



South Coast
AQMD

Part B, Section 1 - SCAQMD BACT Determination

Source Type: Major/LAER

Application No.: 581392

Equipment Category: Gas Turbine

Equipment Subcategory: Simple Cycle, Natural Gas

Date: February 1, 2019

1. EQUIPMENT INFORMATION

A. MANUFACTURER: General Electric		B. MODEL: LMS100PA	
C. DESCRIPTION: Simple Cycle natural gas fired turbine with Intercooler and water injection.			
D. FUNCTION: The equipment is at a "Peaker" plant to support California Independent System Operator (CAISO) during periods of high electricity demand. It's one of five identical turbines at this location.			
E. SIZE/DIMENSIONS/CAPACITY: Net Power Output 100.1 MW			
COMBUSTION SOURCES			
F. MAXIMUM HEAT INPUT: 891.7 MMBTU/hr			
G. BURNER INFORMATION:			
	TYPE	INDIVIDUAL HEAT INPUT	NUMBER
	N/A	Rated heat input of single burner, in btu/hr	Number of burners
H. PRIMARY FUEL: Natural Gas		I. OTHER FUEL: Supplementary or standby fuels	
J. OPERATING SCHEDULE: Hours 24 HRS//DAY 7 DAYS/WEEK 52 WKS/YR			
K. EQUIPMENT COST: N/A			
L. EQUIPMENT INFORMATION COMMENTS:			

2. COMPANY INFORMATION

A. COMPANY: Walnut Creek Energy, LLC		B. FAC ID: 146536	
C. ADDRESS: 911 Bixby Drive CITY: City of Industry STATE: CA ZIP: 91745		D. NAICS CODE: 221112	
E. CONTACT PERSON: Heather MacLeod		F. TITLE: Environmental Specialist	
G. PHONE NO.: -		H. EMAIL: -	

3. PERMIT INFORMATION

A. AGENCY: SCAQMD	B. APPLICATION TYPE: NEW CONSTRUCTION
C. SCAQMD ENGINEER: Christian Aviles	
D. PERMIT INFORMATION: PC ISSUANCE DATE: 9/28/12 P/O NO.: G53017 PO ISSUANCE DATE: 1/2/2018	
E. START-UP DATE: 12/21/2012	
F. OPERATIONAL TIME: 6 years	

4. EMISSION INFORMATION

A. BACT EMISSION LIMITS AND AVERAGING TIMES: List all criteria contaminant or precursor emission limits, including facility limits, on the permit(s) that affects the equipment. Include units, averaging times and corrections (% O ₂ , % CO ₂ , dry, etc). For VOC, values must include if the concentration is reported as methane, hexane or any other compound. VOC mass emissions should include the molecular weight-to-carbon ratio, if applicable.						
	VOC	NOx	SOx	CO	PM OR PM₁₀	INORGANIC
BACT Limit	2 PPMV	2.5 PPMV		4 PPMV		5 PPMV NH ₃
Averaging Time	1 HOUR	1 HOUR		1 HOUR		1 HOUR
Correction	15 % O ₂	15 % O ₂		15 % O ₂		15 % O ₂
B. OTHER BACT REQUIREMENTS: The emission limit shall not apply during turbine commissioning, start-up, shutdown, and equipment tuning.						
C. BASIS OF THE BACT/LAER DETERMINATION: Achieved in Practice/New Technology						
D. EMISSION INFORMATION COMMENTS: Enter any additional comments regarding Emissions Information.						

5. CONTROL TECHNOLOGY

A. MANUFACTURER: SCR - Haldor-Topsoe, CO OxyCat - BASF		B. MODEL: SCR - DNX-629, CO OxyCat - Comet	
C. DESCRIPTION: Ammonia Injection Grid with aqueous ammonia stored in a 16,000 gallon tank			
D. SIZE/DIMENSIONS/CAPACITY: SCR – 1272 cu ft: Width 19 ft 6 in, Height 33 ft, Length 2 ft 6 in. CO Oxycat – 420 cu ft of total catalyst volume			
E. CONTROL EQUIPMENT PERMIT INFORMATION: APPLICATION NO. 581387 PC ISSUANCE DATE: 9/18/12 PO NO.: G53016 PO ISSUANCE DATE: 12/29/2017			
CONTAMINANT	OVERALL CONTROL EFFICIENCY	CONTROL DEVICE EFFICIENCY	COLLECTION EFFICIENCY
VOC	___%	___%	___%
NOx	___%	___%	___%
SOx	___%	___%	___%
CO	___%	___%	___%
PM	___%	___%	___%
PM ₁₀	___%	___%	___%
INORGANIC	___%	___%	___%
G. CONTROL TECHNOLOGY COMMENTS Enter comments for additional information regarding Control Technology.			

6. DEMONSTRATION OF COMPLIANCE

A. COMPLIANCE DEMONSTRATED BY: CEMS DATA and SOURCE TEST
B. DATE(S) OF SOURCE TEST: January 22, 2013
C. COLLECTION EFFICIENCY METHOD: N/A
D. COLLECTION EFFICIENCY PARAMETERS: N/A
E. SOURCE TEST/PERFORMANCE DATA: NOx average over 3 loads was 2.24 ppm @ 15% O2. NH3 average over 3 loads was 1.53 ppm@15%O2. VOC results below detection limit.
F. TEST OPERATING PARAMETERS AND CONDITIONS: 50%, 75% and 100% loads.
G. TEST METHODS (SPECIFY AGENCY): SCAQMD 100.1 for NOx, CO. SCAQMD 25.3 for VOC. SCAQMD 5.1 and EPA 201A/202 for PM and PM2.5
H. MONITORING AND TESTING REQUIREMENTS: Continuous Emissions Monitoring System and Compliance test every three years.

I. DEMONSTRATION OF COMPLIANCE COMMENTS: Unit has shown compliance from source test and CEMS data.

7. ADDITIONAL SCAQMD REFERENCE DATA

A. BCAT: 013709	B. CCAT: 81	C. APPLICATION TYPE CODE: Click here to enter text.	
D. RECLAIM FAC? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	E. TITLE V FAC: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	F. SOURCE TEST ID(S): PR12581A	
G. SCAQMD SOURCE SPECIFIC RULES: Rule 2012, 409, 475, 1303(a)(1), 1703(a)(2)			
H. HEALTH RISK FOR PERMIT UNIT			
H1. MICR: Click here to enter text.	H2. MICR DATE: Click here to enter a date.	H3. CANCER BURDEN: Click here to enter text.	H4. CB DATE: Click here to enter a date.
H5. HIA: Click here to enter text.	H6. HIA DATE: Click here to enter a date.	H7. HIC: Click here to enter text.	H8. HIC DATE: Click here to enter a date.