

Attachment A
to
Settlement Agreement and Stipulation
for Entry of Administrative Civil Liability Order

Factors in Determining
Administrative Civil Liability

**CITY AND COUNTY OF SAN FRANCISCO
EFFLUENT LIMITATION VIOLATIONS AT
SOUTHEAST AND OCEANSIDE WATER POLLUTION CONTROL PLANTS
NOVEMBER 2014 TO OCTOBER 2021**

The State Water Resources Control Board's *Water Quality Enforcement Policy* (November 2009) (2010 Enforcement Policy) established a methodology for assessing administrative civil liability for violations that occurred from May 20, 2010, through October 4, 2017. Subsequently, the State Water Resources Control Board's *Water Quality Enforcement Policy* (April 2017) (2017 Enforcement Policy) establishes a methodology for assessing administrative civil liability for violations that occurred from October 5, 2017, to present. Use of these methodologies addresses the factors required by California Water Code (Water Code) section 13385, subdivision (e). For the alleged violations, each factor in the applicable Enforcement Policy and its corresponding category, adjustment, and amount is presented below. These Enforcement Policies should be used as companion documents in conjunction with this administrative civil liability assessment since the penalty methodology and definition of terms may not be replicated herein. The Enforcement Policies are available at:

https://www.waterboards.ca.gov/water_issues/programs/enforcement/water_quality_enforcement.html

ALLEGED VIOLATIONS

Three groups of violations subject to administrative civil liabilities under Water Code section 13385, subdivision (c), are alleged. Group 1 includes acute toxicity violations at the City and County of San Francisco's (CCSF's) Southeast Plant from November 2014 through October 2021. Group 2 includes effluent limitation violations at the Southeast Plant from June 1, 2019, through July 31, 2019. Group 3 includes the remaining effluent limit violations that occurred at both the Oceanside Plant and Southeast Plant from October 2013 through May 2019.

Group 1 – Acute Toxicity Violations

From November 2014 through October 2021, the CCSF reported 37 acute toxicity violations. Table 1 (at the end of this attachment) lists these violations. Specifically, the CCSF violated Provision IV.A.4 of Order R2-2013-0029 (NPDES Permit CA0037664), which requires an 11-sample median of not less than 90 percent survival and an 11-sample 90th percentile of not less than 70 percent survival. The CCSF began investigating the violations in December 2014. In a letter to the Regional Water Board on March 9, 2015, the CCSF identified potential causes of this observed toxicity, including un-ionized ammonia. Between 2015 and 2018, the CCSF engaged outside experts to assist with investigating potential causes of the high mortality and experimented with modifications to the testing procedures to try to ascertain effect of un-ionized ammonia (i.e., parallel testing with zeolite-treated effluent, static renewal tests with pH control, and flow-through tests with pH control). Although these investigations did not conclusively identify the cause of the intermittent mortality, the

CCSF changed its toxicity testing protocols to control pH to better account for the effect of un-ionized ammonia.

The CCSF is subject to administrative civil liability for the alleged violations pursuant to Water Code section 13385, subdivisions (a)(2) and (c). The factors considered in determining the liability are described below, with delineations provided according to the applicable Enforcement Policy:

Factor	Selection	Rationale
Degree of Toxicity of the Discharge	3	A score of 3 (above moderate) is appropriate because the discharged material posed an above-moderate risk to potential receptors (i.e., the chemical and/or physical characteristics of the discharged material exceeded known risk factors). (2017 Enforcement Policy, p. 12; 2010 Enforcement Policy, p. 13.) The discharge was acutely toxic to aquatic life, resulting in test survival rates as low as 25 percent.
Actual Harm or Potential Harm to Beneficial Uses	1	A score of 1 (minor) is appropriate because there was a low threat of harm to beneficial uses and likely no actual harm. (2017 Enforcement Policy, p. 12; 2010 Enforcement Policy, p. 12.) Since the discharge occurred at a deepwater outfall that provides up to 231:1 dilution, only minor impacts to beneficial uses would be expected.
Susceptibility to Cleanup or Abatement	1	A score of 1 is appropriate because the discharge commingled with the receiving waters and was not susceptible to cleanup or abatement. (2017 Enforcement Policy, p. 13; 2010 Enforcement Policy, p. 13.)
Deviation from Requirement	Major	The violation is a major Deviation from Requirement because the discharge did not meet the acute toxicity effluent limitation set forth in Provision IV.A.4 of Order R2-2013-0029. Thus, the requirement was rendered ineffective in its essential function. (2017 Enforcement Policy, p. 14; 2010 Enforcement Policy p. 14.)
Per-Day Factor	0.15	This multiplier is the same under both the 2010 Enforcement Policy and the 2017 Enforcement Policy. It is based on the total Potential for Harm score of 5 (i.e., the sum of the above factors: 3+1+1) and the major Deviation from Requirement. (2010 Enforcement Policy, Table 2; 2017 Enforcement Policy, Table 2.)
Initial Liability	\$55,500	The initial liability is calculated in the same way under both the 2010 Enforcement Policy and the 2017 Enforcement Policy: the per-day factor is multiplied by the maximum per-day liability (\$10,000) and then by the number of days of violation. (2017 Enforcement Policy, p. 14; 2010 Enforcement Policy, p. 14.) Of the 37 days of violation, 17 occurred before October 5, 2017, and are subject to the 2010 Enforcement Policy, and 20 occurred after October 5, 2017, and are subject to the 2017 Enforcement Policy. The initial liability is therefore 0.15 x \$10,000/day x 37 days.
Culpability	1.0	A score of 1.0 (neutral) is appropriate. The CCSF acted in a reasonable and prudent way leading up to these violations. No intentional or negligent behavior caused these violations.

Factor	Selection	Rationale
History of Violations	1.1	A score of 1.1 is appropriate because the CCSF has a history of violations.
Cleanup and Cooperation	1.1	A score of 1.1 is appropriate because the CCSF began investigating the toxicity issue in March 2015 but did not implement its first potential solution (pH control) until 2019. During the investigation, the CCSF requested adjusted acute toxicity testing procedures in an email sent June 2, 2015. The Regional Water Board approved this request in a letter dated August 21, 2015, contingent on several conditions, including diligently implementing investigative tasks and describing activities and results in relevant self-monitoring reports.
Total Base Liability	\$67,200 (rounded)	The total base liability is the sum of the initial liability from the 2010 Enforcement Policy and the 2017 Enforcement Policy, times the culpability, history of violations, and cleanup and cooperation factors (\$55,500 x 1.0 x 1.1 x 1.1). (2017 Enforcement Policy, p. 17; 2010 Enforcement Policy, p. 17.)
Ability to Pay and Continue in Business	No adjustment	The CCSF has not demonstrated an inability to pay the proposed administrative civil liability.
Economic Benefit	<i>de minimus</i>	The CCSF did not enjoy any significant economic benefit associated with the violation. The proposed final liability greatly exceeds the time value of any delayed costs associated with the implementation of potential solutions to the toxicity issue.
Staff Costs	No adjustment	Staff costs are not included in the final proposed liability.
Minimum and Maximum Liabilities	<i>de minimus</i> and \$370,000	According to the Enforcement Policy, the minimum liability is the economic benefit plus ten percent. The maximum per-day liability Water Code section 13385 allows is \$10,000 per day of violation. Here, the maximum liability is \$370,000 based on 37 days of violation. The minimum liability is nominal.
Final Liability	\$67,200	The final liability is the total base liability after adjusting for ability to pay, economic benefit, other factors, and minimum and maximum liabilities.

Group 2 – June and July 2019 Effluent Limitation Violations

In June 2019, the Southeast Plant experienced a biological treatment issue that resulted in effluent that did not meet secondary treatment standards. The result was several effluent limitation violations, including weekly and monthly average biochemical oxygen demand (BOD) limits, weekly and monthly average total suspended solids (TSS) limits, monthly average oil and grease limits, and monthly 90th percentile fecal coliform limits. Table 2 (at the end of this attachment) lists all effluent limitation violations associated with this event. The CCSF's investigation identified four factors that contributed to these effluent limitation violations:

1. In preparing the primary sedimentation tanks for maintenance, wastewater levels were lowered quickly, increasing hydraulic and solids loading downstream;

2. Return Activated Sludge pumps intermittently stopped for an unknown reason (June 9 through June 11);
3. Mixing in 2 of 8 aeration trains stopped for several days due to a combination of electrical and control systems issues not identified by onsite staff present 24 hours per day from June 11 through June 13; and
4. Wastewater from construction dewatering at the Southeast Plant was fed into the treatment process.

The partially-treated discharge violated Provisions IV.A.1, IV.A.2, and IV.A.3.b of Order R2-2013-0029. These provisions establish effluent limitations for BOD, TSS, oil and grease, and fecal coliform.

Throughout the months of June and July, 2019, 12 violations occurred, and there were 152 days of violation. To calculate the number of days of violation, a day of violation was counted for each day in which a violation occurred as prescribed by Water Code section 13385, subdivisions (a)(2) and (c). However, if multiple violations for a particular pollutant took place on the same day, only one day of violation was counted for that day for that pollutant. For example, if a violation of a weekly average effluent limitation and a violation of a monthly average effluent limitation occurred during the same month for a single pollutant, each day of the month was counted only once as a day of violation. The BOD, TSS, and oil and grease violations resulted in 122 days of violation. The fecal coliform violation resulted in 30 days of violation.

The CCSF is subject to administrative civil liability for the alleged violations pursuant to Water Code section 13385, subdivisions (a)(2) and (c). The factors considered in determining the liability are described below:

Factor	Selection	Rationale
Degree of Toxicity of the Discharge	2 (TSS, BOD, Oil & Grease)	A score of 2 (moderate) is appropriate because the discharged material posed a moderate risk to potential receptors (i.e., the chemical and/or physical characteristics of the discharged material had some level of toxicity or there was a moderate threat to potential receptors). (2017 Enforcement Policy, p. 12.) TSS, BOD, and oil and grease have low toxicity themselves, but the exceedances indicate that the discharge did not receive complete secondary treatment and may have contained other pollutants normally removed through secondary treatment.
	3 (Fecal Coliform)	A score of 3 (above moderate) is appropriate because the discharged material posed an above-moderate risk to potential receptors (i.e., the chemical and/or physical characteristics of the discharged material exceeded known risk factors). (2017 Enforcement Policy, p. 12.) The discharge contained fecal coliform levels that exceeded the Basin Plan's fecal coliform water quality objective to protect the shellfish harvesting beneficial use.

Factor	Selection	Rationale
Actual Harm or Potential Harm to Beneficial Uses	1	A score of 1 (minor) is appropriate because there was a low threat of harm to beneficial uses and likely no actual harm. (2017 Enforcement Policy, p. 12.) Since the discharge occurred at a deepwater outfall that provides up to 231:1 dilution, only minor impacts to beneficial uses would be expected.
Susceptibility to Cleanup or Abatement	1	A score of 1 is appropriate because the discharge commingled with the receiving waters and was not susceptible to cleanup or abatement. (2017 Enforcement Policy, p. 13.)
Deviation from Requirement	Major	The violation is a major Deviation from Requirement because the discharge did not meet effluent limitations defined in Provisions IV.A.1, IV.A.2, and IV.A.3.b of Order R2-2013-0029. Thus, the requirements were rendered ineffective in their essential function. (2017 Enforcement Policy, p. 14.)
Per-Day Factor	0.08 (TSS, BOD, Oil & Grease)	This multiplier is based on the total Potential for Harm score of 4 (i.e., the sum of the above factors for TSS, BOD, and oil and grease: 2+1+1) and the major Deviation from Requirement. (Enforcement Policy, Table 2.)
	0.15 (Fecal Coliform)	This multiplier is based on the total Potential for Harm score of 5 (i.e., the sum of the above factors for fecal coliform: 3+1+1) and the major Deviation from Requirement. (Enforcement Policy, Table 2.)
Initial Liability	\$97,600 (TSS, BOD, Oil & Grease)	The initial liability for the TSS, BOD, and oil and grease effluent limitation violations is the per-day factor multiplied by the maximum per-day liability (\$10,000) and then by the number of days of discharge: 0.08 x \$10,000/day x 122 days. (2017 Enforcement Policy, p. 14.)
	\$45,000 (Fecal Coliform)	The initial liability for the fecal coliform effluent limitation violation is the per-day factor multiplied by the maximum per-day liability (\$10,000) and then by the number of days of discharge: 0.15 x \$10,000/day x 30 days. (2017 Enforcement Policy, p. 14.)
Culpability	1.1	A score of 1.1 (above neutral) is appropriate because all four contributing factors the CCSF identified in its investigation were either directly caused by CCSF's staff or exacerbated by its staff's inaction. A reasonable and prudent discharger would have better managed the primary sedimentation tank maintenance preparations, addressed the Return Activated Sludge pump issues, and noted and repaired the out-of-service aeration trains before biological treatment efficacy was affected.
History of Violations	1.1	A score of 1.1 is appropriate because the CCSF has a history of violations.
Cleanup and Cooperation	1.0	A score of 1.0 (neutral) is appropriate. The CCSF responded in a reasonable and timely manner to resolve the biological treatment issue after the four contributing factors were identified.

Factor	Selection	Rationale
Total Base Liability	\$172,500 (rounded)	The total base liability is the sum of the initial liability from the TSS, BOD, oil and grease, and fecal coliform violations, times the culpability, history of violations, and cleanup and cooperation factors ($[\$97,600 + \$45,000] \times 1.1 \times 1.1 \times 1.0$). (2017 Enforcement Policy, p. 17.)
Ability to Pay and Continue in Business	No adjustment	The CCSF has not demonstrated an inability to pay the proposed administrative civil liability.
Economic Benefit	<i>de minimus</i>	The CCSF did not enjoy any significant economic benefit associated with the violations related to the loss of biological treatment. The proposed final liability greatly exceeds the time value of any delayed costs associated with resolving the secondary treatment problem.
Staff Costs	No adjustment	Staff costs are not included in the final proposed liability.
Minimum and Maximum Liabilities	\$33,000 and \$1,520,000	The minimum liability is calculated from the sum of all violations associated with this event that are each subject to a \$3,000 mandatory minimum penalty pursuant to Water Code section 13385, subdivisions (h) or (i). The maximum per-day liability Water Code section 13385 allows is \$10,000 per day of violation. Here, the maximum liability is \$1,520,000 based on 152 days of violation. The minimum liability is \$33,000 based on 11 violations.
Final Liability	\$172,500	The final liability is the total base liability after adjusting for ability to pay, economic benefit, other factors, and the minimum and maximum liabilities.

Group 3 – Mandatory Minimum Penalties or No Penalty

From October 2013 through May 2019, the CCSF reported 12 effluent limitation violations at the Southeast Plant and the Oceanside Plant not otherwise discussed above, as listed in Tables 3 and 4, below. Specifically, the CCSF violated Provision IV.A of Order R2-2013-0029 and Provision IV.a.1.a of Order R2-2009-0062 (NPDES Permit CA0037681). In most cases, the CCSF was able to return to compliance before investigations could identify any causes.

One of the 12 violations is subject to a mandatory minimum penalty of \$3,000 pursuant to Water Code section 13385, subdivision (h), resulting in a mandatory penalty of **\$3,000** ($\$3,000 \times 1$ violation). No penalties are proposed for the remaining 11 violations.

Table 1. Alleged Acute Toxicity Violations (Group 1)

CIWQS Violation ID No.	Violation Date	Parameter (units)	Group	Effluent Limitation	Calculated Value	Percent Exceedance ^[1]	Violation Type	Mandatory Minimum Penalty ^[2]
986758	11/24/2014	11-sample 90 th percentile (% survival)	-	70	65	7	-	\$0
991860	2/23/2015	11-sample median (% survival)	-	90	85	6	-	\$0
991861	3/30/2015	11-sample median (% survival)	-	90	85	6	-	\$0
991862	4/13/2015	11-sample median (% survival)	-	90	85	6	-	\$0
991863	4/27/2015	11-sample median (% survival)	-	90	80	11	-	\$0
991864	4/27/2015	11-sample 90 th percentile (% survival)	-	70	50	29	-	\$0
1000082	8/24/2015	11-sample median (% survival)	-	90	85	6	-	\$0
1000081	8/24/2015	11-sample 90 th percentile (% survival)	-	70	45	36	-	\$0
1000087	10/19/2015	11-sample median (% survival)	-	90	85	6	-	\$0
1000088	10/19/2015	11-sample 90 th percentile (% survival)	-	70	26	63	-	\$0
1005131	11/3/2015	11-sample median (% survival)	-	90	85	6	-	\$0
1005132	11/3/2015	11-sample 90 th percentile (% survival)	-	70	26	63	-	\$0
1005135	11/10/2015	11-sample median (% survival)	-	90	85	6	-	\$0
1005133	11/10/2015	11-sample 90 th percentile (% survival)	-	70	26	63	-	\$0
1005135	11/17/2015	11-sample median (% survival)	-	90	85	6	-	\$0
1006955	2/8/2016	11-sample median (% survival)	-	90	85	6	-	\$0
1006953	2/8/2016	11-sample 90 th percentile (% survival)	-	70	45	36	-	\$0
1006956	2/22/2016	11-sample median (% survival)	-	90	85	6	-	\$0
1043827	11/27/2017	11-sample 90 th percentile (% survival)	-	70	50	29	-	\$0

1043828	12/4/2017	11-sample 90 th percentile (% survival)	-	70	50	29	-	\$0
1043958	2/12/2018	11-sample median (% survival)	-	90	85	6	-	\$0
1043959	2/12/2018	11-sample 90 th percentile (% survival)	-	70	45	36	-	\$0
1043960	3/5/2018	11-sample median (% survival)	-	90	85	6	-	\$0
1043961	3/5/2018	11-sample 90 th percentile (% survival)	-	70	45	36	-	\$0
1048822	5/7/2018	11-sample median (% survival)	-	90	85	6	-	\$0
1048824	5/7/2018	11-sample 90 th percentile (% survival)	-	70	45	36	-	\$0
1048823	6/18/2018	11-sample median (% survival)	-	90	85	6	-	\$0
1066833	11/5/2018	11-sample 90 th percentile (% survival)	-	70	55	21	-	\$0
1066834	12/10/2018	11-sample 90 th percentile (% survival)	-	70	55	21	-	\$0
1066835	4/8/2019	11-sample 90 th percentile (% survival)	-	70	55	21	-	\$0
1066836	6/3/2019	11-sample median (% survival)	-	90	85	6	-	\$0
1066837	6/3/2019	11-sample 90 th percentile (% survival)	-	70	55	21	-	\$0
1076565	3/2/2020	11-sample 90 th percentile (% survival)	-	70	60	14	-	\$0
1076566	3/9/2020	11-sample 90 th percentile (% survival)	-	70	50	29	-	\$0
1087672	11/2/2020	11-sample median (% survival)	-	90	85	6	-	\$0
1097611	7/19/2021	11-sample 90 th percentile (% survival)	-	70	50	29	-	\$0
1100517	10/4/2021	11-sample 90 th percentile (% survival)	-	70	50	29	-	\$0

Total Mandatory Minimum Penalty: \$0

Table 2. Alleged June and July 2019 Effluent Limitation Violations (Group 2)

CIWQS Violation ID No.	Violation Date	Parameter (units)	Group	Effluent Limitation	Reported Value	Percent Exceedance ^[1]	Violation Type	Mandatory Minimum Penalty ^[2]
1066846	6/9/2019 - 6/15/2019	TSS, AWEL (mg/L)	1	45	78	73	C2, S	\$3,000
1066841	6/9/2019 - 6/15/2019	BOD, AWEL (mg/L)	1	45	62	38	C3	\$0
1066847	6/16/2019 - 6/22/2019	TSS, AWEL (mg/L)	1	45	98	118	C4, S	\$3,000
1066843	6/16/2019 - 6/22/2019	BOD, AWEL (mg/L)	1	45	59	31	C5	\$3,000
1066850	6/1/2019 - 6/30/2019	Fecal Coliform, monthly 90 th percentile (MPN/100mL)	N/A	1,100	1,600	45	C6	\$3,000
1066844	6/1/2019 - 6/30/2019	BOD, AMEL (mg/L)	1	30	48	60	C7, S	\$3,000
1066848	6/1/2019 - 6/30/2019	TSS, AMEL (mg/L)	1	30	60	100	C8, S	\$3,000
1066845	6/1/2019 - 6/30/2019	BOD, % removal (%)	1	85	84	1	C9	\$3,000
1066849	6/1/2019 - 6/30/2019	TSS, % removal (%)	1	85	80	6	C10	\$3,000
1087668	6/30/2019 - 7/6/2019	TSS, AWEL (mg/L)	1	45	52	16	C11	\$3,000
1087669	7/1/2019 - 7/31/2019	TSS, AMEL (mg/L)	1	30	37	23	C12	\$3,000
1066998	7/1/2019 - 7/31/2019	Oil & Grease, AMEL (mg/L)	1	10	12	20	C13	\$3,000

Total Mandatory Minimum Penalty: \$33,000

Table 3. Other Alleged Violations for Oceanside Water Pollution Control Plant (Group 3)

CIWQS Violation ID No.	Violation Date	Parameter (units)	Group	Effluent Limitation	Reported Value	Percent Exceedance ^[1]	Violation Type	Mandatory Minimum Penalty ^[2]
1104668	10/6/2013 - 10/12/2013	BOD, AWEL (mg/L)	1	45	51	13	C1	\$0
1104669	7/20/2014 - 7/26/2014	BOD, AWEL (mg/L)	1	45	47	4	C1	\$0
1104671	7/27/2014 - 8/2/2014	BOD, AWEL (mg/L)	1	45	46.6	4	C2	\$0
1030360	6/18/2017 - 6/24/2017	BOD, AWEL (mg/L)	1	45	49	9	C1	\$0
1054392	11/18/2018 - 11/24/2018	TSS, AWEL (mg/L)	1	45	55	22	C1	\$0

Total Mandatory Minimum Penalty: \$0

**Table 4. Other Alleged Violations for Southeast Water Pollution Control Plant
(Group 3)**

CIWQS Violation ID No.	Violation Date	Parameter (units)	Group	Effluent Limitation	Reported Value	Percent Exceedance ^[1]	Violation Type	Mandatory Minimum Penalty ^[2]
1104673	8/17/2014 - 8/23/2014	BOD, AWEL (mg/L)	1	45	47	4	C1	\$0
1000080	8/1/2015 - 8/31/2015	TSS, AMEL (mg/L)	1	30	33	10	C1	\$0
1000089	10/4/2015 - 10/10/2015	TSS, AWEL (mg/L)	1	45	50	13	C2	\$0
1013158	7/1/2016 - 7/31/2016	TSS, AMEL (mg/L)	1	30	31	3	C1	\$0
1033302	3/1/2017 - 3/31/2017	Oil and Grease, AWEL (mg/L)	1	10	14	40	C1, S	\$3,000
1043955	10/11/2017	Residual Chlorine, instantaneous maximum (mg/L)	2	0	0.5	-	-	\$0
1066839	5/29/2019	Residual Chlorine, instantaneous maximum (mg/L)	2	0	0.2	-	-	\$0

Total Mandatory Minimum Penalty: \$3,000

Legend:

- CIWQS California Integrated Water Quality System database that the Water Boards use to track permit violations and enforcement.
- Violation ID Identification number assigned to each permit violation within CIWQS.
- AWEL Average weekly effluent limitation
- AMEL Average monthly effluent limitation
- C Count – Number of violations within past 180 days, including this violation. A penalty applies under Water Code section 13385(i) when the count is greater than three (> C3).
- S Serious. A penalty applies under Water Code section 13385(h) whenever an effluent limitation is exceeded by 40 percent or more for a Group 1 pollutant or 20 percent or more for a Group 2 pollutant. Group 1 and Group 2 pollutants are specified in Appendix A to Section 123.45 of Title 40 of the Code of Federal Regulations.

Footnotes:

- ^[1] Percent that a discharger's reported value exceeds the effluent limitation for a Group 1 or 2 pollutant.
- ^[2] The MMP required under Water Code section 13385(h) and/or (i).