

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

CEASE AND DESIST ORDER R5-2010-0064

REQUIRING
CITY OF MT. SHASTA
WASTEWATER TREATMENT PLANT
SISKIYOU COUNTY
TO CEASE AND DESIST
FROM DISCHARGING CONTRARY TO REQUIREMENTS AND
RESCINDING CEASE AND DESIST ORDER R5-2007-0057

The Central Valley Regional Water Quality Control Board (Central Valley Water Board or Board) finds:

1. On 21 June 2007, the Central Valley Water Board adopted Waste Discharge Requirements (WDRs) Order R5-2007-0056 (NPDES No. CA0078051) for City of Mt. Shasta (hereafter Discharger). The WDRs regulate the discharge of treated wastewater from the City of Mt. Shasta Wastewater Treatment Plant to the Sacramento River, a water of the United States. The WDRs contain final effluent limits for copper and zinc. The WDRs also contain an interim effluent limit for copper and a time schedule to comply with the final copper effluent limit by 18 May 2010. The WDRs contain interim limits for, among other things, ammonia discharges. The WDRs require the Discharger to come into compliance with final effluent limitations contained in the WDRs.

Concurrent to the adoption of the WDRs, the Central Valley Water Board issued Cease and Desist Order (CDO) R5-2007-0057 to the Discharger to grant a time schedule for compliance with the final effluent limit for copper and zinc contained in the WDRs. The CDO contains interim copper and zinc effluent limits and requires the Discharger to and requires the Discharger to come into compliance with the final effluent limitations for copper and zinc by 18 May 2010.

2. The WDRs contain final effluent limitations for ammonia, copper, zinc, and other pollutants. The Facility discharges to either the Sacramento River via discharge point EFF-001, or to land, depending on the time of year. The WDRs, Effluent Limitations Section A, states, in relevant part:
 1. Final Effluent Limitations – Discharge Point EFF-001
 - a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point EFF-001, with compliance measured immediately downstream of the de-chlorination chamber as described in the attached MRP:

Table 6A. Effluent Limitations (16 November through 14 April) (*relevant parts*)

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Ammonia	mg/L	3.68	--	29.57 ²	--	--
Copper, Total Recoverable	ug/L	3.94	--	7.90	--	--
Zinc, Total Recoverable	µg/L	10.76	--	21.58	--	--

²One-hour average

3. From the effective date of the WDRs until 18 May 2010, the WDRs specified the following interim limit for ammonia in Effluent Limitations Section A.2.a, Table 7, as follows:

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Ammonia	mg/L	18.8	--	58.5	--	--

4. 4,4'-DDT, which also received a time schedule in the WDRs, was monitored at the facility in accordance with monitoring program requirements. No detectable 4,4'-DDT was found in the required six monitoring events. The final 4,4'-DDT effluent limitation will come into effect on 18 May 2010, however, the Discharger should be able to comply.
5. The WDRs include final copper and zinc effluent limits, as listed above. A compliance schedule for the final copper and zinc effluent limitations was granted by the CDO, and mirrors the compliance schedule granted by the WDRs. The interim copper and zinc effluent limitations are in effect until 18 May 2010 and are listed below:

Parameter	Unit	Average Monthly Effluent Limitation	Maximum Daily Effluent Limitation
Copper, Total Recoverable	ug/L	23.9	74.3
Zinc, Total Recoverable	ug/L	38.0	118

6. California Water Code (CWC) subsections 13385(h) and (i) require the Central Valley Water Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. CWC section 13385(j)(3) provides protection from mandatory minimum penalties for violations of an effluent limitation when:

... the waste discharge is in compliance with either a cease and desist order issued pursuant to Section 13301 or a time schedule order issued pursuant to Section 13300 or 13308, if all of the following requirements are met:

- (A) The cease and desist order ... is issued on or after July 1, 2000, and specifies the actions that the discharger is required to take in order to correct the violations that would otherwise be subject to subdivisions (h) and (i).

(B) The regional board finds that, for one of the following reasons, the discharger is not able to consistently comply with one or more of the effluent limitations established in the waste discharge requirements applicable to the waste discharge:

(i) The effluent limitation is a new, more stringent, or modified regulatory requirement that has become applicable to the waste discharge after the effective date of the waste discharge requirements and after July 1, 2000, new or modified control measures are necessary in order to comply with the effluent limitation, and the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.

...

(C) The regional board establishes a time schedule for bringing the waste discharge into compliance with the effluent limitation that is as short as possible, taking into account the technological, operational, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the effluent limitation. For the purposes of this subdivision, the time schedule may not exceed five years in length.... If the time schedule exceeds one year from the effective date of the order, the schedule shall include interim requirements and the dates for their achievement. The interim requirements shall include both of the following:

(i) Effluent limitations for the pollutant or pollutants of concern.

(ii) Actions and milestones leading to compliance with the effluent limitation.

(D) The discharger has prepared and is implementing in a timely and proper manner, or is required by the regional board to prepare and implement, a pollution prevention plan pursuant to Section 13263.3.

In accordance with CWC section 13385(j)(3), the Central Valley Water Board finds that the Discharger is not able to consistently comply with the final ammonia, copper and zinc limitations contained in the WDRs.

The final ammonia effluent limitation is a new requirement that will become applicable to the discharge on 18 May 2010, and new or modified control measures will need to be implemented to comply with the limitation, and these new or modified control measures cannot be completed and put into operation within 30 calendar days.

The final copper and zinc effluent limitations were new requirements that became applicable to the discharge on 10 August 2007. The Discharger needed to implement new or modified control measures to comply with the limitation, and these new or modified control measures could not be completed and put into operation within 30 calendar days.

7. The Discharger complied with the CDO by identifying potential pollutant sources (Task 1). Task 2 of the CDO (preparation of a Pollution Prevention Plan) was received 1 February 2010 and is being reviewed by Central Valley Water Board staff. The Discharger also completed a mixing zone/dilution study and associated biological assessment and anti-degradation analysis. A dilution credit will be considered at the time the permit is renewed.

The Board finds that it is reasonable for the Discharger to have until 1 June 2012 to fully implement the additional control measures in the plans that the Discharger has submitted, or to take other actions to come into compliance with the final effluent limitations for ammonia, copper, and zinc contained in the WDRs. This final compliance date is as short as possible, taking into account the technological, operational, and economic factors that affect the design, development and implementation of the control measures. This deadline does not exceed five years in length for any of the constituents covered by this Order. For copper and zinc, due to the fact that a CDO was already issued on 21 June 2007, the five year limitation prohibits the Board from extending the final compliance deadline beyond 21 June 2012. For ammonia, a constituent that has not yet received a CDO, the five year limitation prohibits the Board from extending the final compliance deadline beyond five years from the date this Order is issued. The final compliance date occurs prior to these dates. At the final compliance date, the interim effluent limitations described in this Order will be abandoned and the final effluent limitations contained in the WDRs will go into effect.

8. The interim limitations for copper, zinc and ammonia in this Order are based on the current Facility performance. In developing the interim limitation, where there are 10 sampling data points or more, sampling and laboratory variability is accounted for by establishing interim limits that are based on normally distributed data where 99.9% of the data points will lie within 3.3 standard deviations of the mean (Basic Statistical Methods for Engineers and Scientists, Kennedy and Neville, Harper and Row). Therefore, the interim limitations in this Order are established as the mean plus 3.3 standard deviations of the available data. If the resulting value is less than the maximum observed value, then the interim limit is set equal to the maximum value. Where there are fewer than 10 sampling data points, the interim limit is 3.11 times the maximum effluent concentration (MEC).

The following table summarizes the calculations of the interim effluent limitations for copper, zinc and ammonia:

Interim Effluent Limitation Calculation Summary

Parameter	Units	Maximum Effluent Concentration	Mean	Standard Deviation	Number of Samples	Interim Limitation
Copper, Total Recoverable	ug/L	21	8.47	6.60	23	30.3 ¹
Zinc, Total Recoverable	ug/L	47.6	15.24	10.50	23	49.9 ¹
Ammonia	mg/L	18.1	13.34	3.27	9	56.3 ²

¹The interim limitation is set as the mean plus 3.3 standard deviations, e.g. for copper, the interim limitation is calculated as 8.47 ug/L+ 3.3 * 6.60 ug/L = 30.3 ug/L.

²The interim limitation when there are fewer than ten sampling points is set equal to 3.11*MEC. For Ammonia this equates to 3.11 * 18.1 mg/L = 56.3 mg/L.

9. Interim limitations are established when compliance with effluent limitations cannot be achieved by the existing discharge. Discharge of constituents in concentrations in excess

of the final effluent limitations, but in compliance with the interim effluent limitations, may significantly degrade water quality and adversely affect the beneficial uses of the receiving stream on a long-term basis. The interim limitations, however, establish an enforceable ceiling concentration until compliance with the effluent limitation can be achieved. The Discharger is required to maintain existing Facility performance such that average monthly effluent concentrations do not exceed their respective concentrations recorded over the prior five years.

10. CWC section 13301 states, in relevant part:

When a regional board finds that a discharge of waste is taking place, or threatening to take place, in violation of requirements or discharge prohibitions prescribed by the regional board or the state board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventive action. In the event of an existing or threatened violation of waste discharge requirements in the operation of a community sewer system, cease and desist orders may restrict or prohibit the volume, type, or concentration of waste that might be added to that system by dischargers who did not discharge into the system prior to the issuance of the cease and desist order. Cease and desist orders may be issued directly by a board, after notice and hearing.

11. The Central Valley Water Board's Water Quality Control Plan (Fourth Edition) for the Sacramento River and San Joaquin Basins (Basin Plan) establishes the beneficial uses of the Sacramento River. The beneficial uses at the point of discharge are municipal and domestic supply, agricultural supply, water contact recreation, non-contact water recreation, cold freshwater habitat, cold water spawning, and wildlife habitat.
12. Compliance with this Order exempts the Discharger from mandatory minimum penalties for violations of the ammonia, copper and zinc limitations, through the final compliance date of 1 June 2012.
13. On 27 May 2010, in Rancho Cordova, California, after due notice to the Discharger and all other affected persons, the Central Valley Water Board conducted a public hearing at which evidence was received regarding the rescission of CDO R5-2007-0057 and the adoption of this new CDO. This new CDO, adopted pursuant to CWC Section 13301, establishes a time schedule to achieve compliance with waste discharge requirements in Order R5-2007-0056. The Central Valley Water Board heard and considered all comments and evidence pertaining to this matter at that public meeting.
14. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Pub. Resources Code § 21000, et seq.), in accordance with California Code of Regulations, title 14, section 15321(a)(2).

IT IS HEREBY ORDERED, PURSUANT TO CALIFORNIA WATER CODE SECTION 13301, THAT:

1. Cease and Desist Order R5-2007-0057 is hereby rescinded.
2. The Discharger shall comply with the following time schedule to assure compliance with Effluent Limitation A.1 for copper, zinc, and ammonia contained in Waste Discharge Requirements Order R5-2007-0056, as described in the Findings of this CDO.

<u>Task</u>	<u>Compliance Date</u>
Progress report on implementation and effectiveness of Pollution Prevention Plan measures and evaluation of the validity of the proposed mixing zone.	31 December 2010 and annually thereafter.

3. The Discharger shall comply with the following interim effluent limitations for copper, zinc and ammonia. The Discharger is required to maintain existing Facility performance such that average monthly effluent concentrations do not exceed their respective concentrations recorded over the prior five years. The maximum daily effluent limitations cited in the table below will be the enforceable interim limitations **until 1 June 2012**.

<u>Parameter</u>	<u>Unit</u>	<u>Daily Maximum</u>
Copper (Total Recoverable)	ug/L	30.3
Zinc (Total Recoverable)	ug/L	49.9
Ammonia	mg/L	56.3

4. The Discharger shall monitor the effluent for copper, zinc, and ammonia in accordance with Monitoring and Reporting Program R5-2007-0056.
5. If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may apply to the Attorney General for judicial enforcement or issue a complaint for Administrative Civil Liability. Additionally, the interim limit in this Order may be revoked, and the final limits contained in Order R5-2007-0056 will immediately become fully applicable.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with CWC section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday (including

mandatory furlough days), the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

or will be provided upon request.

I, PAMELA C. CREEDON, 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, Central Valley Region, on 27 May 2010.

Original signed by

PAMELA C. CREEDON, Executive Officer