

February 24, 2014

Colorado Department of Public Health and Environment
Air Pollution Control Division
APCD-SS-B1
4300 Cherry Creek Drive South
Denver, CO 80246-1530



Dear CDPHE APCD staff,

ViaWest, Inc. is submitting the attached Air Pollutant Emission Notice (APEN) forms for two new 2000-kW diesel-fueled emergency generators located at its data center located at 8636 S. Peoria Street in Englewood, Colorado:

Based on a review of Colorado air regulations and discussions with APCD personnel, it is our understanding that the engines would typically be exempt from construction and operating permits because actual emissions of each criteria pollutant are below two tons per year. However, these exemptions do not apply because the engines are subject to the federal New Source Performance Standards (NSPS) for Stationary Compressor Ignition Internal Combustion Engines, and therefore APEN registration is required.

The APEN forms and fees are enclosed. Please let me know if you have any questions.

A handwritten signature in blue ink, appearing to read "David Leonard".

David Leonard
SVP of Data Center Operations



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

December 27, 2012

Mr. Daniel Ponder
MTU Detroit Diesel Corporation
13400 West Outer Drive
Detroit, Michigan 48239-4001

Dear Mr. Ponder:

The South Coast Air Quality Management District (District) has extended to December 31, 2013 the Certified Equipment Permits (CEPs) for the attached stationary emergency internal combustion (IC) engines. Please be advised, however, most of these diesel-fueled IC engines may not meet Rule 1470 requirements beginning January 1, 2013 if installed near sensitive receptors.

Please note that the District does not endorse or warrant any specific equipment or manufacturer. Modification of the equipment listed here will void this certification.

If you have additional questions, or need further clarification on issues pertaining to the CEP program, please feel free to contact Rizaldy Calungcagin at (909) 396-2315.

Sincerely,

A handwritten signature in black ink, appearing to read 'Naveen Berry', is positioned below the word 'Sincerely,'.

Naveen Berry
Manager
Planning, Rule Development, & Area Sources



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MTU DETROIT DIESEL CORPORATION

Certified ICE-Emergency Generators

Engine Brand	Model	Rating	Application No.
MTU Detroit Diesel	R123-8A36 (12V-2000 G84L)	1234 BHP	457869
MTU Detroit Diesel	R123-8A36 (12V-2000 G84 3D)	1120 BHP	457870
MTU Detroit Diesel	R123-8A36 (12V-2000 G84 3B)	1021 BHP	457871
MTU Detroit Diesel	R123-8A36 (12V-2000 G44 3D)	986 BHP	457872
MTU Detroit Diesel	R123-8A36 (12V-2000 G44 3B)	896 BHP	457873
MTU Detroit Diesel	R163-8A36 (16V-2000 G84 3D)	1495 BHP	457874
MTU Detroit Diesel	R163-8A36 (16V-2000 G44 3B)	1227 BHP	457875
MTU Detroit Diesel	R163-8A36 (16V-2000 G84 3B)	1354 BHP	457876
MTU Detroit Diesel	6063-HK36	760 BHP	465048
MTU Detroit Diesel	T1238A36 (12V-4000 G83)	2561 BHP	470532
MTU Detroit Diesel	T1638A36 (16V-4000 G83 3D)	3353 BHP	470533
MTU Detroit Diesel	T1238A36 (12V-4000 G83, 12V-4000 G43)	2328 BHP	470534
MTU Detroit Diesel	T1638A36 (16V-4000 G83 3D, 16V-4000 G83 3B)	3057 BHP	470535
MTU Detroit Diesel	G83L (20V-4000 G83L)	4680 BHP	470536
MTU Detroit Diesel	G83L (20V-4000 G83L, 20V-4000 G83 3D)	4036 BHP	470537
MTU Detroit Diesel	G43D (20V-4000 G43 3D, 20V-4000 G83 3B)	3674 BHP	470538
MTU Detroit Diesel	T1238A34 (12V-4000 G73)	1482 BHP	469312
MTU Detroit Diesel	12V2000G45 TB/TD (R1238A37)	1046 BHP	495341
MTU Detroit Diesel	12V2000G85 TB/TD (R1238A37)	1086 BHP	495342
MTU Detroit Diesel	12V2000G85 TB/TD (R1238A37)	1193 BHP	495343
MTU Detroit Diesel	16V2000G45 TB/TD (R1638A37)	1227 BHP	495344
MTU Detroit Diesel	16V2000G85 TB/TD (R1638A37)	1354 BHP	495345
MTU Detroit Diesel	16V2000G45 TB/TD (R1638A37)	1354 BHP	495346
MTU Detroit Diesel	16V2000G85 TB/TD (R1638A37)	1495 BHP	495347
MTU Detroit Diesel	18V2000G85 TB/TD	1757 BHP	495348
MTU Detroit Diesel	18V2000G85 TB/TD	1597 BHP	495349
MTU Detroit Diesel	12V2000G45 TB/TD (R1238A37)	952 BHP	495350
MTU Detroit Diesel	10V1600G80S	752 BHP	503819
MTU Detroit Diesel	12V1600G80S	896 BHP	503820
MTU Detroit Diesel	12V1600G70S	822 BHP	503822
MTU Detroit Diesel	6R1600G70S	419 BHP	518630
MTU Detroit Diesel	6R1600G80S	460 BHP	518631
MTU Detroit Diesel	8V1600G70S	548 BHP	518632
MTU Detroit Diesel	8V1600G80S	601 BHP	518633

Engine data

	Genset	Marine	O & G	Rail	C & I
Application	x				
Engine model	16V4000G43				
Emission Stage	EPA2				
Optimisation					
Application group	3D				
Date	11.01.2012				
fuel sulphur content [ppm]	5				
mg/mN³ values base on residual oxygen value of [%]	measured				

Engine raw emissions*

Cycle point	[-]	n1	n2	n3	n4	n5	n6	n7	n8
Power (P/PN)	[-]	1	0.75	0.50	0.25	0.10			
Power	[kW]	2280	1710	1140	570	228			
Speed (n/nN)	[-]	1	1	1	1	1			
Speed	[rpm]	1800	1800	1800	1800	1800			
Exhaust temperature after turbine	[°C]	443	386	352	310	277			
Exhaust massflow	[kg/h]	16298	12846	10492	7544	6056			
Exhaust back pressure	[mbar]	-	-	-	-	-			
NOx	[g/kWh]	7.1	5.6	4.5	4.6	6.8			
	[mg/mN³]	1540	1145	755	531	382			
CO*	[g/kWh]	0.6	0.6	0.9	2.0	4.5			
	[mg/mN³]	106	105	134	202	225			
HC	[g/kWh]	0.11	0.15	0.23	0.47	0.55			
	[mg/mN³]	22	28	34	48	28			
O2	[%]	12.0	12.1	13.4	14.8	16.2			
Particulate measured	[g/kWh]	0.06	0.10	0.18	0.34	0.68			
	[mg/mN³]	11	18	26	35	34			
Particulate calculated	[g/kWh]	-	-	-	-	-			
	[mg/mN³]	-	-	-	-	-			
Dust (only TA-Luft)	[mg/mN³]	-	-	-	-	-			
FSN	[-]	0.5	0.6	1.0	1.1	1.4			
NO/NO2**	[-]	-	-	-	-	-			
CO2	[g/kWh]	648.2	663.6	699.8	822.0	1267.5			
	[mg/mN³]	125002	121600	103865	84099	64006			
SO2	[g/kWh]	0.002	0.002	0.002	0.003	0.004			
	[mg/mN³]	0.4	0.4	0.3	0.3	0.2			

- * Emission data measurement procedures are consistent with the respective emission evaluation process. Noncertified engines are measured to sales data (TVU/TEN) standard conditions. These boundary conditions might not be representative for detailed dimensioning of exhaust gas aftertreatment, in this case it is recommended to contact the responsible department for more information. Measurements are subject to variation. The nominal emission data shown is subject to instrumentation, measurement, facility, and engine-to-engine variations. All data applies to an engine in new condition. Over extended operating time deterioration may occur which might have an impact on emission. Exhaust temperature depends on engine ambient conditions.

** No standard test. To be measured on demand.

							Benennung/Title
				MTU Friedrichshafen GmbH			Emissionsdatenblatt Emission Data Sheet
					Datum/Date	Name/Name	Zeichnungs-Nr./Drawing No.
				Bearbeiter/Drawn by	11.01.2012	Lenhof	
				Geprüft/Checked	08.02.2012	Rehm	
				Org./Einheit/Dept	TKF	Veser	
Buchstabe/ Revision	Freigabe	08.02.12	Link	EDS 4000 0406			
	Änderung Modifikation	Datum Date	Name Name				

Vers 1.0

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