

**Major Facility Review (Title V)  
Semi-Annual Monitoring Report**

**for**

**East Bay Municipal Utility District's  
Main Wastewater Treatment Plant  
Facility #A0591**

**Reporting Period: January 1, 2012 through June 30, 2012**

Source	Monitoring Requirement	Limit	Monitoring Results
<p><b>S-55 Boiler</b></p>	<p><b>Condition # 18860</b></p> <p>2. Shall not operate S-55 hot water boiler simultaneously with more than two of the three cogeneration engines.</p> <p>3. Boiler Gross Heat input shall not exceed 20.41 MMBtu/hr</p> <p>19. Annual performance test for these limits:</p> <p>5. Emissions limits</p> <p>16. Weekly fuel gas monitoring for sulfur content</p> <p>18. Recordkeeping</p>	<p>NOx 30 ppm CO 50 ppm</p> <p>H2S 340 ppm</p>	<p>Boiler was never operated simultaneously with more than two engines. See <b>Table 2 attached.</b></p> <p>Maximum calculated input was 13 MMBtu/hr</p> <p>Boiler was source tested on November 22, 2011. Results were in compliance with permit limits and are included with this report.</p> <p>Daily sampling conducted using Portable Instrument.</p> <p><b>See Table 2 attached.</b></p>
<p><b>S-37, S-38, S-39 Cogeneration Engines</b></p>	<p><b>Condition # 18860</b></p> <p>4. Sulfur content of digester gas</p> <p>Weekly sampling and testing of digester gas for H2S</p>	<p>&lt; 340 ppmv</p>	<p>Daily sampling conducted using Portable Instrument.</p>

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S-37, S-38, S-39 Cogeneration Engines	<p><b>Condition # 18860</b></p> <p>4. Sulfur content of digester gas</p> <p>Weekly sampling and testing of digester gas for H2S</p>	<p>&lt; 340 ppbv</p>	<p>Daily sampling conducted using Portable Instrument.</p>

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	<p><b>Condition # 18860</b></p> <p>18. Maintain daily records of hours of engine operation, diesel and gas consumption to verify compliance with:</p> <p>13. Thermal throughput</p> <p>14. Hours of operation</p> <p>15. Diesel consumption</p>	<p>25 MMBtu/hr</p> <p>26,280 hours in 365-day period</p> <p>150,000 gal in 365-day period</p>	<p>Engine operational records are attached as <b>Table J</b>.</p> <p>The measured volumes based on an estimated HHV digester gas had a maximum of 23.5 MMBtu based on revised throughput estimates. EBMUD's measured high heat value by BAAQMD value was 15.2 MMBtu/hr.</p> <p>Total of 4757 hours from Jan 1, 2012 to Jun 30, 2012, and 13,740 hours over the last 365 days.</p> <p>Total for Jan - June 2012 was 11,754 gallons Total for June - Dec 2010 was 23,809 gallons.</p>
	<p><b>Condition # 20651</b></p> <p>17. Sulfur content of diesel fuel</p> <p>Certification statement by vendor</p>	<p>CARB diesel standards</p>	<p>All diesel fuel met CARB standards. Vendor certifications included as <b>Attachment A</b>.</p>
	<p><b>Condition # 18860</b></p> <p>19. Annual performance test for these limits:</p> <p>10. NOx emissions</p> <p>11. CO emissions</p>	<p>140 ppmv</p> <p>2000 ppmv</p>	<p>S-37: Source tested by Blue Sky Environmental on 5/1/12.</p> <p>S-39: Source tested by Blue Sky Environmental on 5/1/12.</p> <p>S-38: Source tested by Blue Sky Environmental on 5/4/12.</p> <p>All results were within permit limits. <b>Attachment B</b>.</p>

Source	Monitoring Requirement	Limit	Monitoring Results
S-38 Cogeneration Engine	<p><b>Condition # 18860</b></p> <p>19. Annual performance test for these limits:</p> <p>6. NOx emissions 7. CO emissions 8. POC emissions 9. PM emissions</p>	<p>1.25 g/bhp-hr 3.0 g/bhp-hr 0.6 g/bhp-hr 0.085 g/bhp-hr</p>	<p>S-38: Blue Sky Environmental on 5/4/12.</p> <p>All results were within permit limits. <b>Attachment B.</b></p>
	<p><b>Condition # 18860</b></p> <p>16. Weekly fuel gas monitoring for sulfur content</p>	<p>340 ppmv</p>	<p>Daily sampling conducted using Portable Instrument.</p>
S-48 Gasoline Dispensing Facility	<p><b>Condition # 16516</b></p> <p>The Static Pressure Performance Test (Leak Test) ST-38 shall be successfully conducted at least once in each twelve consecutive month period.</p>		<p>Source test performed on 9/24/11.</p>
	<p><b>Condition # 21663</b></p> <p>Annual gasoline throughput</p>	<p>334,000 gal per year</p>	<p>See <b>Table 8 attached.</b> Throughput limits were met with <u>30,356</u> gallons used over the last 12 months.</p>
S-49 Portable Stand-by Generator	<p><b>Condition #19058</b></p> <p>4. Diesel sulfur content</p>	<p>0.5%</p>	<p>All diesel fuel met CARB standards. Vendor certifications included as <b>Attachment A.</b></p>
	<p>7. Hours of operation logged.</p>	<p>72 hours within 1000 feet of school</p>	<p>See <b>Table 4 attached.</b></p>
S-50 Stand-by Generator	<p><b>Condition #22830</b></p> <p>1. Hours of operation</p>	<p>30 hours per year reliability-related testing</p>	<p>See <b>Table 4 attached.</b> Limits on hours were met.</p>
S-51 Stand-by Generator	<p><b>Condition #22850</b></p> <p>1. Hours of operation</p>	<p>50 hours per year reliability-related testing</p>	<p>See <b>Table 4 attached.</b> Limits on hours were met.</p>

Source	Monitoring Requirement	Limit	Monitoring Results
S-52 Stationary Stand-by Generator	Condition #19184 4. Diesel sulfur content  8. Hours of operation logged.	0.5%  72 hours within 1000 feet of school	All diesel fuel met CARB standards. Vendor certifications included as Attachment A.  See Table 4 attached.
8-53 Stand-by Generator	Condition #22830 1. Hours of operation	30 hours per year reliability-related testing	See Table 4 attached. Limits on hours were met.
S-54 Stand-by Generator	Condition #22850 1. Hours of operation	50 hours per year reliability-related testing	See Table 4 attached. Limits on hours were met.
S-56 Turbine	Condition #24050 2. 389,820 MM Btu yr 3. Annual Testing for NOx 4. Annual Testing for CO 5. Annual Testing for SO2 8. Monthly Monitoring	23 ppm 100 ppm 100 ppbv	S-56 Source tested by Blue Sky Env on 12/15/11. Total MMBTU from 1/1/12 to 6/30/12 was 145,195 MMBTU  All results were within permit limits.
S-100 Municipal Wastewater Treatment Plant	Condition #22850 Total wastewater flow	120 MGD monthly avg. (330 MGD in wet weather)	See Annual Summary from Self-Monitoring Reports submitted to Regional Water Board, included as Attachment C. Limits were met with a 71 MGD monthly average.
S-110 Headworks  A-461 and A-462 Carbon Bed Scrubbers	Condition #17335 3. Inlet and outlet H2S concentrations, as well as any other appropriate operating parameters shall be continuously monitored and reviewed on a daily basis to determine when carbon adsorption bed breakthrough is imminent or has been reached.		See Table 5 attached.

Source	Monitoring Requirement	Limit	Monitoring Results
S-170 Sludge-handling	<p>Condition #18006</p> <p>1. Monitor and record on a daily basis the activated sewage sludge throughput through S-170.</p>		See Table 6 attached.
S-180 Anaerobic Digesters	<p>Condition #18860</p> <p>2. Monthly digester visual inspection</p> <p>4. Digester Gas sulfide content</p> <p>5. Hours of flaring per day</p>	340 ppmv	<p>See Table 7 attached.</p> <p>Daily sampling conducted using Portable Instrument.</p> <p>See Attachment D</p>