



Section I – South Coast AQMD LAER/BACT Determination

Source Type: **Major/LAER**
 Application No.: **625401(ICE) and 613081 (SCR)**
 Equipment Category: **I.C. Engine**
 Equipment Subcategory: **Stationary, Non-Emergency,
Electrical Generator with SCR**
 Date: **September 2, 2022**

1. EQUIPMENT INFORMATION

A. MANUFACTURER: Miratech		B. MODEL: SP-EM35-120-18	
C. DESCRIPTION: Selective Catalytic Reduction (SCR) emission control system with urea injection for prime natural gas fired electrical generation lean-burn engine			
D. FUNCTION: SCR system controls exhaust emissions from a prime operation engine used by the City of Palm Springs to generate electricity for one of their municipal facilities. Waste heat from the engine is used to heat water and provide heat to absorption chiller.			
E. SIZE/DIMENSIONS/CAPACITY: 1573 BHP, GE Jenbacher, model JMS416B86, natural gas, lean burn, turbocharged and aftercooled, 16 cylinders, four-cycle driving a 1MW electrical generator.			
COMBUSTION SOURCES			
F. MAXIMUM HEAT INPUT: N/A			
G. BURNER INFORMATION: N/A			
TYPE		INDIVIDUAL HEAT INPUT	
N/A		N/A	
H. PRIMARY FUEL: Natural Gas		I. OTHER FUEL: N/A	
J. OPERATING SCHEDULE: Hours 24 Days 7 Weeks 52			
K. EQUIPMENT COST: N/A			
L. EQUIPMENT INFORMATION COMMENTS: N/A			

2. COMPANY INFORMATION

A. COMPANY: City of Palm Springs		B. FAC ID: 42218	
C. ADDRESS: 425 N. Civic Drive CITY: Palm Springs STATE: CA ZIP: 92262		D. NAICS CODE: 921190	
E. CONTACT PERSON: Staci A. Schafer		F. TITLE: Director Maintenance and Facilities	
G. PHONE NO.: (760) 323-8170		H. EMAIL: staci.schafer@palmspringca.gov	

3. PERMIT INFORMATION

A. AGENCY: SCAQMD	B. APPLICATION TYPE: MODIFICATION
C. SCAQMD ENGINEER: Arnold Peneda	
D. PERMIT INFORMATION:	PC ISSUANCE DATE: 8/26/19
P/O NO.: G63569	PO ISSUANCE DATE: 11/21/2020
E. START-UP DATE: 8/26/2019	
F. OPERATIONAL TIME: 2 years. Originally started in 11/18/15 with subsequent troubleshooting.	

4. EMISSION INFORMATION

A. BACT EMISSION LIMITS AND AVERAGING TIMES:						
	VOC (lbs/MW-hr)	NOX (lbs/MW-hr)	SOX (lbs/MW-hr)	CO (lbs/MW-hr)	PM OR PM ₁₀ (lbs/MW-hr)	INORGANIC
BACT Limit	0.17*	0.12*		0.34*		10 ppm NH ₃
Averaging Time	15 min	15 min		15 min		60 min
Correction	**	15% O ₂		15% O ₂		15% O ₂
B. OTHER BACT REQUIREMENTS: Ammonia slip tested at least once per year and once every 3 months for the first year of operation.						
C. BASIS OF THE BACT/LAER DETERMINATION: Achieved in Practice/New Technology						
D. EMISSION INFORMATION COMMENTS:						
* The limits are in compliance with the Rule 1110.2 electrical energy factor.						
** Time Required for VOC sampling.						

5. CONTROL TECHNOLOGY

A. MANUFACTURER: Miratech		B. MODEL: SP-EM35-120-18	
C. DESCRIPTION: Selective Catalytic Reduction module with a honeycomb type catalyst bed with a urea/air injector, automatic urea injection control and a 1,000 gallon capacity urea storage tank.			
D. SIZE/DIMENSIONS/CAPACITY: Minimum 3 layers of catalyst, with a minimum total of 105 blocks and with a minimum volume of 26.25 cubic feet.			
E. CONTROL EQUIPMENT PERMIT INFORMATION: APPLICATION NO. 613081 PC ISSUANCE DATE:8/26/19 PO NO.: G58644 PO ISSUANCE DATE: 8/26/2019			
F. REQUIRED CONTROL EFFICIENCIES: Shall not exceed 10 ppm ammonia slip limit measured by volume on a dry basis at 15% oxygen over a 60 minute average.			
CONTAMINANT	OVERALL CONTROL EFFICIENCY	CONTROL DEVICE EFFICIENCY	COLLECTION EFFICIENCY
VOC	___%	___%	___%
NOx	___%	___%	___%
Sox	___%	___%	___%
CO	___%	___%	___%
PM	___%	___%	___%
PM ₁₀	___%	___%	___%
INORGANIC	___%	___%	___%
G. CONTROL TECHNOLOGY COMMENTS: Maximum inlet temperature of SCR bed shall not exceed 887°F and outlet temperature shall be maintained at 572°F or greater once startup is achieved, not to exceed one hour.			

6. DEMONSTRATION OF COMPLIANCE

A. COMPLIANCE DEMONSTRATED BY: Source Test
B. DATE(S) OF SOURCE TEST: 12/18/19
C. COLLECTION EFFICIENCY METHOD: N/A
D. COLLECTION EFFICIENCY PARAMETERS: N/A
E. SOURCE TEST/PERFORMANCE DATA: Maximum ammonia slip 0.10 ppm @ 15% O ₂ .
F. TEST OPERATING PARAMETERS AND CONDITIONS:
G. TEST METHODS (SPECIFY AGENCY): South Coast AQMD Method 207.1 (Determination of Ammonia Emissions from Stationary Sources)
O. MONITORING AND TESTING REQUIREMENTS: Ammonia slip tested at least once per year and once every 3 months for the first year of operation.
I. DEMONSTRATION OF COMPLIANCE COMMENTS: N/A

7. ADDITIONAL SCAQMD REFERENCE DATA

A. BCAT: 040002	B. CCAT: 81	C. APPLICATION TYPE CODE: 60	
D. RECLAIM FAC? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	E. TITLE V FAC: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	F. SOURCE TEST ID(S): R20059	
G. SCAQMD SOURCE SPECIFIC RULES: Rule 1110.2			
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.