

2 TITLE V COMPLIANCE ACTIVITIES

The following sections summarize the compliance activities for the January 1, 2013, through December 31, 2013, period. A summary of BAAQMD District Permitted Sources and their abatement devices are included in Appendix A.

2.1 AUXILIARY BOILERS NO. 1 AND NO. 2 (S-7 AND S-8)

Both auxiliary boilers were operated on natural gas (NG), landfill gas (LFG), and fuel oil during the reporting period. The flow meters for each gas were operable for the entire reporting period, 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.

Both auxiliary boilers were only fired with fuel oil during a NG curtailment or during testing to verify readiness for a NG curtailment. Both auxiliary boilers did not exceed the NG curtailment hourly of 168 hours and the testing limit of 48 hours in a 12-month rolling period.

2013 Auxiliary Boiler Fuel Oil Usage			
Condition	S-7 Maximum Rolling 12-month Run Hours	S-8 Maximum Rolling 12-month Run Hours	Limit
Natural Gas Curtailment	33.1	34.8	168
Testing	12.1	15.5	48

When operating on LFG, the three clock hour 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 (Appendix B).

The annual maintenance on S-7 and S-8, which included auxiliary boiler shut-down, internal inspection, needed repairs, and annual burner tuning, was completed in December 2013. Both S-7 and S-8 continued to meet the insulation requirements per BAAQMD Regulation 9-7-311.

The annual source test for S-8 (BAAQMD NST-3212) was completed on October 17, 2013, and the final report was submitted to BAAQMD on November 20, 2013. All emissions were in compliance with the permit conditions.

S-7 was retrofitted to meet the new nitrogen oxides (NO_x) emission limit of 15 ppmvd NO_x at 3 percent oxygen (O₂) when firing natural gas. An Authority to Construct Permit No. 25577 was issued on August 20, 2013. The burner retrofit for S-7 was completed in early November, and the annual source test and compliance demonstration source test (BAAQMD NST-3237) were completed on November 19, 2013. All emissions were in compliance, and the final report was submitted to BAAQMD on December 23, 2013.

2.2 FURNACES NO. 1 AND NO. 2 (S-9 AND S-10)

Only Furnace No. 1 (S-9) was in operation during the reporting period. The solid fuel throughput to S-9 was measured daily and did not exceed the daily limit of 120 dry tons per day or the annual limit of 20,000 dry tons per 12 months. The maximum 12-month cumulative solid fuel throughput to S-9 during the reporting period was 16,358 dry tons. 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.

The auxiliary fuel feed rate to S-9 exceeded the auxiliary fuel feed rate limit of 27 million Btu per hour on October 11, 2013, for one hour while firing on NG. The excess emission was properly reported to BAAQMD and assigned Identification Number 06M31.

The temperature of Hearth No. 1 was above 1,000 degrees Fahrenheit 100 percent of the time when S-9 was firing on LFG. The temperatures on Hearths Nos. 1 through 11 for S-9 were recorded hourly and electronically archive during the reporting period.

The wet scrubber pressure drop for S-9 was above the minimum 5.9 inches of water column 100 percent of the time during the reporting period (Appendix C). The Hearth No. 2 O₂ levels for S-9 were below the 10 percent O₂ maximum reporting limit for 99.97 percent of the reporting time (Appendix D).

The sludge flow measurement device, wet scrubber pressure drop monitor, exhaust gas oxygen monitor, heath temperature monitors, and auxiliary fuel flow devices were all properly installed, calibrated, maintained and operated during the reporting period.

On March 26, 2013, S-9 exceeded the opacity limit of 20 percent for 3 minutes and 50 seconds. The opacity excursion was properly reported to BAAQMD and assigned Identification Number 06J97. BAAQMD Inspector Peter Calimeris conducted a follow-up site visit for the March 26, 2013, opacity excursion. BAAQMD concluded that the opacity excursion was not an excess, and no further enforcement action was taken.

On June 20, 2013, S-9 exceeded the opacity limit of 20 percent for 3 minutes and 20 seconds. The opacity excursion was properly reported to BAAQMD and assigned Identification Number 06K91.

On July 24, 2013, S-9 exceeded the opacity limit of 20 percent for 10 minutes. The

opacity excursion was properly reported to BAAQMD and assigned Identification Number 06L31. CCCSD requested breakdown relief for the main breaker malfunction, and it was assigned Identification Number 06L28.

On September 18, 2013, S-9 exceeded the opacity limit of 20 percent for 9 minutes. The opacity excursion was properly reported to BAAQMD and assigned Identification Number 06M01.

On October 10, 2013, S-9 exceeded the opacity limit of 20 percent for 4 minutes and 20 seconds. The opacity excursion was properly reported to BAAQMD and assigned Identification Number 06M32.

The annual source test on S-9 for non-methane hydrocarbons (NMOC) and sulfur dioxide (SO₂) (BAAQMD NST-2858) was completed on March 5-7 and 19-21, 2013, by Blue Sky Environmental, Inc. The final source test report was submitted to BAAQMD on May 7, 2013. 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. The source test also satisfied the five-year Title V source testing requirements for particulate matter and metals. All emissions were in compliance.

At the request of BAAQMD, CCCSD drafted Compliance Assurance Monitoring (CAM) Plans for Particulate Matter (PM) emissions from S-9 and S-10. A CAM Plan for S-9 was submitted to BAAQMD on August 29, 2013, and a CAM Plan for S-10 was submitted on November 22, 2013.

2.3 CENTRIFUGE AND CAKE HOPPERS (S-24, A-14 AND A-15)

S-24 only operated when being abated by A-14 or A-15.

2.4 GASOLINE DISPENSING FACILITY (S-25)

Throughput for the Gasoline Dispensing Facility is recorded monthly. The gasoline dispensed for the past 12 months was approximately 690 gallons (Appendix E). This is considerably less than the limit of 400,000 gallons in any consecutive 12-month period.

The gasoline dispensing facility passed the annual pressure decay test (ST-38), the annual dynamic back pressure test (ST-37), and the annual Vapor Recovery Inspection on April 1, 2013. No issues were noted during the annual test.

CCCSD submitted a Standing Loss Control (SLC) Compliance Form by email on March 19, 2013.

S-25 was retrofitted with a Morrison Brothers Phase I Enhanced Vapor Recovery (EVR) System to meet the new California Air Resources Board (ARB) standards for aboveground gasoline storage tanks. An Authority to Construct Permit No. 25779 was issued on November 14, 2013. The vapor recovery retrofit for S-25 and the performance test were completed on December 6, 2013, well prior to the compliance date of July 1, 2014. No issues were noted during the performance test. In order to continue compliant operation of S-25, CCCSD plans to install Phase II enhanced vapor recovery equipment within four years of a Phase II system achieving ARB certification.

2.5 WASTEWATER TREATMENT PLANT (S-100)

The wastewater flow into CCCSD's Treatment Plant did not exceed 53.8 million gallons per day during dry weather periods or 140 million gallons per day during wet weather periods.

2.6 PRELIMINARY TREATMENT (S-110, A-23, AND A-24)

S-110 only operated when being abated by A-23 or A-24.

2.7 PRIMARY TREATMENT (S-120 AND A-120)

S-120 only operated when being abated by A-120.

2.8 DISSOLVED AIR FLOTATION THICKENERS (S-180 AND A-187)

S-180 only operated when being abated by A-187.

2.9 ASH CONVEYING SYSTEM (S-182, A-186, A-191, A-192, AND A-196)

S-182 only operated when being abated by A-186, A-96 or A-191/A-192. All abatement devices were maintained according to manufacturer's specifications.

S-182, A-186, A-191, A192, and A-196 were monitored for visible emissions daily during the reporting period. No visible emissions were observed.

2.10 COGENERATION (S-188)

S-188 was fired only on Public Utilities Commission (PUC) quality NG. The NG feed rate to the cogeneration unit did not exceed the permit limit of 1,188 million BTU/day (HHV) during the reporting period.

NO_x emissions from S-188 are monitored by a continuous emissions monitoring system (CEMS). All span and zero calibrations for the NO_x CEMS were within limits during the entire reporting period. S-188 was in compliance with the following applicable emissions limits for the entire reporting period:

- rolling three clock-hour average concentration limit of 42 ppm NO_x corrected to 15 percent O₂;
- single clock-hour average concentration limit of 154 ppm NO_x corrected to 15 percent O₂;
- 24-hour rolling clock-hour average mass emission limit of 118 pounds NO_x;
- 365-day rolling average mass emission limit of 19.824 tons of NO_x;
- mass limit of 2.12 pounds of NO_x per kW-hr of useful work output;
- 24-hour rolling clock-hour average mass emission limit of 157 pounds of carbon monoxide (CO); and
- 365-day rolling average mass emission limit of 26.376 tons of CO.

Compliance with the CO limits is demonstrated by a source test every 60 months. The most recent source test was conducted on May 10, 2011, and demonstrated compliance with the applicable CO limits. The average CO emission was 127 pounds per day.

The NG flow monitor and water injection monitor were properly operated, and the water-to-fuel ratio was calculated on a clock hour basis and the heat input on a daily basis.

On August 6, 2013, the NO_x CEMS malfunctioned and was inoperative for more than 24 hours. The inoperative monitor was properly reported to BAAQMD and assigned Identification Number 06L36. The CEMS was put back into service on August 7, 2013. While the NO_x monitor was inoperative, the injection water-to-fuel ratio served as a parametric monitor for NO_x emission compliance. The water to fuel ratio normally runs at approximately 0.80 and was within the normal range while the NO_x CEMS was inoperative.

2.11 PORTABLE DIESEL ENGINES (S-194 AND S-198)

S-194 and S-198 are emergency diesel engines that drive centrifugal pumps, which are used in various places in CCCSD's Treatment Plant where permanent pumps are impractical. Both engines met the eligibility requirements for portable equipment for the entire reporting period. The following table summarizes the operating times for S-194 and S-198. S-194 and S-198 did not exceed the rolling 12-month limit of 72 hours for non-emergency operation. Detailed location and usage records are available upon request.

The Statement of Compliance with the January 1, 2013, weighted particulate matter (PM) emission fleet standard was submitted to the California Air Resources Board on February 25, 2013. S-194 is designated for emergency-only use, and S-198 is designated for low-use. Both engines are therefore exempt from the PM fleet standard.

2013 Portable Diesel Engine Summary			
Source	Equipment Operated More Than 72 Consecutive Hrs?	2013 Maximum Rolling 12-month Non-Emergency Run Hour	2013 Total Non-Emergency Run Hours
S-194 - Deutz Model F4L912 (54 hp) (6" Gorman Rupp Pump)	No	60.5	60.5
S- 198 - Deutz Model T4A3-F3L1011 (58 hp) (4" Gorman Rupp Pump)	No	35.3	0

2.12 EMERGENCY STANDBY GENERATORS (S-195, S-196, A-1195 AND A-1196)

In 2013, the permit limited the testing and maintenance (T&M) run-time of S-195 and S-196 to 50 hours each per calendar year. On October 3, 2013, CCCSD mailed the original BAAQMD Banking Certificate No. 1257 to increase the S-195 and S-196 T&M hours from 50 to 100. CCCSD received revised permit conditions on December 11, 2013. In 2013, S-195 was operated for 14 hours for T&M, and S-196 was operated for 24 hours for T&M.

S-195 and S-196 only operated when the particulate trap/catalyzed diesel particulate filters (A-1195 and A-1196) were in place. A-1195 and A-1196 have not exceeded 2,000 hours of operation without cleaning. The non-resettable totalizing meters on each generator that measure the hours of operation were properly maintained. Maintenance records for S-195 and S-196 are available upon request.

On April 1, 2013, the leak detection system of the 2,000-gallon fuel oil tank that supplies fuel to S-195 and S-196 was inspected. No issues were noted.

2.13 SLUDGE LOADING FACILITY (S-197)

S-197 is designed for emergency sludge loading; and since its completion in mid-2011, S-197 has handled zero tons of wet sludge.

2.14 FORKLIFT FLEET

CCCSD operates a fleet of seven forklifts. The average fleet emission is 1.9 grams Hydrocarbon (HC)+NO_x/kW-hr and meets the January 1, 2013, limit of 1.9 grams HC+NO_x/kW-hr. The following table lists the unit and emissions for each forklift in CCCSD's forklift fleet:

2013 FORKLIFT FLEET SUMMARY				
Year	Make	Size	Controls	gms HC+NO_x /kW-hr
2008	Komatsu	880 AH	Electric	0
1996	Kalmar AC	1.992 L	BlueCAT 300	1.3
2010	Toyota	990 AH	Electric	0
1996	Kalmar AC	1.992 L	BlueCAT 300	1.3
1996	Kalmar AC	4.169 L	BlueCAT 300	2.7
2003	Hyster 40/Komatsu	2.0 L	OEM	4
2005	Toyota	2.237 L	OEM	4
			AVERAGE	1.9

2.15 ADDITIONAL TITLE V ACTIVITY

CCCSD's five-year Title V Major Facility Review Permit expired on December 11, 2011. In order to keep the existing Title V Major Facility Review Permit in effect, CCCSD completed the renewal application on time and paid the associated fees. The Title V Major Facility Review Permit renewal application was submitted to BAAQMD on June 10, 2011. CCCSD's Title V Major Facility Review Permit is currently under review.

In addition to the five-year Title V Major Facility Review Permit, CCCSD also has a BAAQMD annual Permit-to-Operate (PTO), which expires on December 1st of every year unless renewed. Since CCCSD received the 2014 BAAQMD PTO on November 22, 2013, the existing five-year Title V Major Facility Review permit remains in effect.

CCCSD is considered a major stationary combustion source of greenhouse gas (GHG) emissions by the California Air Resources Board. CCCSD's annual emissions of CO_{2e} are less than 25,000 metric tons; therefore, CCCSD does not incur a compliance obligation under the Cap and Trade portion of AB 32, but CCCSD is required to report and verify CO_{2e} emissions on an annual basis.

On April 3, 2013, BAAQMD Inspector Peter Calimeris conducted a Title V site inspection. CCCSD's Title V compliance records were reviewed, and Mr. Calimeris noted no Title V related compliance issues.

On September 10, 2013, BAAQMD Inspector Michael Bostick conducted an inspection of the sources S-100 through S-186, S-194, and S-198. No issues were noted.

On October 3, 2013, BAAQMD Inspector Chris Coelho conducted an inspection of S-25. No issues were noted.

2.16 2013 COMPLIANCE CERTIFICATION FORMS

The attached compliance certification forms are submitted to comply with Title V regulations and BAAQMD's Regulation 2, Rule 6, which requires each facility that has a Title V Major Facility Review Permit to complete these forms.