

2 TITLE V COMPLIANCE ACTIVITIES

The following sections summarize the compliance activities for the January 1, 2014 through December 31, 2014, period. Applicable Limits, Compliance Monitoring Requirements and CCCSD's compliance with these requirements are summarized in Appendix A. A summary of BAAQMD District Permitted Sources and their abatement devices are included in Appendix B.

2.1 AUXILIARY BOILERS NO. 1 AND NO. 2 (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 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.

Neither auxiliary boiler was fired with fuel oil during the reporting period. 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.

2014 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	4.6	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 C).

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 October 2014. 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-3540) was completed on September 18, 2014, and the final report was submitted to BAAQMD on October 16, 2014. All emissions were in compliance with the permit conditions.

The annual source test for S-7 (BAAQMD NST-3575) was completed on October 17, 2014, and the final report was submitted to BAAQMD on November 24, 2014. All emissions were in compliance with the permit conditions.

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

Furnace No. 1 (S-9) operated until January 25, 2014, when it was shut down for annual maintenance. Furnace No. 2 (S-10) was started on January 23, 2014, and operated for the remainder of the reporting period. The solid fuel throughput to S-9 and S-10 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 and S-10 during the reporting period was 16,312 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 temperature of Hearth No. 1 was above 1,000 degrees Fahrenheit 100 percent of the time when S-9 and S-10 were firing on LFG. The temperatures on Hearths Nos. 1 through 11 for S-9 and S-10 were recorded hourly and electronically archived 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 D). The wet scrubber pressure drop for S-10 was above the minimum 4.7 inches of water column 100 percent of the time during the reporting period (Appendix D). The Hearth No. 2 oxygen (O₂) levels for S-9 and S-10 were below the 10 percent O₂ maximum reporting limit for 99.99 percent of the reporting time (Appendix E). The total hydrocarbon (THC) emissions were well below the limit of 100 ppm corrected to seven percent O₂.

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

S-9 and S-10 did not exceed the permit limit of 20 percent opacity for more than an aggregated period of three minutes in any single 60-minute period as detected by the opacity Continuous Emission Monitoring System (CEMS).

S-10 was source tested by Blue Sky Environmental, Inc. for particulates, metals, NO_x, CO, NMOC, and SO₂ on May 13-15, 2014, and June 3-5, 2014, (BAAQMD NST-3415) to meet the annual and 60-month source test requirements. The final source test report was submitted to BAAQMD on August 14, 2014. The source test results showed that flue gas concentrations of NMOC and SO₂ were well below the annual source test emission limits of 120 ppm NMOC at three percent O₂ and 300 ppm dry SO₂. In addition, the source test results showed compliance with all the 60-month Title V source test emission requirements.

BAAQMD Engineer Bradley Kino conducted a particulate matter source test on S-10 on February 25, 2014. All emissions were in compliance.

On February 13, 2014, CCCSD submitted a Final Control Plan for compliance with Clean Air Act Section 129 Sewage Sludge Incinerator (SSI) regulations to BAAQMD for approval. On March 25, 2014, CCCSD submitted a site-specific Ash Handling Monitoring Plan for compliance with Clean Air Act Section 129 SSI regulations to BAAQMD for approval. Both plans are being reviewed by BAAQMD.

Prior to the annual source test for S-10, CCCSD was experiencing unstable LFG quality and requested a modification on January 31, 2014, to extend the three minute opacity limit of 20 percent while firing on LFG during the May/June 2014 source test. The opacity modification request was turned down, however BAAQMD Inspector Michael Bostick asked CCCSD to perform daily Higher Heating Values sampling for LFG prior to and during the source test. The LFG quality improved prior to the source test and the opacity limit was not exceeded during the source test.

BAAQMD Engineer Bradley Kino and members of the BAAQMD Source Test Team conducted another particulate matter source test on S-10 from November 17, 2014, to November 21, 2014. CCCSD is awaiting results from the source test.

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 557 gallons (Appendix F). 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 14, 2014. No issues were noted during the annual test.

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, A-192, 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:

- 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;
- 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.

Reportable Compliance Activity (RCA) Number 06N82 was submitted to BAAQMD on January 31, 2014, for an inoperative NO_x monitor that was sent to the factory for annual preventive maintenance. The NO_x monitor was put back into service on February 4, 2014. The 10-day deviation form was submitted on February 10, 2014, and the 30-day deviation report was submitted on February 27, 2014. While the NO_x monitor was inoperative, the injection water-to-fuel ratio served as a parametric monitor for NO_x emission compliance.

BAAQMD Inspector William Hammel conducted a Field Accuracy Test on the S-188 NO_x monitor on February 5, 2014. The results indicated that the NO_x monitor was in compliance with BAAQMD regulations.

On March 8, 2014, at approximately 08:23, CCCSD's Wastewater Treatment Plant lost utility power due to a power switching malfunction on the utility side of the grid that led to the shutdown of the water injection pump supporting S-188. During this incident, S-188 indicated NO_x emissions ranged from 43.0-43.4 ppmvd at 15 percent oxygen and exceeded the three-clock hour average limit of 42 ppmvd at 15 percent oxygen from 09:00-12:00. The indicated NO_x mass per power ratio exceeded the 2.12 lbs/MWh at 15 percent oxygen limit from 09:00-10:00. CCCSD requested breakdown relief from BAAQMD enforcement action because the utility power outage was beyond the control of CCCSD. CCCSD filed a combined RCA notification form on March 11, 2014, for breakdown relief request (RCA Number 06P30) and an indicated excess emission (RCA Number 06P31). The 10-day Title V Deviation Form was submitted to BAAQMD on March 14, 2014. The 30-Day Title V Deviation Report was submitted to BAAQMD on March 19, 2014. RCA Number 06P30, RCA Number 06P31, and RCA Number 06N82 were cleared by BAAQMD Inspector Michael Bostick on June 3, 2014.

RCA Number 06S60 was submitted to BAAQMD on November 21, 2014, for an inoperative NO_x monitor that was sent to the factory for annual preventive maintenance. The NO_x monitor was put back into service on December 19, 2014. The 10-day deviation form was submitted on November 26, 2014, and the 30-day deviation report was submitted on December 19, 2014. While the NO_x monitor was inoperative, the injection water-to-fuel ratio served as a parametric monitor for NO_x emission compliance.

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.

2014 Portable Diesel Engine Summary			
Source	Equipment Operated More Than 72 Consecutive Hours?	2014 Maximum Rolling 12-month Non-Emergency Run Hour	2014 Total Non-Emergency Run Hours
S-194 - Deutz Model F4L912 (54 hp) (6" Gorman Rupp Pump)	No	60.5	0
S- 198 - Deutz Model T4A3-F3L1011 (58 hp) (4" Gorman Rupp Pump)	No	33.7	33.7

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

The permit limits the testing and maintenance (T&M) run-time of S-195 and S-196 to 100 hours each per calendar year. In 2014, S-195 was operated for 43 hours for T&M and S-196 was operated for 42 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 14, 2014, 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 a sludge truck loading facility designed for short-term emergency use if S-9 and S-10 are not operational. It is an enclosed building with appropriate odor control (A-197). While S-197 can only be operated on an emergency basis when S-9 and S-10 are not operational, S-197 does require minimal operation time about once a year to ensure it is in good working order. To this end, S-197 was tested in March of 2014 by loading approximately 140 wet tons of sludge into a truck for off-site transport. All systems proved to be in working order and no odor complaints were received.

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:

2014 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 was posted for public comment on December 31, 2014, with comments due January 30, 2015.

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 13, 2014, 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, so 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 June 3, 2014, BAAQMD Inspectors Michael Bostick and Chris Coelho performed a Title V inspection at CCCSD. Title V records were inspected to assure conformance with the Title V permit requirements. No issues were noted during the inspection. During the inspection, Michael Bostick also noted that all of the outstanding RCAs were cleared and no further action was necessary for CCCSD.

2.16 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.