

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

CEASE AND DESIST ORDER NO. R2-2009-0040

**REQUIRING THE FAIRFIELD-SUISUN SEWER DISTRICT
WASTEWATER TREATMENT PLANT
TO CEASE AND DESIST DISCHARGING PARTIALLY-TREATED WASTEWATER
TO WATERS OF THE STATE**

WHEREAS the California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter “Regional Water Board”), finds that:

1. The Fairfield-Suisun Sewer District (hereinafter “Discharger”) owns and operates a wastewater treatment plant (Plant), located at 1010 Chadbourne Road, Fairfield, Solano County, CA 94534. The plant treats wastewater from domestic, commercial, and industrial sources from the Cities of Fairfield and Suisun, and unincorporated properties in Solano County. It has a dry weather design capacity of 17.5 million gallons per day (MGD).
2. The wastewater discharge has been regulated by waste discharge requirements in Order No. R2-2003-0072, as amended by Order No. R2-2006-0045 (NPDES Permit No. CA0038024).
3. Concurrent with the adoption of this Cease and Desist Order, the Regional Water Board adopted Order No. R2-2009-0039 (hereinafter “Permit”), reissuing waste discharge requirements for the Discharger. The Permit contains prohibitions, limitations, and provisions regulating the discharge. Final effluent limitations for toxic pollutants established by the Permit include those listed in Table 1, below.

Table 1: Effluent Limitations for Copper, Cyanide, Dichlorobromomethane, and Chlorodibromomethane

Parameter	Final Effluent Limits		Monitoring Station
	Average Monthly (µg/L)	Maximum Daily (µg/L)	
Copper	7.9	15	E-001-D
Cyanide	7.4	18	E-001
Cyanide	2.1	5.3	E-002, E-003, E-005
Dichlorobromomethane	46	92	E-001-D
Chlorodibromomethane	34	68	E-001-D

4. Discharges from the Plant threaten to violate the effluent limitations established by Order No. R2-2009-0039 for copper, cyanide, dichlorobromomethane, and chlorodibromomethane (listed in Table 1) because the Discharger cannot comply with final effluent limits for these constituents. The 95th percentile of the copper effluent data set, from November 2003 to July 2008 (9.0 µg/L), exceeds the average monthly final effluent limitation. For outfall E-001, the 95th percentile of the cyanide effluent data set from November 2003 to July 2008 (8.5 µg/L) exceeds the average monthly final

effluent limitation. For outfalls E-002, E-003, and E-005, the 95th percentile and 99th percentile (11 µg/L) exceed the AMEL and MDEL. For dichlorobromomethane and chlorodibromomethane, available effluent data are insufficient to calculate a 95th or 99th percentile, but the maximum observed effluent concentrations (MECs), from March 2005 to March 2008 (64 µg/L and 44 µg/L, respectively), are higher than the average monthly and daily maximum limitations.

5. Water Code § 13301 authorizes the Regional Water Board to issue a Cease and Desist Order when it finds that a waste discharge is taking place, or threatening to take place, in violation of Regional Water Board requirements.
6. Because the Discharger will violate or threatens to violate required effluent limitations, this Cease and Desist Order is necessary to ensure that the Discharger achieves compliance. For copper, this Order establishes time schedules for the Discharger to complete necessary investigative, preventive, and remedial actions to address imminent and threatened violations of effluent limitations for copper, cyanide, dichlorobromomethane, and chlorodibromomethane.
7. The time schedules in this Order are parameter-specific and are intended to be as short as possible. They account for the considerable uncertainty in determining effective measures (e.g., pollution prevention and treatment plant upgrades) necessary to achieve compliance. This Order allows some time to first explore source control measures before requiring further actions, such as treatment plant upgrades, which are likely to be much more costly.

The Discharger is entering the design phase of an ultraviolet disinfection system to replace its chlorination system. Construction of this system is expected to be completed by 2011. Once this system is fully operational, trihalomethanes (including dichlorobromomethane and chlorodibromomethane) and cyanide in the effluent are expected to be significantly reduced.

The time schedules are based on reasonably expected times needed to implement and evaluate source identification and upstream source control if applicable; identify treatment alternatives, if necessary; test and select from among alternatives; and construct plant upgrades. The Regional Water Board may revisit these assumptions as more information becomes available.

8. As part of the time schedules to achieve compliance, this Order requires the Discharger to comply with interim effluent limits, which are based on past treatment performance or on limits established by previous permits, whichever are more stringent. Interim effluent limits are intended to ensure that the Discharger maintains at least its existing level of treatment performance while completing all tasks required by the compliance schedules.

The interim maximum daily effluent limitation for copper is 20 µg/L. This limitation is a performance-based interim limitation based on the 99.87th percentile of the Discharger's effluent data collected from November 2003 through July 2008.

The interim maximum daily effluent limitation established for cyanide is 14 µg/L. This limitation is a performance-based interim limitation based on the 99.87th percentile of the Discharger's effluent data collected from November 2003 through July 2008.

The interim maximum daily effluent limitation for dichlorobromomethane is 75 µg/L. There is insufficient effluent data available to statistically determine a performance-based interim limitation, but Order No. R2-2003-0072 established an interim maximum daily effluent limitation (75 µg/L).

The interim maximum daily effluent limitation for chlorodibromomethane is 68 µg/L. There is insufficient effluent data available to statistically determine a performance-based interim limitation, but the Discharge can comply with the newly-calculated maximum daily effluent limitation (68 µg/L).

9. This Order enforces existing requirements of an NPDES permit. In accordance with Water Code §13389, NPDES permits are exempt from the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code § 21000 et seq.). As an enforcement action, in accordance with 14 CCR § 15321, this Order is also exempt from CEQA.
10. The Regional Water Board has notified the Discharger and interested persons of its intent to consider adoption of this Cease and Desist Order and has provided an opportunity to submit written comments and appear at a public hearing. The Regional Water Board, in a public hearing, has heard and considered all comments.

IT IS HEREBY ORDERED, in accordance with Water Code § 13301, that the Discharger shall cease and desist from discharging and threatening to discharge wastes in violation of its Permit by complying with the following provisions.

1. Prescribed Actions. The Discharger shall comply with the required actions in the attached Tables 2 and 3 in accordance with the time schedules provided therein to comply with all effluent limitations contained in the Permit. Deliverables listed in Tables 2 and 3 shall be acceptable to the Executive Officer, who will review them for adequacy and compliance with the Tables 2 and 3 requirements. The Discharger shall implement all actions set forth in each deliverable, unless the Executive Officer finds the deliverable to be unacceptable.
2. Reporting Delays. If the Discharger is delayed, interrupted, or prevented from meeting one or more of the activities described in Table 2 or 3, below, due to circumstances beyond its reasonable control, the Discharger shall promptly notify the Executive Officer, provide the reasons and justification for the delay, and propose a time schedule for resolving the delay.
3. Effective Date. This Order shall be effective on the effective date of the Permit.

I, Bruce H. Wolfe, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on April 8, 2009.

BRUCE H. WOLFE
Executive Officer

Attachment: Tables 2 and 3

Table 2: Time Schedules and Prescribed Actions for Copper

Action	Deadline
<p>a. Comply with the following interim effluent limit at Monitoring Station E-001-D: <i>Copper</i>: Maximum daily effluent limit = 20 µg/L</p>	<p>Upon the effective date of this Order</p>
<p>b. Submit an inventory of potential copper sources to the Plant.</p>	<p>September 1, 2009</p>
<p>c. Submit a plan for and begin implementation of a program to reduce copper discharges consisting, at a minimum, of the following elements:</p> <ul style="list-style-type: none"> • Provide education and outreach to the public (e.g., focus on proper pool and spa maintenance and plumbers' roles in reducing corrosion). • If corrosion is determined to be a significant copper source, work cooperatively with local water purveyors to reduce and control water corrosivity, as appropriate, and ensure that local plumbing contractors implement best management practices to reduce corrosion in pipes. • Educate plumbers, designers, and maintenance contractors for pools and spas to encourage best management practices that minimize copper discharges. 	<p>February 28, 2010, with 2009 Annual Pollution Prevention report</p>
<p>d. Continue to implement the program described in action "c" and submit annual status reports that document implementation, evaluate the program's effectiveness, and summarize planned changes. Report whether the program has successfully brought the discharge into compliance with the effluent limits in the Permit. If not, identify and implement additional measures to further control copper discharges.</p>	<p>Annually each February 28, with the Annual Pollution Prevention reports</p>
<p>e. If by February 28, 2011, discharge data continue to show the discharge is out of compliance (as defined in 2.4.5. of the State Implementation Policy) with the Permit effluent limits, submit a report, by the deadline for this action, identifying more aggressive actions to ensure compliance. These actions shall include, but not be limited to, reviewing options for pretreatment and upgrades to the treatment plant. The report shall identify an implementation schedule for investigating these options, selecting a preferred option, and implementing the chosen option. At a minimum, the report shall plan for the following activities:</p> <ul style="list-style-type: none"> • Bench scale testing or pilot scale testing or both • Development of preliminary design specifications • Development of final design specifications 	<p>June 1, 2011</p>

Action	Deadline
<ul style="list-style-type: none"> • Procurement of funding • Acquisition of necessary permits and approvals • Construction 	
f. Implement the plan required in action “e” within 45 days of the deadline for action “e,” and submit annual status reports.	Annually each February 1, within the Annual Self-Monitoring Report required by Permit Attachment E, Monitoring and Reporting Program
g. Submit documentation confirming complete plan implementation and comply with effluent limits in the Permit.	May 1, 2014

Table 3: Time Schedule and Prescribed Actions for Cyanide, Dichlorobromomethane, and Chlorodibromomethane

Action	Deadline
<p>a. Comply with the following interim effluent limits at Monitoring Station E-001-D:</p> <p><i>Dichlorobromomethane:</i> Maximum daily effluent limit = 75 µg/L</p> <p><i>Chlorodibromomethane:</i> Maximum daily effluent limit = 68 µg/L</p> <p>Comply with the following interim effluent limit at Monitoring Stations E-001, E-002, E-003, and E-005:</p> <p><i>Cyanide:</i> Maximum daily effluent limit = 14 µg/L</p>	Upon the effective date of this Order
<p>b. Submit a report documenting development and initial implementation of an ultraviolet disinfection system to reduce and prevent cyanide, dichlorobromomethane, and chlorodibromomethane in the discharge. The report shall identify an implementation schedule for investigation and implementation of the ultraviolet disinfection system and/or its alternatives. At a minimum, the report shall plan for the following activities:</p> <ul style="list-style-type: none"> • Development of preliminary design specifications • Bench scale testing or pilot scale testing or both • Development of final design specifications • Procurement of funding • Acquisition of necessary permits and approvals • Construction 	December 1, 2009

Action	Deadline
c. Implement the plan required in action “b” for cyanide, dichlorobromomethane, and chlorodibromomethane within 45 days following the deadline for action “b”, and submit annual status reports.	Annually each February 1, within the Annual Self-Monitoring Report required by Permit Attachment E, Monitoring and Reporting Program
d. Submit documentation confirming complete plan implementation	February 28, 2012
e. If a mixing zone and dilution credits are required to comply with cyanide effluent limits at outfalls E-002, E-003, and E-005, perform a mixing zone study for those outfalls in accordance with State Implementation Plan (SIP) Section 1.4.2.1 requirements, and if appropriate, submit a report proposing and justifying a mixing zone and dilution credit for cyanide from these outfalls. If dilution credits are proposed, the report shall address antidegradation requirements.	September 30, 2012
f. Submit documentation confirming compliance with all final effluent limits in the Permit.	February 28, 2013