

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER R5-2010-0905

REQUIRING THE CITY OF ALTURAS
WASTEWATER TREATMENT PLANT
MODOC COUNTY
TO COMPLY WITH REQUIREMENTS PRESCRIBED IN ORDER R5-2006-0103
(NPDES PERMIT NO. CA0078921)

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

1. On 22 September 2006 the Central Valley Water Board adopted Waste Discharge Requirements (WDR) Order R5-2006-0103 (NPDES Permit No. CA0078921), prescribing waste discharge requirements for the City of Alturas (Discharger) at the Alturas Wastewater Treatment Plant (Facility), Modoc County.
2. WDR Order R5-2006-0103 contains Final Effluent Limitations B.1., which reads, in part, as follows:

Constituent	Units	Monthly Average	Weekly Average	Daily Maximum	4-Day Average	Monthly Median
Copper – total recoverable	µg/L	4.6	--	9.2	--	--
Zinc – total recoverable	µg/L	40.5	--	81.9	--	--

3. WDRs Order R5-2006-0103 contains a time schedule for meeting the final effluent limitations for copper and zinc, with compliance required by 18 May 2010.
4. The Discharger upgraded several processes at the Facility and added others to meet the requirements imposed by various effluent limitations (TSS and BOD removal, coliform effluent limitations, etc.) in WDRs Order R5-2006-0103. While the Facility's discharge now consistently meets most effluent limitations, the upgraded facility has not been able to meet the final effluent limitations for copper and zinc. Advanced treatment facilities and/or additional source control measures must be implemented, and the Board finds that full compliance by 18 May 2010 is not feasible.
5. WDRs Order R5-2006-0103 contains, in part, the following interim limits that are in effect until 18 May 2010:

Constituent	Units	Monthly Average	Weekly Average	Daily Maximum	4-Day Average	Monthly Median
Copper – total recoverable	µg/L	11.8	--	36.7	--	--
Zinc – total recoverable	µg/L	58.0	--	180.4	--	--

6. The Discharger upgraded treatment processes at the Facility in 2008. However, the upgrades did not perform as expected, which resulted in numerous effluent violations.

A new consultant was hired by the Discharger in the Fall of 2009. The consultant proposed, and the Discharger implemented, additional Facility modifications, including the use of coagulants to improve the Facility's compliance with the WDRs.

The use of coagulants is considered a temporary fix, because the use of coagulants is not cost-effective. The coagulants have improved the quality of the effluent, but this temporary fix will not ensure compliance with the final copper and zinc discharge limits.

7. The Discharger has been developing plans with the new consultant to implement a monitoring and source control program in an attempt to minimize the release of copper and zinc from the aging plumbing of the community. While this has been effective in newer communities, the Discharger is not optimistic that significant or cost effective results will be achieved.
8. The Discharger is also evaluating the feasibility, economic requirements, and practicality of reclamation and/or land disposal, which would eliminate the Facility's discharge to the river. This feasibility and scoping work is expected to take approximately one year to complete.
9. The Discharger submitted a site-specific metals translator study for copper and zinc on 7 February 2008. The Discharger would not be able to meet revised effluent limitations even if the site-specific translator factors were incorporated into revised limits, indicating that physical upgrades to the Facility are necessary. The Discharger has requested that the Board grant additional time to complete an alternatives evaluation, engineering feasibility study, alternatives development selection, and to design and construct the facility modifications necessary to comply with the final copper and zinc effluent limits contained in the WDRs.
10. California Water Code (CWC) section 13300 states:

Whenever a regional board finds that a discharge of waste is taking place or threatening to take place that violates or will violate requirements prescribed by the regional board, or the state board, or that the waste collection, treatment, or disposal facilities of a discharger are approaching capacity, the board may require the discharger to submit for approval of the board, with such modifications as it may deem necessary, a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements.
11. 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, based upon results of effluent monitoring, the Discharger is not able to consistently comply with the final copper and zinc limitations contained in the WDRs.

The final copper and zinc effluent limitations are new requirements 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.

12. Compliance with this Order will only exempt the Discharger from mandatory penalties for violations of the final effluent limitations for copper and zinc in accordance with CWC section 13385(j)(3). CWC section 13385(j)(3) requires the Discharger to update and implement a pollution prevention plan pursuant to CWC section 13263.3.

13. Since the time schedules for completion of actions necessary to bring the waste discharge into compliance exceeds 1 year, this Order includes interim requirements and dates for achievement. The Central Valley Water Board finds that, in light of the fact that substantial upgrades have thus far been unable to bring the Facility into compliance with the final effluent limitations contained in the WDRs, a five-year timeframe to complete and implement the measures described in Findings Nos. 7 through 9 is a time schedule 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. Should the Discharger complete measures that allow it to attain compliance with the final effluent limitations prior to the expiration of five years, the final effluent limitations will be effective at the time those measures are completed.

14. The compliance time schedules in this Order include interim effluent limitations for copper and zinc based on current treatment plant performance from October 2007 through December 2009. In developing the interim limitations, 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 Discharger has no control over the influent copper and zinc concentrations at this time. However, the Board finds that the Discharger can undertake treatment plant measures to maintain compliance with the interim copper and zinc limitations included in this Order. 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.

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

Interim Maximum Daily Effluent Limitation (MDEL) Calculation Summary

Parameter	Units	Maximum Effluent Concentration	Mean	Standard Deviation	Number of Samples	MDEL Interim Limitation ¹
Copper, Total Recoverable	ug/L	38.1	11.0	5.02	35	38.1
Zinc, Total Recoverable	ug/L	63.6	47.1	8.08	35	73.8

¹The interim limitation is set as the mean plus 3.3 standard deviations, e.g. for copper, the interim limitation is calculated as 11.0 ug/L + 3.3 * 5.02 ug/L = 27.6 ug/L. However, since this is less than the MEC, the interim limitation is set to the MEC.

15. 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 THAT:

1. The Discharger shall comply with the following time schedule to ensure compliance with the final effluent limitations for copper and zinc contained in WDR Order R5-2006-0103 as described in the above Findings:

Task	Date Due
Submit Method of Compliance Workplan/Schedule	Within 6 months of adoption of this Order
Submit and implement an updated Pollution Prevention Plan (PPP) pursuant to CWC section 13263.3	Within 6 months of adoption of this Order
Annual Progress Reports ¹	1 December, annually , after approval of workplan until final compliance
Full compliance with the final effluent limitations for copper and zinc	5 years from adoption of this Order

¹ The progress reports for copper and zinc shall detail what steps have been implemented towards achieving compliance with waste discharge requirements, including studies, construction progress, evaluation of measures implemented, and recommendations for additional measures as necessary to achieve full compliance by the final date.

2. The following interim maximum daily effluent limitations shall be effective immediately and 5 years after the adoption date of this Order, or until the Discharger is able to come into compliance with the final effluent limits, whichever is sooner. The interim limits are in lieu of the copper and zinc average monthly and maximum daily final effluent limits in Order R5-2006-0103.

Parameter	Maximum Daily Effluent Limitation (ug/L)
Copper, Total Recoverable	38.1
Zinc, Total Recoverable	73.8

- For the compliance schedules required by this Order, the Discharger shall submit to the Board on or before the compliance report due date, the specified document or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, and shall include an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board by letter when it returns to compliance with the time schedule.
- 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 may issue a complaint for Administrative Civil Liability. If compliance with these effluent limitations is not achieved by the Full Compliance date, the discharge would not be exempt from the mandatory minimum penalties for violation of certain effluent limitations. The Central Valley Water Board reserves the right to take any enforcement action allowed by law for violations of this Order.

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.

This Order is effective upon signature.

Original signed by

PAMELA C. CREEDON, Executive Officer

27 May 2010

Date