

**DOCKETED**

<b>Docket Number:</b>	20-SPPE-01
<b>Project Title:</b>	Great Oaks South Backup Generating Facility Small Power Plant Exemption
<b>TN #:</b>	237508
<b>Document Title:</b>	Miratech Emission Information
<b>Description:</b>	N/A
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<b>Organization:</b>	DayZenLLC
<b>Submitter Role:</b>	Applicant Representative
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**Application & Performance Warranty Data**
**Project Information**

Site Location:	USA
Project Name:	Equinix San Jose 3250kW - AT-IV
Application:	Standby Power
Number Of Engines:	1
Operating Hours per Year:	200

**Engine Specifications**

Engine Manufacturer:	Cummins
Model Number:	QSK95-G9
Rated Speed:	1800 RPM
Generator Power:	3250 ekW
Type of Fuel:	Ultra-Low Sulfur Diesel (ULSD)
Type of Lube Oil:	1 wt% sulfated ash or less
Lube Oil Consumption:	0.1 % Fuel Consumption
Number of Exhaust Manifolds:	2

**Engine Cycle Data**

Load	Speed	Power	Exhaust Flow	Exhaust Temp.	Fuel Cons.	NO <sub>x</sub>	CO	NMHC	NMNEHC	PM <sub>10</sub>	O <sub>2</sub>	H <sub>2</sub> O
%		bhp	acfm (cfm)	F		g/bhp-hr	g/bhp-hr	g/bhp-hr	g/bhp-hr	g/bhp-hr	%	%
25	Rated	1,276	10,812	648								
100	Rated	4,703	24,590	874		5.7	0.5	0.06	0.06	0.11	10	12

**Emission Data (100% Load)**

Emission	Raw Engine Emissions						Target Outlet Emissions						Calculated Reduction
	g/bhp-hr	tons/yr	ppmvd @ 15% O <sub>2</sub>	ppmvd	g/kW-hr	lb/MW-hr	g/bhp-hr	tons/yr	ppmvd @ 15% O <sub>2</sub>	ppmvd	g/kW-hr	lb/MW-hr	
NO <sub>x</sub> *	5.7	5.91	521	963	7.644	16.85	0.5	0.52	46	84	0.671	1.48	91.2%
CO	0.5	0.52	75	139	0.671	1.48	2.6	2.7	390	721	3.487	7.69	
NMHC**	0.06	0.06	16	29	0.08	0.18	0.14	0.15	37	68	0.188	0.41	
PM <sub>10</sub>	0.11	0.11	39	71	0.148	0.33	.015	0.015			0.02	0.05	87%
NH <sub>3</sub>	0	0	0	0	0	0	0.08	0.08	20	37	0.109	0.24	

\* MW referenced as NO<sub>2</sub>

\*\* MW referenced as CH<sub>4</sub>. Propane in the exhaust shall not exceed 15% by volume of the NMHC compounds in the exhaust, excluding aldehydes. The 15% (vol.) shall be established on a wet basis, reported on a methane molecular weight basis. The measurement of exhaust NMHC composition shall be based upon EPA method 320 (FTIR), and shall exclude formaldehyde.