

Schedule 5 - Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet, and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number:	EPR/BB3599CW
Name of Operator:	Vantage Data Center
Location of Facility:	Vantage Data Center, Imperial Park, Celtic Way, Marshfield, Newport, NP10 8BE
Time and Date of Detection:	18:07pm on 31/10/2021

(a) Notification requirements for any activity that gives rise to an incident or accident which significantly affects or may significantly affect the environment.	
To be notified within 24 hours of detection	
Date and time of the event	18:07pm on 31/10/2021
Reference of description of the location of the event.	GF01, GF02 & GF14 Outside Generator Compounds to the side of the building.
Description of where any release into the environment took place.	Emissions to Air
Substance(s) potentially released.	Carbon Monoxide, Nitrogen Oxides, Particulate Matter & Sulphur Oxides
Best estimate of the quantity of rate of release of substances.	Perkins Gens (GF01 & GF02) Run for a Total of 25 Hours & 30 mins (91800 secs) giving off the following potential emissions: Carbon Monoxide = 41.77kg Nitrogen Oxides = 128.52kg Particulate Matter = 3.21kg Sulphur Oxides = 8.41kg MTU Gens (GF14) Run for a Total of 19 Hours (68400 secs) giving off the following potential emissions: Carbon Monoxide = 5.13kg Nitrogen Oxides = 53.56kg Particulate Matter = 1.77kg Sulphur Oxides = 4.67kg The Total Best Estimate of the Quantity of rate of release substances is as follows: Carbon Monoxide = 46.9kg Nitrogen Oxides = 182.08kg Particulate Matter = 4.98kg Sulphur Oxides = 13.08kg Table 4 engine source characteristics (from AQA for permit app)

	<table><tr><td>Parameter</td><td>Perkins 4006- 23TAG3A</td><td>MTU 12V1600G20F</td></tr><tr><td>Thermal input, MW</td><td>1.97</td><td>1.457</td></tr><tr><td>Stack height, m</td><td>3.5</td><td>3.198</td></tr><tr><td>Stack diameter, m</td><td>0.265</td><td>0.25</td></tr><tr><td>Discharge temp., C</td><td>500</td><td>480</td></tr><tr><td>Normalised flow rate, Nm³/s</td><td>0.7</td><td>0.519</td></tr><tr><td>Actual flow rate, m³/s</td><td>2.748</td><td>1.98</td></tr><tr><td>Efflux velocity, m/s</td><td>49.82</td><td>40.34</td></tr><tr><td>NOx concⁿ., mg/Nm³</td><td>2,000</td><td>1,507</td></tr><tr><td>NOx emission rate, g/s</td><td>1.4</td><td>0.783</td></tr><tr><td>CO concⁿ., mg/Nm³</td><td>650</td><td>144</td></tr><tr><td>CO emission rate, g/s</td><td>0.455</td><td>0.075</td></tr></table>	Parameter	Perkins 4006- 23TAG3A	MTU 12V1600G20F	Thermal input, MW	1.97	1.457	Stack height, m	3.5	3.198	Stack diameter, m	0.265	0.25	Discharge temp., C	500	480	Normalised flow rate, Nm³/s	0.7	0.519	Actual flow rate, m³/s	2.748	1.98	Efflux velocity, m/s	49.82	40.34	NOx conc ⁿ ., mg/Nm³	2,000	1,507	NOx emission rate, g/s	1.4	0.783	CO conc ⁿ ., mg/Nm³	650	144	CO emission rate, g/s	0.455	0.075
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Measures taken, or intended to be taken, to stop emission.	Generators only run for the duration of the incident – The repairs to components following from the power dip from the grid was undertaken by our onsite engineers and reinstated promptly.																																				
Description of the failure or accident.	At 18:07pm on 31/10/2021 The site experienced a Power Dip on National Grid. This resulted in 3 of our areas activating the emergency operation of generators. Please see comments on each area below: Area 1: GF01 – At 18.07pm a power dip occurred placing our systems into emergency operation. The systems worked as it should however, when the power stabilised we were unable to return to utility supply due to component failure with the ‘3 Phase Failure Relay’ in Plantrooms A & B. We therefore needed to continue running the load on generators until this issue was resolved. The business evoked our business continuity plan, calling the Engineering Manager to Site and diagnosing the issue. Once all engineers were available they followed our EOP for changing a ‘3 Phase Relay’ in both plantrooms by using the critical spares held on site. Upon successfully changing this the utility supply was re-instated. GF01 has a total of 5 generators. The generator run times due to this can be seen below: GF01 Run Times: <table><tr><td>Set 1 = 4 Hours + 55 mins</td></tr><tr><td>Set 2 = 4 Hours + 56 Mins</td></tr><tr><td>Set 3 = 4 Hours + 54 mins</td></tr></table>		Set 1 = 4 Hours + 55 mins	Set 2 = 4 Hours + 56 Mins	Set 3 = 4 Hours + 54 mins																																
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Set 4 = 4 Hours + 54 mins

Set 5 = 4 Hours + 54 mins

Total Hours Run for GF01 = 24 hours & 33 Minutes

Area 2: GF02 – At 18.07pm the National Grid experienced a power dip. Back-up systems worked as they should and within 19 mins all generators were no longer running and were back fully on utility supply. GF02 has a total of 4 Generators. Generator run times due to this can be seen below:

GF02 Run Times:

Set 1 = 15 Mins

Set 2 = 15 Mins

Set 3 = 8 Mins

Set 4= 19 Mins

Total Hours Run for GF02 = 0 Hours & 57 Minutes

Area 3: GF14 – At 18.07pm a power dip occurred placing our systems into emergency operation. The systems worked as it should however, when the power stabilised we were unable to return to mains supply due to component failure with the '3 Phase Failure Relay' in Plantroom B. We therefore needed to continue running the load on generators until this issue was resolved. The business evoked our business continuity plan, calling the Engineering Manager to Site and diagnosing the issue. Once all engineers were available they followed EOP for changing a '3 Phase Relay' in Plantroom B by using critical spares held on site. Upon successfully changing this, mains supply was re-instated. GF14 has a total of 5 generators. The generator run times due to this can be seen below:

GF14 Run Times:

Set 1 = 3 Hours & 51 Mins

Set 2 = 3 Hours & 48 Mins

Set 3 = 3 Hours & 48 Mins

Set 4 = 3 Hours & 51 Mins

Set 5 = 3 Hours & 42 Mins

Total Hours Run for GF14 = 19 Hours 0 Minutes

Total Run Time for all Generators from All Areas = 44 Hours & 30 Mins

No other areas were affected except those listed above, GF01, GF02 & GF14. The times each environment came back online were staggered times based on run

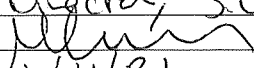
	hours above. All affected generators were back online on the same day 31/10/2021 by 23:03pm, 4 Hours & 56 Mins after the Power Dip.
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(b) Notification requirements for the breach of a permit condition	
To be notified within 24 hours of detection	
Emission point reference/source.	N/A Permit includes running on gens due to power failure from the grid.
Parameter(s).	
Limit.	
Measured value and uncertainty.	
Date and time of monitoring.	
Measures taken, or intended to be taken, to stop the emission.	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification Period
N/A	
(c) In the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment:	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected.	N/A - As above.
Substance(s) detected.	
Concentration of substances detected.	
Date of monitoring/sampling	

Part B – To Be Submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	All run times were recorded and emissions calculated
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	Incident occurred due to a Power Dip from the National Grid. This can be un-predicted by our business. Our On-Site Team worked efficiently and effectively to correct any issues due to this as soon as was practicable. We were able to do this as we hold site stock of critical spares enabling us to respond to any incident and rectify the issue returning the infrastructure to normal business operation as quickly as possible.
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	We cannot control power dips from national grid but where they can happen, we will work effectively to limit exposure of emissions to the environment.
The dates of any unauthorised emissions from the facility in the preceding 24 months.	N/A

Name*	M. Caulin
Post	Director, Site ops
Signature	
Date	1/11/21

*authorised to sign on behalf of the operator