

# 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

## *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 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 <sup>(1)</sup>	Easting <sup>(2)</sup>	Northing <sup>(3)</sup>	Description of source of emission(s)	Emission details <sup>(4)</sup>				Abatement system employed (if relevant)
				Parameter/ Material	mg/Nm <sup>3(5)</sup>	kg/h	kg/year	
Existing Installation								
A3-1	318465	240412	Emergency Generator 1 - (Building W) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-2	318460	240412	Emergency Generator 2 - (Building W) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-3	318454	240413	Emergency Generator 3 - (Building W) - (5.44 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	318339	240416	Emergency Generator 4 - (Building W) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-5	318338	240412	Emergency Generator 5 - (Building W) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	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.

\* indicates required field

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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 <sup>3(5)</sup>	kg/h	kg/year	
A3-6	318335	240386	Emergency Generator 6 - (Building W) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-7	318334	240381	Emergency Generator 7 - (Building W) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-8	318461	240321	Emergency Generator 8 - (Building W) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-9	318466	240320	Emergency Generator 9 - (Building W) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-10	318364	240306	Emergency Generator 10 - (Building W) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-11	318367	240305	Emergency Generator 11 - (Building W) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-12	318363	240300	Emergency Generator 12 - (Building W) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-13	318367	240300	Emergency Generator 13 - (Building W) - (5.44 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	318380	240613	Emergency Generator 14 - (Building X) - (5.44 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	318384	240613	Emergency Generator 15 - (Building X) - (5.44 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	318388	240612	Emergency Generator 16 - (Building X) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	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 <sup>3(5)</sup>	kg/h	kg/year	
A3-17	318392	240612	Emergency Generator 17 - (Building X) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-18	318396	240611	Emergency Generator 18 - (Building X) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-19	318400	240611	Emergency Generator 19 - (Building X) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-20	318404	240610	Emergency Generator 20 - (Building X) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-21	318408	240610	Emergency Generator 21 - (Building X) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-22	318413	240609	Emergency Generator 22 - (Building X) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-23	318417	240609	Emergency Generator 23 - (Building X) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-24	318432	240607	Emergency Generator 24 - (Building X) - (5.44 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	318436	240606	Emergency Generator 25 - (Building X) - (5.44 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	318440	240606	Emergency Generator 26 - (Building X) - (5.44 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	318445	240605	Emergency Generator 27 - (Building X) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	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 <sup>3(5)</sup>	kg/h	kg/year	
A3-28	318449	240605	Emergency Generator 28 - (Building X) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-29	318453	240604	Emergency Generator 29 - (Building X) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-30	318457	240604	Emergency Generator 30 - (Building X) - (5.44 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	318461	240603	Emergency Generator 31 - (Building X) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-32	318465	240603	Emergency Generator 32 - (Building X) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-33	318469	240602	Emergency Generator 33 - (Building X) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-34	318420	240575	Emergency Generator 34 - (Building Y) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-35	318421	240576	Emergency Generator 35 - (Building Y) - (5.44 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	318422	240574	Emergency Generator 36 - (Building Y) - (5.44 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	318438	240573	Emergency Generator 37 - (Building Y) - (5.44 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	318439	240574	Emergency Generator 38 - (Building Y) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	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 <sup>3(5)</sup>	kg/h	kg/year	
A3-39	318440	240574	Emergency Generator 39 - (Building Y) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-40	318440	240572	Emergency Generator 40 - (Building Y) - (5.44 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
Extended Installation (new emissions to atmosphere)								
A3-41	318573	240242	Emergency Generator 41 - (Building U) - (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
A3-42	318573	240241	Emergency Generator 42 - (Building U) - (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
A3-43	318571	240227	Emergency Generator 43 - (Building U) - (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
A3-44	318570	240226	Emergency Generator 44 - (Building U) - (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
A3-45	318569	240217	Emergency Generator 45 - (Building U) - (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
A3-46	318569	240217	Emergency Generator 46 - (Building U) - (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	318566	240202	Emergency Generator 47 - (Building U) - (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
A3-48	318566	240202	Emergency Generator 48 - (Building U) - (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	318565	240193	Emergency Generator 49 - (Building U) - (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



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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 <sup>3(5)</sup>	kg/h	kg/year	
A3-50	318564	240192	Emergency Generator 50 - (Building U) - (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
A3-51	318564	240191	Emergency Generator 51 - (Building U) - (2.19 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	No ELV	No ELV	No ELV	N/A
A3-52	318628	240130	Emergency Generator 52 - (Building V) - (3.6 MWth)	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	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.

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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 <sup>6</sup>	Description of source of emission	Malfunction which could cause an emission	Emission details (Potential max. emissions) <sup>(7)</sup>		
			Parameter/Material	mg/Nm <sup>3</sup>	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

<sup>6</sup> The following convention should be observed when labelling potential atmospheric emission points:

A4-1, A4-2, A4-3,...etc.

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

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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>		
			Parameter/Material	mg/Nm <sup>3</sup>	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	Fire Pump - (Building X & Y) - (0.337 MWth)	Fire at the Installation	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	Not monitored	Not monitored
A4-11	Fire Pump - (Building X & Y) - (0.337 MWth)	Fire at the Installation	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	Not monitored	Not monitored
A4-12	Fire Pump - (Building W) - (0.423 MWth)	Fire at the Installation	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	Not monitored	Not monitored
A4-13	Fire Pump - (Building W) - (0.423 MWth)	Fire at the Installation	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	Not monitored	Not monitored
A4-14	Fire Pump - (Building U & V) - (0.57 MWth)	Fire at the Installation	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	Not monitored	Not monitored
A4-15	Fire Pump - (Building U & V) - (0.57 MWth)	Fire at the Installation	NO <sub>x</sub> , CO, SO <sub>2</sub> , PM <sub>10/2.5</sub>	Not monitored	Not monitored