

## Section I: AQMD BACT Determinations

Application No.: 405470

Equipment Category - Boiler

<b>1. GENERAL INFORMATION</b>	DATE: 5/19/2004
A. MANUFACTURER: Springfield	
B. TYPE: Water Tube	C. MODEL: Stirling
D. STYLE:	
E. APPLICABLE AQMD RULES: 1146, RECLAIM, Title V	
F. COST: \$ (NA) SOURCE OF COST DATA:	
G. OPERATING SCHEDULE: 8 HRS/DAY 1 DAY/SWK 12 WKS/YR	

<b>2. EQUIPMENT INFORMATION</b>	APP. NO.: 405470
A. FUNCTION: One of four identical boilers used to back up a cogeneration system boiler.	
B. MAXIMUM HEAT INPUT: 39 MMBtu/hr	C. MAXIMUM THROUGHPUT:
D. BURNER INFORMATION: NO.: 1 TYPE: Low NOx	
E. PRIMARY FUEL: Natural Gas	F. OTHER FUEL: LPG/Air Mixture
G. OPERATING CONDITIONS: Operates one day per month and one week per year during cogen system scheduled maintenance.	

<b>3. COMPANY INFORMATION</b>	APP. NO.: 405470
A. NAME: Los Angeles County Internal Services Dept.	B. SIC CODE: 9223
C. ADDRESS: 301 N. Broadway CITY: Los Angeles STATE: CA ZIP: 90012	
D. CONTACT PERSON: William Brown	E. PHONE NO.: 213-974-9504

<b>4. PERMIT INFORMATION</b>	APP. NO.: 405470
A. AGENCY: SCAQMD	B. APPLICATION TYPE: modification
C. AGENCY CONTACT PERSON: Ray Ronquillo	D. PHONE NO.: 909-396-3049
E. PERMIT TO CONSTRUCT/OPERATE INFORMATION: <input type="checkbox"/> CHECK IF NO P/C	P/C NO.: 405470 P/O NO.: ISSUANCE DATE: 10/18/2002 ISSUANCE DATE:
F. START-UP DATE: Early 2003	

<b>5. EMISSION INFORMATION</b>	APP. NO.: 405470
<b>A. PERMIT</b>	
A1. PERMIT LIMIT: 9 ppmvd NOx and 100 ppmvd CO, corrected to 3% O2. Maximum of 90,000 therms per month heat input.	
A2. BACT/LAER DETERMINATION: 9 ppmvd NOx and 100 ppmvd CO, corrected to 3% O2	

**5. EMISSION INFORMATION**

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A3. BASIS OF THE BACT/LAER DETERMINATION: These emission limits were offered by the applicant based on a manufacturer guarantee.

**B. CONTROL TECHNOLOGY**

B1. MANUFACTURER/SUPPLIER: Todd Combustion

B2. TYPE: Ultra low-NOx burner with flue gas recirculation system.

B3. DESCRIPTION: Burner model RMB, modulating burner with 6:1 turndown capability

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: Emissions guaranteed not to exceed 9 ppmvd NOx, 25 ppmvd CO and 3 ppmvd VOC, all corrected to 3% O2, over entire turndown ratio.

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

B8. SECONDARY POLLUTANTS: None

B9. SPACE REQUIREMENT:

B10. LIMITATIONS: B11. UNUSED

B12. OPERATING HISTORY: Has been in regular use since startup

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: \$ (NA) SOURCE OF COST DATA:

**D. DEMONSTRATION OF COMPLIANCE**

D1. STAFF PERFORMING FIELD EVALUATION:  
ENGINEER'S NAME: INSPECTOR'S NAME: D. Arlenev, A. Dabiri DATE: 4/23/03,  
11/04/03, 2/04/04, 3/30/04

D2. COMPLIANCE DEMONSTRATION: Facility in compliance except 3/30/04 (see below)

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

D4. VIOLATION: NO. OF VIOLATIONS: 2 DATES: 8/8/02, 3/30/04  
CAUSES: Abatement Order 8/8/02-facility failed to install CEMS pursuant to Rule 2012. Ordered to stop operation of the boilers until they were derated and permanently reclassified RECLAIM Large Source. NOV 3/30/04-source test not performed within required time limit.

D5. MAINTENANCE REQUIREMENTS: D6. UNUSED

**5. EMISSION INFORMATION**

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## D7. SOURCE TEST/PERFORMANCE DATA RESULTS AND ANALYSIS:

DATE OF SOURCE TEST: 3/23-30/2004

CAPTURE EFFICIENCY:

DESTRUCTION EFFICIENCY:

OVERALL EFFICIENCY:

SOURCE TEST/PERFORMANCE DATA:

Date	3/23/04			3/23-24/04			3/30/04			3/30/04		
Boiler	1			2			3			4		
Firing Rate, MMBtu/hr	16.8	23.1	29.4	12.6	24.2	31.5	12.6	20.0	23.1	12.6	21.0	29.4
O <sub>2</sub> , % (dry vol.)	9.2	8.6	8.5	8.4	6.7	6.5	8.7	8.0	7.9	8.4	8.1	7.9
NO <sub>x</sub> , ppmvd@3%O <sub>2</sub>	3.9	5.7	5.9	5.9	5.4	7.1	4.7	5.1	4.2	7.0	4.7	5.0
CO, ppmvd@3%O <sub>2</sub>	<15	<15	<14	<14	<13	<12	<15	<14	<14	<14	<14	<14

OPERATING CONDITIONS:

TEST METHODS: AQMD Methods 1-4, 100.1. This test report is currently being reviewed by AQMD's Monitoring & Source Test Engineering group.

**6. COMMENTS**

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The boiler was derated from 42 to 39 MMBtu/hr maximum input pursuant to the abatement order mentioned above in 5-D4 and was at that time retrofitted with the Todd ultra low-NO<sub>x</sub> burner. The 90,000 therms per month limit on heat input to the boiler is pursuant to Rule 1146(c)(9) to avoid CEMS requirement.