



Central Contra Costa Sanitary District

Protecting public health and the environment

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July 16, 2012

BAY AREA AIR QUALITY
MANAGEMENT DISTRICT

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Mr. Kelly Wee
Director of Compliance and Enforcement
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

Dear Mr. Wee:

TITLE V SEMI-ANNUAL MONITORING REPORT – JANUARY THROUGH JUNE 2012

Central Contra Costa Sanitary District (CCCSD), Facility No A0907, was issued a Major Facility Review Permit on January 28, 2000. A revision to the permit was issued on November 15, 2004, and a five-year renewal permit was issued on December 11, 2006. The application for renewal of the five year Title V permit was submitted to BAAQMD on June 10, 2011. This semi-annual report is submitted to comply with the requirements of Bay Area Air Quality Management District (BAAQMD), Regulation 2, Rule 6, and Title V of the Clean Air Act. This letter report summarizes the Title V permit compliance requirements for the period of January 1, 2012, through June 30, 2012.

Auxiliary Boilers (S-7 and S-8)

Both auxiliary boilers were operated on natural gas (NG) and landfill gas (LFG) during the reporting period. The flow meters for both gases were operable, and the hourly data was collected and electronically archived. Neither boiler exceeded the 28 million British thermal unit (BTU)/hour permit requirement for the reporting period. When operating on LFG, the first-pass temperatures for both Auxiliary Boiler No. 1 (S-7) and Auxiliary Boiler No. 2 (S-8) were above the minimum 770 degrees Fahrenheit permit limit 100 percent of the operating time during the reporting period. The next annual tune-up, insulation check, exhaust temperature check, and emissions source test is due in November of 2012.

Furnaces Nos. 1 and 2 (S-9 and S-10)

Furnace No. 1 (S-9) operated until January 23, 2012, when it was shut-down for annual maintenance. Furnace No. 2 (S-10) started operation on January 18, 2012. The combined solid fuel throughput to both S-9 and S-10 did not exceed the daily limit of 110 tons/day or the annual limit of 20,000 dry tons/365 days. S-9 and S-10 did not exceed the hourly

auxiliary fuel limit of 27 MMBtu/hour or the opacity limit of 20% for more than 3 minutes in any 60 minute period. The temperature of Hearth No. 1 was above 1,000 degrees Fahrenheit 100 percent of the time when firing landfill gas for both S-9 and S-10. The wet scrubber pressure drop for S-9 was above the minimum 5.9"WC 100% of the time and for S-10 was above minimum pressure drop of 4.7"WC for 99.95% of the time during the reporting period. The Hearth No. 2 oxygen (O₂) levels for both S-9 and S-10 were below the 10 percent O₂ reporting limit for 100.00% of the reporting time.

The annual source test on S-10 for NMOC concentration and SO₂ was completed on March 21, 2012 by the Avogadro Group. The final source test report was submitted to BAAQMD on May 2, 2012. The final source test results show that flue gas concentrations of NMOC and SO₂ were well below the emission limits of 120 ppm NMOC at 3 percent O₂ and 300 ppm dry SO₂.

Cogeneration (S-188)

The NO_x emissions from S-188 did not exceed the maximum limits of 42 ppm NO_x at 15 percent O₂, 118 pounds of NO_x per day, 19.834 tons of NO_x per the previous 12 month, and 2.12 pounds NO_x/MW-hr. All span and zero calibrations for the NO_x continuous emission monitor were within limits during the entire period. The NG feed rate to the cogeneration unit never exceeded the permit limit of 49.6 MM BTU/hour (HHV) or 1,188 MM BTU/day (HHV) during the reporting period. The Total Hydrocarbon (THC) emissions were well below the limit of 100 ppm as propane corrected to 7% O₂. S-188 was taken out of service on March 27, 2012, for routine maintenance. S-188 continues to remain out of service for major component repairs.

SO₂ from Landfill Gas Combustion

The maximum landfill gas hydrogen sulfide (H₂S) concentration was 44 ppm H₂S during the reporting period. Based on this H₂S concentration, the estimated maximum exhaust gas SO₂ concentration from either auxiliary boiler is 7.7 ppmv SO₂ at 3 percent O₂. This concentration is significantly lower than the permit limit of 300 ppmv SO₂.

SO₂ from Natural Gas Combustion

The maximum SO₂ emissions from the combustion of natural gas are based on the maximum total sulfur content of 0.346 grains total sulfur per 100 standard cubic feet from Pacific Gas and Electric Company (PG&E), published "Rule 21 – Transportation of Natural Gas, Section C, Quality of Gas" for the first quarter of 2012. While burning NG, the SO₂ concentration in the stack gas from the auxiliary boilers was 0.55 ppm SO₂ at 3 percent O₂, which is well below the permit limit of 300 ppmv dry SO₂. The SO₂ concentration in the stack gas from the natural-gas-fired turbine generator (S-188) was 0.18 ppm dry SO₂ at 15 percent O₂, which did not exceed the permit limit of 150 ppmv dry SO₂ at 15 percent O₂.

Total Organic Carbon Leaks – LFG System

The LFG piping from the landfill to CCCSD's point of delivery was leak tested on March 28 and June 21. There was one leak in excess of 1000 ppm by volume as methane, which was immediately repaired and retested. The LFG piping from CCCSD's point of delivery to the permitted sources was tested for leaking components on February 10 and May 16. There were sixteen leaks in excess of the 1,000 ppm by volume as methane limit in BAAQMD Regulation 8, Rule 34. Fourteen of the leaks were in the landfill gas feed line to S-10. The leaks were immediately repaired and retested.

Sludge Cake Volatile Content

Sludge cake solids content is measured on all three work shifts each day. The volatile fraction of the cake solids is measured daily, and the volatile content varies slightly from day to day.

Visible Emission Evaluation (S-11, S-13, S-15, S-22, S-182, A-186, A-191, A-192, and A-196)

Sources S-182, A-186, A-191, A-192, and A-196 were monitored for visible emissions daily during the reporting period. No visible emissions were observed. Sources S-11 through S-22 were not in service during the reporting period.

Gasoline Dispensing Facility

The gasoline dispensing facility passed the annual vapor recovery system test, which was conducted on April 5. In addition, the leak detection system of the 2,000-gallon diesel tank near the standby power facility was also successfully checked on April 5. The throughput records for the gasoline dispensing facility are recorded monthly. The gasoline dispensed for the past 12 months was approximately 1110 gallons. This is considerably less than the limit of 400,000 gallons in any consecutive 12-month period.

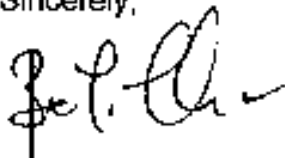
Additional Title V Activity

CCCSD's Title V Permit Renewal Application is currently under review by BAAQMMD. On May 10, 2012, CCCSD received an e-mail request from Ms. Janice Wu, BAAQMD Permit Engineer, requesting the draft Monitoring Plan for 129 Compliance. CCCSD submitted the draft Monitoring Plan for 129 Compliance to Ms. Wu on May 21,

Summary

In summary CCCSD was in compliance with all Title V requirements during the reporting period. This completes the Title V reporting requirements for the semi-annual period of January 1 through June 30, 2012. To the best of my knowledge, the information contained herein is true and correct.

Sincerely,



For Douglas J. Craig
Director of Plant Operations

cc: S. Winer, BAAQMD
J. Swanson, BAAQMD