

# Section I: AQMD BACT Determinations

Application No.: 388869

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

<b>1. GENERAL INFORMATION</b>		DATE: 8/15/2006
A. MANUFACTURER: Waukesha		
B. TYPE: Rich-Burn	C. MODEL: L7044GSI	
D. STYLE: Turbocharged, aftercooled		
E. APPLICABLE AQMD RULES: 1110.2, Reg. XIII		
F. COST: \$ (NA) SOURCE OF COST DATA:		
G. OPERATING SCHEDULE: 6 HRS/DAY 2 DAYS/WK 8 WKS/YR		

<b>2. EQUIPMENT INFORMATION</b>		APP. NO.: 388869
A. FUNCTION: Engine No. 2 of seven identical engine-generator sets producing power during high-demand (weekend) periods.		
B. MAXIMUM HEAT INPUT: 12.75 MMBtu/hr	C. MAXIMUM THROUGHPUT: 1695 BHP	
D. BURNER INFORMATION: NO.: TYPE:		
E. PRIMARY FUEL: Natural Gas	F. OTHER FUEL:	
G. OPERATING CONDITIONS: Steady, full load, mainly winter holiday weekends		

<b>3. COMPANY INFORMATION</b>		APP. NO.: 388869
A. NAME: Bear Valley Electric Service Center		B. SIC CODE: 4911
C. ADDRESS: 42020 Garstin Rd CITY: Big Bear Lake STATE: CA ZIP: 92315		
D. CONTACT PERSON: Tracey Drabant	E. PHONE NO.: 909-866-1666	

<b>4. PERMIT INFORMATION</b>		APP. NO.: 388869
A. AGENCY: SCAQMD	B. APPLICATION TYPE: new construction	
C. AGENCY CONTACT PERSON: Roy Olivares		D. PHONE NO.: 909-396-2208
E. PERMIT TO CONSTRUCT/OPERATE INFORMATION: <input type="checkbox"/> CHECK IF NO P/C		P/C NO.: 388869 ISSUANCE DATE: 8/3/2001 P/O NO.: ISSUANCE DATE:
F. START-UP DATE: May 2004		

<b>5. EMISSION INFORMATION</b>		APP. NO.: 388869
<b>A. PERMIT</b>		
A1. PERMIT LIMIT: Maximum 3000 hours per year operation. PPMVD@15% O2: NOx-7.3, CO-36, VOC-11. NOx/O2 CEMS.		
A2. BACT/LAER DETERMINATION: Concentration limits in 5A1.		



**5. EMISSION INFORMATION**

APP. NO.: 388869

D3. VARIANCE:	NO. OF VARIANCES:	None		DATES:			
CAUSES:							
D4. VIOLATION:	NO. OF VIOLATIONS:	1		DATES:	2/26/2005		
CAUSES: Engine No. 3 found exceeding NOx limit							
D5. MAINTENANCE REQUIREMENTS:							D6. UNUSED
D7. SOURCE TEST/PERFORMANCE DATA RESULTS AND ANALYSIS:							
DATE OF SOURCE TEST:				6/4-20, 2004 and 8/24-10/12/2005		CAPTURE EFFICIENCY:	
DESTRUCTION EFFICIENCY:				OVERALL EFFICIENCY:			
SOURCE TEST/PERFORMANCE DATA:							
June 2004 (Altronic air/fuel ration controllers):							
Engine	1	2	3	4	5	6	7
Date	6/19	6/16	6/8	6/20	6/4	6/9	6/19
BHP	1695	1695	1676	1695	1676	1678	----
O2, % (dry)	0.79	0.76	0.58	0.67	0.81	0.44	0.7
NOx, ppmvd@15%O2	5.7	6.4	5.9	4.6	2.9	2.7	3.1
CO, ppmvd@15%O2	16.6	15.3	19	15.8	18.2	13.9	4.0
VOC, ppmvd@15%O2 as CH4	6.5	3.3	4.8	4.8	4.4	9.3	6.5
August - October 2005 (Continental Controls air/fuel ratio controllers):							
Engine	1	2	3	4	5	6	7
Date	10/12	8/30	8/2	10/12	8/31	8/29	8/29
NOx, ppmvd@15%O2	6.4	5.0	3.5	3.1	3.2	5.2	3.9
CO, ppmvd@15%O2	29	23	24	18	12	26	16
VOC, ppmvd@15%O2 as CH4	1.4	4.3	5.9	2.1	5.9	4.4	4.8
OPERATING CONDITIONS: Full Load							
TEST METHODS: AQMD Methods 100.1 and 25.3							

**6. COMMENTS**

APP. NO.: 388869

These engines have a full-time operator. In addition to the NOx CEMS, CO is checked using a portable analyzer if emissions do not seem normal or work has been performed on the engine. Since there is no CO CEMS and rich-burn engines can easily drift to high-CO (and high-VOC) operation, the permitting team plans to add a condition requiring that the CO be measured using a portable analyzer each time the engine operates or periodically based on hours of operation. The max fuel was corrected 8/15/06 from 1.275 to 12.75 MMBtu/hr.