 45 - (Building B) - (6.49 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-48	708796	728382	Emergency Generator 46 - (Building B) - (6.49 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-49	708796	728381	Emergency Generator 47 - (Building B) - (6.49 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-50	708799	728367	Emergency Generator 48 - (Building B) - (6.49 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A

<sup>\*</sup> indicates required field



F+:(2)	2) November = (3)	(3) Description of access of accionical	Emission details (4)				Abatement system employed	
Easting (-)	Northing (*)	Description of source of emission(s)	Parameter/ Material	mg/Nm <sup>3(5)</sup>	kg/h	kg/year	(if relevant)	
708799	728366	Emergency Generator 49 - (Building B) - (6.49 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A	
708801	728357	Emergency Generator 50 - (Building B) - (6.49 MWth)	NOx, CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A	
708801	728356	Emergency Generator 51 - (Building B) - (6.49 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A	
708804	728342	Emergency Generator 52 - (Building B) - (6.49 MWth)	NOx, CO, SO2, PM10 2.5	No ELV	No ELV	No ELV	N/A	
708804	728341	Emergency Generator 53 - (Building B) - (6.49 MWth)	NOx, CO, SO2, PM10/2.5	No ELV	No ELV	No ELV	N/A	
		age <sup>c</sup>	tion per te					
Note: Map(s)/drawing(s) uploaded under 'Site Plans' in Tab's of the application form should identify the emission and monitoring points.								
Consent of								
	708801 708801 708804 708804	708799 728366  708801 728357  708801 728356  708804 728342  708804 728341	Emergency Generator 49 - (Building B) - (6.49 MWth)  Emergency Generator 50 - (Building B) - (6.49 MWth)  Emergency Generator 51 - (Building B) - (6.49 MWth)  Emergency Generator 51 - (Building B) - (6.49 MWth)  Emergency Generator 52 - (Building B) - (6.49 MWth)  Emergency Generator 53 - (Building B) - (6.49 MWth)  Emergency Generator 53 - (Building B) - (6.49 MWth)	### Parameter/ Material    Parameter/ Material	Parameter/ Material mg/Nm <sup>3(5)</sup> Parameter/ Material mg/Nm <sup>3(5)</sup> Rosyne 728366 Emergency Generator 49 - (Building B) - (6.49 MWth)  Parameter/ Material mg/Nm <sup>3(5)</sup> No ELV  No ELV  No ELV  No ELV  No ELV  No ELV  Parameter/ Material mg/Nm <sup>3(5)</sup> No ELV  No ELV  No ELV  No ELV  Parameter/ Material mg/Nm <sup>3(5)</sup> No ELV  No ELV  No ELV  No ELV  Parameter/ Material mg/Nm <sup>3(5)</sup> No ELV  No ELV  No ELV  Parameter/ Material mg/Nm <sup>3(5)</sup> No ELV  No ELV	Parameter/ Material mg/Nm³(5) kg/h  Parameter/ Material mg/Nm³(5) kg/h  Parameter/ Material mg/Nm³(5) kg/h  No., CO, SO2, PM10/2.5 No ELV  No ELV	Parameter/ Material   mg/Nm <sup>3(5)</sup>   kg/h   kg/year	

<sup>\*</sup> 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 <sup>6</sup>	Description of source of emission	Malfunction which could cause an emission	Emission details (Potential max. emissions) <sup>(7)</sup>				
Couc		Ciliadion	Parameter/Material	mg/Nm³	kg/hour		
		House Generator					
A4-1	Bulk Fuel Tank Breathing Vent 1 - (Bulk Tank 69 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 69 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 69 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 69 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 69 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 69 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 69 m3)	Storage tank over-pressurisation during emergency event (i.e. fire)	Diesel vapour (trace)	Not monitored	Not monitored		

<sup>&</sup>lt;sup>6</sup> The following convention should be observed when labelling potential atmospheric emission points: A4-1, A4-2, A4-3,...etc.

<sup>&</sup>lt;sup>7</sup> Estimate the potential maximum emission for each malfunction identified.

<sup>\*</sup> indicates required field



Emission Point Code <sup>6</sup>	Description of source of emission	Malfunction which could cause an emission	Emission details (Potential max. emissions) <sup>(7)</sup>				
Code		Cimusion.	Parameter/Material	mg/Nm³	kg/hour		
A4-8	Bulk Fuel Tank Breathing Vent 8 - (Bulk Tank 69 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 - (Bulk Tank 69 m3)	Storage tank over-pressurisation during emergency event (i.e. fire)	Diesel vapour (trace)	Not monitored	Not monitored		

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<sup>\*</sup> indicates required field