

Section II: Other LAER/BACT Determinations

Application No.: S-512-24-0

Equipment Category – I.C. Engine, Stationary, Non-Emergency

1. GENERAL INFORMATION		DATE: 7/23/2004
A. MANUFACTURER: General Motor		
B. TYPE: Natural Gas, Rich-Burn	C. MODEL: LM 7400	
D. STYLE:		
E. APPLICABLE AQMD RULES:		
F. COST: \$ (NA)	SOURCE OF COST DATA:	
G. OPERATING SCHEDULE:	24 HRS/DAY	7 DAYS/WK
		52 WKS/YR

2. EQUIPMENT INFORMATION		APP. NO.: S-512-24-0
A. FUNCTION: Drives a 75 kW generator providing power to the facility in parallel with the grid. Waste heat is utilized in a roasting oven.		
B. MAXIMUM HEAT INPUT:	C. MAXIMUM THROUGHPUT: 108 bhp	
D. BURNER INFORMATION: NO.:	TYPE:	
E. PRIMARY FUEL: Natural Gas	F. OTHER FUEL:	
G. OPERATING CONDITIONS: Steady, full load		

3. COMPANY INFORMATION		APP. NO.: S-512-24-0
A. NAME: Setton Pistachio	B. SIC CODE: 0173	
C. ADDRESS: 9370 Road 234		
CITY: Terra Bella	STATE: CA	ZIP: 93270
D. CONTACT PERSON: Jeff Gibbons	E. PHONE NO.: 559-535-6050	

4. PERMIT INFORMATION		APP. NO.: S-512-24-0
A. AGENCY: SJVUAPCD	B. APPLICATION TYPE: new construction	
C. AGENCY CONTACT PERSON: Allan Phillips	D. PHONE NO.: 661-326-6900	
E. PERMIT TO CONSTRUCT/OPERATE INFORMATION:	P/C NO.: S-512-23-0	ISSUANCE DATE:
<input type="checkbox"/> CHECK IF NO P/C	P/O NO.: S-512-23-0	ISSUANCE DATE:
F. START-UP DATE: September 20, 2002		

5. EMISSION INFORMATION		APP. NO.: S-512-24-0
A. PERMIT		
A1. PERMIT LIMIT: ppmvd@15% O2: NO _x -5, CO-70, VOC-30. PM10-.019 lb/MMBtu. Source test initially and every two years. Semi-annual O2-NO _x -CO check using portable monitor		
A2. BACT/LAER DETERMINATION: Above emission limits were considered BACT.		

5. EMISSION INFORMATION

APP. NO.: S-512-24-0

A3. BASIS OF THE BACT/LAER DETERMINATION: BACT determinations for CO and VOC were consistent with prior BACT determinations. The NOx limit, which was lower than prior BACT determinations, was offered by the applicant.

B. CONTROL TECHNOLOGY

B1. MANUFACTURER/SUPPLIER: Tecogen

B2. TYPE: Three-way catalyst and air/fuel ratio controller.

B3. DESCRIPTION: Tecogen works with the engine manufacturer to modify the carburetor for better air/fuel mixing to achieve more uniform air/fuel ratios at all cylinders. This enables operation at lower O2 (less CO) and thus lower NOx. Tecogen also employs an extended three-way catalyst.

B4. CONTROL EQUIPMENT PERMIT APPLICATION DATA: P/C NO.: ISSUANCE DATE:
P/O NO.: ISSUANCE DATE:

B5. WASTE AIR FLOW TO CONTROL EQUIPMENT: FLOW RATE:
ACTUAL CONTAMINANT LOADING: BLOWER HP:

B6. WARRANTY: Tecogen guarantees the NOx, CO and VOC limits in this permit.

B7. PRIMARY POLLUTANTS: NOx, CO, VOC, PM10

B8. SECONDARY POLLUTANTS:

B9. SPACE REQUIREMENT:

B10. LIMITATIONS:

B11. UNUSED

B12. OPERATING HISTORY: The engine has been operating for about 15 months. Operation has been reliable for the latest year or so. System down time has been due to basic engine problems unrelated to the lower emissions. During the first few months, there were many initial problems (oil temperature overheating, system shutdowns due to water pressure out of range, etc.) and much debugging.

B13. UNUSED

B14. UNUSED

C. CONTROL EQUIPMENT COSTS

C1. CAPITAL COST: CHECK IF INSTALLATION COST IS INCLUDED IN EQUIPMENT COST

EQUIPMENT: \$ INSTALLATION: \$ (NA) SOURCE OF COST DATA:

C2. ANNUAL OPERATING COST: \$866.40 (2003) SOURCE OF COST DATA: Supplier

D. DEMONSTRATION OF COMPLIANCE

D1. STAFF PERFORMING FIELD EVALUATION:

ENGINEER'S NAME: INSPECTOR'S NAME: DATE:

D2. COMPLIANCE DEMONSTRATION: There have been several O2-NOx-CO checks using a portable monitor (required every 6 months), and NOx and CO have been below permit limits in all cases. The engine is tuned for emissions the day before each test.

D3. VARIANCE: NO. OF VARIANCES: None DATES:
CAUSES:

D4. VIOLATION: NO. OF VIOLATIONS: None DATES:
CAUSES:

