DOCKETE	E <b>D</b>
Docket Number:	17-SPPE-01
<b>Project Title:</b>	McLaren Backup Generating Facility
TN #:	222096-1
<b>Document Title:</b>	Application for Small Power Plant Exemption for McLaren Backup Generating Facility - Appendix E-2_Part 1
<b>Description:</b>	N/A
Filer:	Marie Fleming
Organization:	DayZen LLC
<b>Submitter Role:</b>	Applicant Representative
Submission Date:	1/5/2018 10:58:49 AM
<b>Docketed Date:</b>	1/5/2018

# Appendix E-2

BAAQMD Application for ATC



December 21, 2017

Via Mail

**Gregory Stone** Supervising Air Quality Engineer Bay Area Air Quality Management District 375 Beale Street San Francisco, CA 94105

Re: Permit Application and Health Risk Assessment for Thirty Two (32) Diesel-Fueled Emergency Generators at 725 Mathew Street in Santa Clara, California (Plant ID: TBD)

Dear Mr. Stone:

We are pleased to submit the enclosed permit application and health risk assessment (HRA) for thirty-two (32) diesel-fueled emergency generators at the Vantage data center located at 725 Mathew Street in Santa Clara, California. The proposed new generators will be located at the McLaren data center site at 725 Mathew Street, hereafter referred to as "McLaren."

Thirty-one (31) of the 32 total project generators will be identical 3-megawatt (MW) Caterpillar generators. Each 3-MW generator is equipped with a California Air Resources Board (CARB) verified level 3 particulate filter. The same type of filter is used on each of the 31 generators. A copy of the CARB Executive Order verifying the filter is attached. One of the 32 generators will be a 500-kilowatt (kW) Generac life safety generator equipped with a California Air Resources Board (CARB) verified level 3 particulate filter. A copy of the CARB Executive Order verifying the filter is attached.

Since this is a new facility, we have numbered each of the generators from S1-S32 for easy tracking and reference in this application. The smaller 500-kW life safety generator was assigned S1, with the 31 3-MW Caterpillar generators following thereafter.

As required by the BAAQMD, included in this permit application are:



- Application Forms
  - Form P-101B (Authority to Construct/Permit to Operate)
  - Form ICE (Internal Combustion Engines)
  - Form HRSA (Health Risk Screening Analysis)
  - Form A (Abatement Device)
  - Manufacturer's Data Sheets
  - Form Appendix H
- Health risk assessment (HRA) (optional)
  - Facility map showing locations of the proposed emergency generators. Please see the attached HRA methodology memorandum from Ramboll Environ for this information.
- Enclosed is a check for \$163,528 with fee estimate calculations included as an attachment to this letter.

The aforementioned HRA has been prepared for Vantage Data Centers Management Co. by Ramboll Environ. This HRA is submitted to the BAAQMD in support of the attached applications for authorities to construct.

Included in the HRA are background information for the project; a description of the refined dispersion modeling of the emergency generators that are the subject of this application; and the cancer risk calculated for the Maximally Exposed Individual Sensitive Receptor (MEISR) and the Maximally Exposed Individual Worker (MEIW). The HRA was conducted in accordance with the conservative (i.e., health-protective) health risk assessment guidance from the District.<sup>1</sup>

The Air Toxics Control Measure (ATCM) for Stationary Toxic Compression Ignition Engines (Section 93115, Title 17, California Code of Regulations [CCR]) limits maintenance and testing for nonemergency use to 50 hours per year for engines that emit less than 0.15 g/bhp-hr of diesel PM. This requirement is also incorporated into BAAQMD Rule 9-8-330.3. The proposed emergency generators meet this requirement. Thus, Vantage is requesting up to 50 hours per year for maintenance and testing activities for each engine and has accounted for this limit in the HRA.

The City of Santa Clara (City) prepared an Initial Study (IS) and adopted a Mitigated Negative Declaration (MND) and a Mitigation Monitoring and Reporting Plan (MMRP) for the McLaren data center on February 10, 2017. The IS, MND and MMRP included backup generation facilities. A copy of the MND, which includes the IS and MMRP and supporting technical studies, can be found here:

http://santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/167/3649

<sup>&</sup>lt;sup>1</sup> Bay Area Air Quality Management District (BAAQMD). 2016. Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines. January.



As discussed in the in-person planning meeting at the BAAQMD on November 2, 2017, this application is being submitted concurrent to the submission of a Small Power Plant Exemption (SPPE) application to the California Energy Commission (CEC). Vantage does not expect an air permit to be granted until the CEC, the lead agency, completes its review and grants the SPPE.

Please contact Julia Luongo (415-426-5025) or Shari Libicki (415-726-1933) at Ramboll Environ,
who assisted in the preparation of this application, if you have any questions about the information
contained in this application. Otherwise, please contact Michael Stoner, Project Manager, at (925)
997-5726 with project-related questions.

Sincerely,

**Spencer Myers** 

Director, Operations

Vantage Data Centers Management Co.

## Attachments

Fee calculations

**Application Forms** 

Health Risk Assessment

**Modeling Files** 



# Fee Estimation for BAAQMD Permit Application 32 Diesel Standby Generators at McLaren Plant #TBD

Dec-17

			Engine Fuel Usage															т	tal per	Fee
Device	Make	Model	(gal/hr)	Filin	g Fee	Init	tial Fee	Lat	e Fee	Per	mit Fee	Bac	k Fee	Tox	ic Fee	Ri	sk Fee		ngine	Schedule
S-1	Generac	2506C-E15TAG3	31.2	\$	474	\$	337	\$	-	\$	239	\$	-	\$	24	\$	811	\$	1,885	В
S-2	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	2	\$	926	\$	-	\$	93	\$	2,327	\$	5,673	В
S-3	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$		\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-4	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	-	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-5	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	-	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-6	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	==	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-7	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	-	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-8	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	<b>14</b> 3	\$	926	\$		\$	93	\$	1,853	\$	5,199	В
S-9	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	-	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-10	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	-	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-11	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	-	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-12	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	-	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-13	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	-	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-14	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	753	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-15	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	28	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-16	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	75.0	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-17	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	-	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-18	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	5.	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-19	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	27	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-20	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	-	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-21	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	<b>=</b> 8	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-22	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	н.	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-23	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	HC:	\$	926	\$	1-1	\$	93	\$	1,853	\$	5,199	В
S-24	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	-	\$	926	\$	- (4)	\$	93	\$	1,853	\$	5,199	В
S-25	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	-	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-26	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	-	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-27	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	=)(	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-28	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	29	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-29	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	=8	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-30	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	-	\$	926	\$	-2	\$	93	\$	1,853	\$	5,199	В
S-31	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	70	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В
S-32	Caterpillar	C175-16	214.2	\$	474	\$	1,853	\$	-	\$	926	\$	-	\$	93	\$	1,853	\$	5,199	В

Total, this application \$163,528

#### Conversions

19,300 BTU/lb diesel, from AP-42 Section 3.4

1,000,000 BTU/MMBTU

7.1 lb/gallon diesel, from AP-42 Section 3.4

137,030 BTU/gallon diesel, calculated from AP-42 Section 3.4

375 Beale Street, Suite 600, San Francisco, CA 94105 Engineering Division (415) 749-4990 www.baaqmd.gov fax (415) 749-5030 Form P-101B
Authority to Construct/

Permit to Operate

1.	Application Informa	ation								
	BAAQMD Plant No.	TBI	D	Company	Name	Vantage	Data C	enters	Manageme	nt Co., LLC
	Equipment/Project Desc	cription	McLar	en Dat	a C	enter - D	iesel (	Gene	rators	
2.	Plant Information Indata that you have prev							istrict or	if you want to upd	late any plant
	Equipment Location	725	Mathe	w Stre	et					
	City	Sar	nta Clar	a					Zip Code C	95050
	Mail Address		Mathe	To be a second						
		-	nta Clar	740.00			Ctata	CA	Zip Code 2	95050
	City									
	Plant Contact									
	Telephone	_(	)	Fax	_(_	)	Email _		E4.04	010
	NAICS (North American	n Industr	y Classification	on System)	see w	ww.census.gov	/eos/www/r	naics/	5182	210
3.	Proximity to a Scho	ool (K-1	12)							
	The sources in this per	mit appl	ication (chec	k one) 🗆 🛭	re 🔳	Are not within	1,000 ft of	the oute	r boundary of the r	nearest school.
4.	<b>Application Contact</b>	Inform	action Alle		- //				ation will be sout to	o the plant
	contact unless you wish	to design	gnate a differ	corresponae rent contact	nce fro for this	om the District r s application.	egarding th	is applic	ation will be sent to	o trie piant
	Application Contact S	to design	gnate a differ	rent contact	for this	s application.				
	contact unless you wish	to design	gnate a differ	rent contact	for this	s application.				
	Application Contact S	to design	gnate a differ Cer Mye	ent contact ers	for this	s application.	Title	Pro	ject Manaç	ger
	Application Contact Small Address City	o to design	gnate a differ Cer Mye	ent contact Prs	for this	s application.	Title	Pro	ject Manaç	ger
	Application Contact Small Address City	A08) 7	gnate a differ Cer Mye  12-4387  e following acte this informatical	ers contact  ers  F  dditional info	ax (	) on is required for review of you	Title State Ema	Pro smyd	ject Manag  Zip Code ers@vantageda	ger tacenters.com
5.	Application Contact  Mail Address  City  Telephone  Additional Informati your submittal. Failure to	A08) 7:	gnate a differ Cer Mye  12-4387  e following as the this informate box. Contains	ent contact  PTS  F  dditional info	ax (  cormaticelay the eering	) on is required for e review of your Division if you	Title State Ema	Pro smyd	ject Manag  Zip Code ers@vantageda	ger tacenters.com
5.	Application Contact  Mail Address  City  Telephone  Additional Informati your submittal. Failure to been addressed by cheen	408) 7	gnate a differ Cer Mye  12-4387  e following at this informate box. Contain	Prent contact Pr	ax (  cormaticelay the eering of you	) on is required for review of your Division if your things on the property of	State State Ema or all permit r applicatio need assis	Pro smyd	ject Manag  Zip Code ers@vantageda	ger tacenters.com
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5.	Application Contact  Application Contact  Mail Address  City  Telephone  Additional Informati your submittal. Failure to been addressed by cheen  If a new Plant, a location A facility map, drawn  Completed data form  Project/equipment destricts and/or cation and/or an	408) 7:  on The provide cking the roughly also and also are the Calculation are the Ca	12-4387  e following at this informate box. Containing showing to scale, that a pollutant flowing of the emission of the emission of the emission of the emission of the following secret information of the follo	F  dditional infoation may dect the Engine t locates the bow diagram  rer's data esions of air for Records A for party. If yowing steps. ation must be	ax _( primatic elay the eering n of you e equip for each polluta Act, all u wish ee labe	) on is required for e review of your Division if you ur business oment and its erch piece of equivants from the echinformation in you to keep certain led "trade secre	State  State  Ema  or all permit r applicationeed assis mission poi pment. (See www. quipment rour permit r items sepa	Pro application. Please tance.  hts baaqmd application application arate as a strade see	Zip Code Zip Code ers@vantageda ions and should be a indicate that each	tacenters.com e included with h item has

Regulation 3. In order to qualify, you must certify that your business meets all of the following criteria:	
☐ The business does not employ more than 10 persons and its gross annual income does not exceed \$750,000.	
And the business is not an affiliate of a non-small business. (Note: a non-small business employs more than 10 persons and/or its gross income exceeds \$750,000.)	
8. Green Business Certification You are entitled to a reduced permit fee if you qualify as a green business as defined in Regulation 3. In order to qualify, you must certify that your business meets all of the following criteria:	
The business has been certified under the Bay Area Green Business Program coordinated by the Association of Bay Area Governments and implemented by participating counties.	
A copy of the certification is included.	
9. Accelerated Permitting The Accelerated Permitting Program entitles you to install and operate qualifying sources of air pollution and abatement equipment without waiting for the District to issue a Permit to Operate. To participate in this program you must certify that your project will meet <u>all</u> of the following criteria. Please acknowledge each item by checking each box.	
Uncontrolled emissions of any single pollutant are each less than 10 lb/highest day, or the equipment has been precertified by the BAAQMD.	
Emissions of toxic compounds do not exceed the trigger levels identified in Table 2-5-1 (see Regulation 2, Rule 5).	
☐ The source is not a diesel engine.	
The project is not subject to public notice requirements (the source is either more than 1000 ft. from the nearest school, <u>or</u> the source does not emit any toxic compound in Table 2-5-1).	
For replacement of abatement equipment, the new equipment must have an equal or greater overall abatement efficiency for all pollutants than the equipment being replaced.	
For alterations of existing sources, for all pollutants the alteration does not result in an increase in emissions.	
Payment of applicable fees (the minimum permit fee to install and operate each source). See Regulation 3 or contact the Engineering Division for help in determining your fees.	
10. CEQA Please answer the following questions pertaining to CEQA (California Environmental Quality Act).	
A. Has another public agency prepared, required preparation of, or issued a notice regarding preparation of a California Environmental Quality Act (CEQA) document (initial study, negative declaration, environmental impact report, or other CEQA document) that analyzes impacts of this project or another project of which it is a part or to which it is related?   YES  NO If no,go to section 10B	
Describe the document or notice, preparer, and date of document or expected date of completion:	
The City of Santa Clara (City) prepared an Initial Study (IS) and adopted a Mitigated Negative Declaration (MND) and	t
a Mitigation Monitoring and Reporting Plan (MMRP) for the McLaren data center on February 10, 2017.	
http://santaclaraca.gov/Home/Components/BusinessDirectory/BusinessDirectory/167/3649	
B. List and describe any other permits or agency approvals required for this project by city, regional, state or federal agencies:	
The California Energy Commission (CEC) is reviewing a Small Power Plant Exemption (SPPE) application	1.
C. List and describe all other prior or current projects for which either of the following statements is true: (1) the project that is the subject of this application could not be undertaken without the project listed below, (2) the project listed below could not be undertaken without the project that is the subject of this application:	
11. Certification I hereby certify that all information contained herein is true and correct. (Please sign and date this form)	
SPENCER MYERS Director of Construction 12/20/17	_
Name of person certifying (print)  Title of person certifying  Signature of person certifying  Date  Send all application materials to the BAAQMD Engineering Division, 375 Beale Street, Suite 600, San Francisco, CA 94105.	

375 Beale Street, Suite 600, San Francisco, CA 94105

Form ICE	
Internal Combustion	Engines

	Engineering Division	(415) 749-4990		
~/	www.baaqmd.gov fax	(415) 749-5030		
Form ICE in to	he completed for all internal o	ambustian anainas susant turbinas	(For turbings submit Form Cl	Cubmit one form for

	gine manufacturer's equipment specifications.  SUMMARY  New Construction  Modification  Loss of Exer	antion		
	Ventore Data Contain Management Co. LLC			
Co	Vantage Data Centers Management Co, LLC.	Plant No.*		10000
	Diesel Generator	Source No.*		a blank
Init	tial Date of Operation ASAP (Not required for modification of an existing per	ermitted source)	unknown leav	е ыапк)
Op	perating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 5		m hrs/day 2	24
2.1	ENGINE INFORMATION	Reg. 2-1-413 for req	uirements)	
	rgine Type: (Check one) ■ 4 Stroke □ 2 Stroke Compression Ignition (Diesel) or under the desired of the stroke □ 2 Stroke Compression Ignition (Diesel) or under the stroke □ 2 Stroke Compression Ignition (Diesel) or under the stroke □ 2 Stroke Compression Ignition (Diesel) or under the stroke □ 2 Stroke Compression Ignition (Diesel) or under the stroke □ 2 Stroke Compression Ignition (Diesel) or under the stroke □ 2 Stroke Compression Ignition (Diesel) or under the stroke □ 2 Stroke Compression Ignition (Diesel) or under the stroke □ 2 Stroke Compression Ignition (Diesel) or under the stroke □ 2 Stroke Compression Ignition (Diesel) or under the stroke □ 2 Stroke Compression Ignition (Diesel) or under the stroke □ 2 Stroke Compression Ignition (Diesel) or under the stroke □ 2 Stroke Compression Ignition (Diesel) or under the stroke □ 2 Stroke Compression Ignition (Diesel) or under the stroke □ 2 Stroke Compression Ignition (Diesel) or under the stroke □ 2 Stroke □		roke Spark ear 2017	-
EP	PA/CARB Engine Family Name HCPXL15.2NZS Engine Serial	No. unknown		
En		ypical load as % of I	ohp rating 1	00
ls t	this an emergency/standby engine? ■ Yes □ No			
(Co	omplete and check all that apply)			
Се	ertification: EPA Certified CARB Certified CARB Executive Order No. Ra	mboll Environ		
	☐ None (If None is checked, please indicate below the items applicable to	this engine.)		
	☐ Naturally aspirated ☐ Supercharged ☐ Turbocharged	☐ Inter-cooled	☐ After-	cooled
	☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn		(Section 4)	
Pri	imary Use:   Electrical generation   Cogeneration   Pump driver	☐ Fire pump driver		
	☐ Compressor driver ☐ Tub grinder driver ☐ Other:			
	ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts  Check here if the engine has more than one add-on abatement device and complete a sabatement device.			al
Ab	atement device number A 1 (If unknown leave blank)	sting		
De	evice type:    Diesel catalyzed particulate filter    Oxidation catalyst    Selecti	ve catalytic reduction	(SCR)	
		Johnson Matthe	(5)	
Ma	ake, Model, and Rated Capacity Johnson Matthey CRT	oomissi maani	,	
	atement device control efficiencies at typical operation (Use the basis codes listed below.	If unknown leave bla	ink)	
Cor	ntrol Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)	Pollutant Name	Wt % Reduction	Basis Code
(1)		Particulates	85	9
(2)		Organics	70	9
(3)		Nitrogen Oxides	6	
(4)	Material balance by plant using knowledge of process	Sulfur Dioxide		
(5)	Material balance by BAAQMD (District use only)	Carbon Monoxide	80	12/20/201
(6)	EPA Document AP-42 Emission Factors	Others - Check h		
(7)	Taken from literature other than AP-42	separate list of pollut	ants. Include t	ne basis

### Form ICE

	NT/STACK INFO				engine has more thint	an one stack or h	as a continuo	ous pollu	ant
Emission point nu	mber P	(If ui	nknown l	eave blank	New 🗆 E	xisting			
Stack outlet heigh	t from ground lev	rel (ft) 45.17	,						
Diameter of stack	outlet (inches)	8	or O	utlet cross	s-section area (squa	re inches)			
Direction of outlet	(check one)	] Horizontal	■ Ve	rtical	End of outlet (check	(one) 🔳 Open	hinged flap	□Ra	ain cap
Exhaust rate at type					ust temperature at t				and a second and a second
5. RISK ASSESSI		damento are transcourse of							
Distance from eng	ine to the proper	tv line of the n	earest re	esidence (i	(t) 628.4	or (check if)	☐ Greate	er than or	ne mile
Distance from eng	20 21 221			280		or (check if)	■ Greate		
Describe the near		8		27 (182	☐ Industrial	Commercial	☐ Hospita		JOO 10
Describe the field	est non-resident			re center	Other	- Commercial	Птозрій	aı	
Distance from one	ing to the proper				itial, non- school site	e(ft) 132.4 o	r	or than	no mile
K-12 and more to	The rest will be a second	THE PERSON NAMED OF THE PE	earest n	on-residen	iliai, non- school site	e(ft) 132.4 o	r ∐ Great	er man c	one mile
			L F I L .		and the state of t	16 16 16 16-			
attach a fuel and measurement ur	alysis indicating	the higher hea ds to the infor	nting valu mation y	e, sulfur c	ou are using a fuel of ontent, and nitrogen mitting.   Check I	content. Please	clearly indicat	te the	
	Primary	Fuel				Secondary F	Fuel		
Fuel Code <sup>1</sup> 98	Name	ULSD		- A	Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 31.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	³ 1560	gal/yr or t	herm/yr o	r SCF/yr	Annual Fuel Usage		gal/yr or th	nerm/yr or	SCF/yr
Typical Heat Conte	nt <sup>4</sup>	BTU	J/gal or B	TU/SCF	Typical Heat Conter	nt⁴	BTU,	/gal or BT	U/SCF
Sulfur Content⁴ _		wt% liquid	ds or ppm	v gases	Sulfur Content <sup>4</sup>		wt% liquid	ls or ppm\	gases /
2	Emission Factor	ors (Optional)		.		Emission Factors	s (Optional)		
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor
							_	3.10.22.00	(V)'
Particulates					Particulates				(√) <sup>7</sup>
Particulates Organics		2 40			Particulates Organics				
		t de							
Organics		14	2.2		Organics				
Organics Nitrogen Oxides Carbon Monoxide Others –  Check	TA SERVICE AND SER	The same of the same same			Organics Nitrogen Oxides Carbon Monoxide Others -  Check	here and attach a se	parate list und	er each fu	
Organics  Nitrogen Oxides  Carbon Monoxide  Others - Check  1. Fuel Codes: Din Na  2. Maximum fuel us  3. The annual fuel liquid fuel, therm  4. If you are using a fuels. Sulfur con  5. Emission factors  6. See the Control  7. Place a check in  7. CERTIFICATIO	esel (98) atural Gas (189) se rate units: gallon usage is the actual is for natural gas, a diesel, natural gas, itent units: weight % may be reported a Efficiency/Emission this column if the e	Bio Diesel B10 Landfill Gas (5 /hr for liquid fue or projected en or gasoline, you of for liquid fuels s gram/brakehp a Factor Basis Co emission factor a that all inform	00 (815) i11) ils and SC gine fuel of r gaseous u may skip , ppmv for h-hr, or as code table applies to	uel used.  Bio Diesel Digester Gorsumption of fuels. (the orthis entry.)  gaseous fulls per gallo under Sectemissions on the constant of the c	Organics  Nitrogen Oxides  Carbon Monoxide  Others – Check  B20 Blend (816) G as (493) Li reous fuels. (SCF = St rover a rolling 12-mor rm = 100,000 BTUs, E Heat content units: B uels. (ppmv = parts pe n, or as lb per therm, or ion 3 on page 1 of this after abatement by an irein is true and corr	asoline (551) quid Petroleum Gas andard Cubic Foot) ath time period. Anne BTU =British Therma. at U/gallon for liquid for million by volume) or as lb per SCF. form. add-on abatement de ect. (Please sign	(LPG) (160)  ual usage units I Unit)  uels, BTU/SCF  evice.  and date this	s: gallons = for gase	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
Organics  Nitrogen Oxides  Carbon Monoxide  Others - Check  1. Fuel Codes: Di Na  2. Maximum fuel us  3. The annual fuel us liquid fuel, therm  4. If you are using a fuels. Sulfur con  5. Emission factors  6. See the Control  7. Place a check in	esel (98) atural Gas (189) se rate units: gallon usage is the actual is for natural gas, a diesel, natural gas, itent units: weight % may be reported a Efficiency/Emission this column if the e	Bio Diesel B10 Landfill Gas (5 /hr for liquid fue or projected en or gasoline, you of for liquid fuels s gram/brakehp a Factor Basis Co emission factor a that all inform	00 (815) i11) ils and SC gine fuel of r gaseous u may skip , ppmv for o-hr, or as code table	uel used.  Bio Diesel Digester Gorsumption of fuels. (the orthis entry.)  gaseous fulls per gallo under Sectemissions on the constant of the c	Organics  Nitrogen Oxides  Carbon Monoxide  Others – Check  B20 Blend (816) G as (493) Li reous fuels. (SCF = St rover a rolling 12-mor rm = 100,000 BTUs, E Heat content units: B uels. (ppmv = parts pe n, or as lb per therm, or ion 3 on page 1 of this after abatement by an irein is true and corr	asoline (551) quid Petroleum Gas andard Cubic Foot) th time period. Anno BTU =British Therma. TU/gallon for liquid for million by volume) or as Ib per SCF. form. add-on abatement de	(LPG) (160)  ual usage units I Unit)  uels, BTU/SCF  evice.  and date this	s: gallons = for gase	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
Organics  Nitrogen Oxides  Carbon Monoxide  Others - Check  1. Fuel Codes: Di Na  2. Maximum fuel us 3. The annual fuel liquid fuel, therm 4. If you are using a fuels. Sulfur con 5. Emission factors 6. See the Control 7. Place a check in 7. CERTIFICATIO	esel (98) atural Gas (189) se rate units: gallon usage is the actual is for natural gas, a diesel, natural gas, itent units: weight % may be reported a Efficiency/Emission this column if the e	Bio Diesel B10 Landfill Gas (5 /hr for liquid fue or projected en nd SCF for othe or gasoline, you 6 for liquid fuels s gram/brakehp a Factor Basis Comission factor a that all inform    Direct   Title of p	00 (815) i11) ils and SC gine fuel of r gaseous u may skip , ppmv for h-hr, or as code table applies to	uel used.  Bio Diesel Digester Gorsumption of fuels. (the orthis entry.)  gaseous fulls per gallo under Sectemissions on the constant of the c	Organics  Nitrogen Oxides  Carbon Monoxide  Others – Check  B20 Blend (816) G as (493) Li reous fuels. (SCF = St rover a rolling 12-mor rm = 100,000 BTUs, E Heat content units: B uels. (ppmv = parts pe n, or as lb per therm, or ion 3 on page 1 of this after abatement by an irein is true and corr	asoline (551) quid Petroleum Gas andard Cubic Foot) ath time period. Anne BTU =British Therma. at U/gallon for liquid for million by volume) or as lb per SCF. form. add-on abatement de ect. (Please sign	(LPG) (160)  ual usage units I Unit)  uels, BTU/SCF  evice.  and date this	form)	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □

375 Beale Street, Suite 600, San Francisco, CA 94105

Engineering Division (415) 749-4990 www.baaqmd.gov fax (415) 749-5030

Internal Combustion	Engines

Form ICE

engine manufacturer's equipment specifications.	
1. SUMMARY New Construction Modification Loss of E	xemption
Company Name Vantage Data Centers Management Co, LLC.	Plant No.*
Source Description Diesel Generator	Source No.* 2
Initial Date of Operation ASAP (Not required for modification of an existing	*/If unknown leave blank)
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr	Maximum hrs/day 24
2. ENGINE INFORMATION	ee Reg. 2-1-413 for requirements)
Engine Type: (Check one)	
Engine Manufacturer Caterpillar Model C175-16	Model Year 2017
EPA/CARB Engine Family Name HCPXL106.NZS Engine Ser	al No. unknown
Engine Displacement 5155.8 (cu in) Maximum rated output (bhp) 4423	Typical load as % of bhp rating 60
Is this an emergency/standby engine? ■ Yes □ No	
(Complete and check all that apply)	
Certification: EPA Certified CARB Certified CARB Executive Order No.	Ramboll Environ
☐ None (If None is checked, please indicate below the items applicable	to this engine.)
☐ Naturally aspirated ☐ Supercharged ☐ Turbocharge	ed Inter-cooled After-cooled
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn	
Primary Use:   Electrical generation   Cogeneration   Pump driver	☐ Fire pump driver
☐ Compressor driver ☐ Tub grinder driver ☐ Other:	
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhaus Check here if the engine has more than one add-on abatement device and complete abatement device.	
Abatement device number A 2 (If unknown leave blank)	Existing
Device type:    Diesel catalyzed particulate filter    Oxidation catalyst    Selection	ective catalytic reduction (SCR)
☐ Non-selective catalytic reduction (NSCR or 3-way catalyst) ☐ Other	
Make, Model, and Rated Capacity Johnson Matthey CRT +	
Abatement device control efficiencies at typical operation (Use the basis codes listed belo	w. If unknown leave blank)
A Date in the Control of the Control	Wt % Basis
Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)	Pollutant Name Reduction Code
(1) Source testing or other measurement by plant (8) Guess	Particulates 85 9
(2) Source testing or measurement by BAAQMD (District use only) (9) EPA/CARB Certification	on Organics 70 9
(3) Specification from vendor	Nitrogen Oxides
(4) Material balance by plant using knowledge of process	Sulfur Dioxide
(5) Material balance by BAAQMD (District use only)	Carbon Monoxide 80 12/20/201
(6) EPA Document AP-42 Emission Factors	Others –  Check here and attach a separate list of pollutants. Include the basis
(7) Taken from literature other than AP-42	code and the control efficiency

(District Use Only)

### Form ICE

Internal Combustion Engines

Form ICE Rev 04/12/16 Page 2 of 2

4. EMISSION PO emission monito					engine has more to nt	han one stack or f	nas a continu	ous pollu	tant
Emission point nu	mber P	(If un	known l	eave blank	) New 🗆 E	xisting			
Stack outlet heigh									
Diameter of stack	outlet (inches)	20.08	or C	utlet cross	-section area (squa	are inches)			
Direction of outlet		The state of the s	■ Ve		End of outlet (chec		/hinged flap	□R	ain cap
Exhaust rate at ty	MELLINE CHARLES		)		ust temperature at			-	
5. RISK ASSESS				NEW TOTAL					
Distance from eng			earest re	esidence (f	628.4	or (check if)	☐ Great	er than o	ne mile
Distance from eng					.,	or (check if)	■ Great		
Describe the near					☐ Industrial	Commercial	☐ Hospi		00011
Describe the flear	est non-resident	and the state of t	•	re center	Other	Commercial	Птозрі	lai	
Distance from one	ing to the prope				_	o/#\ 132.4	ог П Стол	iter than	one mile
K-12 and more in			earest n	on-residen	tial, non- school site	e(II) 102.4	or 🔲 Grea	iter than	one mile
			h fuel b	umad If	u one uelen e feet	than than there !!	atadia the f	al and a	abla
attach a fuel and	alysis indicating nit that correspon	the higher hea nds to the infor	ting valu	e, sulfur c	ou are using a fuel of content, and nitroger mitting.   Check	content. Please	clearly indica	ate the	
	Primary	Fuel				Secondary	Fuel		-4-
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	10710	gal/yr or t	herm/yr o	r SCF/yr	Annual Fuel Usage	3	gal/yr or	therm/yr o	r SCF/yr
Typical Heat Conte	nt <sup>4</sup>	BTU	l/gal or B	TU/SCF	Typical Heat Conte	nt <sup>4</sup>	BTO	J/gal or B	TU/SCF
Sulfur Content <sup>4</sup>		wt% liquid	ls or ppm	v gases	Sulfur Content <sup>4</sup>		wt% liqui	ds or ppm	v gases
	Emission Fac	tors (Optional)		. 1		Emission Facto	rs (Optional)	1	
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor
				(√)7					(√)7
Particulates					Particulates				
Organics					Organics				
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide	12. 1970	0 00 00 00			Carbon Monoxide				
Others – Check  1. Fuel Codes: Di		separate list und Bio Diesel B10				here and attach a seasoline (551)	eparate list un	der each f	uel used.
2. Maximum fuel us. 3. The annual fuel liquid fuel, them. 4. If you are using fuels. Sulfur cors. 5. Emission factors. 6. See the Control. 7. Place a check in	atural Gas (189) se rate units: gallo usage is the actua is for natural gas, diesel, natural gas itent units: weight a may be reported Efficiency/Emissio this column if the	Landfill Gas (5 n/hr for liquid fue I or projected eng and SCF for othe , or gasoline, you % for liquid fuels as gram/brakehp n Factor Basis C emission factor a	11) Is and SC gine fuel or gaseous may skip ppmv for hr, or as ode table	Digester Go CF/hr for gas consumption is fuels. (the pothis entry. r gaseous fu lb per gallo under Sect emissions g	as (493) Leous fuels. (SCF = Sin over a rolling 12-month = 100,000 BTUs, in Heat content units: It less. (ppmv = parts pendent, or as Ib per therm, it ion 3 on page 1 of this after abatement by an	iquid Petroleum Gastandard Cubic Foot) Inth time period. Ann BTU =British Therma BTU/gallon for liquid Internation by volume Internation of the period of th	nual usage uni al Unit) fuels, BTU/SC ) device.	CF for gase	
7. CERTIFICATIO	thereby certif	y ulat all lillolli	ation co	intaineu ne	rein is true and cor	rect. (r lease sign	and date thi	3 IOIII)	
SPENCER	MYERS	_ Director	of a	nstructi	on V			2/20/1	7
Name of person	certifying (print)	Title of p	erson cer	tifying	Signatur	e of person certifyin	g	Date	/
Approved By:		Da	ite:		Entered By:		Date	e:	

375 Beale Street, Suite 600, San Francisco, CA 94105 Engineering Division (415) 749-4990

www.baaqmd.gov fax (415) 749-5030

Form ICE

engine manufacturer's equipment specifications.			
1. SUMMARY New Construction Modification Loss of Exer	mption		
Company Name Vantage Data Centers Management Co, LLC.	Plant No.*		
Source Description Diesel Generator	Source No.*	3	
nitial Date of Operation ASAP (Not required for modification of an existing p	*/1	unknown leav	e blank)
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 5	0 Maximu	m hrs/day 2	24
2. ENGINE INFORMATION	Reg. 2-1-413 for requ	uirements)	
Engine Type: (Check one)    4 Stroke   2 Stroke Compression Ignition (Diesel) or  Engine Manufacturer   Caterpillar   Model   C175-16	4 Stroke 2 St	troke Spark ear 2017	
	No. unknown		7
	Typical load as % of I	aba rating 6	30
	Typical load as % of t	onpraung _	,,,
Complete and check all that apply)	mboll Environ		
Certification:   EPA Certified   CARB Certified CARB Executive Order No.   Ra			
None (If None is checked, please indicate below the items applicable to	_		
□ Naturally aspirated □ Supercharged □ Turbocharged	I Inter-cooled	☐ After-	cooled
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn			
Primary Use:   Electrical generation   Cogeneration   Pump driver	☐ Fire pump driver		
☐ Compressor driver ☐ Tub grinder driver ☐ Other:			
B. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts Check here if the engine has more than one add-on abatement device and complete a abatement device.			al
Abatement device number A 3 (If unknown leave blank)   New   Ex	isting		
	ive catalytic reduction	(SCR)	
☐ Non-selective catalytic reduction (NSCR or 3-way catalyst) ☐ Other:		* 15	
Make, Model, and Rated Capacity Johnson Matthey CRT +	oomioon watere	y OIII I	
Abatement device control efficiencies at typical operation (Use the basis codes listed below.	If unknown loove ble	nk)	
toatement device control eniciencies at typical operation (Ose the basis codes listed below.	I unknown leave bla	Wt %	Desis
Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)	Pollutant Name	Reduction	Basis Code
Source testing or other measurement by plant     (8) Guess	Particulates	85	9
2) Source testing or measurement by BAAQMD (District use only) (9) EPA/CARB Certification	Organics	70	9
3) Specification from vendor	Nitrogen Oxides		
4) Material balance by plant using knowledge of process	Sulfur Dioxide		
5) Material balance by BAAQMD (District use only)	Carbon Monoxide	80	12/20/201
6) EPA Document AP-42 Emission Factors 7) Taken from literature other than AP-42	Others – Check h separate list of pollut code and the control	ants. Include t	

### Form ICE

4. EMISSION POIl emission monitor						han one stack or ha	s a continuo	ous pollui	tant
Emission point nur Stack outlet height	-	TOTAL CONTRACTOR OF THE CONTRA		eave blan	k) 🔳 New 🗌 E	xisting			
Diameter of stack		William Street		utlet cros	s-section area (squa	are inches)			
Direction of outlet			■ Ve		End of outlet (chec		ninged flap	ПР	ain cap
Exhaust rate at typ			er e		The state of the s	typical operation (%	252 5 52		ант сар
5. RISK ASSESSI		RECEIVED AND STREET			idst temperature at	typical operation ( /	)		
					ft) 628.4	7 t - 1 10			
Distance from eng		-			n) <u>020.4</u>	or (check if)	☐ Greate		
Distance from eng	ne to the proper	ty line of the n	earest so	chool (ft)		or (check if)	Greate	er than 10	000 ft
Describe the neare	est non-residenti	al, non-school	site (che	ck one)	☐ Industrial	Commercial	☐ Hospit	al	
				re center	Other	W 54 65 1 W			
Distance from engi	ne to the proper	ty line of the n	earest no	on-resider	ntial, non-school sit	e(ft) 132.4 or	☐ Great	er than o	one mile
1. K-12 and more th	an twelve childrer	n only.							
attach a fuel ana	lysis indicating it that correspon	the higher hea ds to the infor	ting valu nation yo	e, sulfur d	ontent, and nitroger	other than those listen of content. Please of there if you are using	learly indical	te the	
	Primary	Fuel				Secondary F	uel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>	-	gal/hr or	SCF/hr
Annual Fuel Usage <sup>3</sup>	10710	gal/yr or t	herm/yr o	r SCF/yr	Annual Fuel Usage	3	gal/yr or tl	nerm/yr or	SCF/yr
Typical Heat Conter	nt <sup>4</sup>	ВТО	/gal or B7	TU/SCF	Typical Heat Conte	nt <sup>4</sup>	BTU	/gal or BT	U/SCF
Sulfur Content⁴		wt% liquid	ls or ppm	v gases	Sulfur Content4		wt% liquid	s or ppm	gases
	Emission Factor	ors (Optional)				Emission Factors	(Optional)		
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates					Particulates				
Organics					Organics				
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide					Carbon Monoxide				
Others - Check I	nere and attach a	separate list und	er each fu	uel used.	Others - Check	here and attach a sep	arate list und	er each fu	iel used.
<ol> <li>Maximum fuel us</li> <li>The annual fuel uliquid fuel, therms</li> <li>If you are using difuels. Sulfur confidence.</li> </ol>	tural Gas (189) te rate units: gallon sage is the actual to ratural gas, a tiesel, natural gas, tent units: weight %	or projected eng nd SCF for othe or gasoline, you 6 for liquid fuels,	11) s and SC nine fuel of gaseous may skip ppmv for	Digester G F/hr for gas consumption fuels. (the this entry. gaseous f	as ( <b>493</b> ) L seous fuels. (SCF =S n over a rolling 12-mo erm = 100,000 BTUs, i	nth time period. Annu BTU =British Thermal BTU/gallon for liquid fu er million by volume)	al usage units Unit)	- FR	
					tion 3 on page 1 of this				
						add-on abatement de			
7. CERTIFICATION	I hereby certify	that all inform	ation co	ntained he	erein is true and cor	rect. (Please sign a	nd date this	form)	
SPENCER Name of person of	MYERS certifying (print)	Di rect	erson der	Constifying	Signatur	e of person certifying		2/20/17 Vate	7
Approved By:		Da	to:		Entered By:		Date		

375 Beale Street, Suite 600, San Francisco, CA 94105 (415) 749-4990 **Engineering Division** 

www.baaqmd.gov

(415) 749-5030

	Form	ICE		
ı	O	-4:	F	

internal	Combastion	Linginios	
( )			

engine manufacturer's equipment specifications.  1. SUMMARY  New Construction  Modification  Loss of Exer	motion					
Mantaga Data Cantaga Managanant Ca LLC						
Source Description Diesel Generator	Source No.*	unknown leav	e blank)			
Initial Date of Operation ASAP (Not required for modification of an existing p	ermitted source)	A STATE OF THE PARTY OF THE PAR				
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 5	0 Maximul	m hrs/day 2	24			
2. ENGINE INFORMATION	Reg. 2-1-413 for requ	uirements)				
Engine Type: (Check one)    4 Stroke   2 Stroke Compression Ignition (Diesel) or	☐ 4 Stroke ☐ 2 St	troke Spark	Ignition			
Engine Manufacturer Caterpillar Model C175-16	Model Y	<sub>ear</sub> 2017	,			
EPA/CARB Engine Family Name HCPXL106.NZS Engine Serial	<sub>No.</sub> unknown					
Engine Displacement 5155.8 (cu in) Maximum rated output (bhp) 4423	Typical load as % of t	ohp rating 6	60			
Is this an emergency/standby engine?						
(Complete and check all that apply)						
Certification:   EPA Certified   CARB Certified   CARB Executive Order No.   Ra	mboll Environ					
☐ None (If None is checked, please indicate below the items applicable to	this engine.)					
☐ Naturally aspirated ☐ Supercharged ☐ Turbocharged		☐ After-	cooled			
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn	_					
Primary Use:	☐ Fire pump driver					
☐ Compressor driver ☐ Tub grinder driver ☐ Other:						
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts Check here if the engine has more than one add-on abatement device and complete a sabatement device.			al			
Abatement device number A 4 (If unknown leave blank)	stina					
	ve catalytic reduction	(SCR)				
□ Non-selective catalytic reduction (NSCR or 3-way catalyst) □ Other:						
Make, Model, and Rated Capacity Johnson Matthey CRT +	JOHNSON Watthe	y OITI +				
Abatement device control efficiencies at typical operation (Use the basis codes listed below.	If unknown loose blo	m (a)				
abatement device control eniciencies at typical operation (Ose the basis codes listed below.	ii unknown leave bla		Dania			
Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)	Pollutant Name	Wt % Reduction	Basis Code			
(1) Source testing or other measurement by plant (8) Guess	Particulates	85	9			
(2) Source testing or measurement by BAAQMD (District use only) (9) EPA/CARB Certification	Organics	70	9			
3) Specification from vendor	Nitrogen Oxides					
4) Material balance by plant using knowledge of process	Sulfur Dioxide					
(5) Material balance by BAAQMD (District use only)	Carbon Monoxide	80	12/20/201			
6) EPA Document AP-42 Emission Factors  7) Taken from literature other than AP-42	Others –  Check h separate list of pollut code and the control	ants. Include t				

# Form ICE

4. EMISSION PO emission monito	NT/STACK INFO	ORMATION [ one Form P for	Check	here if the	engine has more t nt	han one stack or h	as a continu	ous pollu	tant
Emission point nu	mber P	(If ui	nknown l	eave blank	)   New   E	xisting			
Stack outlet heigh	t from ground lev	rel (ft) 45.17	7	_					
Diameter of stack	outlet (inches)	20.08	or C	outlet cross	-section area (squa	are inches)			
Direction of outlet	(check one)	Horizontal	■ Ve	rtical	End of outlet (chec	k one) 🔳 Open	hinged flap	□R	ain cap
Exhaust rate at typ	oical operation (a	ocfm) 2563	0	Exha	ust temperature at	typical operation (°	F) 891.9		
5. RISK ASSESSI	MENT INFORMA	TION.							
Distance from eng	ine to the proper	ty line of the n	earest re	esidence (f	628.4	or (check if)	☐ Great	er than o	ne mile
Distance from eng				1.4	· -	or (check if)	■ Great		
Describe the near					☐ Industrial	Commercial	☐ Hospi		00011
2 dddingd trio riota	oot non rooidona		V-22	re center	Other	E Commercial	Плоэрг	tai	
Distance from end	ine to the proper		•		tial, non- school site	e(ft) 132.4 o	r D Grea	ter than	one mile
K-12 and more t	51 15 15 15 15 15 15 15 15 15 15 15 15 1	/1 <del>8</del> /	carestin	on-residen	uai, non-school sit	(ii) <u>102.1</u> 0	□ Glea	iter triair	one mile
attach a fuel and	alysis indicating nit that correspon	the higher hea ds to the infor	nting valu mation ye	e, sulfur co	ou are using a fuel on content, and nitroger mitting.   Check	content. Please	clearly indica	te the	
	Primary	Fuel				Secondary F	uel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	10710	gal/yr or t	herm/yr o	r SCF/yr	Annual Fuel Usage	3	gal/yr or t	herm/yr o	r SCF/yr
Typical Heat Conte	nt <sup>4</sup>	BTU	J/gal or B	TU/SCF	Typical Heat Conte	nt <sup>4</sup>	ВТО	J/gal or B1	TU/SCF
Sulfur Content <sup>4</sup>		wt% liquid	ds or ppm	v gases	Sulfur Content <sup>4</sup>		wt% liquid	ds or ppm	v gases
	Emission Fact		r			Emission Factors		ı	
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates					Particulates				
Organics			N. A.		Organics				
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide					Carbon Monoxide				
Others - Check	here and attach a					here and attach a se	parate list und	der each fo	uel used.
<ol> <li>Maximum fuel us</li> <li>The annual fuel us liquid fuel, therm</li> <li>If you are using a fuels. Sulfur consolers</li> <li>Emission factors</li> <li>See the Control of the properties</li> <li>Place a check in</li> <li>CERTIFICATION</li> </ol>	atural Gás (189) se rate units: gallor usage is the actual s for natural gas, a diesel, natural gas, tent units: weight? may be reported a Efficiency/Emission this column if the o N I hereby certify	or projected enged SCF for other or gasoline, you for liquid fuels as gram/brakehp a Factor Basis Comission factor of that all inform	distant SC gine fuel of gine fuel of greater gaseous u may skip , ppmv for p-hr, or as code table applies to nation co	Digester Ga E-/hr for gas consumption is fuels. (then this entry. r gaseous fu lb per gallor under Secti emissions a ntained he	as (493) Leous fuels. (SCF = Si over a rolling 12-morm = 100,000 BTUs, I Heat content units: It els. (ppmv = parts pon, or as Ib per therm, on 3 on page 1 of this ofter abatement by an rein is true and content.	onth time period. Anno BTU =British Therma BTU/gallon for liquid for million by volume) for as lb per SCF. as form. add-on abatement de	ual usage unit l Unit) uels, BTU/SC evice.	F for gase	
Name of person	certifying (print)	Title of p	erson cer	urying	Signatur	e or person certifying		Date	/
Approved By:	(District Use Or		ate:		Entered By:	Fc	Date		e 2 of 2

375 Beale Street, Suite 600, San Francisco, CA 94105

Form ICE Internal Combustion Engines

Engineering Division	(415) 749-4990	
www.baaqmd.gov fax	(415) 749-5030	

00.00	gine manufacturer's equipment specifications.	antina		
	SUMMARY New Construction Modification Loss of Exe			
Co	Vantage Data Centers Management Co, LLC.	Plant No.*		
	urce Description Diesel Generator	Source No.*	5 unknown leav	o blank)
Init	ial Date of Operation ASAP (Not required for modification of an existing part of the control of	permitted source)	unknown leav	е ыапк)
Ор	erating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 5	0 Maximu	m hrs/day 2	24
2. E	ENGINE INFORMATION	Reg. 2-1-413 for requ	uirements)	
	gine Type: (Check one)   4 Stroke   2 Stroke Compression Ignition (Diesel) or gine Manufacturer   Caterpillar   Model   C175-16		troke Spark Year 2017	
LU		No. unknown	ear	
			6	<u></u>
		Typical load as % of I	onp rating _	
	his an emergency/standby engine? ■ Yes □ No			
	omplete and check all that apply)	mahall Envisor		
Cei	rtification: EPA Certified CARB Certified CARB Executive Order No. Ra			
	☐ None (If None is checked, please indicate below the items applicable to	this engine.)		
	☐ Naturally aspirated ☐ Supercharged ☐ Turbocharged	Inter-cooled	☐ After-	cooled
	☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn			
Pri	mary Use:	☐ Fire pump driver		
	☐ Compressor driver ☐ Tub grinder driver ☐ Other:			
	ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts Check here if the engine has more than one add-on abatement device and complete a abatement device.			al
Aba	atement device number A 5 (If unknown leave blank) New DEX	isting		
De		ive catalytic reduction	(SCR)	
	☐ Non-selective catalytic reduction (NSCR or 3-way catalyst) ☐ Others			
Ma	ke, Model, and Rated Capacity Johnson Matthey CRT +		, ,,,,	
	atement device control efficiencies at typical operation (Use the basis codes listed below.	If unknown leave bla	ank)	
Con	atrol Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)	Pollutant Name	Wt % Reduction	Basis Code
(1)	Source testing or other measurement by plant (8) Guess	Particulates	85	9
(2)	Source testing or measurement by BAAQMD (District use only) (9) EPA/CARB Certification	Organics	70	9
(3)	Specification from vendor	Nitrogen Oxides		
(4)	Material balance by plant using knowledge of process	Sulfur Dioxide		
(5)	Material balance by BAAQMD (District use only)	Carbon Monoxide	80	12/20/201
(6)	EPA Document AP-42 Emission Factors	Others –  Check h		
(7)	Taken from literature other than AP-42	sode and the central	officionay	ino Duala

### Form ICE

	NT/STACK INFO				engine has more thint	nan one stack or h	as a continue	ous pollu	tant
Emission point nu Stack outlet heigh				eave blani	k) New E	xisting			
Diameter of stack		- CS SI		— Nutlet cres	s section area (agua	ro inches)			
					s-section area (squa		n.:		
Direction of outlet			■ Ve		End of outlet (check		hinged flap	ЦΚ	ain cap
Exhaust rate at type  5. RISK ASSESSI			A. 60	Exna	aust temperature at t	ypical operation (*	F) <u>091.9</u>		
					000.4				
Distance from eng	jine to the proper	ty line of the n	earest re	esidence (	ft) <u>628.4</u>	or (check if)	☐ Greate	er than o	ne mile
Distance from eng	jine to the proper	ty line of the n	earest so	chool <sup>1</sup> (ft)		or (check if)	■ Greate	er than 1	000 ft
Describe the near	est non-residenti	al, non-school	site (che	eck one)	☐ Industrial	Commercial	☐ Hospit	tal	
			Day ca	re center	Other				
Distance from eng	ine to the proper	ty line of the n	earest n	on-resider	ntial, non-school site	e(ft) 132.4 o	r 🔲 Grea	ter than	one mile
1. K-12 and more t	han twelve childrer	only.							
attach a fuel and	alysis indicating nit that correspon	the higher hea ds to the infori	ting valu nation y	e, sulfur c	ou are using a fuel of ontent, and nitrogen omitting.   Check I	content. Please	clearly indica	te the	
	Primary	-uel				Secondary F	Fuel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	<sup>3</sup> 10710	gal/yr or t	herm/yr o	r SCF/yr	Annual Fuel Usage		gal/yr or t	herm/yr o	r SCF/yr
Typical Heat Conte	nt <sup>4</sup>	BTU	l/gal or B	TU/SCF	Typical Heat Conte	nt <sup>4</sup>	BTU	l/gal or B	TU/SCF
Sulfur Content4		wt% liquid	ls or ppm	v gases	Sulfur Content <sup>4</sup>		wt% liquid	ds or ppm	v gases
	Emission Factor	ors (Optional)				Emission Factors	(Optional)	5	.
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates					Particulates				
Organics					Organics				
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide			9		Carbon Monoxide				
Others –  Check	here and attach a	separate list und	er each f	uel used.	Others - Check	nere and attach a se	parate list und	ler each fu	uel used.
<ol> <li>Maximum fuel us</li> <li>The annual fuel iliquid fuel, therm</li> <li>If you are using of fuels. Sulfur cons</li> <li>Emission factors</li> <li>See the Control of Place a check in</li> </ol>	atural Gás (189) se rate units: gallon usage is the actual s for natural gas, a diesel, natural gas, tent units: weight % may be reported a Efficiency/Emission this column if the e M I hereby certify	Landfill Gas (5 /hr for liquid fuel or projected eng nd SCF for othe or gasoline, you for liquid fuels, s gram/brakehp Factor Basis Comission factor a that all inform	Is and SO gine fuel or gaseous may skip ppmv for -hr, or as ode table applies to ation co	Digester G E/hr for ges consumption fuels. (the p this entry. gaseous fu lb per gallo under Sect emissions g ntained he	as (493) Liseous fuels. (SCF = Standard = 100,000 BTUs, E Heat content units: E uels. (ppmv = parts pe n, or as lb per therm, or ion 3 on page 1 of this after abatement by an erein is true and corr	th time period. Anno BTU =British Thermal TU/gallon for liquid for r million by volume) or as Ib per SCF. form. add-on abatement de	ual usage unit Unit) uels, BTU/SC evice. and date this	F for gase	
Approved By:	(District Use On		te:		Entered By:	Fo	Date		e 2 of 2

375 Beale Street, Suite 600, San Francisco, CA 94105 **Engineering Division** (415) 749-4990

www.baaqmd.gov

(415) 749-5030

Internal Combustion Engines

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Form ICE

engine manufacturer's equipment specifications.
1. SUMMARY ■ New Construction
Company Name Vantage Data Centers Management Co, LLC. Plant No.*
Source Description Diesel Generator Source No.* 6
Initial Date of Operation ASAP (Not required for modification of an existing permitted source) *(If unknown leave blank)
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 50 Maximum hrs/day 24
2. ENGINE INFORMATION Check here if applying for a multiple location permit. (See Reg. 2-1-413 for requirements)
Engine Type: (Check one)   4 Stroke   2 Stroke Compression Ignition (Diesel) or   4 Stroke   2 Stroke Spark Ignition Engine Manufacturer   Caterpillar   Model   Model Year   2017
EPA/CARB Engine Family Name HCPXL106.NZS Engine Serial No. unknown
Engine Displacement 5155.8 (cu in) Maximum rated output (bhp) 4423 Typical load as % of bhp rating 60
Is this an emergency/standby engine? ■ Yes □ No
(Complete and check all that apply)
Certification:   EPA Certified  CARB Certified  CARB Executive Order No.  Ramboll Environ
☐ None (If None is checked, please indicate below the items applicable to this engine.)
☐ Naturally aspirated ☐ Supercharged ☐ Turbocharged ☐ Inter-cooled ☐ After-cooled
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn
Primary Use:
Compressor driver
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device. Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.
Abatement device number A 6 (If unknown leave blank) ■ New □ Existing
Device type:    Diesel catalyzed particulate filter    Oxidation catalyst    Selective catalytic reduction (SCR)
☐ Non-selective catalytic reduction (NSCR or 3-way catalyst) ☐ Other: Johnson Matthey CRT +
Make, Model, and Rated Capacity Johnson Matthey CRT +
Abatement device control efficiencies at typical operation (Use the basis codes listed below. If unknown leave blank)
Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)  Wt % Basis Reduction Code
(1) Source testing or other measurement by plant (8) Guess Particulates 85 9
(2) Source testing or measurement by BAAQMD (District use only) (9) EPA/CARB Certification Organics 70 9
(3) Specification from vendor Nitrogen Oxides
(4) Material balance by plant using knowledge of process Sulfur Dioxide
(5) Material balance by BAAQMD (District use only)  Carbon Monoxide 80 12/20/20
(6) EPA Document AP-42 Emission Factors  Others – Check here and attach a separate list of pollutants. Include the basis
(7) Taken from literature other than AP-42 code and the control efficiency.

### Form ICE

	INT/STACK INFO				e engine has more thint	an one stack or h	as a continue	ous pollu	tant
Emission point nu	mber P	(If u	nknown le	eave blani	k) New Ex	kisting			
Stack outlet heigh	t from ground lev	rel (ft) 45.17	7						
		V. 2 H		utlet cross	s-section area (squa	re inches)			
Direction of outlet	((	ericonica or analysis	-		End of outlet (check		/hinged flap	Пп	ain cap
Exhaust rate at ty	THE RESERVE OF THE PROPERTY OF				ust temperature at t		9202 G 924		
5. RISK ASSESS									
			oarast ra	oidones (	ft) 628.4	or (obsek if)	Crost.	orthon o	mile
Distance from eng	TO	- F			11) 020.4	or (check if)	☐ Greate		
Distance from eng	F0 - F +21	5		100	_	or (check if)	■ Greate		000 π
Describe the near	est non-residenti				☐ Industrial	Commercial	☐ Hospi	tal	
			T	re center	Other	100.4			
			earest no	on-resider	ntial, non-school site	e(ft) 132.4	or 🗌 Grea	ter than	one mile
1. K-12 and more									
attach a <b>fuel an</b> measurement ui	alysis indicating	the higher hea ds to the infor	ating valu mation ye	e, sulfur c	ou are using a fuel o content, and nitrogen omitting.   Check h	content. Please	clearly indica	te the	
	Primary	Fuel				Secondary	Fuel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name			H 7,5
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>	<b>*</b>	gal/hr or	SCF/hr
Annual Fuel Usage	10710	gal/yr or i	therm/yr o	r SCF/yr	Annual Fuel Usage <sup>3</sup>	·	gal/yr or t	herm/yr o	r SCF/yr
Typical Heat Conte	ent <sup>4</sup>	BTU	J/gal or B7	TU/SCF	Typical Heat Conter	nt <sup>4</sup>	BTU	l/gal or Bi	TU/SCF
Sulfur Content⁴		wt% liqui	ds or ppm	v gases	Sulfur Content <sup>4</sup>		wt% liquid	ds or ppm	v gases
	Emission Factor	ors (Optional)				Emission Factor	rs (Optional)		
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates					Particulates				
Organics					Organics				
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide					Carbon Monoxide				
Others - Check	here and attach a	separate list und	der each fu	uel used.	Others - Check	here and attach a se	eparate list und	ler each fo	uel used.
<ol> <li>Maximum fuel us.</li> <li>The annual fuel liquid fuel, them.</li> <li>If you are using fuels. Sulfur cors.</li> <li>Emission factors.</li> <li>See the Control.</li> <li>Place a check in.</li> </ol>	atural Gas (189) se rate units: gallon usage is the actual is for natural gas, a diesel, natural gas, intent units: weight % is may be reported a Efficiency/Emission this column if the e  N I hereby certify	or projected en nd SCF for other or gasoline, you 6 for liquid fuels is gram/brakehp or Factor Basis C emission factor a	old)  Its and SC  Igine fuel of regaseous  In may skip  In ppmv for  In-hr, or as  Code table  In applies to  Ination col	Digester G F/hr for gas consumption fuels. (the b this entry. gaseous fu lb per gallo under Sect emissions in ntained he	as (493) Li seous fuels. (SCF = Stan over a rolling 12-mon erm = 100,000 BTUs, E Heat content units: B uels. (ppmv = parts pe ern, or as lb per therm, o tion 3 on page 1 of this after abatement by an e erein is true and corn	th time period. Ann TU =British Therma TU/gallon for liquid r million by volume) or as Ib per SCF. form. add-on abatement o	nual usage unit al Unit) fuels, BTU/SC device. and date this	F for gase	
Approved By:	(District Use On		ate:		Entered By:	-	Date	-	2 of 2
	(District Ose Off	· y /				F	OHIT ICE REV 04/	12/10 Page	2012

375 Beale Street, Suite 600, San Francisco, CA 94105 Engineering Division (415) 749-4990

www.baaqmd.gov fax (415) 749-5030

Internal	Combust	ion Engine	es

Form ICE

engine manufacturer's <b>equipment specifications</b> .			
1. SUMMARY New Construction Modification Loss of Exer	mption		
Company Name Vantage Data Centers Management Co, LLC.	Plant No.*		
Source Description Diesel Generator	Source No.*	7	
Initial Date of Operation ASAP (Not required for modification of an existing p	*/If	unknown leav	e blank)
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 5	0 Maximui	m hrs/day 2	24
2. ENGINE INFORMATION	Reg. 2-1-413 for requ	uirements)	
Engine Type: (Check one)	☐ 4 Stroke ☐ 2 St	roke Spark	Ignition
Engine Manufacturer Caterpillar Model C175-16	Model Y	ear 2017	
	No. unknown		
	Typical load as % of t	ohp rating 6	0
Is this an emergency/standby engine?			
(Complete and check all that apply)			
Certification: ☐ EPA Certified ☐ CARB Certified CARB Executive Order No. Ra	mboll Environ		
☐ None (If None is checked, please indicate below the items applicable to			
□ Naturally aspirated □ Supercharged □ Turbocharged		☐ After-	cooled
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn			
	□ Eiro numn drivor		
	☐ Fire pump driver		
	to an add an abatam	ont dovice	N TESS
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts Check here if the engine has more than one add-on abatement device and complete a abatement device.			al
Abatement device number A 7 (If unknown leave blank)	istina		
	ive catalytic reduction	(SCR)	
☐ Non-selective catalytic reduction (NSCR or 3-way catalyst) ☐ Other:	. All the second of the second		
Make, Model, and Rated Capacity Johnson Matthey CRT +	dominon watere	y OITT	
Abatement device control efficiencies at typical operation (Use the basis codes listed below.	If unknown leave bla	ink)	
Abatement device control eniciencies at typical operation (Ose the basis codes listed below.	II ulikilowii leave bia	Wt %	Basis
Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)	Pollutant Name	Reduction	Code
Source testing or other measurement by plant     (8) Guess	Particulates	85	9
2) Source testing or measurement by BAAQMD (District use only) (9) EPA/CARB Certification	Organics	70	9
3) Specification from vendor	Nitrogen Oxides		
4) Material balance by plant using knowledge of process	Sulfur Dioxide		
5) Material balance by BAAQMD (District use only)	Carbon Monoxide	80	12/20/20
6) EPA Document AP-42 Emission Factors	Others –  Check h separate list of pollut		
7) Taken from literature other than AP-42	code and the control		ile nasis

### Form ICE

4. EMISSION POIl emission monito					engine has more th	nan one stack or ha	as a continuo	ous pollut	ant
Emission point nur	mber P	(If ur	known le	eave blank	) 🔳 New 🗌 Ex	kisting			
Stack outlet height	from ground lev	rel (ft) 45.17							
Diameter of stack	outlet (inches)	20.08	or O	utlet cross	s-section area (squa	re inches)			
Direction of outlet	(check one)	] Horizontal	■ Ve		End of outlet (check		hinged flap	□Ra	ain cap
Exhaust rate at typ		- 10000 per 11 100000 per 11 10000 per 11 100000 per 11 10000 per 11 1			ust temperature at t	7 354 7 554 7 554 7 5 5 5 5 5 5 5 5 5 5 5 5			
5. RISK ASSESSM									
Distance from eng	ine to the proper	tv line of the n	earest re	esidence (f	628.4	or (check if)	☐ Greate	er than or	ne mile
Distance from eng		70			-	or (check if)	■ Greate		
Describe the near	9) 13	13		(2)	☐ Industrial	Commercial	☐ Hospit		300 11
Describe the near	est non-resident	-			☐ Other	Commercial	Птозріс	.aı	
Distance from an a				re center		/m 132.4 -			
K-12 and more ti			earest no	on-residen	tial, non-school site	ε(π) 132.4 ο	r 🔲 Grea	ter than c	one mile
			h &! h			thauthau thasa lla		1 4-	E.I.
attach a fuel ana	lysis indicating it that correspon	the higher hea ds to the infor	ting valu nation ye	e, sulfur c	ou are using a fuel o ontent, and nitrogen mitting.   Check I	content. Please of	clearly indica	te the	
	Primary	Fuel				Secondary F	uel		
Fuel Code <sup>1</sup> 98	Name	ULSD		1	Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage <sup>3</sup>	10710	gal/yr or t	herm/yr o	r SCF/yr	Annual Fuel Usage		gal/yr or ti	herm/yr or	SCF/yr
Typical Heat Conter	nt <sup>4</sup>	BTL	l/gal or B	TU/SCF	Typical Heat Conter	nt <sup>4</sup>	ВТО	l/gal or BT	U/SCF
Sulfur Content <sup>4</sup>		wt% liquid	ds or ppm	v gases	Sulfur Content <sup>4</sup>		wt% liquid	ls or ppmv	gases /
	Emission Fact	ors (Optional)		. 1		Emission Factors	s (Optional)		
Pollutant Name	Emission	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor
	Factor			(V)'					$(\vee)^{\prime}$
Particulates	Factor			(√) <sup>7</sup>	Particulates				$(\checkmark)^7$
Particulates Organics	Factor				Particulates Organics				
	Factor								
Organics	Factor				Organics				
Organics Nitrogen Oxides		separate list und	er each fi		Organics Nitrogen Oxides Carbon Monoxide	here and attach a se	parate list und	er each fu	
Organics  Nitrogen Oxides  Carbon Monoxide  Others – Check  1. Fuel Codes: Die Na  2. Maximum fuel us 3. The annual fuel us liquid fuel, therms	here and attach a seel (98) tural Gas (189) te rate units: gallor usage is the actual s for natural gas, a	Bio Diesel B10 Landfill Gas (5 /hr for liquid fue or projected end nd SCF for othe	0 (815) 11) Is and SC gine fuel or r gaseous	uel used.  Bio Diesel I Digester Gorsumptions fuels. (the	Organics  Nitrogen Oxides  Carbon Monoxide  Others – Check  B20 Blend (816) G as (493) Li seous fuels. (SCF = St a over a rolling 12-monorm = 100,000 BTUs, E	asoline ( <b>551</b> ) quid Petroleum Gas andard Cubic Foot) ath time period. Anno BTU =British Thermal	(LPG) ( <b>160</b> ) ual usage units l Unit)	s: gallons	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
Organics  Nitrogen Oxides  Carbon Monoxide  Others – Check I  1. Fuel Codes: Die Na  2. Maximum fuel us  3. The annual fuel us liquid fuel, therms  4. If you are using of	here and attach a seel (98) tural Gas (189) te rate units: gallon usage is the actual s for natural gas, a liesel, natural gas,	Bio Diesel B10 Landfill Gas (5 /hr for liquid fue or projected en nd SCF for othe or gasoline, you	0 (815) 11) Is and SC gine fuel or r gaseous i may skip	uel used.  Bio Diesel I Digester Garantior Garantion Garantior Garantior Garanti	Organics  Nitrogen Oxides  Carbon Monoxide  Others – Check  B20 Blend (816) G as (493) Li reous fuels. (SCF = St. rover a rolling 12-monorm = 100,000 BTUs, E Heat content units: B	asoline (551) quid Petroleum Gas andard Cubic Foot) ath time period. Anno BTU =British Thermal TU/gallon for liquid f	(LPG) ( <b>160</b> ) ual usage units l Unit)	s: gallons	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
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Organics  Nitrogen Oxides  Carbon Monoxide  Others - Check  1. Fuel Codes: Die Na  2. Maximum fuel us  3. The annual fuel us  iliquid fuel, therms  4. If you are using a fuels. Sulfur cons  5. Emission factors  6. See the Control E  7. Place a check in  7. CERTIFICATION	here and attach a seel (98) tural Gas (189) he rate units: gallon usage is the actual is for natural gas, a tiesel, natural gas, tent units: weight 9 may be reported a Efficiency/Emissior this column if the e	Bio Diesel B10 Landfill Gas (5 /hr for liquid fue or projected end nd SCF for othe or gasoline, you 6 for liquid fuels is gram/brakehp or Factor Basis Comission factor a that all inform	10 (815) 11) Is and SC gine fuel or gaseous i, may skip -hr, or as ode table applies to	uel used.  Bio Diesel I Digester Gaser Strels. (the party of the sentry. If years a gaseous full b per gallow under Section and the section of the section o	Organics  Nitrogen Oxides  Carbon Monoxide  Others - Check B20 Blend (816) Gras (493) Life our fuels. (SCF = Stance of the stanc	asoline (551) quid Petroleum Gas andard Cubic Foot) th time period. Anno BTU =British Thermal TU/gallon for liquid for million by volume) or as lb per SCF. form. add-on abatement de	(LPG) ( <b>160</b> )  ual usage units l Unit)  uels, BTU/SCI	s: gallons F for gase	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
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Organics  Nitrogen Oxides  Carbon Monoxide  Others - Check  1. Fuel Codes: Die Na  2. Maximum fuel us  3. The annual fuel us  iliquid fuel, therms  4. If you are using a fuels. Sulfur cons  5. Emission factors  6. See the Control E  7. Place a check in  7. CERTIFICATION	here and attach a seed (98) tural Gas (189) te rate units: gallon usage is the actual is for natural gas, tent units: weight % may be reported a efficiency/Emission this column if the e	Bio Diesel B10 Landfill Gas (5 //hr for liquid fue or projected eng nd SCF for othe or gasoline, you for liquid fuels as gram/brakehp or Factor Basis Comission factor a that all inform    Director Title of p	10 (815) 11) Is and SC gine fuel of r gaseous may skip ppmv for -hr, or as ode table applies to nation con	uel used.  Bio Diesel I Digester Gaser Strels. (the party of the sentry. If years a gaseous full b per gallow under Section and the section of the section o	Organics  Nitrogen Oxides  Carbon Monoxide  Others – Check  B20 Blend (816) G as (493) Li  reous fuels. (SCF = St.  rover a rolling 12-mon rm = 100,000 BTUs, E Heat content units: B alels. (ppmv = parts pe n, or as lb per therm, or ion 3 on page 1 of this after abatement by an rein is true and corr	asoline (551) quid Petroleum Gas andard Cubic Foot) th time period. Anno BTU =British Thermal TU/gallon for liquid for million by volume) or as lb per SCF. form. add-on abatement de	(LPG) ( <b>160</b> )  ual usage units l Unit)  uels, BTU/SCI	s: gallons F for gase s form)  2/20/ Date	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □

375 Beale Street, Suite 600, San Francisco, CA 94105 **Engineering Division** (415) 749-4990

www.baaqmd.gov

(415) 749-5030

Form ICE

engine manufacturer's <b>equipment specifications</b> .
1. SUMMARY New Construction Modification Loss of Exemption
Company Name Vantage Data Centers Management Co, LLC. Plant No.*
Source Description Diesel Generator Source No.* 8
nitial Date of Operation ASAP (Not required for modification of an existing permitted source) *(If unknown leave blank)
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 50 Maximum hrs/day 24
2. ENGINE INFORMATION
Engine Type: (Check one)   4 Stroke   2 Stroke Compression Ignition (Diesel) or   4 Stroke   2 Stroke Spark Ignition  Engine Manufacturer   Model Year   2017
EPA/CARB Engine Family Name HCPXL106.NZS Engine Serial No. unknown
Engine Displacement 5155.8 (cu in) Maximum rated output (bhp) 4423 Typical load as % of bhp rating 60
s this an emergency/standby engine?
Complete and check all that apply)
Certification:   EPA Certified   CARB Certified CARB Executive Order No.   Ramboll Environ
☐ None (If None is checked, please indicate below the items applicable to this engine.)
□ Naturally aspirated □ Supercharged □ Turbocharged □ Inter-cooled □ After-cooled
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn
Primary Use:    Electrical generation    Cogeneration    Pump driver    Fire pump driver    Other:
B. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.  Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.
Abatement device number A 8 (If unknown leave blank)  New  Existing
abatement device number A C (if anknown leave blank) [ In the Care blank)
Device type:    Diesel catalyzed particulate filter    Oxidation catalyst    Selective catalytic reduction (SCR)
Device type:  Diesel catalyzed particulate filter  Oxidation catalyst  Selective catalytic reduction (SCR)  Non-selective catalytic reduction (NSCR or 3-way catalyst)  Other:  Johnson Matthey CRT +
Device type:
Device type:  Diesel catalyzed particulate filter  Oxidation catalyst  Selective catalytic reduction (SCR)  Non-selective catalytic reduction (NSCR or 3-way catalyst)  Other:  Johnson Matthey CRT +
Device type: Diesel catalyzed particulate filter  Oxidation catalyst  Selective catalytic reduction (SCR)  Non-selective catalytic reduction (NSCR or 3-way catalyst)  Other: Johnson Matthey CRT +  Make, Model, and Rated Capacity Johnson Matthey CRT +  Abatement device control efficiencies at typical operation (Use the basis codes listed below. If unknown leave blank)  Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)  Pollutant Name Reduction Code
Device type: Diesel catalyzed particulate filter Oxidation catalyst Selective catalytic reduction (SCR)  Non-selective catalytic reduction (NSCR or 3-way catalyst) Other: Johnson Matthey CRT +  Make, Model, and Rated Capacity Johnson Matthey CRT +  Abatement device control efficiencies at typical operation (Use the basis codes listed below. If unknown leave blank)  Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)  Pollutant Name Reduction Code  Particulates 85 9
Device type: Diesel catalyzed particulate filter  Oxidation catalyst  Selective catalytic reduction (SCR)  Non-selective catalytic reduction (NSCR or 3-way catalyst)  Other: Johnson Matthey CRT +  Make, Model, and Rated Capacity Johnson Matthey CRT +  Abatement device control efficiencies at typical operation (Use the basis codes listed below. If unknown leave blank)  Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)  1) Source testing or other measurement by plant  (8) Guess  Pollutant Name Reduction Code  Particulates 85 9  Organics 70 9
Device type: Diesel catalyzed particulate filter  Oxidation catalyst  Selective catalytic reduction (SCR)  Non-selective catalytic reduction (NSCR or 3-way catalyst)  Other: Johnson Matthey CRT +  Make, Model, and Rated Capacity Johnson Matthey CRT +  Abatement device control efficiencies at typical operation (Use the basis codes listed below. If unknown leave blank)  Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)  1) Source testing or other measurement by plant  (8) Guess  Pollutant Name Reduction Code  Particulates 85 9  Organics 70 9  Nitrogen Oxides  Nitrogen Oxides
Device type: Diesel catalyzed particulate filter Oxidation catalyst Selective catalytic reduction (SCR)  Non-selective catalytic reduction (NSCR or 3-way catalyst) Other: Johnson Matthey CRT +  Make, Model, and Rated Capacity Johnson Matthey CRT +  Abatement device control efficiencies at typical operation (Use the basis codes listed below. If unknown leave blank)  Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)  1) Source testing or other measurement by plant  (8) Guess Particulates Pa
Device type: Diesel catalyzed particulate filter  Oxidation catalyst  Selective catalytic reduction (SCR)  Non-selective catalytic reduction (NSCR or 3-way catalyst)  Other: Johnson Matthey CRT +  Make, Model, and Rated Capacity Johnson Matthey CRT +  Abatement device control efficiencies at typical operation (Use the basis codes listed below. If unknown leave blank)  Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)  1) Source testing or other measurement by plant  (8) Guess  Particulates  85  9  2) Source testing or measurement by BAAQMD (District use only)  (9) EPA/CARB Certification  Nitrogen Oxides  Nitrogen Oxides

(District Use Only)

#### Form ICE

Internal Combustion Engines

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4. EMISSION POI emission monito					e engine has more ti int	han one stack or	has a continue	ous pollu	tant
Emission point nu	mber P	(If un	known l	eave blani	k) New E	xisting			
Stack outlet heigh	t from ground lev	rel (ft) 45.17							
Diameter of stack	outlet (inches)	20.08	or O	utlet cross	s-section area (squa	are inches)			
Direction of outlet	(check one)	Horizontal	■ Ve	rtical	End of outlet (check	k one) 🔳 Ope	n/hinged flap	□R	ain cap
Exhaust rate at typ	oical operation (a	ocfm) 25630	)	Exha	ust temperature at	typical operation	(°F) 891.9		
5. RISK ASSESSI									
Distance from eng	ine to the proper	ty line of the n	earest re	esidence (	ft) 628.4	or (check if)	☐ Greate	er than o	ne mile
Distance from eng	ine to the proper	ty line of the ne	earest so	chool <sup>1</sup> (ft)		or (check if)	■ Greate	er than 1	000 ft
Describe the near				100	☐ Industrial	Commercial		tal	
				re center	Other				
Distance from end	ine to the proper				ntial, non- school site	o/ft) 132.4	or Grea	ter than	one mile
K-12 and more t			salestiii	on-resider	itiai, non-school site	(11) 102.1	or 🔲 Grea	ter triarr	one mile
attach a fuel and	alysis indicating ait that correspon	the higher hea ds to the inforr	ting valu nation y	e, sulfur c	ou are using a fuel of ontent, and nitroger omitting.   Check	content. Please	clearly indica	te the	
	Primary	Fuel				Secondary	Fuel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	3 10710	gal/yr or ti	herm/yr o	r SCF/yr	Annual Fuel Usage	3	gal/yr or t	herm/yr o	r SCF/yr
Typical Heat Conte	nt <sup>4</sup>	вти	/gal or B	TU/SCF	Typical Heat Conte	nt <sup>4</sup>	BTU	J/gal or B1	TU/SCF
Sulfur Content <sup>4</sup>		wt% liquid	s or ppm	v gases	Sulfur Content <sup>4</sup>		wt% liquid	ds or ppm	v gases
	Emission Fact	ors (Optional)				Emission Factor	ors (Optional)		A.
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√)7	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates					Particulates				
Organics					Organics				
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide					Carbon Monoxide				
Others - Check	here and attach a	separate list und	er each f	uel used.	Others - Check	here and attach a	separate list und	ler each fi	uel used.
<ol> <li>Maximum fuel us</li> <li>The annual fuel uliquid fuel, therm</li> <li>If you are using a fuels. Sulfur confuels. Sulfur confuels.</li> <li>Emission factors</li> <li>See the Control of Place a check in</li> </ol>	usage is the actual s for natural gas, a diesel, natural gas, atent units: weight 9 may be reported a Efficiency/Emission this column if the e	or projected eng nd SCF for other or gasoline, you % for liquid fuels, as gram/brakehp a Factor Basis Co emission factor a	s and SC gine fuel or gaseous may skip ppmv for -hr, or as ode table applies to ation co	consumptions fuels. (the parties of this entry.) If gaseous for the per gallounder Sections emissions intained here.	seous fuels. (SCF =SI n over a rolling 12-more erm = 100,000 BTUs, I Heat content units: E uels. (ppmv = parts pe on, or as Ib per therm, tion 3 on page 1 of this after abatement by an erein is true and con	oth time period. An BTU =British Therm BTU/gallon for liquid er million by volume or as Ib per SCF. Is form. add-on abatement	nual usage unit nual usage unit al Unit) I fuels, BTU/SC ) device. n and date this	F for gase	
Approved By:		Da	te <sup>.</sup>		Entered By:		Date	a.	

375 Beale Street, Suite 600, San Francisco, CA 94105

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Internal Combustion	Engines

Form ICE

engine manufacturer's equipment specifications.  1. SUMMARY New Construction Modification Loss of Exemption	
Ventore Date Contain Management Co. 110	
ompany rame	Plant No.*
10.5	ource No.* 9 *(If unknown leave blank)
Initial Date of Operation ASAP (Not required for modification of an existing permitted so	ource)
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 50	Maximum hrs/day 24
2. ENGINE INFORMATION	413 for requirements)
Engine Type: (Check one) 4 Stroke 2 Stroke Compression Ignition (Diesel) or 4 Stroke Engine Manufacturer Caterpillar Model C175-16	oke ☐ 2 Stroke Spark Ignition  Model Year 2017
EPA/CARB Engine Family Name HCPXL106.NZS Engine Serial No. unl	, <del>-</del>
Engine Displacement 5155.8 (cu in) Maximum rated output (bhp) 4423 Typical loa	ad as % of bhp rating 60
Is this an emergency/standby engine?   ■ Yes   No	
(Complete and check all that apply)	
Certification:   EPA Certified   CARB Certified   CARB Executive Order No.   Ramboll E	nviron
☐ None (If None is checked, please indicate below the items applicable to this engin	e.)
☐ Naturally aspirated ☐ Supercharged ☐ Turbocharged ☐ In	ter-cooled After-cooled
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn	
Primary Use:	oump driver
☐ Compressor driver ☐ Tub grinder driver ☐ Other:	
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add Check here if the engine has more than one add-on abatement device and complete a separate F abatement device.	-on abatement device. -orm A for each additional
Abatement device number A 9 (If unknown leave blank) ■ New □ Existing	
Device type:    Diesel catalyzed particulate filter    Oxidation catalyst    Selective catalyti	ic reduction (SCR)
☐ Non-selective catalytic reduction (NSCR or 3-way catalyst) ☐ Other: Johnson	CONTRACTOR OF THE CONTRACTOR O
Make, Model, and Rated Capacity Johnson Matthey CRT +	in matter of the first
Abatement device control efficiencies at typical operation (Use the basis codes listed below. If unknown	vn leave blank)
Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)  Pollutan	Wt % Basis Reduction Code
(1) Source testing or other measurement by plant (8) Guess Particular	65 6
(2) Source testing or measurement by BAAQMD (District use only) (9) EPA/CARB Certification Organics	
(3) Specification from vendor Nitrogen	n Oxides
(4) Material balance by plant using knowledge of process Sulfur D	
(5) Material balance by BAAQMD (District use only)  Carbon	Monoxide 80 12/20/201
Separate	Check here and attach a e list of pollutants. Include the basis of the control efficiency.

(District Use Only)

### Form ICE

Internal Combustion Engines

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						michiai oo	industron Eng	11103	
4. EMISSION PO emission monito	INT/STACK INF or and complete	ORMATION  one Form P for	Check each er	here if the	engine has more t	han one stack o	r has a continue	ous pollu	itant
Emission point nu	mber P_	(If un	known l	eave blank	New 🗆 E	xisting			
Stack outlet heigh	t from ground le	vel (ft) 45.17							
Diameter of stack		St. 5.		— Outlet cross	-section area (squa	are inches)			
Direction of outlet	I Waste Committee of the Committee of th	Horizontal	■ Ve		End of outlet (chec		en/hinged flap	Пв	ain cap
Exhaust rate at ty					ust temperature at			<u> </u>	ант оар
5. RISK ASSESS						typical operation		a starte	
Distance from eng			oarost re	eidoneo (f	628.4	or (obook i	f) [] Croot	or thou o	na mila
	5 (2)	5			i) <u>020.</u> 4	or (check i			
Distance from eng				22.0160		or (check in			000 π
Describe the near	est non-resident		esal.		☐ Industrial	Commercia	l Hospi	tal	
				re center	Other				
			earest n	on-residen	tial, non- school site	e(ft) 132.4	or Grea	ter than	one mile
1. K-12 and more t	han twelve childre	n only.							
attach a fuel an	alysis indicating nit that correspo	the higher hear nds to the inform	ting valu nation y	ie, sulfur co	au are using a fuel of ontent, and nitroger mitting.   Check	n content. Pleas	e clearly indica	te the	
	Primary	Fuel				Secondar	y Fuel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr c	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	10710	gal/yr or th	herm/yr o	r SCF/yr	Annual Fuel Usage	3	gal/yr or t	herm/yr o	r SCF/yr
Typical Heat Conte	nt <sup>4</sup>	BTU	/gal or B	TU/SCF	Typical Heat Conte	nt <sup>4</sup>	BTU	J/gal or B	TU/SCF
Sulfur Content <sup>4</sup>		wt% liquid	ls or ppm	v gases	Sulfur Content <sup>4</sup>		wt% liquid	ds or ppm	v gases
	Emission Fac	tors (Optional)	r	. 1		Emission Fac	tors (Optional)		1
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates	A				Particulates				
Organics					Organics				
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide					Carbon Monoxide				
Others - Check	here and attach a	separate list und	er each f	uel used.	Others - Check	here and attach a	separate list und	ler each f	uel used.
Maximum fuel us     The annual fuel liquid fuel, therm     If you are using fuels. Sulfur cor	atural Gás (189) se rate units: gallo usage is the actua s for natural gas, diesel, natural gas ttent units: weight	al or projected eng and SCF for other s, or gasoline, you % for liquid fuels,	11) Is and SC gine fuel of gaseous may skip ppmv fo	Digester Ga CF/hr for gas consumption is fuels. (the o this entry. r gaseous fu		nth time period. A BTU =British Theri BTU/gallon for liqui er million by volum	t) nnual usage unit mal Unit) id fuels, BTU/SC		
6. See the Control	Efficiency/Emissio	on Factor Basis Co	ode table	under Sect	on 3 on page 1 of this	s form.			
		The state of the s			fter abatement by an				
7. CERTIFICATIO	N I hereby certif	y that all inform	ation co	ntained he	rein is true and cor	rect. (Please sig	gn and date this	s form)	
SPENCEI	2 MYERS	Direct	or of	Constn	utian 1	1		12/201	17
Name of person	certifying (print)	Title of pe	erson cer			e of person certify	ing [	Date /	1
Approved D			ta:		E-tID		D. C		
Approved By:		Dat	ie		Entered By:		Date	ı	

375 Beale Street, Suite 600, San Francisco, CA 94105

Engineering Division (415) 749-4990 www.baaqmd.gov fax (415) 749-5030

	Internal	Combustion	Engines	
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Form ICE

engine manufacturer's equipment specifications.  1. SUMMARY  New Construction  Modification  Loss of Exemption	
Ventore Date Contest Management Co. 11.0	
Source Description Diesel Generator Source No.* 10	hlank)
Initial Date of Operation Not required for modification of an existing permitted source)	Dialiky
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 50 Maximum hrs/day 2	4
2. ENGINE INFORMATION	
Engine Type: (Check one) 4 Stroke 2 Stroke Compression Ignition (Diesel) or 4 Stroke 2 Stroke Spark Ignition (Diesel)	gnition
Engine Manufacturer Caterpillar Model C175-16 Model Year 2017	
EPA/CARB Engine Family Name HCPXL106.NZS Engine Serial No. unknown	
Engine Displacement 5155.8 (cu in) Maximum rated output (bhp) 4423 Typical load as % of bhp rating 6	)
Is this an emergency/standby engine? ■ Yes □ No	
(Complete and check all that apply)	
Certification:   EPA Certified  CARB Certified  CARB Executive Order No.  Ramboll Environ	
☐ None (If None is checked, please indicate below the items applicable to this engine.)	
☐ Naturally aspirated ☐ Supercharged ☐ Turbocharged ☐ Inter-cooled ☐ After-co	ooled
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn	
Primary Use:    Electrical generation    Cogeneration    Pump driver    Fire pump driver	
☐ Compressor driver ☐ Tub grinder driver ☐ Other:	
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.  Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.	ı
Abatement device number A 10 (If unknown leave blank) ■ New □ Existing	
Device type:    Diesel catalyzed particulate filter    Oxidation catalyst    Selective catalytic reduction (SCR)	
☐ Non-selective catalytic reduction (NSCR or 3-way catalyst) ☐ Other: Johnson Matthey CRT +	
Make, Model, and Rated Capacity Johnson Matthey CRT +	
Abatement device control efficiencies at typical operation (Use the basis codes listed below. If unknown leave blank)	
	Dania
Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)  Wt % Reduction	Basis Code
(1) Source testing or other measurement by plant (8) Guess Particulates 85	9
(2) Source testing or measurement by BAAQMD (District use only) (9) EPA/CARB Certification Organics 70	9
(3) Specification from vendor Nitrogen Oxides	
(4) Material balance by plant using knowledge of process Sulfur Dioxide	
(5) Material balance by BAAQMD (District use only)  Carbon Monoxide 80	2/20/201
(6) EPA Document AP-42 Emission Factors Others - ☐ Check here and attach	- ELI

(District Use Only)

### Form ICE

Internal Combustion Engines

Form ICE Rev 04/12/16 Page 2 of 2

4. EMISSION PO emission monito	INT/STACK INFO	ORMATION [ one Form P for	Check each en	here if the	engine has more t nt	han one stack or h	as a continue	ous pollu	tant
Emission point nu	mber P	(If ur	nknown i	eave blank	) New 🗆 E	xisting			
Stack outlet heigh	t from ground lev	el (ft) 45.17							
Diameter of stack		ALR HERMAN		— Outlet cross	-section area (squa	are inches)			
Direction of outlet			■ Ve		End of outlet (chec	N 4	/hinged flap	Пв	ain cap
Exhaust rate at ty					ust temperature at		-132 W 15-		
5. RISK ASSESS									
Distance from eng	nine to the proper	ty line of the n	earest re	esidence (f	628.4	or (check if)	☐ Greate	ar than o	ne mile
Distance from eng	1 1	-		2,574	.,	or (check if)	■ Greate		
	5. 12.			8 (8)					000 II
Describe the near	est non-residenti				☐ Industrial	Commercial	☐ Hospi	aı	
	s 9 120 100			re center	Other	100.4		or 29	1961
2.00 page appear		100	earest n	on-residen	tial, non- school sit	e(ft) 132.4 o	r ∐ Grea	ter than	one mile
1. K-12 and more									
attach a <b>fuel an</b> measurement ui	alysis indicating	the higher hea ds to the infori	ting valu mation y	ie, sulfur c	ou are using a fuel of content, and nitroger mitting.   Check	n content. Please	clearly indica	te the	
	Primary	Fuel				Secondary I	uel		
Fuel Code <sup>1</sup> 98	Name	ULSD		-	Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2	100	gal/hr o	or SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	10710	gal/yr or t	herm/yr o	r SCF/yr	Annual Fuel Usage	3	gal/yr or t	herm/yr o	r SCF/yr
Typical Heat Conte	nt <sup>4</sup>	BTU	l/gal or B	TU/SCF	Typical Heat Conte	nt <sup>4</sup>	BTU	l/gal or Bi	TU/SCF
Sulfur Content <sup>4</sup>		wt% liquid	ds or ppm	v gases	Sulfur Content <sup>4</sup>	<u> </u>	wt% liquid	ds or ppm	v gases
	Emission Factor	ors (Optional)	ř –			Emission Factor	s (Optional)	ř	
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates					Particulates				
Organics			1 7		Organics				
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide					Carbon Monoxide				
Others - Check	here and attach a	separate list und	ler each f	uel used.	Others - Check	here and attach a se	parate list und	ler each fi	uel used.
<ol> <li>Maximum fuel us</li> <li>The annual fuel liquid fuel, therm</li> <li>If you are using fuels. Sulfur cors</li> <li>Emission factors</li> <li>See the Control</li> <li>Place a check in</li> </ol>	atural Gás (189) se rate units: gallon usage is the actual s for natural gas, a diesel, natural gas, itent units: weight % may be reported a Efficiency/Emission this column if the e N I hereby certify	or projected eng nd SCF for other or gasoline, you for liquid fuels is gram/brakehp in Factor Basis Commission factor a that all inform	11) Is and SC gine fuel of gaseous may skip ppmv for hr, or as ode table	Digester Gerhr for gas consumption is fuels. (the pothis entry.) If gaseous fulls per gallow under Sect. emissions and the Construction.	as (493) Leous fuels. (SCF = S. over a rolling 12-mo. rm = 100,000 BTUs, I Heat content units: I lels. (ppmv = parts po. n, or as Ib per therm, ion 3 on page 1 of this lifter abatement by an rein is true and cor	nth time period. Ann. BTU =British Therma BTU/gallon for liquid for million by volume) or as Ib per SCF. s form. add-on abatement d	ual usage unit I Unit) Tuels, BTU/SC evice. and date this	F for gase	
Approved By:		Da	ite:		Entered By:		Date	:	

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**Engineering Division** (415) 749-4990 www.baaqmd.gov

(415) 749-5030

Internal Combustion Engines

	-7	

Form ICE

1. SUMMARY New Construction Modification Loss of Exemption
Company Name Vantage Data Centers Management Co, LLC. Plant No.*
Source Description Diesel Generator Source No.* 11
Initial Date of Operation ASAP (Not required for modification of an existing permitted source) *(If unknown leave blank)
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 50 Maximum hrs/day 24
2. ENGINE INFORMATION Check here if applying for a multiple location permit. (See Reg. 2-1-413 for requirements)
Engine Type: (Check one)
EPA/CARB Engine Family Name HCPXL106.NZS Engine Serial No. unknown
Engine Displacement 5155.8 (cu in) Maximum rated output (bhp) 4423 Typical load as % of bhp rating 60
Is this an emergency/standby engine? ■ Yes □ No
(Complete and check all that apply)
Certification:   EPA Certified  CARB Certified CARB Executive Order No.  Ramboll Environ
☐ None (If None is checked, please indicate below the items applicable to this engine.)
☐ Naturally aspirated ☐ Supercharged ☐ Turbocharged ☐ Inter-cooled ☐ After-cooled
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn
Primary Use:   Electrical generation   Cogeneration   Pump driver   Fire pump driver
☐ Compressor driver ☐ Tub grinder driver ☐ Other:
Compressor driver
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.  ☐ Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.  Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.  Abatement device number A 11 (If unknown leave blank) New Existing
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.  Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.  Abatement device number A 11 (If unknown leave blank) New Existing  Device type: Diesel catalyzed particulate filter Oxidation catalyst Selective catalytic reduction (SCR)
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.  Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.  Abatement device number A 11 (If unknown leave blank) New Existing  Device type: Diesel catalyzed particulate filter Oxidation catalyst Selective catalytic reduction (SCR)  Non-selective catalytic reduction (NSCR or 3-way catalyst) Other: Johnson Matthey CRT +
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.  Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.  Abatement device number A 11 (If unknown leave blank) New Existing  Device type: Diesel catalyzed particulate filter Oxidation catalyst Selective catalytic reduction (SCR)  Non-selective catalytic reduction (NSCR or 3-way catalyst) Other: Johnson Matthey CRT +  Make, Model, and Rated Capacity Johnson Matthey CRT +
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.  Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.  Abatement device number A 11 (If unknown leave blank) New Existing  Device type: Diesel catalyzed particulate filter Oxidation catalyst Selective catalytic reduction (SCR)  Non-selective catalytic reduction (NSCR or 3-way catalyst) Other: Johnson Matthey CRT +  Make, Model, and Rated Capacity Johnson Matthey CRT +  Abatement device control efficiencies at typical operation (Use the basis codes listed below. If unknown leave blank)
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.  Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.  Abatement device number A 11 (If unknown leave blank) New Existing  Device type: Diesel catalyzed particulate filter Oxidation catalyst Selective catalytic reduction (SCR)  Non-selective catalytic reduction (NSCR or 3-way catalyst) Other: Johnson Matthey CRT +  Make, Model, and Rated Capacity Johnson Matthey CRT +
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.  Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.  Abatement device number A 11 (If unknown leave blank) New Existing  Device type: Diesel catalyzed particulate filter Oxidation catalyst Selective catalytic reduction (SCR)  Non-selective catalytic reduction (NSCR or 3-way catalyst) Other: Johnson Matthey CRT +  Make, Model, and Rated Capacity Johnson Matthey CRT +  Abatement device control efficiencies at typical operation (Use the basis codes listed below. If unknown leave blank)  Wt % Basis
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.  Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.  Abatement device number A 11 (If unknown leave blank) New Existing  Device type: Diesel catalyzed particulate filter Oxidation catalyst Selective catalytic reduction (SCR)  Non-selective catalytic reduction (NSCR or 3-way catalyst) Other: Johnson Matthey CRT +  Make, Model, and Rated Capacity Johnson Matthey CRT +  Abatement device control efficiencies at typical operation (Use the basis codes listed below. If unknown leave blank)  Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)  Pollutant Name Reduction Code
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.    Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.    Abatement device number   A 11   (If unknown leave blank)   New   Existing
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.    Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.    Abatement device number   A 11
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.    Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.    Abatement device number   A   11   (If unknown leave blank)

### Form ICE

	NT/STACK INFO				engine has more thint	nan one stack or h	as a continuo	ous pollu	tant
Emission point nu	mber P	(If ui	nknown l	eave blank	New 🗆 E	xisting			
Stack outlet heigh	t from ground lev	el (ft) 45.17	7						
Diameter of stack	outlet (inches)	20.08	or C	outlet cross	s-section area (squa	re inches)			
Direction of outlet	(check one)	] Horizontal	■ Ve	rtical	End of outlet (checi	k one) 🔳 Open	/hinged flap	□ R	ain cap
Exhaust rate at typ	pical operation (a	cfm) 2563	0	Exha	ust temperature at t	typical operation (	°F) 891.9		■ Property of the control of the property of
5. RISK ASSESSI		CONTRACTOR OF THE PARTY OF THE						7248	
Distance from eng	ine to the proper	ty line of the n	earest re	esidence (i	(t) 628.4	or (check if)	☐ Greate	er than o	ne mile
Distance from eng	(1)			- 20		or (check if)	■ Greate		
Describe the near	5 5	15			☐ Industrial	■ Commercial	☐ Hospit		
Describe the flear	est non-resident		_	re center	Other	- Commercial	Птюзри	ai	
Distance from one	ing to the proper				The State of the S	(#) 132.4	or 🗌 Grea	tor than	one mile
K-12 and more t			earest n	on-residen	itial, non- school site	e(ft) 132.4 c	or 🔲 Grea	ter than o	one mile
			h firel hi	um and If w	ou and violate a final a	thauthau thaa lic	to d in the five	l anda te	ahla
attach a fuel and	alysis indicating nit that correspon	the higher hea ds to the infor	ating valu mation y	ie, sulfur c	ou are using a fuel of ontent, and nitroger mitting.   Check I	content. Please	clearly indica	te the	
	Primary	Fuel				Secondary	Fuel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	or SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	10710	gal/yr or t	therm/yr o	r SCF/yr	Annual Fuel Usage	3	gal/yr or t	herm/yr o	r SCF/yr
					T -1 -111 - 10 - 14		-		
Typical Heat Conte	nt <sup>4</sup>	вто	J/gal or B	TU/SCF	Typical Heat Conte	nt*	вто	l/gal or B1	U/SCF
Typical Heat Conte	nt <sup>4</sup>	BTC wt% liquid	1077		Sulfur Content <sup>4</sup>	nt <sup>-</sup>	BTO wt% liquid	ORCH EX	
Let Table 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Emission Facto	wt% liquid	1077		2 20 20	Emission Factor	wt% liquid	ORCH EX	
Let Table 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		wt% liquid	1077		2 20 20	A CONTRACTOR OF THE CONTRACTOR	wt% liquid	ORCH EX	
Sulfur Content <sup>4</sup>	Emission Factor	wt% liquio	ds or ppm	Abated Factor	Sulfur Content <sup>4</sup>	Emission Factor	wt% liquions (Optional)	s or ppm	Abated Factor
Sulfur Content <sup>4</sup> Pollutant Name	Emission Factor	wt% liquio	ds or ppm	Abated Factor ( $\sqrt{\ )^7}$	Sulfur Content <sup>4</sup> Pollutant Name	Emission Factor	wt% liquions (Optional)	s or ppm	Abated Factor (√) <sup>7</sup>
Sulfur Content <sup>4</sup> Pollutant Name Particulates	Emission Factor	wt% liquio	ds or ppm	Abated Factor $(\sqrt{)^7}$	Sulfur Content <sup>4</sup> Pollutant Name Particulates	Emission Factor	wt% liquions (Optional)	s or ppm	Abated Factor $()^7$
Sulfur Content <sup>4</sup> Pollutant Name Particulates Organics	Emission Factor	wt% liquio	ds or ppm	Abated Factor (√) <sup>7</sup>	Sulfur Content <sup>4</sup> Pollutant Name  Particulates  Organics	Emission Factor	wt% liquions (Optional)	s or ppm	Abated Factor (√) <sup>7</sup>
Sulfur Content <sup>4</sup> Pollutant Name  Particulates  Organics  Nitrogen Oxides  Carbon Monoxide  Others -  Check	Emission Factor Factor here and attach a	wt% liquidors (Optional) Units <sup>5</sup> separate list und	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>	Pollutant Name  Particulates  Organics  Nitrogen Oxides  Carbon Monoxide  Others –   Check	Emission Factor Emission Factor  here and attach a se	wt% liquions (Optional) Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Pollutant Name  Particulates  Organics  Nitrogen Oxides  Carbon Monoxide  Others – Check  1. Fuel Codes: Diversion of the properties of th	Emission Factor  Emission Factor  Factor  here and attach a seel (98) atural Gas (189) atural Gas (189) as a for natural gas, a diesel, natural gas, attent units: weight 9 at may be reported a efficiency/Emission this column if the example of the column is the column if the example of the column if the example of the column is the column if the example of the column is the column if the example of the column is the column is the column if the example of the column is th	wt% liquidors (Optional) Units <sup>5</sup> Separate list uncomposed Bio Diesel B10 Landfill Gas (5) In for liquid fuels or projected end SCF for other or gasoline, you for liquid fuels or gasoline for gasoline for liquid fuels or gasoline for gasoline for liquid fuels or gasoline for	Basis Code <sup>6</sup> der each from (815)  for gaseous a may skip, ppmv for or as code table applies to	Abated Factor (√) <sup>7</sup> □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	Pollutant Name  Particulates Organics Nitrogen Oxides Carbon Monoxide Others — Check B20 Blend (816) as (493) L Seous fuels. (SCF = State over a rolling 12-more m = 100,000 BTUs, B Heat content units: Explose. (ppmv = parts pen, or as lb per therm, or as lb per therm, or as lb per therm, or as later abatement by an arein is true and correction.	Emission Factor Emission Factor  here and attach a security as a securit	wt% liquid rs (Optional) Units <sup>5</sup> eparate list und s (LPG) (160) and usage unital Unit) fuels, BTU/SC	Basis Code <sup>6</sup> er each fu	Abated Factor (√) <sup>7</sup> □ □ □ □ □ □ □ □ □ □ □ used.
Pollutant Name  Particulates Organics Nitrogen Oxides Carbon Monoxide Others - Check  1. Fuel Codes: Din Na 2. Maximum fuel us 3. The annual fuel us liquid fuel, therm 4. If you are using of fuels. Sulfur con 5. Emission factors 6. See the Control of Place a check in 7. CERTIFICATIO	Emission Factor  Emission Factor  Factor  here and attach a seel (98) atural Gas (189) atural Gas (189) as a for natural gas, a diesel, natural gas, attent units: weight 9 at may be reported a efficiency/Emission this column if the example of the column is the column if the example of the column if the example of the column is the column if the example of the column is the column if the example of the column is the column is the column if the example of the column is th	wt% liquidors (Optional) Units <sup>5</sup> Separate list uncomposed list uncomposed liquid fuels or projected enterprojected enterprojected enterprojected for liquid fuels or gasoline, you for liquid fuels or gasoline for gasoline for liquid fuels or gasoline for gasoline for liquid fuels or gasoline for gasoline for liquid fuels or gasoline	Basis Code <sup>6</sup> der each from (815) (815) (816) (815) (816) (	Abated Factor (√) <sup>7</sup> □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	Pollutant Name  Particulates Organics Nitrogen Oxides Carbon Monoxide Others — Check B20 Blend (816) as (493) L Seous fuels. (SCF = State over a rolling 12-more m = 100,000 BTUs, B Heat content units: Explose. (ppmv = parts pen, or as lb per therm, or as lb per therm, or as lb per therm, or as later abatement by an arein is true and correction.	Emission Factor Emission Factor  here and attach a sector  assoline (551) iquid Petroleum Gastandard Cubic Foot) anth time period. Annotation and the period of the period	wt% liquid rs (Optional) Units <sup>5</sup> eparate list und s (LPG) (160) and usage unital Unit) fuels, BTU/SC	Basis Code <sup>6</sup> Ber each further series (and the series)  From (and the series)  From (and the series)  From (and the series)	Abated Factor (√) <sup>7</sup> □ □ □ □ □ □ □ □ □ □ □ used.

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Form ICE
Internal Combustion Engines

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engine manufacturer's <b>equipment specifications</b> .
1. SUMMARY New Construction Modification Loss of Exemption
Company Name Vantage Data Centers Management Co, LLC. Plant No.*
Source Description Diesel Generator Source No.* 12
Initial Date of Operation ASAP (Not required for modification of an existing permitted source) *(If unknown leave blank)
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 50 Maximum hrs/day 24
2. ENGINE INFORMATION
Engine Type: (Check one)  4 Stroke  2 Stroke Compression Ignition (Diesel) or  4 Stroke  2 Stroke Spark Ignition  Engine Manufacturer
EPA/CARB Engine Family Name HCPXL106.NZS Engine Serial No. unknown
Engine Displacement 5155.8 (cu in) Maximum rated output (bhp) 4423 Typical load as % of bhp rating 60
Is this an emergency/standby engine?
(Complete and check all that apply)
Certification:   EPA Certified  CARB Certified CARB Executive Order No.  Ramboll Environ
☐ None (If None is checked, please indicate below the items applicable to this engine.)
□ Naturally aspirated □ Supercharged □ Turbocharged □ Inter-cooled □ After-cooled
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn
Primary Use:   Electrical generation Cogeneration Pump driver Fire pump driver
Compressor driver
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device. Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.
Abatement device number A 12 (If unknown leave blank) ■ New □ Existing
Device type:    Diesel catalyzed particulate filter    Oxidation catalyst    Selective catalytic reduction (SCR)
☐ Non-selective catalytic reduction (NSCR or 3-way catalyst) ☐ Other: Johnson Matthey CRT +
Make, Model, and Rated Capacity Johnson Matthey CRT +
Abatement device control efficiencies at typical operation (Use the basis codes listed below. If unknown leave blank)
Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)  Wt % Basis Reduction   Code
(1) Source testing or other measurement by plant (8) Guess Particulates 85 9
(2) Source testing or measurement by BAAQMD (District use only) (9) EPA/CARB Certification Organics 70 9
(3) Specification from vendor Nitrogen Oxides
(4) Material balance by plant using knowledge of process Sulfur Dioxide
(5) Material balance by BAAQMD (District use only)  Carbon Monoxide 80 12/20/2
(6) EPA Document AP-42 Emission Factors  (7) Taken from literature other than AP-42  Others − ☐ Check here and attach a separate list of pollutants. Include the basis code and the control efficiency.

### Form ICE

	NT/STACK INFO				engine has more thint	an one stack or ha	as a continu	ous pollu	tant
Emission point nu	mber P	(If ui	nknown l	eave blani	k) 🔳 New 🗌 E	xisting			
Stack outlet heigh	t from ground lev	rel (ft) 45.17	7						
Diameter of stack		The same of the sa		utlet cross	s-section area (squa	re inches)			
Direction of outlet	(check one)	] Horizontal			End of outlet (check		hinged flap	□R	ain cap
Exhaust rate at type					ust temperature at t				
5. RISK ASSESSI									
Distance from eng	ine to the proper	ty line of the n	earest re	esidence (	ft) 628.4	or (check if)	☐ Great	er than o	ne mile
		5.		V 8	7				
Distance from engine to the property line of the nearest school (ft) or (check if)									
Describe the flear	est non-resident				Other	Commercial	□ поѕы	lai	
Distance from one	ing to the name			re center		(m) 132.4		1	
K-12 and more to			earest n	on-resider	itial, non-school site	ε(π) 132.4 οι	☐ Grea	ter than	one mile
				1 15		n ar ar ar			
attach a fuel and	alysis indicating nit that correspon	the higher hea ds to the infor	nting valu mation y	e, sulfur c	ou are using a fuel of ontent, and nitroger omitting.   Check I	content. Please of	learly indica	te the	
	Primary	Fuel				Secondary F	uel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	10710	gal/yr or t	herm/yr o	r SCF/yr	Annual Fuel Usage		gal/yr or t	herm/yr o	r SCF/yr
Typical Heat Conte	nt <sup>4</sup>	BTU	J/gal or B	TU/SCF	Typical Heat Conte	nt <sup>4</sup>	ВТ	I/gal or B	TU/SCF
Sulfur Content⁴		wt% liquid	ds or ppm	v gases	Sulfur Content <sup>4</sup>		wt% liqui	ds or ppm	v gases
	Emission Fact	ors (Optional)				Emission Factors	(Optional)	2 1:	
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates			1		Particulates				
Organics					Organics				
Nitrogen Oxides					Nitrogen Oxides	Acres de			
Carbon Monoxide					Carbon Monoxide				
Others - Check	here and attach a	separate list und	der each f	uel used.	Others –  Check	here and attach a se	oarate list und	ler each f	uel used.
<ol> <li>Maximum fuel us</li> <li>The annual fuel liquid fuel, therm</li> <li>If you are using a fuels. Sulfur confuels. Sulfur confuels.</li> <li>Emission factors</li> <li>See the Control of Place a check in</li> </ol>	atural Gas (189) se rate units: gallor usage is the actual s for natural gas, a diesel, natural gas, tent units: weight 9 may be reported a Efficiency/Emissior this column if the e	or projected enged SCF for other or gasoline, you for liquid fuels a gram/brakehp a Factor Basis Comission factor at that all inform	old)  Is and SC  Igine fuel of  Ir gaseous  I may skip  I ppmy for  I-hr, or as  Scode table  I applies to  Ination co	Digester G E/hr for gas consumption is fuels. (the o this entry. r gaseous fu lb per gallo under Sect emissions in ntained he	as (493) Liseous fuels. (SCF = Standard as rolling 12-more m = 100,000 BTUs, E.  Heat content units: E.  Luels. (ppmv = parts pendion 3 on page 1 of this after abatement by an erein is true and correction.	oth time period. Annu BTU =British Thermal BTU/gallon for liquid for Ir million by volume) For as Ib per SCF. Form. Badd-on abatement de	ual usage unit Unit) uels, BTU/SC evice.	F for gase	
Approved By:	(District Use Or		ate:		Entered By:	Fo	Date		e 2 of 2

375 Beale Street, Suite 600, San Francisco, CA 94105

Engineering Division (415) 749-4990 www.baaqmd.gov

(415) 749-5030

Internal Combustion	Engines

Form ICE

1. SUMMARY New Construction Modification Loss of Exemption
Company Name Vantage Data Centers Management Co, LLC. Plant No.*
Source Description Diesel Generator Source No.* 13
Initial Date of Operation ASAP (Not required for modification of an existing permitted source) *(If unknown leave blank)
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 50 Maximum hrs/day 24
2. ENGINE INFORMATION
Engine Type: (Check one)
EPA/CARB Engine Family Name HCPXL106.NZS Engine Serial No. unknown
Engine Displacement 5155.8 (cu in) Maximum rated output (bhp) 4423 Typical load as % of bhp rating 60
Is this an emergency/standby engine? ■ Yes □ No
(Complete and check all that apply)
Certification:   EPA Certified  CARB Certified CARB Executive Order No.  Ramboll Environ
☐ None (If None is checked, please indicate below the items applicable to this engine.)
□ Naturally aspirated □ Supercharged □ Turbocharged □ Inter-cooled □ After-cooled
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn
Primary Use:
☐ Compressor driver ☐ Tub grinder driver ☐ Other:
☐ Compressor driver ☐ Tub grinder driver ☐ Other:  3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.  ☐ Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.  Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.  Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.  Abatement device number A 13 (If unknown leave blank) New Existing
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.  Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.  Abatement device number A 13 (If unknown leave blank) New Existing  Device type: Diesel catalyzed particulate filter Oxidation catalyst Selective catalytic reduction (SCR)
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.  Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.  Abatement device number A 13 (If unknown leave blank) New Existing  Device type: Diesel catalyzed particulate filter Oxidation catalyst Selective catalytic reduction (SCR)  Non-selective catalytic reduction (NSCR or 3-way catalyst) Other: Johnson Matthey CRT +
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.  Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.  Abatement device number A 13 (If unknown leave blank) New Existing  Device type: Diesel catalyzed particulate filter Oxidation catalyst Selective catalytic reduction (SCR)  Non-selective catalytic reduction (NSCR or 3-way catalyst) Other: Johnson Matthey CRT +  Make, Model, and Rated Capacity Johnson Matthey CRT +
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.  Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.  Abatement device number A 13 (If unknown leave blank) New Existing  Device type: Diesel catalyzed particulate filter Oxidation catalyst Selective catalytic reduction (SCR)  Non-selective catalytic reduction (NSCR or 3-way catalyst) Other: Johnson Matthey CRT +  Make, Model, and Rated Capacity Johnson Matthey CRT +  Abatement device control efficiencies at typical operation (Use the basis codes listed below. If unknown leave blank)
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.  Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.  Abatement device number A 13 (If unknown leave blank) New Existing  Device type: Diesel catalyzed particulate filter Oxidation catalyst Selective catalytic reduction (SCR)  Non-selective catalytic reduction (NSCR or 3-way catalyst) Other: Johnson Matthey CRT +  Make, Model, and Rated Capacity Johnson Matthey CRT +
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.    Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.    Abatement device number   A 13   (If unknown leave blank)   New   Existing
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.  Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.  Abatement device number A 13
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.    Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.    Abatement device number   A 13
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.    Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.    Abatement device number   A 13
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.    Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.    Abatement device number   A 13

### Form ICE

4. EMISSION POI emission monito					e engine has more ti int	nan one stack or ha	s a continuo	ous pollu	tant
Emission point nu	mber P	(If ur	known l	eave blanl	k) 🔳 New 🗌 E	xisting			
Stack outlet height	t from ground lev	/el (ft) 45.17		_					
Diameter of stack	outlet (inches)	20.08	or C	utlet cross	s-section area (squa	re inches)			
Direction of outlet	(check one)	Horizontal	■ Ve	rtical	End of outlet (chec	k one)   Open/h	ninged flap	□R	ain cap
Exhaust rate at typ	OF THE STREET,		)		ust temperature at	and the second s	9 891.9		person of the second
5. RISK ASSESSI									
Distance from eng	ine to the proper	rty line of the n	earest re	esidence (	ft) 628.4	or (check if)	☐ Greate	er than o	ne mile
Distance from eng	0   4 157					or (check if)	■ Greate		
Describe the near	50 13	5			☐ Industrial	■ Commercial	☐ Hospit		000 11
Describe the near	est non-resident			re center	Other	Commercial	П Позрії	ai	
Distance from and	ing to the proper					e(ft) 132.4 or	ПСтол	tor than	one mile
K-12 and more to			earest n	on-resider	itial, non-school site	e(ii) 102.4 or	☐ Grea	ter than	one mile
			h fual hu	mad If	ou ovo vojna o fuel s	they then these list	ad in the fire	l anda t	abla
attach a fuel ana	alysis indicating nit that correspon	the higher hea ds to the infori	ting valu nation y	e, sulfur c	ou are using a fuel of ontent, and nitroger omitting.   Check	content. Please ci	early indica	te the	
	Primary	Fuel				Secondary F	uel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	10710	gal/yr or t	herm/yr o	r SCF/yr	Annual Fuel Usage	3	gal/yr or to	herm/yr o	r SCF/yr
Typical Heat Conte	nt <sup>4</sup>	BTU	/gal or B	TU/SCF	Typical Heat Conte	nt <sup>4</sup>	BTU	l/gal or Bi	TU/SCF
Sulfur Content <sup>4</sup>		wt% liquid	ls or ppm	v gases	Sulfur Content <sup>4</sup>		wt% liquid	ls or ppm	v gases
	Emission Fact	ors (Optional)				Emission Factors	(Optional)		.
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√)7	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates					Particulates				
Organics					Organics				
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide					Carbon Monoxide				
Others - Check	here and attach a	separate list und	er each f	uel used.	Others - Check	here and attach a sep	arate list und	er each fi	uel used.
Maximum fuel us     The annual fuel us     liquid fuel, therms	atural Gas (189) se rate units: gallor usage is the actual s for natural gas, a	or projected eng and SCF for othe	11) Is and SC gine fuel or gaseous	Digester G F/hr for gas consumption fuels. (the	as ( <b>493</b> ) L seous fuels. (SCF =St n over a rolling 12-mor erm = 100,000 BTUs, E	nth time period. Annu BTU =British Thermal	al usage units Unit)		
<ol> <li>If you are using of fuels. Sulfur con</li> </ol>	diesel, natural gas, tent units: weight 9	or gasoline, you for liquid fuels,	may skip ppmv for	this entry. gaseous fu	Heat content units: Euels. (ppmv = parts pe	<i>TU/gallon for liquid fu</i> er million by volume)	els, BTU/SC	F for gase	eous
5. Emission factors	may be reported a	as gram/brakehp	hr, or as	lb per gallo	n, or as lb per therm, o	or as Ib per SCF.			
					ion 3 on page 1 of this after abatement by an		vice		
					rein is true and con			form)	
		^			10 1100 0110 0011	out ( loude o.g.) c	no doto une		,
CDEVICED	41.0000	/ )	- 4	0				1/2	/
Name of porces	MYERS	Directi	v of	Const	uction Signatur	of porcen partificia		2/20/	17_
Name of person of	MYELS certifying (print)	Title of p	erson eer	Const <sub>l</sub> tifying	Signature	e of person certifying		2/20/ Date	7—

375 Beale Street, Suite 600, San Francisco, CA 94105

**Engineering Division** 

(415) 749-4990

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(415) 749-5030

## Form ICE Internal Combustion Engines

engin	ie manuiaciui	er's equipment specifications.		
1. SU	IMMARY	■ New Construction		
Comp	pany Name	Vantage Data Centers Management Co, LLC.	ant No.*	
Source	ce Description	Diesel Generator sour	ce No.* 14	
Initial	Date of Oper	ration ASAP (Not required for modification of an existing permitted source	ce) *(If unknow	n leave blank)
	ating Schedul	0.5	Maximum hrs/d	ay 24
2. EN	IGINE INFOR	MATION Check here if applying for a multiple location permit. (See Reg. 2-1-41	3 for requiremen	nts)
Engin	ne Type: (Che	ck one) 4 Stroke 2 Stroke Compression Ignition (Diesel) or 4 Stroke	2 Stroke S	park Ignition
Engin	ne Manufactu	Caterpillar Model C175-16	Model Year 2	017
EPA/	CARB Engine	Family Name HCPXL106.NZS Engine Serial No. unkn		
			as % of bhp ration	ng 60
		cy/standby engine?	and the of sends	
(Com	plete and che	eck all that apply)		
Certification:   EPA Certified   CARB Certified   CARB Executive Order No.   Ramboll Environ				
		None (If None is checked, please indicate below the items applicable to this engine.	)	
				After-cooled
		☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn		
D.:				
Prima	_	■ Electrical generation ☐ Cogeneration ☐ Pump driver ☐ Fire pun	np driver	
		Compressor driver  Tub grinder driver Other:		
		EVICE INFORMATION Complete this section only if the engine exhausts to an add-on the engine has more than one add-on abatement device and complete a separate Forevice.		
Abate	ement device	number A 14 (If unknown leave blank)  New  Existing		
		■ Diesel catalyzed particulate filter □ Oxidation catalyst □ Selective catalytic	reduction (SCR)	
		☐ Non-selective catalytic reduction (NSCR or 3-way catalyst) ☐ Other: Johnson	Matthey CR	Γ+
Make		Rated Capacity Johnson Matthey CRT +	457	
		control efficiencies at typical operation (Use the basis codes listed below. If unknown	leave blank)	
		The state of the s	Wt	% Basis
Contro	ol Efficiency/Em	ission Factor Basis Codes: (Submit supporting documentation if available) Pollutant N		
(1) S	Source testing of	r other measurement by plant (8) Guess Particulate		
(2) S	Source testing of	r measurement by BAAQMD (District use only) (9) EPA/CARB Certification Organics	70	9
	Specification fro			
		by plant using knowledge of process Sulfur Diox		
		by BAAQMD (District use only)  Carbon Mo		
	EPA Document AP-42 Emission Factors  Others − ☐ Check here and attach a separate list of pollutants. Include the bas			
(7) T	Taken from literature other than AP-42			

(District Use Only)

# Form ICE

Internal Combustion Engines

	NT/STACK INFO				engine has more th	an one stack or ha	as a continue	ous pollu	tant
Emission point null Stack outlet height		(If uni		eave blank	New Ex	disting			
				— utlet erece	caction area /equa	ro inchael			
Diameter of stack					-section area (squa				
Direction of outlet			■ Vei		End of outlet (check	* == *	hinged flap	ЦR	ain cap
Exhaust rate at typ				Exhai	ust temperature at t	ypical operation (°	F) 891.9		
5. RISK ASSESSI	MENT INFORMA	TION.							
Distance from eng	ine to the proper	y line of the no	earest re	sidence (f	628.4	or (check if)	☐ Greate	er than o	ne mile
Distance from eng	ine to the proper	y line of the ne	earest so	chool1 (ft)		or (check if)	Greate	er than 1	000 ft
Describe the near	est non-residentia	al, non-school	site (che	ck one)	☐ Industrial	Commercial	☐ Hospi	tal	
				re center	Other				
Distance from end	ine to the proper		35.0		tial, non- school site	(ft) 132.4 o	r 🗆 Grea	ter than	one mile
K-12 and more to			salest III	Jii-lesidell	tial, Holl- school site	(11) 0	□ Olea	ter triari	one mile
attach a fuel and	alysis indicating that that correspond	the higher heat ds to the inform	ting valu nation y	e, sulfur co	u are using a fuel on tent, and nitrogen mitting.   Check to the control of the c	content. Please	clearly indica	te the	
	Primary I	-uel				Secondary F	uel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	10710	gal/yr or th	nerm/yr o	r SCF/yr	Annual Fuel Usage <sup>3</sup>		gal/yr or t	herm/yr o	r SCF/yr
Typical Heat Conte	nt <sup>4</sup>	BTU	/gal or B	ru/scf	Typical Heat Conter	nt <sup>4</sup>	BTU	I/gal or B	TU/SCF
Sulfur Content⁴	*	wt% liquid	s or ppm	v gases	Sulfur Content⁴		wt% liqui	ds or ppm	v gases
-	Emission Facto	ors (Optional)			_	Emission Factors	(Optional)		
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates					Particulates				
Organics			lka!		Organics		-		
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide					Carbon Monoxide				
Others - Check	here and attach a s	separate list und	er each fi		Others –  Check	nere and attach a se	parate list und	der each f	
<ol> <li>Maximum fuel us</li> <li>The annual fuel liquid fuel, therm</li> <li>If you are using a fuels. Sulfur cons</li> <li>Emission factors</li> <li>See the Control</li> <li>Place a check in</li> <li>CERTIFICATIO</li> </ol>	atural Gas (189) se rate units: gallon usage is the actual s for natural gas, ac- diesel, natural gas, tent units: weight % may be reported a Efficiency/Emission this column if the e N I hereby certify	or projected eng nd SCF for other or gasoline, you of for liquid fuels, s gram/brakehp Factor Basis Co emission factor a	s and SC rine fuel of r gaseous may skip ppmv for -hr, or as ode table pplies to ation co	Digester Ga F/hr for gas consumption fuels. (the othis entry. gaseous fu lb per galloi under Secti emissions g	as (493) Li eous fuels. (SCF = St. over a rolling 12-mon rm = 100,000 BTUs, E Heat content units: B rels. (ppmv = parts pe n, or as lb per therm, of ron 3 on page 1 of this rein is true and corr	th time period. Anni TU =British Therma TU/gallon for liquid f r million by volume) or as Ib per SCF. form. add-on abatement d	ual usage unit l Unit) uels, BTU/SC evice. and date thi	F for gase	
Approved By:		Da	te:		Entered By:		Date	a·	

375 Beale Street, Suite 600, San Francisco, CA 94105

Engineering Division

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(415) 749-5030

	Form ICE	
Internal	Combustion	Engines

	- 1	

1.5	SUMMARY	■ New Construction	emption		
Cor	mpany Name	Vantage Data Centers Management Co, LLC.	Plant No.*		
Sou	rce Description	Diesel Generator	Source No.*	15	
Initi	al Date of Ope	eration ASAP (Not required for modification of an existing	*/If	unknown leav	e blank)
	erating Schedu	0.5	50 Maximur	n hrs/day 2	24
10000	NGINE INFOR		The second second		
Eng	gine Type: (Che	eck one) 4 Stroke 2 Stroke Compression Ignition (Diesel) or	☐ 4 Stroke ☐ 2 St	roke Spark	Ignition
Eng	gine Manufactu	urer Caterpillar Model C175-16	Model Y	ear 2017	<u>,                                     </u>
			I No. unknown		
Eng	gine Displacem	nent 5155.8 (cu in) Maximum rated output (bhp) 4423	Typical load as % of b	hp rating 6	80
ls t	nis an emerger	ncy/standby engine?			
(Co	mplete and ch	neck all that apply)			
Cer	tification:	☐ EPA Certified ☐ CARB Certified CARB Executive Order No. R	amboll Environ		
		☐ None (If None is checked, please indicate below the items applicable to	o this engine.)		
		☐ Naturally aspirated ☐ Supercharged ☐ Turbocharge	d Inter-cooled	☐ After-	cooled
		☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn			
Prir	nary Use:	■ Electrical generation ☐ Cogeneration ☐ Pump driver	☐ Fire pump driver		
		☐ Compressor driver ☐ Tub grinder driver ☐ Other:			
		<b>DEVICE INFORMATION</b> Complete this section only if the engine exhausts if the engine has more than one add-on abatement device and complete a device.			al
Aba	itement device	number A 15 (If unknown leave blank)	xisting		
Dev	vice type:		tive catalytic reduction	(SCR)	
		☐ Non-selective catalytic reduction (NSCR or 3-way catalyst) ☐ Other			
Mal		Rated Capacity Johnson Matthey CRT +			
		control efficiencies at typical operation (Use the basis codes listed below	. If unknown leave bla	nk)	
				Wt %	Basis
Con		mission Factor Basis Codes: (Submit supporting documentation if available)	Pollutant Name	Reduction	Code
(1)	No.	or other measurement by plant (8) Guess	Particulates	85	9
(2)		or measurement by BAAQMD (District use only) (9) EPA/CARB Certification		70	9
(3)	Specification from	om vendor be by plant using knowledge of process	Nitrogen Oxides Sulfur Dioxide		
(4) (5)		te by BAAQMD (District use only)	Carbon Monoxide	80	12/20/201
(6)		t AP-42 Emission Factors	Others – Check h		
(7)		rature other than AP-42	separate list of pollut code and the control	ants. Include t	

(District Use Only)

# Form ICE

Internal Combustion Engines

	INT/STACK INF				e engine has more ti int	han one stack or h	as a continu	ous pollu	tant
Emission point nu	mber P	(If ui	nknown l	eave blank	) New E	xisting			
Stack outlet heigh	t from ground le	/el (ft) 45.17	7						
Diameter of stack	outlet (inches)	20.08	or C	utlet cross	s-section area (squa	are inches)			
Direction of outlet	(check one)	Horizontal	■ Ve	rtical	End of outlet (chec	k one) 🔳 Oper	/hinged flap	□R	ain cap
Exhaust rate at ty	pical operation (a	acfm) 2563	0	Exha	ust temperature at	typical operation (	°F) 891.9		200
5. RISK ASSESS									
Distance from eng	gine to the prope	rty line of the n	earest re	esidence (	ft) 628.4	or (check if)	☐ Great	er than o	ne mile
Distance from eng	5 5 727	V/10 55 .52		10 10 100		or (check if)	■ Great		
Describe the near					☐ Industrial	■ Commercial	Hospi		
			<u>-</u>	re center	Other		Ц поор		
Distance from end	nine to the prope				itial, non- school site	e(ft) 132.4	or $\square$ Grea	ter than	one mile
K-12 and more			carestri	onresider	idai, 11011- 3011001 318		, Oloc	iter triair	one mile
attach a fuel an	alysis indicating nit that correspor	the higher hea ds to the infor	nting valu mation y	e, sulfur c	ou are using a fuel of ontent, and nitroger mitting.   Check	n content. Please	clearly indica	ate the	
	Primary	Fuel				Secondary	Fuel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use			gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	<sup>3</sup> 10710	gal/yr or i	therm/yr o	r SCF/yr	Annual Fuel Usage	3	gal/yr or i	therm/yr o	r SCF/yr
Typical Heat Conte	ent <sup>4</sup>		J/gal or B		Typical Heat Conte	nt <sup>4</sup>		J/gal or B7	
Sulfur Content⁴ _		wt% liqui	ds or ppm	v gases	Sulfur Content <sup>4</sup>		wt% liqui	ds or ppm	v gases
	Emission Fact		T.	ï		Emission Factor		ī	
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>	Pollutant Name	Emission Factor	Units⁵	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates					Particulates				
Organics					Organics		X		
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide					Carbon Monoxide			_	
Maximum fuel u.     The annual fuel liquid fuel, therm     If you are using fuels. Sulfur cor	esel (98) atural Gas (189) se rate units: gallor usage is the actual is for natural gas, a diesel, natural gas, intent units: weight	Bio Diesel B10 Landfill Gas (\$ h/hr for liquid fuel or projected en and SCF for othe or gasoline, you for liquid fuels	00 (815) i11) els and SO gine fuel d er gaseous u may skip , ppmv fo	Bio Diesel Digester G CF/hr for gas consumption is fuels. (the o this entry. r gaseous fu	B20 Blend (816)	nth time period. Ann BTU =British Therma BTU/gallon for liquid er million by volume)	s (LPG) ( <b>160</b> ) nual usage unit of Unit) fuels, BTU/SC	's: gallons	for
					ion 3 on page 1 of this				
					after abatement by an		levice.		
7. CERTIFICATIO	N I hereby certify	that all inform	nation co	ntained he	erein is true and cor	rect. (Please sign	and date thi	s form)	
SPENCER	10.	Directi	rot 1	Construc	tion	1		12/20/	17_
Name of person	certifying (print)	Title of p	erson cer	tifying	Signatur	e of person certifying	9	Date '	/
Approved By:		Da	ate:		Entered By:		Date	e:	

375 Beale Street, Suite 600, San Francisco, CA 94105

Form I	CE
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Internal Combustion Engines

	Engineering Division	(415) 749-4990		
	www.baaqmd.gov fax	(415) 749-5030		
Form ICE is to	he completed for all internal or	ombustion engines except turbines	(For turbines, submit Form C). Submit one form for	or

1. SUMMARY ■ New Construction □ Modification □ Loss of Exem	ption		
Company Name Vantage Data Centers Management Co, LLC.	Plant No.*		
Source Description Diesel Generator	Source No.*	16	
Initial Date of Operation ASAP (Not required for modification of an existing pe	*/If I	ınknown leav	e blank)
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 50	) Maximum	hrs/day 2	24
2. ENGINE INFORMATION			
Engine Type: (Check one) 4 Stroke 2 Stroke Compression Ignition (Diesel) or	☐ 4 Stroke ☐ 2 Str	oke Spark	Ignition
Engine Manufacturer Caterpillar Model C175-16		ear 2017	_
	lo. unknown		
	ypical load as % of bl	np rating 6	0
Is this an emergency/standby engine? ■ Yes □ No	,,	_	
(Complete and check all that apply)			
Certification: ☐ EPA Certified ☐ CARB Certified CARB Executive Order No. Rar	nboll Environ		
☐ None (If None is checked, please indicate below the items applicable to t			
□ Naturally aspirated □ Supercharged □ Turbocharged	☐ Inter-cooled	☐ After-o	cooled
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn			
	☐ Fire pump driver		
Compressor driver			
<ol> <li>ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts t         Check here if the engine has more than one add-on abatement device and complete a seabatement device.     </li> </ol>			al
Abatement device number A 16 (If unknown leave blank) ■ New □ Exis	ting		
Device type: ■ Diesel catalyzed particulate filter □ Oxidation catalyst □ Selective	e catalytic reduction	(SCR)	
☐ Non-selective catalytic reduction (NSCR or 3-way catalyst) ☐ Other:	Johnson Matthey	CRT +	
Make, Model, and Rated Capacity Johnson Matthey CRT +			-
Abatement device control efficiencies at typical operation (Use the basis codes listed below.	If unknown leave blar	nk)	
		Wt %	Basis
Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)	Pollutant Name	Reduction	Code
(1) Source testing or other measurement by plant (8) Guess (9) FRACARR CHIEF (BLACARR CHIEF CHIE	Particulates	85	9
(2) Source testing or measurement by BAAQMD (District use only) (9) EPA/CARB Certification	Organics	70	9
(3) Specification from vendor  (4) Material balance by plant using knowledge of process	Nitrogen Oxides Sulfur Dioxide		
(5) Material balance by BAAQMD (District use only)	Carbon Monoxide	80	12/20/201
(6) EPA Document AP-42 Emission Factors	Others – Check he		- 10.00
(7) Taken from literature other than AP-42	separate list of polluta code and the control of	nts. Include t	he basis

(District Use Only)

## Form ICE

Internal Combustion Engines

4. EMISSION PO emission monito	INT/STACK INFO	ORMATION [	Check each en	here if the	engine has more t	han one stack or	has a continu	ous pollu	ıtant
Emission point nu	mber P	(If un	known l	eave blank	) New E	xisting			
Stack outlet heigh	t from ground lev	rel (ft) 45.17	65						
Diameter of stack				— Outlet cross	-section area (squa	are inches)			
Direction of outlet	_		■ Ve		End of outlet (chec		n/hinged flap	Пв	ain cap
Exhaust rate at ty	- A	_	Vienna de la companya		ust temperature at				ан сар
5. RISK ASSESSI					ust temperature at	typical operation	(1) 001.0		
				-id //	628.4	(-11-10			
Distance from eng		-			020.4	or (check if)			
Distance from eng						or (check if)			000 ft
Describe the near	est non-residenti	al, non-school	site (che	eck one)	☐ Industrial	Commercial	☐ Hospi	tal	
			150	re center	Other		S		
Distance from eng	ine to the proper	ty line of the n	earest n	on-residen	tial, non-school site	e(ft) 132.4	or Grea	ter than	one mile
1. K-12 and more t	han twelve children	only.							
attach a <b>fuel an</b> measurement ur	alysis indicating	the higher hea ds to the infor	ting valu nation ye	e, sulfur co	u are using a fuel ontent, and nitroger mitting.   Check	content. Please	clearly indica	ate the	
	Primary	Fuel				Secondary	Fuel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>	1	gal/hr or	SCF/hr
Annual Fuel Usage	10710	gal/yr or t	herm/yr o	r SCF/yr	Annual Fuel Usage	3	gal/yr or i	therm/yr o	r SCF/yr
Typical Heat Conte	nt <sup>4</sup>	BTU	l/gal or B	TU/SCF	Typical Heat Conte	nt <sup>4</sup>	BTU	J/gal or B	TU/SCF
Sulfur Content <sup>4</sup>		wt% liquid	ls or ppm	v gases	Sulfur Content <sup>4</sup>		wt% liqui	ds or ppm	v gases
	Emission Factor	ors (Optional)		. 1		Emission Factor	ors (Optional)	i	
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates					Particulates				
Organics					Organics				
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide					Carbon Monoxide				
Others - Check	here and attach a	separate list und	er each fi	uel used.	Others - Check	here and attach a	separate list und	der each f	uel used.
<ol> <li>Maximum fuel us</li> <li>The annual fuel liquid fuel, therm</li> <li>If you are using a fuels. Sulfur cors</li> <li>Emission factors</li> <li>See the Control</li> <li>Place a check in</li> </ol>	atural Gas (189) se rate units: gallon usage is the actual is for natural gas, a diesel, natural gas, intent units: weight 9 is may be reported a Efficiency/Emissior this column if the e N I hereby certify	or projected eng nd SCF for other or gasoline, you of for liquid fuels, as gram/brakehp of Factor Basis Co emission factor a or that all inform	Is and SC gine fuel of gaseous may skip ppmv for -hr, or as ode table	Digester Ga F/hr for gass consumption s fuels. (there of this entry. r gaseous fu lb per gallor under Secti emissions a ntained her	as (493) Leous fuels. (SCF = State over a rolling 12-moin = 100,000 BTUs, It Heat content units: East. (ppmv = parts pend), or as Ib per therm, or as Ib per therm, on 3 on page 1 of this fiter abatement by an arein is true and content.	nth time period. An BTU =British Them BTU/gallon for liquider million by volume for as lb per SCF. a form. add-on abatement	nual usage unit nual usage unit al Unit) I fuels, BTU/SC e) device. n and date this	CF for gase	
Approved By:		Da	te:		Entered By:		Date	<del></del>	

375 Beale Street, Suite 600, San Francisco, CA 94105

**Engineering Division** 

(415) 749-4990

www.baaqmd.gov fax

(415) 749-5030

## Form ICE

Internal Combustion Engines

engine manufacturer's equipment specifications.			
1. SUMMARY New Construction Modification Loss of Exem	ption		
Company Name Vantage Data Centers Management Co, LLC.	_ Plant No.* _		
Source Description Diesel Generator	_ Source No.* _	17	
Initial Date of Operation ASAP (Not required for modification of an existing pe	rmitted source) *(If t	unknown leav	e blank)
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 50	Maximun	n hrs/day 2	24
2. ENGINE INFORMATION	Reg. 2-1-413 for requ	irements)	
Engine Type: (Check one)		oke Spark ear 2017	
		ear ZOT7	
	lo. unknown		20
	ypical load as % of b	hp rating _C	
Is this an emergency/standby engine?   ■ Yes   No			
(Complete and check all that apply)			
Certification:   EPA Certified   CARB Certified   CARB Executive Order No.   Ran	nboll Environ		
☐ None (If None is checked, please indicate below the items applicable to to.)	his engine.)		
☐ Naturally aspirated ☐ Supercharged ☐ Turbocharged	☐ Inter-cooled	☐ After-	cooled
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn			
Primary Use: ■ Electrical generation □ Cogeneration □ Pump driver	☐ Fire pump driver		
☐ Compressor driver ☐ Tub grinder driver ☐ Other:			
<ol> <li>ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to Check here if the engine has more than one add-on abatement device and complete a seabatement device.</li> </ol>			al
Abatement device number A 17 (If unknown leave blank) ■ New □ Exis	ting		
	e catalytic reduction	(SCR)	
☐ Non-selective catalytic reduction (NSCR or 3-way catalyst) ☐ Other:	20. Carrier Co. Ca		
Make, Model, and Rated Capacity Johnson Matthey CRT +	- Transfer Materia	, 0	
Abatement device control efficiencies at typical operation (Use the basis codes listed below.	If unknown leave black	nk)	
Abatement device control eniciencies at typical operation (ose the basis codes listed below.	Tunknown leave blai	Wt %	Basis
Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)	Pollutant Name	Reduction	Code
(1) Source testing or other measurement by plant (8) Guess	Particulates	85	9
(2) Source testing or measurement by BAAQMD (District use only) (9) EPA/CARB Certification	Organics	70	9
(3) Specification from vendor	Nitrogen Oxides		1
(4) Material balance by plant using knowledge of process	Sulfur Dioxide	vi n	
(5) Material balance by BAAQMD (District use only)	Carbon Monoxide	80	12/20/201
<ul><li>(6) EPA Document AP-42 Emission Factors</li><li>(7) Taken from literature other than AP-42</li></ul>	Others – Check he separate list of polluta code and the control	ants. Include t	

(District Use Only)

## Form ICE

Internal Combustion Engines

	INT/STACK INFO				engine has more t nt	han one stack or h	as a continu	ous pollu	tant
Emission point nu	mber P	(If un	known l	eave blank	) New 🗆 E	xisting			
Stack outlet heigh				_					
Diameter of stack	outlet (inches)	20.08	or C	utlet cross	-section area (squa	are inches)			
Direction of outlet	(check one)	] Horizontal	■ Ve	rtical	End of outlet (chec	k one) 🔳 Open	hinged flap	□R	ain cap
Exhaust rate at type	pical operation (a	cfm) 25630	)	Exha	ust temperature at	typical operation (°	F) 891.9		er Joseph John Terrer • • Service
5. RISK ASSESSI									
Distance from eng	ine to the proper	ty line of the n	earest re	esidence (f	801.37	or (check if)	☐ Great	er than o	ne mile
Distance from eng		E				or (check if)	■ Great	er than 1	000 ft
Describe the near	er in some the	to on the			☐ Industrial	■ Commercial	☐ Hospi		
				re center	Other				
Distance from end	ine to the proper				tial, non- school sit	e(ft) 132.4 o	r	iter than	one mile
K-12 and more to		7	carostri	011-10010011	dar, non sonoor ar	0(11)		itor triair	OHE THIC
attach a fuel and measurement ur	alysis indicating	the higher hea ds to the inforr	ting valu nation y	e, sulfur co	ou are using a fuel of content, and nitrogen mitting.   Check	n content. Please	clearly indica	ate the	
and the second	Primary					Secondary F	uel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use				r SCF/hr	Maximum Fuel Use	-		gal/hr or	
Annual Fuel Usage	-	gal/yr or to			Annual Fuel Usage	-		therm/yr o	
Typical Heat Conte	nt <sup>4</sup>		l/gal or B`		Typical Heat Conte	ent <sup>4</sup>		J/gal or Bi	
Sulfur Content <sup>4</sup>		wt% liquid	is or ppm	v gases	Sulfur Content <sup>4</sup>			ds or ppm	v gases
D. II. d d. Ni	Emission Facto	F 180 88 88 88 88	l		D.II. t. AM	Emission Factors		La	I
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>	Pollutant Name	Emission Factor	Units⁵	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates					Particulates				
Organics					Organics				
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide					Carbon Monoxide				
Others –  Check	here and attach a	separate list und	er each f	uel used.	Others - Check	here and attach a se	parate list und	der each fo	uel used.
<ol> <li>Maximum fuel us</li> <li>The annual fuel liquid fuel, therm</li> <li>If you are using a fuels. Sulfur confuels. Sulfur confuels.</li> <li>Emission factors</li> <li>See the Control</li> </ol>	usage is the actual is for natural gas, a diesel, natural gas, attent units: weight % may be reported a Efficiency/Emission this column if the e	or projected eng nd SCF for other or gasoline, you of for liquid fuels, is gram/brakehp in Factor Basis Co emission factor a that all inform	Is and SC gine fuel or gaseous may skip ppmv for -hr, or as ode table applies to	consumptions fuels. (the othis entry. r gaseous full per gallor under Section to the control of	eous fuels. (SCF = S o over a rolling 12-mo rm = 100,000 BTUs, Heat content units: I lels. (ppmv = parts p n, or as lb per therm, ion 3 on page 1 of this litter abatement by an rein is true and cor	nth time period. Anni BTU =British Therma BTU/gallon for liquid f er million by volume) or as Ib per SCF. s form. add-on abatement de	ual usage unit l Unit) uels, BTU/SC evice. and date thi	CF for gase	
Approved By:	continuing (print)	Da Da		yg	Entered By:	o or person certifying	Date	2.	

375 Beale Street, Suite 600, San Francisco, CA 94105

Engineering Division (415)

www.baaqmd.gov

(415) 749-4990 (415) 749-5030

Internal	Combustion	Engines

Form ICE

	equipment specifications.	_			
1. SUMMARY	New Construction Modification		ption		
Company Name	Vantage Data Centers Manage	ement Co, LLC.	Plant No.*		
Source Description	Diesel Generator		Source No.*	18	
Initial Date of Operation	on ASAP (Not required	for modification of an existing pe	*(If	unknown leav	e blank)
Operating Schedule	Typical hrs/day 0.5 Days/week	k 1 Weeks/yr 50	Maximui	m hrs/day 2	24
2. ENGINE INFORMA	TION Check here if applying for a m	nultiple location permit. (See I	Reg. 2-1-413 for requ	uirements)	
Engine Type: (Check Engine Manufacturer				roke Spark ear 2017	_
	amily Name HCPXL106.NZS		No. unknown	ear	
				6	30
	5155.8 (cu in) Maximum rated of	output (bhp) 4423	ypical load as % of t	ohp rating _	
Is this an emergency/	STATE OF THE PROPERTY OF THE P				
(Complete and check	- 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.				
Certification:	EPA Certified	B Executive Order No. Rar	nboll Environ		
	None (If None is checked, please indicate b	elow the items applicable to t	his engine.)		
	☐ Naturally aspirated ☐ Supercharg	ged Turbocharged	☐ Inter-cooled	☐ After-	cooled
	☐ Timing retard ≥ 4° ☐ Lean-burn	☐ Rich-burn			
Primary Use:	Electrical generation	☐ Pump driver	☐ Fire pump driver		
	Compressor driver	er Other:			
	ICE INFORMATION Complete this section e engine has more than one add-on abaten ce.				al
Abatement device nur	mber A 18 (If unknown leav	ve blank) ■ New □ Exis	sting		
Device type:	Diesel catalyzed particulate filter	dation catalyst	e catalytic reduction	(SCR)	
	Non-selective catalytic reduction (NSCR or				
	ted Capacity Johnson Matthey CRT			,	
	ntrol efficiencies at typical operation (Use ti		If unknown leave bla	ink)	
				Wt %	Basis
Control Efficiency/Emiss	ion Factor Basis Codes: (Submit supporting doc	umentation if available)	Pollutant Name	Reduction	Code
	ther measurement by plant	(8) Guess	Particulates	85	9
	easurement by BAAQMD (District use only)	(9) EPA/CARB Certification	Organics	70	9
(3) Specification from (			Nitrogen Oxides		
	plant using knowledge of process		Sulfur Dioxide	90	12/20/204
	BAAQMD (District use only) 42 Emission Factors		Others – Check h	ere and attacl	-
(6) EPA Document AP  (7) Taken from literatur			separate list of pollut	ants. Include	

(District Use Only)

## Form ICE

Internal Combustion Engines

4. EMISSION POI emission monito	NT/STACK INFO	ORMATION [	Check each er	here if the	e engine has more thint	nan one stack or h	as a continu	ous pollu	ıtant
Emission point nu	mber P	(If un	known l	eave blan	k) New E	xisting			
Stack outlet heigh	t from ground lev	rel (ft) 45.17							
Diameter of stack	outlet (inches)	20.08	or C	utlet cros	s-section area (squa	re inches)			
Direction of outlet	(check one) [	Horizontal			End of outlet (check		/hinged flap	Пв	ain cap
Exhaust rate at typ	a and a	===	-		aust temperature at t		The second second	ш.,	ani oap
5. RISK ASSESSI					idot tomporatare at t	ypical operation (	,,		
Distance from eng			oaroet re	eidence (	<sub>ft)</sub> 801.37	or (check if)	☐ Great	or than a	no mile
	AC 151 100				11) 001.01				
Distance from eng						or (check if)	■ Great		000 π
Describe the near	est non-residenti				☐ Industrial	Commercial	☐ Hospi	tal	
				re center	Other	100 /			
			earest n	on-resider	ntial, non-school site	e(ft) 132.4 c	r Grea	ter than	one mile
1. K-12 and more to	han twelve childrei	n only.							
attach a fuel and	alysis indicating it that correspon	the higher hea ds to the inforr	ting valu nation ye	e, sulfur c	ou are using a fuel of ontent, and nitrogen omitting.   Check I	content. Please	clearly indica	te the	
	Primary	Fuel			l garth	Secondary	Fuel		
Fuel Code <sup>1</sup> 98	Name	ULSD	. 21		Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	10710	gal/yr or ti	herm/yr o	r SCF/yr	Annual Fuel Usage	3	gal/yr or t	herm/yr o	r SCF/yr
Typical Heat Conte	nt <sup>4</sup>	BTU	/gal or B	TU/SCF	Typical Heat Conte	nt <sup>4</sup>	BTU	I/gal or Bi	TU/SCF
Sulfur Content <sup>4</sup>		wt% liquid	ls or ppm	v gases	Sulfur Content <sup>4</sup>		wt% liqui	ds or ppm	v gases
	Emission Fact	ors (Optional)				Emission Factor	s (Optional)		
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√)7	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates					Particulates				
Organics					Organics				
Nitrogen Oxides			4.75		Nitrogen Oxides				
Carbon Monoxide					Carbon Monoxide				
Others - Check	here and attach a	separate list und	er each f	uel used.	Others - Check	here and attach a se	parate list und	ler each f	uel used.
<ol> <li>Maximum fuel us</li> <li>The annual fuel us liquid fuel, therm.</li> <li>If you are using a fuels. Sulfur con</li> <li>Emission factors</li> <li>See the Control I</li> <li>Place a check in</li> </ol>	tural Gás (189) te rate units: gallor usage is the actual is for natural gas, a diesel, natural gas, tent units: weight of may be reported a efficiency/Emission this column if the o	or projected eng nd SCF for other or gasoline, you 6 for liquid fuels, as gram/brakehp or Factor Basis Co emission factor a	s and SC gine fuel or gaseous may skip ppmv for -hr, or as ode table pplies to ation co	Digester G F/hr for gas consumption is fuels. (the othis entry. gaseous fi lb per gallo under Seci emissions g ntained he	as (493) Liseous fuels. (SCF = Sten over a rolling 12-more m = 100,000 BTUs, E Heat content units: E uels. (ppmv = parts pe n, or as lb per therm, of tion 3 on page 1 of this after abatement by an erein is true and corr	ath time period. Ann BTU =British Therma BTU/gallon for liquid or million by volume) or as Ib per SCF, form. add-on abatement of	ual usage unit I Unit) fuels, BTU/SC levice. and date this	F for gase	
Approved By:		Da	te:		Entered By:		Date	):	

375 Beale Street, Suite 600, San Francisco, CA 94105

Engineering Division (415) 749-4990

www.baaqmd.gov fax (415) 749-5030

Internal Combustion	Engines

Form ICE

engine manufacturer's equipment specifications.		
1. SUMMARY New Construction Modification Loss of Exemption		
Company Name Vantage Data Centers Management Co, LLC. Plant No.*		
Source Description Diesel Generator Source No.* 1	9	
Initial Date of Operation ASAP (Not required for modification of an existing permitted source) *(If un	nknown leave	e blank)
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 50 Maximum in	hrs/day 2	4
2. ENGINE INFORMATION	ements)	
Engine Type: (Check one)	ke Spark I	gnition
Engine Manufacturer Caterpillar Model C175-16 Model Year	<sub>ar</sub> 2017	
EPA/CARB Engine Family Name HCPXL106.NZS Engine Serial No. unknown		
Engine Displacement 5155.8 (cu in) Maximum rated output (bhp) 4423 Typical load as % of bhp	p rating 6	0
Is this an emergency/standby engine? ■ Yes □ No		
(Complete and check all that apply)		
Certification:   EPA Certified   CARB Certified   CARB Executive Order No.   Ramboll Environ		
☐ None (If None is checked, please indicate below the items applicable to this engine.)		
☐ Naturally aspirated ☐ Supercharged ☐ Turbocharged ☐ Inter-cooled	☐ After-o	cooled
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn		
Primary Use:    Electrical generation    Cogeneration    Pump driver    Fire pump driver		
☐ Compressor driver ☐ Tub grinder driver ☐ Other:		
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement.  Check here if the engine has more than one add-on abatement device and complete a separate Form A for each abatement device.		al
Abatement device number A 19 (If unknown leave blank) ■ New □ Existing		
Device type:    Diesel catalyzed particulate filter    Oxidation catalyst    Selective catalytic reduction (S	SCR)	
☐ Non-selective catalytic reduction (NSCR or 3-way catalyst) ☐ Other: Johnson Matthey		
Make, Model, and Rated Capacity Johnson Matthey CRT +		
Abatement device control efficiencies at typical operation (Use the basis codes listed below. If unknown leave blank	()	
The state of the second of the second of the second	Wt %	Basis
Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)  Pollutant Name	Reduction	Code
(1) Source testing or other measurement by plant (8) Guess Particulates	85	9
(2) Source testing or measurement by BAAQMD (District use only) (9) EPA/CARB Certification Organics	70	9
(3) Specification from vendor Nitrogen Oxides		
(4) Material balance by plant using knowledge of process Sulfur Dioxide		
(5) Material balance by BAAQMD (District use only)  Carbon Monoxide	80	12/20/2
(6) EPA Document AP-42 Emission Factors  (7) Taken from literature other than AP-42  Others - □ Check here separate list of pollutan code and the control eff	its. Include th	

(District Use Only)

## Form ICE

Internal Combustion Engines

	INT/STACK INFO				engine has more t	han one stack or h	as a continu	ous pollu	tant
Emission point nu	mber P	(If un	known l	eave blani	k) New E	xisting			
Stack outlet heigh	t from ground lev	el (ft) 45.17	11.						
Diameter of stack	outlet (inches)	20.08	or C	utlet cross	s-section area (squa	are inches)			
Direction of outlet	(check one)	] Horizontal	■ Ve	rtical	End of outlet (chec	k one) 🔳 Open	/hinged flap	□R	ain cap
Exhaust rate at ty	pical operation (a	cfm) 25630	)		ust temperature at				
5. RISK ASSESS							NaMe I		
Distance from eng	ine to the proper	ty line of the n	earest re	esidence (	ft) 801.37	or (check if)	☐ Great	er than o	ne mile
Distance from eng	V21 AN 60	20 000 000 000 000 000 000 000 000 000			-	or (check if)	■ Great		
Describe the near					☐ Industrial	■ Commercial	☐ Hospi		000 11
Describe the field	COL HOIT TOOLGCTIC			re center	Other	E commercial	П Позр	tai	
Distance from one	ing to the proper				_	o/ft) 132.4	r D Grad	ater than	one mile
K-12 and more in			earestri	on-resider	itial, non- school sit	e(ii) 102.4 (	ı 🗆 Gies	iter triair	one mile
attach a fuel and measurement un	alysis indicating	the higher hea ds to the inforr	ting valu nation y	e, sulfur c	ou are using a fuel of ontent, and nitroger omitting.   Check	content. Please	clearly indica	ate the	
	Primary	Fuel				Secondary	Fuel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	10710	gal/yr or ti	herm/yr o	r SCF/yr	Annual Fuel Usage	3	gal/yr or	therm/yr o	r SCF/yr
Typical Heat Conte	nt <sup>4</sup>	BTU	/gal or B	TU/SCF	Typical Heat Conte	nt <sup>4</sup>	BT	J/gal or B	ru/scf
Sulfur Content⁴ _		wt% liquid	ls or ppm	v gases	Sulfur Content <sup>4</sup>		wt% liqui	ds or ppm	v gases
	Emission Factor			.		Emission Factor		ĭ	
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates					Particulates				
Organics					Organics				
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide					Carbon Monoxide				
<ol> <li>Maximum fuel us</li> <li>The annual fuel liquid fuel, therm</li> <li>If you are using fuels. Sulfur confuels. Sulfur confuels. See the Control</li> <li>Place a check in</li> </ol>	atural Gás (189) se rate units: gallon usage is the actual is for natural gas, a diesel, natural gas, itent units: weight % may be reported a Efficiency/Emission this column if the e N I hereby certify	or projected eng nd SCF for other or gasoline, you of for liquid fuels, s gram/brakehp Factor Basis Co emission factor a that all inform	Is and SC gine fuel of gaseous may skip ppmv for hr, or as ode table	Digester G CF/hr for gas consumption is fuels. (the othis entry. If gaseous fi lb per gallo under Sect emissions gas ntained he	as (493) Lseous fuels. (SCF = S. n over a rolling 12-mo. rm = 100,000 BTUs, l Heat content units: l uels. (ppmv = parts po. n, or as lb per therm, l lion 3 on page 1 of this after abatement by an erein is true and con	nth time period. Ann BTU =British Therma BTU/gallon for liquid er million by volume) or as lb per SCF. s form. add-on abatement o	ual usage uni il Unit) fuels, BTU/SC levice. and date thi	CF for gase	
Approved By:		Da	te:		Entered By:		Date	a.	

375 Beale Street, Suite 600, San Francisco, CA 94105

**Engineering Division** 

(415) 749-4990

www.baaqmd.gov fax

(415) 749-5030

Form ICE Internal Combustion Engines

Internal	Combustion	Liigiiies		

1. SUMMARY ■ New Construction □ Modification □ Loss of Exempt	otion		
Company Name Vantage Data Centers Management Co, LLC.	Plant No.*		
Source Description Diesel Generator	Source No.* 2	20	
Initial Date of Operation ASAP (Not required for modification of an existing per	*/If 11	nknown leave	e blank)
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 50	7	hrs/day 2	4
2. ENGINE INFORMATION		and the second	
	☐ 4 Stroke ☐ 2 Stro		anition
Engine Manufacturer Caterpillar Model C175-16		ear 2017	
	o. unknown	al	
	pical load as % of bh	- rating 6	0
	picai ioad as % oi bii	ip rating _	
Is this an emergency/standby engine?   Yes No			
(Complete and check all that apply)	hall Environ		
Certification:   EPA Certified  CARB Certified CARB Executive Order No.  Ram			
None (If None is checked, please indicate below the items applicable to the	_	_	
□ Naturally aspirated □ Supercharged □ Turbocharged	☐ Inter-cooled	☐ After-o	cooled
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn			
Primary Use: ■ Electrical generation □ Cogeneration □ Pump driver □	Fire pump driver		
☐ Compressor driver ☐ Tub grinder driver ☐ Other:			
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to Check here if the engine has more than one add-on abatement device and complete a se abatement device.			al
Abatement device number A 20 (If unknown leave blank) ■ New □ Exist	ing		
	e catalytic reduction (	SCR)	
☐ Non-selective catalytic reduction (NSCR or 3-way catalyst) ☐ Other:			
Make, Model, and Rated Capacity Johnson Matthey CRT +			
Abatement device control efficiencies at typical operation (Use the basis codes listed below. It	f unknown leave blan	k)	
		Wt %	Basis
Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)	Pollutant Name	Reduction	Code
(1) Source testing or other measurement by plant (8) Guess	Particulates	85	9
(2) Source testing or measurement by BAAQMD (District use only) (9) EPA/CARB Certification	Organics	70	9
(3) Specification from vendor	Nitrogen Oxides		
(4) Material balance by plant using knowledge of process	Sulfur Dioxide	00	12/20/201
(5) Material balance by BAAQMD (District use only)	Carbon Monoxide  Others – ☐ Check he	80	90.00
(6) EPA Document AP-42 Emission Factors  (7) Taken from literature other than AP-42	separate list of pollutar code and the control e	nts. Include t	

### Form ICE

Internal Combustion Engines

	NT/STACK INFO					han one stack or ha	s a continuo	ous pollui	tant
Emission point nu			known le	eave blank	New 🗆 E	xisting			
Stack outlet heigh				_					
Diameter of stack	outlet (inches)	20.08	or O	utlet cross	s-section area (squa	are inches)			
Direction of outlet	(check one)	Horizontal	■ Ver	rtical	End of outlet (chec	k one) 🔳 Open/l	hinged flap	☐ Ra	ain cap
Exhaust rate at typ	oical operation (a	cfm) 25630		Exha	ust temperature at	typical operation (%	891.9		
5. RISK ASSESSI	MENT INFORMA	TION.							
Distance from eng	ine to the proper	y line of the ne	arest re	sidence (	ft) 801.37	or (check if)	☐ Greate	er than or	ne mile
Distance from eng	ine to the proper	y line of the ne	arest so	chool <sup>1</sup> (ft)		or (check if)	■ Greate	er than 10	000 ft
Describe the near	est non-residentia	al. non-school s	ite (che	ck one)	☐ Industrial	■ Commercial	☐ Hospit	al	
		200	.,	re center	Other	_			
Distance from eng	ine to the proper		-		itial, non- school sit	e(ft) 132.4 or	☐ Great	tor than	ono milo
K-12 and more to			arestric	Jii-lesidei	itiai, non-school sit	e(ii) <u>102.4</u> 0	☐ Grea	ter triair t	one mile
attach a fuel and	alysis indicating that that correspond	he higher heat ds to the inform	ing value nation yo	e, sulfur c	ontent, and nitroger	other than those list on content. Please c here if you are using	learly indica	te the	
	Primary I	uel				Secondary F	uel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	10710	gal/yr or th	erm/yr oi	r SCF/yr	Annual Fuel Usage	3	gal/yr or ti	herm/yr or	SCF/yr
Typical Heat Conte	nt⁴	BTU/	gal or BT	U/SCF	Typical Heat Conte	nt <sup>4</sup>	BTU	/gal or B1	U/SCF
Sulfur Content4		wt% liquids	s or ppm	v gases	Sulfur Content⁴		wt% liquid	ls or ppm	/ gases
	Emission Factor	rs (Optional)				Emission Factors	(Optional)		
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates					Particulates				
Organics					Organics				
Nitrogen Oxides					Nitrogen Oxides	1.54			
Carbon Monoxide					Carbon Monoxide				
Others - Check	here and attach a s	eparate list unde	er each fu	iel used.	Others - Check	here and attach a sep	arate list und	er each fu	iel used.
<ol> <li>Maximum fuel us</li> <li>The annual fuel us liquid fuel, therm.</li> <li>If you are using a fuels. Sulfur confuels. Sulfur confuels. See the Control In Place a check in</li> </ol>	atural Gas (189) the rate units: gallon usage is the actual is for natural gas, at diesel, natural gas, tent units: weight % may be reported a Efficiency/Emission this column if the e N I hereby certify	or projected engind SCF for other or gasoline, you of for liquid fuels, is gram/brakehp-i Factor Basis Comission factor ap	and SC ine fuel c gaseous may skip ppmv for hr, or as ide table oplies to c ation cor	Digester G F/hr for gas onsumption fuels. (the this entry. gaseous fu lb per gallo under Sect emissions g ntained he	as (493) Lseous fuels. (SCF = Sin over a rolling 12-month of the second	nth time period. Annu BTU =British Thermal BTU/gallon for liquid fu er million by volume) or as Ib per SCF.	al usage units Unit) uels, BTU/SCI vice.	F for gase	
Approved By:	(District Use On	Date	e:		Entered By:	For	Date		2 of 2

375 Beale Street, Suite 600, San Francisco, CA 94105

(415) 749-4990 **Engineering Division** www.baaqmd.gov

(415) 749-5030

Form ICE

engine manufacturer's equipment specifications.
1. SUMMARY ■ New Construction
Company Name Vantage Data Centers Management Co, LLC. Plant No.*
Source Description Diesel Generator Source No.* 21
Initial Date of Operation ASAP (Not required for modification of an existing permitted source) *(If unknown leave blank)
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 50 Maximum hrs/day 24
2. ENGINE INFORMATION
Engine Type: (Check one) 4 Stroke 2 Stroke Compression Ignition (Diesel) or 4 Stroke 2 Stroke Spark Ignition
Engine Manufacturer Caterpillar Model C175-16 Model Year 2017
EPA/CARB Engine Family Name HCPXL106.NZS Engine Serial No. unknown
Engine Displacement 5155.8 (cu in) Maximum rated output (bhp) 4423 Typical load as % of bhp rating 60
Is this an emergency/standby engine? ■ Yes □ No
(Complete and check all that apply)
Certification:   EPA Certified   CARB Certified   CARB Executive Order No.   Ramboll Environ
☐ None (If None is checked, please indicate below the items applicable to this engine.)
□ Naturally aspirated □ Supercharged □ Turbocharged □ Inter-cooled □ After-cooled
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn
Primary Use:    Electrical generation    Cogeneration    Pump driver    Fire pump driver
Compressor driver
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device.
Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.
Abatement device number A 21 (If unknown leave blank) ■ New □ Existing
Device type:    Diesel catalyzed particulate filter    Oxidation catalyst    Selective catalytic reduction (SCR)
☐ Non-selective catalytic reduction (NSCR or 3-way catalyst) ☐ Other: Johnson Matthey CRT +
Make, Model, and Rated Capacity Johnson Matthey CRT +
Abatement device control efficiencies at typical operation (Use the basis codes listed below. If unknown leave blank)
Wt % Basis
Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)  Pollutant Name Reduction Code
(1) Source testing or other measurement by plant (8) Guess Particulates 85 9
(2) Source testing or measurement by BAAQMD (District use only) (9) EPA/CARB Certification Organics 70 9
(3) Specification from vendor Nitrogen Oxides
(4) Material balance by plant using knowledge of process Sulfur Dioxide
(5) Material balance by BAAQMD (District use only)  Carbon Monoxide 80 12/20/26
(6) EPA Document AP-42 Emission Factors  (7) Taken from literature other than AP-42  Others – Check here and attach a separate list of pollutants. Include the basis code and the control efficiency.

(District Use Only)

## Form ICE

Internal Combustion Engines

	NT/STACK INFO				engine has more ti int	han one stack or h	as a continu	ous pollu	tant
Emission point nu	mber P	(If un	known le	eave blank	() New E	xisting			
Stack outlet heigh		The same of the same of							
Diameter of stack		A SE THE STATE OF THE SECOND S		— outlet cross	s-section area (squa	are inches)			
Direction of outlet			■ Ve		End of outlet (chec		/hinged flap	Пв	ain cap
Exhaust rate at ty					ust temperature at				инг оар
5. RISK ASSESS							Madeux	Kee W	
Distance from eng	ine to the proper	ty line of the ne	earest re	sidence (	(f) 801.37	or (check if)	☐ Great	er than o	ne mile
Distance from eng	2 (2)				0	or (check if)	■ Great		
Describe the near					☐ Industrial	Commercial	☐ Hospi		00011
Describe the near	est non-residentia				Other	Commercial	□ поѕрі	lai	
Distance from one	ing to the manage		7.10 T. 10 T	re center		(#) 132 A	т П Ста	tou thou	
K-12 and more in			earest no	on-resider	itial, non-school site	ε(π) 132.4	or U Grea	iter than	one mile
attach a <b>fuel an</b> measurement ui	alysis indicating	the higher heat ds to the inforn	ting valu nation yo	e, sulfur c	ou are using a fuel of ontent, and nitroger mitting.   Check	content. Please	clearly indica	ate the	
Commission of the Commission o	Primary I		MICHAEL STATE			Secondary	Fuel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	3 10710	gal/yr or th	nerm/yr o	r SCF/yr	Annual Fuel Usage	3	gal/yr or	therm/yr o	r SCF/yr
Typical Heat Conte	nt <sup>4</sup>	BTU	/gal or Bi	TU/SCF	Typical Heat Conte	nt <sup>4</sup>	ВТ	J/gal or B	TU/SCF
Sulfur Content <sup>4</sup>		wt% liquid	s or ppm	v gases	Sulfur Content <sup>4</sup>		wt% liqui	ds or ppm	v gases
_	Emission Facto	ors (Optional)				Emission Factor	s (Optional)		.
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates					Particulates			7	
Organics					Organics				
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide					Carbon Monoxide				
Others - Check	here and attach a	separate list und	er each fi	uel used.	Others - Check	here and attach a se	eparate list un	der each f	uel used.
<ol> <li>Maximum fuel u.</li> <li>The annual fuel liquid fuel, them</li> <li>If you are using fuels. Sulfur cors</li> <li>Emission factors</li> <li>See the Control</li> <li>Place a check in</li> </ol>	atural Gás (189) se rate units: gallon usage is the actual is for natural gas, a diesel, natural gas, intent units: weight % is may be reported a Efficiency/Emission this column if the e	or projected eng nd SCF for other or gasoline, you of for liquid fuels, s gram/brakehp- a Factor Basis Co emission factor a	s and SC ine fuel of gaseous may skip ppmv for thr, or as ode table pplies to ation col	Digester G E/hr for ges consumption is fuels. (the o this entry. r gaseous fi lb per gallo under Sect emissions in ntained he	as (493) Leous fuels. (SCF = Sin over a rolling 12-moinm = 100,000 BTUs, If Heat content units: Euels. (ppmv = parts pen, or as Ib per therm, or a	oth time period. Ann BTU =British Therma BTU/gallon for liquid er million by volume for as lb per SCF. as form. add-on abatement o	nual usage uni ol Unit) fuels, BTU/SC device. and date thi	CF for gase	
Approved By:		Dat	te:		Entered By:		Date	a:	

375 Beale Street, Suite 600, San Francisco, CA 94105

Engineering Division (415) 749-4990 www.baaqmd.gov

(415) 749-5030

Internal Combustion	Engines

Form ICE

engine manufacturer's equipment specifications.  1. SUMMARY New Construction Modification Loss of Exercises.	notion		
Vantana Data Cantana Managamant Ca. LLC	504 1-30 PM		
Discal Consustan	Plant No.*	00	
Source Description Diesel Generator	Source No.*	unknown leav	vo blank)
Initial Date of Operation ASAP (Not required for modification of an existing per	ermitted source)	unknownieav	e biarik)
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 50	Maximu	m hrs/day 2	24
2. ENGINE INFORMATION	Reg. 2-1-413 for requ	uirements)	
Engine Type: (Check one)   4 Stroke   2 Stroke Compression Ignition (Diesel) or Engine Manufacturer   Caterpillar   Model C175-16		troke Spark	
	<sub>No.</sub> unknown		
	Typical load as % of t	ohp rating 6	30
Is this an emergency/standby engine?	• • • • • • • • • • • • • • • • • • • •		
(Complete and check all that apply)			
Certification: ☐ EPA Certified ☐ CARB Certified CARB Executive Order No. Rail	mboll Environ		
☐ None (If None is checked, please indicate below the items applicable to	V 0		
☐ Naturally aspirated ☐ Supercharged ☐ Turbocharged		☐ After-	cooled
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn			
	☐ Fire pump driver		
Compressor driver			
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts Check here if the engine has more than one add-on abatement device and complete as abatement device.			al
Abatement device number A 22 (If unknown leave blank) ■ New □ Exis	sting		
Device type:    Diesel catalyzed particulate filter    Oxidation catalyst    Selection	ve catalytic reduction	(SCR)	
	Johnson Matthe		
Make, Model, and Rated Capacity Johnson Matthey CRT +		,	
Abatement device control efficiencies at typical operation (Use the basis codes listed below.	If unknown leave his	nk)	
abatement device control emolerates at typical operation (ose the basis codes listed below.	The distriction leave ble	Wt %	Basis
Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)	Pollutant Name	Reduction	Code
1) Source testing or other measurement by plant (8) Guess	Particulates	85	9
2) Source testing or measurement by BAAQMD (District use only) (9) EPA/CARB Certification	Organics	70	9
3) Specification from vendor	Nitrogen Oxides		
4) Material balance by plant using knowledge of process	Sulfur Dioxide		
5) Material balance by BAAQMD (District use only)	Carbon Monoxide	80	12/20/201
6) EPA Document AP-42 Emission Factors	Others –  Check h separate list of pollut		
7) Taken from literature other than AP-42	code and the control		IIC DQ919

(District Use Only)

## Form ICE

Internal Combustion Engines

	NT/STACK INFO r and complete or				engine has more ti nt	han one stack or h	as a continu	ous pollu	ıtant
Emission point nu	mber P	(If unk	nown le	eave blank	) New 🗆 E	xisting			
Stack outlet heigh	t from ground leve	el (ft) 45.17			*:	_			
Diameter of stack		,	or O	— outlet cross	-section area (squa	are inches)			
Direction of outlet			■ Ve		End of outlet (check		hinged flap	Пв	ain cap
Exhaust rate at typ					ust temperature at				cam cap
5. RISK ASSESSI							Ulation a		
Distance from eng	ine to the propert	v line of the ne	arest re	eidence (	801.37	or (check if)	☐ Great	er than o	ne mile
10/11	ve _ Le	1000 MI 900		to seek seek	1)				
Distance from eng						or (check if)	■ Great		000 11
Describe the near	est non-residentia				☐ Industrial	Commercial	☐ Hospi	ital	
				re center	Other	100.1			
		-	arest no	on-residen	tial, non-school site	e(ft) 132.4 o	r Grea	ater than	one mile
1. K-12 and more t	han twelve children	only.							
measurement ur	nit that correspond this page listing th	ds to the inform he additional fu	ation yo		ontent, and nitroger mitting.   Check	here if you are usir	g more than		ls, and
Fuel Code <sup>1</sup> 98	Primary F Name	ULSD			Firel Carlot	Secondary F	-uel		
Maximum Fuel Use	A		gal/hr o	r SCF/hr	Fuel Code <sup>1</sup> Maximum Fuel Use	Name		gal/hr or	SCE/hr
Annual Fuel Usage	4 44-17-1	gal/yr or the			Annual Fuel Usage	-	anl/vr.or	therm/yr o	
Typical Heat Conte	/		gal or Bi		Typical Heat Conte	-	_	U/gal or B	- 5
Sulfur Content <sup>4</sup>		wt% liquids	24		Sulfur Content <sup>4</sup>			ids or ppm	
_	Emission Facto				_	Emission Factor			
Pollutant Name	Emission	Units <sup>5</sup>	Basis	Abated	Pollutant Name	Emission	Units <sup>5</sup>	Basis	Abated
	Factor		Code <sup>6</sup>	Factor (√) <sup>7</sup>		Factor	Carlos San	Code <sup>6</sup>	Factor (√) <sup>7</sup>
Particulates					Particulates		1.75		
Organics					Organics	1			
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide					Carbon Monoxide				
Others - Check	here and attach a s	eparate list unde	r each fu	uel used.	Others –  Check	here and attach a se	parate list un	der each f	uel used.
<ol> <li>Maximum fuel us</li> <li>The annual fuel us liquid fuel, therm</li> <li>If you are using a fuels. Sulfur confuels. Sulfur confuels.</li> <li>Emission factors</li> <li>See the Control of Place a check in</li> </ol>	atural Gas (189) se rate units: gallon/ usage is the actual of second for natural gas, and iesel, natural gas, of tent units: weight % may be reported as a sefficiency/Emission this column if the entity in the reby certify	or projected enging SCF for other of gasoline, you refer for liquid fuels, per gram/brakehp-heractor Basis Coomission factor ap	1) and SC ne fuel of gaseous may skip ppmv for nr, or as de table aplies to	Digester Gi F/hr for gas consumption is fuels. (the o this entry. gaseous fu lb per gallo under Sect emissions g	as (493) Leous fuels. (SCF = State over a rolling 12-moi rm = 100,000 BTUs, It Heat content units: Easts. (ppmv = parts pendion 3 on page 1 of this after abatement by an rein is true and correction.	oth time period. Anno BTU =British Therma BTU/gallon for liquid the er million by volume) for as Ib per SCF. as form. add-on abatement de	ual usage uni l Unit) uels, BTU/SC evice. and date thi	CF for gase	
Approved By:		Date	ə:		Entered By:		Date	e:	

375 Beale Street, Suite 600, San Francisco, CA 94105

**Engineering Division** (415) 749-4990 www.baaqmd.gov

(415) 749-5030

Internal Combustion	Engines

Form ICE

engine manufacturer's equipment specifications.  1. SUMMARY  New Construction  Modification  Loss of Exel	motion		
Vantana Data Cantana Managamant Ca. LLC			
Discal Consustan	Plant No.*	23	
Source Description	Source No.*	unknown leav	re blank)
nitial Date of Operation ASAP (Not required for modification of an existing p	ermitted source)		
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 5	0 Maximui	m hrs/day _	24
2. ENGINE INFORMATION	Reg. 2-1-413 for requ	uirements)	
Engine Type: (Check one)    4 Stroke   2 Stroke Compression Ignition (Diesel) or  Engine Manufacturer   Caterpillar   Model   C175-16		roke Spark ear 2017	
	No. unknown		
and the second control of the second control	Typical load as % of b	ohp rating 6	30
s this an emergency/standby engine? ■ Yes □ No			
Complete and check all that apply)			
Certification:   EPA Certified   CARB Certified CARB Executive Order No.   Ra	mboll Environ		
None (If None is checked, please indicate below the items applicable to			
		□ A6	
□ Naturally aspirated □ Supercharged □ Turbocharged	I ☐ Inter-cooled	☐ After-	coolea
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn			
Primary Use:	☐ Fire pump driver		
☐ Compressor driver ☐ Tub grinder driver ☐ Other:			
B. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts Check here if the engine has more than one add-on abatement device and complete a abatement device.			nal
Abatement device number A 23 (If unknown leave blank)   New  Ex	isting		
	ive catalytic reduction	(SCR)	
□ Non-selective catalytic reduction (NSCR or 3-way catalyst) □ Other:			
Make, Model, and Rated Capacity Johnson Matthey CRT +	oomison watere	y OITT	
	W	-11	
Abatement device control efficiencies at typical operation (Use the basis codes listed below.	If unknown leave bla		T = .
Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)	Pollutant Name	Wt % Reduction	Basis Code
Source testing or other measurement by plant     (8) Guess	Particulates	85	9
2) Source testing or measurement by BAAQMD (District use only) (9) EPA/CARB Certification	Organics	70	9
3) Specification from vendor	Nitrogen Oxides		
4) Material balance by plant using knowledge of process	Sulfur Dioxide		
5) Material balance by BAAQMD (District use only)	Carbon Monoxide	80	12/20/201
6) EPA Document AP-42 Emission Factors	Others - Check h		
7) Taken from literature other than AP-42	separate list of pollut code and the control		ne basis

(District Use Only)

## Form ICE

Internal Combustion Engines

	NT/STACK INFO				engine has more ti int	nan one stack or h	as a continu	ous pollu	tant
Emission point nu	mber P	(If ur	known le	eave blank	New 🗆 E	xisting			
Stack outlet heigh	t from ground lev	rel (ft) 45.17							
Diameter of stack	outlet (inches)	20.08	or O	utlet cross	s-section area (squa	re inches)			
Direction of outlet	(check one)	] Horizontal	■ Ve	rtical	End of outlet (check	k one) 🔳 Open	/hinged flap	□R	ain cap
Exhaust rate at ty	oical operation (a	cfm) 2563	)	Exha	ust temperature at	ypical operation (	F) 891.9		
5. RISK ASSESS									
Distance from eng	ine to the proper	ty line of the n	earest re	sidence (	(t) 801.37	or (check if)	☐ Great	er than o	ne mile
Distance from eng				W 1997 P. C.	·	or (check if)	■ Great	er than 1	000 ft
Describe the near				*	☐ Industrial	■ Commercial	☐ Hospi		
				re center	☐ Other				
Distance from end	ine to the proper				itial, non- school site	e(ff) 132.4 o	r □ Grea	ter than	one mile
K-12 and more in					,	.,,			
			h fuel hu	med If w	ou are using a fuel o	other than those lie	tad in the fu	el code t	ahle
attach a <b>fuel an</b> measurement ui	alysis indicating	the higher hea ds to the infor	iting valu mation ye	e, sulfur c	ontent, and nitroger omitting.   Check	content. Please	clearly indica	ate the	
	Primary	Fuel				Secondary I	-uel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	3 10710	gal/yr or t	herm/yr o	r SCF/yr	Annual Fuel Usage	3	gal/yr or	therm/yr o	r SCF/yr
Typical Heat Conte	nt <sup>4</sup>	BTU	I/gal or B	TU/SCF	Typical Heat Conte	nt <sup>4</sup>	BTO	J/gal or B	TU/SCF
Sulfur Content <sup>4</sup>		wt% liqui	ds or ppm	v gases	Sulfur Content4		wt% liqui	ds or ppm	v gases
-	Emission Fact	ors (Optional)		7	8	Emission Factor	s (Optional)		
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates			7.1		Particulates		1. 1.		
Organics			1836		Organics				
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide					Carbon Monoxide				
Others - Check	here and attach a	separate list und	der each f	uel used.	Others –  Check	here and attach a se	parate list un	der each f	uel used.
<ol> <li>Maximum fuel u.</li> <li>The annual fuel liquid fuel, therm</li> <li>If you are using fuels. Sulfur cors</li> <li>Emission factors</li> <li>See the Control</li> <li>Place a check in</li> </ol>	atural Gas (189) se rate units: gallor usage is the actual is for natural gas, a diesel, natural gas, itent units: weight? may be reported a Efficiency/Emission this column if the a N I hereby certify	or projected en nd SCF for other or gasoline, you of for liquid fuels as gram/brakehp of Factor Basis Co emission factor of that all inform	id 11)  Ils and SC  Igine fuel of  Ir gaseous  I may skip  I, ppmv for  Inhr, or as  I code table  I applies to	Digester G E/hr for gas consumption is fuels. (the othis entry. r gaseous fi lb per gallo under Seci emissions i ntained he	as (493)  Leseous fuels. (SCF = Sign over a rolling 12-moierm = 100,000 BTUs, if Heat content units: Equals. (ppmv = parts pens, or as ib per therm, or as ib per therm, or as in a page 1 of this pafter abatement by an erein is true and correction.	oth time period. Ann BTU =British Therma BTU/gallon for liquid it er million by volume) or as lb per SCF. is form. add-on abatement d	ual usage uni I Unit) fuels, BTU/SC evice. and date thi	CF for gase	
Approved By:		Da	ate:		Entered By:		Date	e:	

375 Beale Street, Suite 600, San Francisco, CA 94105

Engineering Division

(415) 749-4990

www.baaqmd.gov fax (415) 74

(415) 749-5030

## Form ICE Internal Combustion Engines

momai	Combastion	Liigiiioo	

engine manufacturer's <b>equipment specifications</b> .			
1. SUMMARY New Construction Modification Loss of Exer	mption		
Company Name Vantage Data Centers Management Co, LLC.	Plant No.*		
Source Description Diesel Generator	Source No.*	24	
Initial Date of Operation ASAP (Not required for modification of an existing p	*/1f	unknown leav	e blank)
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 5	0 Maximui	m hrs/day 2	24
2. ENGINE INFORMATION	Reg. 2-1-413 for requ	uirements)	
Engine Type: (Check one)    4 Stroke   2 Stroke Compression Ignition (Diesel) or	□ 4 Stroke □ 2 St	roke Spark	Ignition
Engine Manufacturer Caterpillar Model C175-16		<sub>ear</sub> 2017	_
	<sub>No.</sub> unknown		
	Typical load as % of b	ohn rating 6	30
Is this an emergency/standby engine?	Typical load as 70 of t	onpracing _	
(Complete and check all that apply)			
	mboll Environ		
□ None (If None is checked, please indicate below the items applicable to			
□ Naturally aspirated □ Supercharged □ Turbocharged □	☐ Inter-cooled	☐ After-	cooled
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn			
Primary Use:    Electrical generation    Cogeneration    Pump driver	☐ Fire pump driver		
☐ Compressor driver ☐ Tub grinder driver ☐ Other:			
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts Check here if the engine has more than one add-on abatement device and complete a sabatement device.			al
Abatement device number A 24 (If unknown leave blank) ■ New □ Exi	sting		
Device type:    Diesel catalyzed particulate filter    Oxidation catalyst    Selection		(SCR)	
☐ Non-selective catalytic reduction (NSCR or 3-way catalyst) ☐ Other:	9 9 9	ATC.	
Make, Model, and Rated Capacity Johnson Matthey CRT +	DOTTISON WATER	y Oili i	
	If unknown loos o bla	mlel	
Abatement device control efficiencies at typical operation (Use the basis codes listed below.	ii unknown leave bla		Danie.
Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)	Pollutant Name	Wt % Reduction	Basis Code
Source testing or other measurement by plant     (8) Guess	Particulates	85	9
2) Source testing or measurement by BAAQMD (District use only) (9) EPA/CARB Certification	Organics	70	9
3) Specification from vendor	Nitrogen Oxides		
4) Material balance by plant using knowledge of process	Sulfur Dioxide		
5) Material balance by BAAQMD (District use only)	Carbon Monoxide	80	12/20/201
6) EPA Document AP-42 Emission Factors	Others - Check h		
7) Taken from literature other than AP-42	separate list of pollut		TIE DASIS

(District Use Only)

# Form ICE

Internal Combustion Engines

4. EMISSION POI emission monito					engine has more thint	an one stack or f	nas a continu	ous pollu	tant
Emission point nu	mber P	(If un	known le	eave blank	New E	kisting			
Stack outlet height	t from ground lev	rel (ft) 45.17							
Diameter of stack	outlet (inches)	20.08	or O	utlet cross	s-section area (squa	re inches)			
Direction of outlet			■ Ve		End of outlet (check		/hinged flap	Пв	ain cap
Exhaust rate at typ		70.	W		ust temperature at t	the second to			a cap
5. RISK ASSESSI				LANG	det temperature at t	ypical operation (			
Distance from eng	ine to the proper	ty line of the ne	earest re	esidence (	801.37	or (check if)	☐ Great	er than o	ne mile
Distance from eng		3		24 200	,	or (check if)	■ Great		
	20.00	5 05 10 12 15			- Industrial				000 11
Describe the near	est non-residenti	The second second second			☐ Industrial	Commercial	☐ Hospi	tai	
				re center	Other	400.4	10-4		
			earest ne	on-resider	itial, non-school site	e(ft) 132.4	or Grea	ter than	one mile
1. K-12 and more to	han twelve childrei	n only.							
attach a fuel ana	alysis indicating nit that correspon	the higher heat ds to the inform	ing valu nation y	e, sulfur c	ou are using a fuel o ontent, and nitrogen mitting.   Check f	content. Please	clearly indica	te the	
	Primary	Fuel				Secondary	Fuel	-	
Fuel Code <sup>1</sup> 98	Name	ULSD		<u> </u>	Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	10710	gal/yr or th	nerm/yr o	r SCF/yr	Annual Fuel Usage		gal/yr or t	herm/yr o	r SCF/yr
Typical Heat Conte	nt <sup>4</sup>	BTU	gal or B	TU/SCF	Typical Heat Conter	nt <sup>4</sup>	BTU	I/gal or B	TU/SCF
Sulfur Content <sup>4</sup>		wt% liquid	s or ppm	v gases	Sulfur Content <sup>4</sup>		wt% liquid	ds or ppm	v gases
	Emission Fact	ors (Optional)				Emission Facto	rs (Optional)		
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√)7	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates					Particulates				
Organics			5		Organics				
Nitrogen Oxides	. 4 .5				Nitrogen Oxides				
Carbon Monoxide					Carbon Monoxide				
Others - Check	here and attach a	separate list und	er each f	uel used.	Others - Check	here and attach a s	eparate list und	der each f	uel used.
<ol> <li>Maximum fuel us</li> <li>The annual fuel us liquid fuel, therm</li> <li>If you are using a fuels. Sulfur contons</li> <li>Emission factors</li> <li>See the Control of</li> <li>Place a check in</li> </ol>	atural Gas (189) se rate units: gallor usage is the actual s for natural gas, a diesel, natural gas, itent units: weight of may be reported a Efficiency/Emission this column if the MI hereby certify	or projected eng and SCF for other or gasoline, you % for liquid fuels, as gram/brakehp- n Factor Basis Co emission factor a	s and SC ine fuel of gaseous may skip ppmv for hr, or as ode table pplies to ation co	Digester G CF/hr for ges consumption is fuels. (the othis entry. If gaseous fu lb per gallo under Sect emissions g ntained he	as (493) Liseous fuels. (SCF = Stent over a rolling 12-more mm = 100,000 BTUs, Each tent content units: Buels. (ppmv = parts pen, or as lb per therm, or as lb per the	oth time period. Ann BTU =British Therma BTU/gallon for liquid or million by volume or as Ib per SCF. form. add-on abatement o	nual usage unit al Unit) fuels, BTU/SC ) device. a and date thi:	F for gase	
Approved By:		Da	te:		Entered By:		Date	ə:	

375 Beale Street, Suite 600, San Francisco, CA 94105

Engineering Division (415) 749-4990 www.baaqmd.gov fax (415) 749-5030

Form ICE	
Internal Combustion Engines	

engine manufacturer's equipment specifications.	
1. SUMMARY New Construction Modification Loss of Exem	ption
Company Name Vantage Data Centers Management Co, LLC.	Plant No.*
Source Description Diesel Generator	Source No.* 25
Initial Date of Operation ASAP (Not required for modification of an existing per	*/If unknown leave blank)
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 50	Maximum hrs/day 24
2. ENGINE INFORMATION	Reg. 2-1-413 for requirements)
Engine Type: (Check one)   4 Stroke   2 Stroke Compression Ignition (Diesel) or Engine Manufacturer   Caterpillar   Model   C175-16	4 Stroke 2 Stroke Spark Ignition Model Year 2017
	No. unknown
	ypical load as % of bhp rating 60
Is this an emergency/standby engine?	
(Complete and check all that apply)	
Certification: ☐ EPA Certified ☐ CARB Certified CARB Executive Order No. Rar	nboll Environ
☐ None (If None is checked, please indicate below the items applicable to t	
☐ Naturally aspirated ☐ Supercharged ☐ Turbocharged	☐ Inter-cooled ☐ After-cooled
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn	_
	D Fine warmen deitage
	Fire pump driver
	o an add on abotoment device
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to the characteristic complete and complete a substant device and complete a substant device.	
Abatement device number A 25 (If unknown leave blank)   New  Exis	iting
Device type: ■ Diesel catalyzed particulate filter □ Oxidation catalyst □ Selective	e catalytic reduction (SCR)
□ Non-selective catalytic reduction (NSCR or 3-way catalyst) □ Other:	Johnson Matthey CRT +
Make, Model, and Rated Capacity Johnson Matthey CRT +	
Abatement device control efficiencies at typical operation (Use the basis codes listed below.	If unknown leave blank)
Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)	Pollutant Name Wt % Basis Reduction Code
(1) Source testing or other measurement by plant (8) Guess	Particulates 85 9
(2) Source testing or measurement by BAAQMD (District use only) (9) EPA/CARB Certification	Organics 70 9
(3) Specification from vendor	Nitrogen Oxides
(4) Material balance by plant using knowledge of process	Sulfur Dioxide
(5) Material balance by BAAQMD (District use only)	Carbon Monoxide 80 12/20/20
<ul><li>(6) EPA Document AP-42 Emission Factors</li><li>(7) Taken from literature other than AP-42</li></ul>	Others –  Check here and attach a separate list of pollutants. Include the basis code and the control efficiency.

(District Use Only)

## Form ICE

Internal Combustion Engines

4. EMISSION POIL emission monitor					engine has more thint	nan one stack or	has a continuo	ous pollu	tant
Emission point nur	mber P	(If un	known le	eave blank	New 🗆 E	xisting			
Stack outlet height	from ground lev	el (ft) 45.17							
Diameter of stack	outlet (inches)	20.08	or O	utlet cross	s-section area (squa	re inches)			
Direction of outlet	(check one)	] Horizontal	■ Ve	rtical	End of outlet (check	k one) 🔳 Ope	en/hinged flap	□R	ain cap
Exhaust rate at typ	oical operation (a	cfm) 25630	)	Exha	ust temperature at t	ypical operation	(°F) 891.9		
5. RISK ASSESSM	MENT INFORMA	TION.							
Distance from eng	ine to the proper	ty line of the ne	earest re	sidence (	ft) 801.37	or (check it	) Greate	er than o	ne mile
Distance from eng	ine to the proper	ty line of the ne	earest so	chool <sup>1</sup> (ft)	•	or (check if	Greate	er than 1	000 ft
Describe the near	7	12 X 110		53 AC	☐ Industrial	Commercia			
Document in the mean				re center	☐ Other				
Distance from eng	ine to the proper				ntial, non- school site	e(ft) 132.4	or ☐ Grea	ter than	one mile
K-12 and more ti	71 27	M33	Sarostri	311-163idei	iliai, non- sonooi sid	5(11)	or 🗀 orea	tor triair	one mile
			b E. al b.		ou are using a fuel o	th th th	liated in the five	al ando t	shla
attach a fuel and	alysis indicating it that correspon	the higher head ds to the inform	ting valu nation ye	e, sulfur c	ontent, and nitroger omitting.   Check i	content. Pleas	e clearly indica	te the	
	Primary	Fuel				Secondar	y Fuel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	10710	gal/yr or th	herm/yr o	r SCF/yr	Annual Fuel Usage	3	gal/yr or t	herm/yr o	r SCF/yr
Typical Heat Conter	nt <sup>4</sup>	BTU.	/gal or B	TU/SCF	Typical Heat Conte	nt <sup>4</sup>	BTU	J/gal or B1	TU/SCF
Sulfur Content <sup>4</sup>		wt% liquid	ls or ppm	v gases	Sulfur Content <sup>4</sup>		wt% liquid	ds or ppm	v gases
	Emission Factor	ors (Optional)				Emission Fact	ors (Optional)	r -	
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates					Particulates				
Organics					Organics				
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide		1491			Carbon Monoxide				
Others - Check	here and attach a	separate list und	er each fi	uel used.	Others - Check	here and attach a	separate list und	ler each f	uel used.
<ol> <li>Maximum fuel us</li> <li>The annual fuel us liquid fuel, therms</li> <li>If you are using a fuels. Sulfur con</li> <li>Emission factors</li> <li>See the Control E</li> <li>Place a check in</li> </ol>	atural Gas (189) se rate units: gallon usage is the actual s for natural gas, a diesel, natural gas, tent units: weight 9 may be reported a Efficiency/Emissior this column if the e	or projected eng and SCF for other or gasoline, you for liquid fuels, as gram/brakehp- n Factor Basis Co emission factor a	Is and SC gine fuel of gaseous may skip ppmv for hr, or as ode table applies to	consumptions fuels. (the parties of this entry.) If gaseous full per gallounder Sections is sections.		oth time period. A BTU =British Then BTU/gallon for liqui er million by volum or as Ib per SCF. Is form. add-on abatemen	t) nnual usage unit nal Unit) d fuels, BTU/SC e) t device.	F for gase	
Name of person of	certifying (print)	Title of pe		tifying	Signatur	e of person certify	ng I	Date	

375 Beale Street, Suite 600, San Francisco, CA 94105

Engineering Division (415) 749-4990 www.baaqmd.gov fax (415) 749-5030

Form ICE	
Internal Combustion	Engines

engine manufacturer's equipm	ient specifications.				
1. SUMMARY	Construction  Modification	Loss of Exen	nption		
Company Name Vanta	ge Data Centers Manage	ement Co, LLC.	Plant No.*		
Source Description Diese	I Generator		Source No.*	26	
Initial Date of Operation AS	AP (Not required	for modification of an existing pe	*/16	unknown leav	e blank)
		k 1 Weeks/yr 50	) Maximul	m hrs/day 2	24
2. ENGINE INFORMATION	☐ Check here if applying for a m	nultiple location permit. (See	Reg. 2-1-413 for requ	uirements)	
Engine Type: (Check one)	■ 4 Stroke □ 2 Stroke Compres	sion Ignition (Diesel) or	□ 4 Stroke □ 2 St	troke Spark	Ignition
Engine Manufacturer Cate				ear 2017	- T
EPA/CARB Engine Family Nar	me HCPXL106.NZS		No. unknown		
	5.8 (cu in) Maximum rated o		ypical load as % of t	ohn rating 6	0
Is this an emergency/standby		diput (brip)	ypical load as 70 of t	onpraing _	
(Complete and check all that a Certification: ☐ EPA Cert	7 (3 <del>- 6</del> 96)	B Executive Order No. Rai	mboll Environ		
	None is checked, please indicate b			□ A6	
	urally aspirated Supercharg	<u> </u>	☐ Inter-cooled	☐ After-	cooled
☐ Tim	ing retard ≥ 4°	☐ Rich-burn			
Primary Use:	generation	☐ Pump driver	☐ Fire pump driver		
☐ Compres	sor driver	er Other:			
	ORMATION Complete this section has more than one add-on abaten				al
Abatement device number	A 26 (If unknown leav	ve blank)   New  Exis	sting		
	talyzed particulate filter		ve catalytic reduction	(SCR)	
	ctive catalytic reduction (NSCR or				
	city Johnson Matthey CRT		oomioon materi	7 0111	
	iencies at typical operation (Use th		If unknown leave ble	nk)	
Abatement device control enic	encies at typical operation (ose tr	le basis codes listed below.	II unknown leave bla	and the same of th	Pasis
Control Efficiency/Emission Factor	Basis Codes: (Submit supporting doc	umentation if available)	Pollutant Name	Wt % Reduction	Basis Code
(1) Source testing or other meas	urement by plant	(8) Guess	Particulates	85	9
(2) Source testing or measurement	ent by BAAQMD (District use only)	(9) EPA/CARB Certification	Organics	70	9
(3) Specification from vendor			Nitrogen Oxides	1	
(4) Material balance by plant using	ng knowledge of process		Sulfur Dioxide		- 52,6 C/A 100,0
(5) Material balance by BAAQMI	) (District use only)		Carbon Monoxide	80	12/20/20
(6) EPA Document AP-42 Emiss			Others – Check h separate list of pollul		
(7) Taken from literature other th	an AP-42		code and the control		

(District Use Only)

# Form ICE

Internal Combustion Engines

4. EMISSION POI emission monito					engine has more th	nan one stack or ha	as a continu	ous pollu	tant
Emission point nu	mber P	(If ur	known l	eave blank	)  New  E	xisting			
Stack outlet heigh	t from ground lev	/el (ft) 45.17							
Diameter of stack	outlet (inches)	20.08	or O	utlet cross	-section area (squa	re inches)			
Direction of outlet			■ Ve	rtical	End of outlet (check	k one) 🔳 Open	hinged flap	□R	ain cap
Exhaust rate at type	(c) (c) (c) (d)		0	Exha	ust temperature at t	ypical operation (°	F) 891.9		
5. RISK ASSESSI									
Distance from eng	ine to the prope	rty line of the n	earest re	esidence (f	(t) 801.37	or (check if)	☐ Great	er than o	ne mile
Distance from eng	C	U was a second		20 5/40 1 30.500	-	or (check if)	■ Great	er than 1	000 ft
Describe the near	MATERIAL WANTE STREET				☐ Industrial	■ Commercial	☐ Hospi		
Doddillo tro rioti			_	re center	Other				
Distance from end	ine to the proper	_			tial, non- school site	e(ft) 132.4 o	r □ Grea	iter than	one mile
K-12 and more to			Ju. 001 11		, oorloof alte			trail	-110 111110
attach a fuel an	alysis indicating nit that correspor	the higher hea nds to the infor	nting valu mation y	ie, sulfur c	ou are using a fuel of ontent, and nitroger mitting.   Check I	content. Please	clearly indica	ate the	
	Primary	Fuel				Secondary F	uel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name	_ !		
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr c	or SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	<sup>3</sup> 10710	gal/yr or t	herm/yr o	r SCF/yr	Annual Fuel Usage	3	gal/yr or	therm/yr o	r SCF/yr
Typical Heat Conte	nt <sup>4</sup>	VANAGE.	J/gal or B	0.15000.54309900	Typical Heat Conte	nt <sup>4</sup>	BT	J/gal or B	TU/SCF
Sulfur Content⁴ _		wt% liquid	ds or ppm	v gases	Sulfur Content <sup>4</sup>		wt% liqui	ds or ppm	v gases
	Emission Fact	1	1		-	Emission Factors		ř	1
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates					Particulates			-37	
Organics					Organics			100	
Nitrogen Oxides					Nitrogen Oxides				
Others – Check					Carbon Monoxide	here and attach a se			
<ol> <li>Maximum fuel us</li> <li>The annual fuel liquid fuel, therm</li> <li>If you are using fuels. Sulfur cor</li> <li>Emission factors</li> <li>See the Control</li> <li>Place a check in</li> </ol> 7. CERTIFICATIO	atural Gas (189) se rate units: galloi usage is the actual s for natural gas, a diesel, natural gas, itent units: weight of may be reported a Efficiency/Emission this column if the	or projected engand SCF for other or gasoline, you for liquid fuels as gram/brakehp in Factor Basis Cemission factor as that all inform	is and SC gine fuel of greateous umay skip ppmv for p-hr, or as code table applies to	Digester Gic CF/hr for gas consumptior is fuels. (the pothis entry. In gaseous fu lb per gallo under Sect. emissions gantained he	as (493) Leous fuels. (SCF = Standard = 100,000 BTUs, Education = 100,	oth time period. Ann. BTU =British Therma BTU/gallon for liquid to the million by volume) BTU = SCF. BTO form. BTO and add-on abatement d	ual usage uni l Unit) uels, BTU/SC evice.	CF for gase	
Approved By:		Da	ate:		Entered By:		Date	e:	

375 Beale Street, Suite 600, San Francisco, CA 94105

Engineering Division (415) 749 www.baaqmd.gov fax (415) 749

Inter	nal Cor	mbustior	Engines	

Form ICE

n	(415) 749-4990	
fax	(415) 749-5030	

engine manufacturer's <b>equipment specifications</b> .  SUMMARY ■ New Construction □ Modification □ Loss of Exer	antion		
Venters Data Contain Management Co. LLC			
Vantage Data Centers Management Co, LLC.	Plant No.*	07	
Source Description Diesel Generator	Source No.*	unknown leav	o blank)
nitial Date of Operation ASAP (Not required for modification of an existing policy)	ermitted source)	unknown leav	e Dialik)
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 5		m hrs/day 2	24
E. ENGINE INFORMATION	Reg. 2-1-413 for requ	uirements)	
Engine Type: (Check one) 4 Stroke 2 Stroke Compression Ignition (Diesel) or Engine Manufacturer Caterpillar Model C175-16		roke Spark ear 2017	
PA/CARB Engine Family Name HCPXL106.NZS Engine Serial	No. unknown		
	ypical load as % of b	hp rating 6	0
s this an emergency/standby engine?			
Complete and check all that apply)			
Certification:   EPA Certified   CARB Certified   CARB Executive Order No.   Ra	mboll Environ		
☐ None (If None is checked, please indicate below the items applicable to	this engine.)		
☐ Naturally aspirated ☐ Supercharged ☐ Turbocharged	☐ Inter-cooled	☐ After-	cooled
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn			
Primary Use:   Electrical generation   Cogeneration   Pump driver	☐ Fire pump driver		
☐ Compressor driver ☐ Tub grinder driver ☐ Other:			
. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts  Check here if the engine has more than one add-on abatement device and complete a sabatement device.			al
sbatement device number A 27 (If unknown leave blank) ■ New □ Exi	sting		
	ve catalytic reduction	(SCR)	
□ Non-selective catalytic reduction (NSCR or 3-way catalyst) □ Other:	-		
Make, Model, and Rated Capacity Johnson Matthey CRT +	OOTHIOOTI WATER	y OITT	
	Wlmanm laava bla	m le\	
Abatement device control efficiencies at typical operation (Use the basis codes listed below.	II UNKNOWN leave bla		
Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)	Pollutant Name	Wt % Reduction	Basis Code
1) Source testing or other measurement by plant (8) Guess	Particulates	85	9
2) Source testing or measurement by BAAQMD (District use only) (9) EPA/CARB Certification	Organics	70	9
3) Specification from vendor	Nitrogen Oxides		l co
Material balance by plant using knowledge of process	Sulfur Dioxide		-34
5) Material balance by BAAQMD (District use only)	Carbon Monoxide	80	12/20/201
6) EPA Document AP-42 Emission Factors	Others - Check h		
7) Taken from literature other than AP-42	separate list of pollut		ine pasis

(District Use Only)

## Form ICE

Internal Combustion Engines

	NT/STACK INFO				e engine has more ti int	han one stack or l	as a continu	ous pollu	tant
Emission point nu	mber P	(If un	known le	eave blan	k) 🔳 New 🗌 E	xisting			
Stack outlet heigh	t from ground lev	rel (ft) 45.17		_					
Diameter of stack	outlet (inches)	20.08	or O	utlet cros	s-section area (squa	are inches)			
Direction of outlet	(check one)	Horizontal	■ Ve	rtical	End of outlet (check	k one) 🔳 Oper	/hinged flap	□R	ain cap
Exhaust rate at ty	pical operation (a	ocfm) 25630	)	Exha	aust temperature at		5/5/7/10		
5. RISK ASSESS									
Distance from eng	ine to the proper	ty line of the n	earest re	esidence (	(ft) 801.37	or (check if)	☐ Great	er than o	ne mile
Distance from eng		1.51			-	or (check if)	■ Great		
Describe the near					☐ Industrial	■ Commercial	Hospi		
December and mean	out non rooidona			re center	Other		Птоорі	tai	
Distance from one	ing to the surren					132 /			
K-12 and more to			earest no	on-resider	ntial, non-school site	ε(π) 132.4	or ∐ Grea	iter than	one mile
attach a fuel and	alysis indicating nit that correspon	the higher hea ds to the inforr	ting valu nation ye	e, sulfur d	ou are using a fuel of content, and nitroger omitting.   Check in the content of	content. Please	clearly indica	te the	
	Primary	Fuel				Secondary	Fuel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	3 10710	gal/yr or ti			Annual Fuel Usage	3	gal/yr or t	herm/yr o	r SCF/yr
Typical Heat Conte	nt <sup>4</sup>	ВТИ	/gal or B	TU/SCF	Typical Heat Conte	nt <sup>4</sup>	ВТІ	J/gal or B7	TU/SCF
Sulfur Content <sup>4</sup>		wt% liquid	ls or ppm	v gases	Sulfur Content <sup>4</sup>		wt% liqui	ds or ppm	v gases
_	Emission Fact	ors (Optional)			_	Emission Facto	rs (Optional)		
Pollutant Name	Emission	Units <sup>5</sup>	Basis	Abated	Pollutant Name	Emission	Units <sup>5</sup>	Basis	Abated
	Factor		Code <sup>6</sup>	Factor (√) <sup>7</sup>		Factor		Code <sup>6</sup>	Factor (√) <sup>7</sup>
Particulates					Particulates				
Organics					Organics				
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide					Carbon Monoxide			1	
Others - Check	here and attach a	separate list und	er each fi		Others - Check	here and attach a s	eparate list und	der each fu	
<ol> <li>Maximum fuel us</li> <li>The annual fuel liquid fuel, therm</li> <li>If you are using a fuels. Sulfur cors</li> <li>Emission factors</li> <li>See the Control</li> <li>Place a check in</li> </ol>	atural Gas (189) se rate units: gallor usage is the actual s for natural gas, a diesel, natural gas, itent units: weight 9 may be reported a Efficiency/Emission this column if the o N I hereby certify	or projected eng nd SCF for other or gasoline, you 6 for liquid fuels, as gram/brakehp or Factor Basis Co emission factor a	s and SC gine fuel of gaseous may skip ppmv for hr, or as ode table pplies to ation co	Digester G F/hr for ga- consumption of fuels. (the othis entry.) r gaseous f Ib per gallo under Sec emissions ntained he	seous fuels. (SCF = St n over a rolling 12-more erm = 100,000 BTUs, It Heat content units: E uels. (ppmv = parts pe on, or as Ib per therm, or tion 3 on page 1 of this after abatement by an arein is true and corr	oth time period. Ann BTU =British Therma BTU/gallon for liquid ar million by volume for as lb per SCF. as form. add-on abatement of	nual usage unit al Unit) fuels, BTU/SC device. and date this	F for gase	
Approved By:		Da	te:		Entered By:		Date	n:	

375 Beale Street, Suite 600, San Francisco, CA 94105

Engineering Division

(415) 749-4990

www.baaqmd.gov fax (41

(415) 749-5030

## Form ICE Internal Combustion Engines


engine manufacturer's equipment specifications.
1. SUMMARY New Construction Modification Loss of Exemption
Company Name Vantage Data Centers Management Co, LLC. Plant No.*
Source Description Diesel Generator Source No.* 28
Initial Date of Operation ASAP (Not required for modification of an existing permitted source) *(If unknown leave blank)
Operating Schedule Typical hrs/day 0.5 Days/week 1 Weeks/yr 50 Maximum hrs/day 24
2. ENGINE INFORMATION
Engine Type: (Check one) 4 Stroke 2 Stroke Compression Ignition (Diesel) or 4 Stroke 2 Stroke Spark Ignition
Engine Manufacturer Caterpillar Model C175-16 Model Year 2017
EPA/CARB Engine Family Name HCPXL106.NZS Engine Serial No. unknown
Engine Displacement 5155.8 (cu in) Maximum rated output (bhp) 4423 Typical load as % of bhp rating 60
Is this an emergency/standby engine? ■ Yes □ No
(Complete and check all that apply)
Certification:   EPA Certified  CARB Certified CARB Executive Order No.  Ramboll Environ
None (If None is checked, please indicate below the items applicable to this engine.)
□ Naturally aspirated □ Supercharged □ Turbocharged □ Inter-cooled □ After-cooled
☐ Timing retard ≥ 4° ☐ Lean-burn ☐ Rich-burn
Primary Use: ■ Electrical generation □ Cogeneration □ Pump driver □ Fire pump driver
☐ Compressor driver ☐ Tub grinder driver ☐ Other:
3. ABATEMENT DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on abatement device. Check here if the engine has more than one add-on abatement device and complete a separate Form A for each additional abatement device.
Abatement device number A 28 (If unknown leave blank)    New   Existing
Device type:    Diesel catalyzed particulate filter    Oxidation catalyst    Selective catalytic reduction (SCR)
☐ Non-selective catalytic reduction (NSCR or 3-way catalyst) ☐ Other: <u>Johnson Matthey CRT</u> +
Make, Model, and Rated Capacity Johnson Matthey CRT +
Abatement device control efficiencies at typical operation (Use the basis codes listed below. If unknown leave blank)
Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)  Wt % Basis Reduction Code
(1) Source testing or other measurement by plant (8) Guess Particulates 85 9
(2) Source testing or measurement by BAAQMD (District use only) (9) EPA/CARB Certification Organics 70 9
(3) Specification from vendor Nitrogen Oxides
(4) Material balance by plant using knowledge of process Sulfur Dioxide
(5) Material balance by BAAQMD (District use only)  Carbon Monoxide 80 12/20/2
(6) EPA Document AP-42 Emission Factors  Others - ☐ Check here and attach a separate list of pollutants. Include the basis
(7) Taken from literature other than AP-42

### Form ICE

Internal Combustion Engines

	NT/STACK INFO				engine has more t	han one stack or h	as a continuo	ous pollu	tant
Emission point nu	mber P	(If ur	known l	eave blank	New 🗆 E	xisting			
Stack outlet heigh	t from ground lev	rel (ft) 45.17							
Diameter of stack	outlet (inches)	20.08	or C	utlet cross	s-section area (squa	are inches)			
Direction of outlet			■ Ve	rtical	End of outlet (chec	k one) 🔳 Open	hinged flap	Пв	ain cap
Exhaust rate at ty	(A) (A) (A)				ust temperature at				
5. RISK ASSESS		CONTRACTOR OF THE PARTY OF THE					3 3 10 17 18		
Distance from eng	ine to the proper	ty line of the n	earest re	esidence (f	801.37	or (check if)	☐ Greate	er than o	ne mile
Distance from eng					·	or (check if)	■ Greate		
Describe the near					☐ Industrial	Commercial	☐ Hospit		00011
Describe the flear	est non-resident				Other	Commercial	□ поѕрії	.di	
Distance from an				re center		e(ft) 132.4 o	По		"
K-12 and more to			earest n	on-residen	tial, non-school sit	e(π) 132.4 ο	r Grea	ter than	one mile
			L &   L.			H - H - H - P		1	
attach a fuel an	alysis indicating nit that correspon	the higher hea ds to the infon	ting valu mation y	e, sulfur co	ou are using a fuel of ontent, and nitroger mitting.   Check	content. Please	clearly indica	te the	
	Primary	Fuel				Secondary F	uel		
Fuel Code <sup>1</sup> 98	Name	ULSD			Fuel Code <sup>1</sup>	Name	- T. T. L.		
Maximum Fuel Use	Rate <sup>2</sup> 214.2		gal/hr o	r SCF/hr	Maximum Fuel Use	Rate <sup>2</sup>		gal/hr or	SCF/hr
Annual Fuel Usage	<sup>3</sup> 10710	gal/yr or t	- herm/yr o	r SCF/yr	Annual Fuel Usage	3	gal/yr or ti	herm/yr o	r SCF/yr
Typical Heat Conte	nt <sup>4</sup>	ВТ	l/gal or B	TU/SCF	Typical Heat Conte	nt <sup>4</sup>	BTU	l/gal or B1	TU/SCF
Sulfur Content⁴		wt% liquid	ds or ppm	v gases	Sulfur Content⁴		wt% liquid	s or ppm	v gases
-	Emission Fact	ors (Optional)				Emission Factors	s (Optional)		
Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>	Pollutant Name	Emission Factor	Units <sup>5</sup>	Basis Code <sup>6</sup>	Abated Factor (√) <sup>7</sup>
Particulates					Particulates				
Organics					Organics				
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide					Carbon Monoxide				
Others - Check	here and attach a	separate list und	ler each fi	uel used.	Others - Check	here and attach a se	parate list und	er each fu	uel used.
<ol> <li>Maximum fuel us</li> <li>The annual fuel liquid fuel, therm</li> <li>If you are using fuels. Sulfur cors</li> <li>Emission factors</li> <li>See the Control</li> <li>Place a check in</li> </ol>	atural Gas (189) se rate units: gallor usage is the actual s for natural gas, a diesel, natural gas, itent units: weight may be reported a Efficiency/Emission this column if the	Landfill Gas (5 /hr for liquid fue or projected eng nd SCF for othe or gasoline, you for liquid fuels as gram/brakehp a Factor Basis Commission factor a that all inform	11) Is and SC gine fuel of gaseous may skip ppmv for hr, or as ode table applies to	Digester Gi F/hr for gas consumption is fuels. (the othis entry. gaseous fu lb per gallou under Secti emissions g	as (493) Leous fuels. (SCF = Sin over a rolling 12-month = 100,000 BTUs, in Heat content units: It leels. (ppmv = parts point, or as lb per therm, in ion 3 on page 1 of this after abatement by an rein is true and correct	oth time period. Anni BTU =British Therma BTU/gallon for liquid for million by volume) or as lb per SCF. s form. add-on abatement de	ual usage units l Unit) uels, BTU/SCI evice.	F for gase	
Name of person	certifying (print)		erson cer	tifying		e of person certifying		Date	/
Approved By:	(District Use Or		ite:		Entered By:	Fe	Date		2 of 2

375 Beale Street, Suite 600, San Francisco, CA 94105

**Engineering Division** 

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# Form ICE

Internal Combustion Engines

each engine. If Analysis. Additi engineer or the	be completed for all internal combustion engines of f this is a new engine or a modification to an existi- tional forms and all District regulations and rules a Engineering Division at the above telephone num cturer's equipment specifications.	ing engine, you must also cor are available on the District's	mplete Form HRSA F web site. Contact yo	Health Risk S our assigned	creen permit
1. SUMMARY	■ New Construction	n Loss of Exen	nption		
Company Name	Vantage Data Centers Manage	ement Co, LLC.	Plant No.*		
Source Descript	tion Diesel Generator		Source No.*	29	
Initial Date of O	peration ASAP (Not required	for modification of an existing pe	*/14	unknown leav	e blank)
Operating Sche	0 F	k 1 Weeks/yr 50	) Maximu	m hrs/day 2	24
2. ENGINE INFO	ORMATION	nultiple location permit. (See	Reg. 2-1-413 for reg	uirements)	
Engine Type: (C	Check one)	ssion Ignition (Diesel) or Model C175-16	4 Stroke 2 S	troke Spark	
	ement 5155.8 (cu in) Maximum rated of	output (bhp) 4423	ypical load as % of I	ohp rating 6	03
	gency/standby engine? ■ Yes □ No				
	check all that apply)				
Certification:		B Executive Order No. Rai	mboll Environ		
	☐ None (If None is checked, please indicate b		A U		
	☐ Naturally aspirated ☐ Supercharg			☐ After-	cooled
	☐ Timing retard ≥ 4° ☐ Lean-burn				
D.: U			□ Fine more delices		
Primary Use:	■ Electrical generation ☐ Cogeneration	☐ Pump driver	☐ Fire pump driver		
	☐ Compressor driver ☐ Tub grinder drive				1000
	T DEVICE INFORMATION Complete this section re if the engine has more than one add-on abaten nt device.				al
Abatement devi	ice number A 29 (If unknown leav	ve blank)   New  Exis	sting		
Device type:	■ Diesel catalyzed particulate filter	dation catalyst	ve catalytic reduction	(SCR)	
	☐ Non-selective catalytic reduction (NSCR or	3-way catalyst)	Johnson Matthe	ey CRT +	
Make, Model, ar	nd Rated Capacity Johnson Matthey CRT				
	ice control efficiencies at typical operation (Use the		If unknown leave bla	ank)	
	/Emission Factor Basis Codes: (Submit supporting doc		Pollutant Name	Wt % Reduction	Basis Code
(1) Source testin	ng or other measurement by plant	(8) Guess	Particulates	85	9
(2) Source testing	ng or measurement by BAAQMD (District use only)	(9) EPA/CARB Certification	Organics	70	9
(3) Specification	from vendor		Nitrogen Oxides		. 2
(4) Material bala	ance by plant using knowledge of process		Sulfur Dioxide		
(5) Material bala	ance by BAAQMD (District use only)		Carbon Monoxide	80	12/20/20
	ent AP-42 Emission Factors literature other than AP-42		Others –  Check is separate list of pollu code and the control	tants. Include t	