

Attachment 1

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER NO. R5-2010-0060-01
(AS AMENDED BY ORDER NO. R5-2015-0099)

REQUIRING SOUTH FEATHER WATER AND POWER AGENCY
MINERS RANCH WATER TREATMENT PLANT
BUTTE COUNTY

TO COMPLY WITH REQUIREMENTS PRESCRIBED IN ORDER NO. R5-2010-0059
(NPDES PERMIT NO. CA0083143)

The California Regional Water Quality Control Board, Central Valley Region, (hereinafter Central Valley Water Board) finds that:

1. On 27 May 2010 the Central Valley Water Board adopted Waste Discharge Requirements (WDRs) Order No. R5-2010-0059, NPDES Permit No. CA000083143, prescribing waste discharge requirements for the South Feather Water and Power Agency (hereinafter Discharger) at the Miners Ranch Water Treatment Plant (hereafter Facility), Butte County.
2. WDR Order No. R5-2010-0059 contains Final Effluent Limitations IV.A.1.a., which reads, in part, as follows:

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Settleable Solids	mL/L	0.1	0.2	--	--
Total Suspended Solids	mg/L	30	50	--	--
	lbs/day ¹	257	429	--	--
Aluminum, Total Recoverable	ug/L	65.8	155	--	--
Copper, Total Recoverable	ug/L	1.1	2.3	--	--
pH	standard units	--	--	6.0	9.0

¹ Based on a design flow of 1.03 mgd.

3. The effluent limitations specified in Order No. R5-2010-0059 for copper are based on implementation of the California Toxics Rule. Final and interim effluent limitations for copper were prescribed in previous Order No. R5-2005-0011, adopted by the Regional Water Board on 27 January 2005.
4. The effluent limitations specified in Order No. R5-2010-0059 for aluminum are based on the National Recommended Ambient Water Quality Criteria (NAWQC) for protection of freshwater aquatic life developed by USEPA.

5. The Discharger was unable to immediately comply with the aluminum effluent limitations; therefore, WDRs Order R5-2010-0059 provided a maximum daily interim effluent limitation of 1222 ug/L and a compliance schedule for meeting final effluent limitations for aluminum. Compliance with effluent limitations for aluminum was to be achieved by 27 May 2015.

4.6. 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.”

5.7. Federal regulations, 40 CFR 122.44 (d)(1)(i), require that NPDES permit effluent limitations must control all pollutants which are or may be discharged at a level which will cause or have the reasonable potential to cause or contribute to an in-stream excursion above any State water quality standard, including any narrative criteria for water quality. Beneficial uses, together with their corresponding water quality objectives or promulgated water quality criteria, can be defined per federal regulations as water quality standards.

6.8. 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 revised water quality-based effluent limitations for aluminum and copper. These limitations are based on new requirements that become applicable to the Order after the effective date of the waste discharge requirements, and after 1 July 2000, for which new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.

7.9. Immediate compliance with the revised effluent limitations for aluminum and copper at Discharge Point D-001 is not possible or practicable. The Clean Water Act and the California Water Code authorize time schedules for achieving compliance. The following table summarizes the effluent monitoring data obtained for aluminum and copper from May 2010 January 2008 through April 2015 October 2009 for aluminum and copper:

Parameter	Units	MEC	Mean	# of Samples	# of Non-Detects
Aluminum	µg/L	870	147	63	0
Copper	µg/L	1.62	0.64.25	638	0

8.10. On 25 January 2010, the Discharger submitted justification for a compliance schedule for copper. For compliance with the final effluent limitations for copper, the Discharger anticipates that additional time is necessary for plant upgrades to eliminate the discharge to surface waters in the next five years. The Discharger’s submittal included: documentation of source control measures and/or pollution minimization measures efforts currently underway or completed and a proposal for additional waste treatment (i.e.,

facility upgrades) with a projected time schedule to eliminate the discharge to surface waters by 2014.

Need for Time Schedule Extension and Legal Basis

11. On 16 February 2015 and 17 February 2015, the Discharger submitted requests for additional time to comply with final aluminum and copper effluent limitations. The requests outlined measures taken by the Discharger throughout the current permit term in order to comply with WDRs Order No. R5-2010-0059 and TSO No. R5-2010-0060 and provided justification for requesting additional time to comply with final effluent limitations for aluminum and copper. The Discharger has implemented and evaluated initial source control and operational measures to reduce aluminum and copper concentrations in the discharge and has included additional design requirements in an update to the larger Facility expansion project (Miners Ranch Water Treatment Plant Improvement Project, 2008) for achieving compliance with final aluminum and copper effluent limitations. The Discharger completed financial planning to secure funding mechanisms for construction of Facility improvements in 2013 and completed CEQA requirements by January 2014. Preliminary design alternatives have been considered and final engineering design will be completed prior to construction of Facility improvements scheduled to begin in 2016. Additional time is required for the Discharger to complete the Facility expansion project and meet final effluent limitations.
12. The Discharger plans to eliminate Facility discharges to surface water and implement potable reuse of 100% of the filter backwash water by constructing improvements for enhanced mixing, clarification, filtration, disinfection and residuals handling facilities. Construction of two new pretreatment clarification basins, two new filters, new chemical storage and feed equipment, a second washwater basin for decant recycling, and two additional sludge-handling basins are included as part of the project.
- 9-13. This Order provides a time schedule for the Discharger to develop, submit, implement methods of compliance, including updating and implementing the pollution prevention plan and constructing the necessary treatment plant upgrades to eliminate the surface water discharge.

Mandatory Minimum Penalties

- 10-14. CWC section 13385(h) and (i) require the Regional Water Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. CWC section 13385(j) exempts certain violations from the mandatory minimum penalties. CWC section 13385(j)(3) exempts the discharge from mandatory minimum penalties “where 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, if all the [specified] requirements are met.”
15. In accordance with Water Code section 13385, subdivision (j)(3)(A) through (D), the Central Valley Water Board finds that, based upon results of effluent monitoring, the Discharger is not able to consistently comply with the final effluent limitations for

aluminum. These limitations are based on new requirements that became applicable to the Order after the effective date of the waste discharge requirements, and after 1 July 2000, for which new or modified control measures are necessary in order to comply with the limitation, and the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.

16. Per the requirements of Water Code section 13385, subdivisions (j)(3)(A) through (D), the Central Valley Water Board finds that:

- a. This Order specifies the actions that the Discharger is required to take in order to correct the aluminum effluent violations that would otherwise be subject to Water Code sections 13385(h) and 13385(i).
- b. To comply with final effluent limitations for aluminum, the Discharger has determined that additional treatment facilities and/or additional source control measures must be implemented at the Facility.
- c. This Order establishes a time schedule to bring the waste discharge into compliance with final effluent limitations that is as short as possible, taking into account technological, operational, and economic factors that affect design, development, and implementation of control measures that are necessary to comply with aluminum effluent limitations.

17. The Discharger has not previously been provided a time schedule order for protection from MMPs from violations of final effluent limitations for aluminum. The final effluent limitations for aluminum will become effective on 27 May 2015. A time schedule from the effective date of this Order until 30 November 2017 may be provided pursuant to Water Code section 13385, subdivision (j)(3)(A) through (D) to allow for protection from MMPs for violations of the final effluent limitations for aluminum.

Protection from MMPs for violations of final effluent limitations for copper may not be provided pursuant to Water Code section 13385(j)(3)(A) through (D) because on 27 May 2015, more than five years will have expired since those limits became effective. However, protection from MMPs for violations of final effluent limitations for copper may be provided pursuant to Water Code section 13385, subdivision (j)(3)(C)(ii)(II).

18. Per the requirements of CWC section 13385(j)(3)(C)(ii)(II), following a public hearing, and upon a showing that the Discharger is making diligent progress toward bringing the waste discharge into compliance with the effluent limitation, the Central Valley Water Board may extend the time schedule for an additional period not exceeding five years in length, if the Discharger demonstrates that the additional time is necessary to comply with the effluent limitation. In accordance with Water Code section 13385, subdivision (j)(3)(C)(ii)(II), the total length of the extended time schedule does not exceed five years in length. The Central Valley Water Board finds, as described in previous findings in this Order, that the Discharger has demonstrated due diligence to bring the waste discharge into compliance with final effluent limitations for copper contained in WDR Order R5-2010-0059 through the following: sourcing and quantifying of contaminants in the waste stream, improving

treatment system components, and analyzing treatment efficiency. Furthermore, the Discharger has demonstrated that additional time is necessary to comply with the final effluent limitations for copper contained in WDR Order R5-2010-0059.

- 44-19. Compliance with this Order exempts the Discharger from mandatory penalties for violations of the final effluent limitations for aluminum and copper found in WDRs Order R5-2010-0059 from the date of this Order (31 July 2015) until 30 November 2017, 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 section 13263.3 of the California Water Code. Therefore, a pollution prevention plan will be necessary for aluminum and copper until the surface water discharge is eliminated in order to effectively reduce the effluent concentrations by source control measures.
20. In accordance with Water Code section 13385(j)(3)(C), the total length of protection from mandatory minimum penalties for the final effluent limitations for copper does not exceed ten years. The initial five year time schedule as allowed pursuant to Water Code section 13385, subdivision (j)(3)(A) through (D) expires 27 May 2015 for the final effluent limitations for copper. An extended time schedule period from 31 July 2015 until 30 November 2017 for the final effluent limitations for copper is pursuant to Water Code section 13385(j)(3)(C)(ii)(II).
21. In accordance with Water Code section 13385(j)(3)(C), the total length of protection from mandatory minimum penalties for the final effluent limitations for aluminum does not exceed ten years. The initial time schedule from the effective date of this Order until 30 November 2017 for the final effluent limitations for aluminum is pursuant to Water Code section 13385, subdivision (j)(3)(A) through (D).
- 42-22. 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 time schedules do not exceed 5 years.~~

The compliance time schedule in this Order includes interim performance-based effluent limitations for aluminum and copper. Interim effluent limitations consist of a maximum daily and/or average monthly effluent concentration derived using sample data provided by the Discharger demonstrating actual treatment plant performance, ~~or previous interim effluent limitations established in Order No. R5-2005-0044~~. In developing the interim limitations, when there are ten 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, 3rd Edition, January 1986*). Where actual sampling shows an exceedance of the proposed 3.3 standard deviation limit, the maximum detected concentration has been established as the interim limitation. When there are less than ten sampling data points available, the *Technical Support Document for Water Quality-Based Toxics Control* (EPA/505/2-90-001) (TSD) recommends a coefficient of variation of 0.6 be utilized as representative of wastewater effluent sampling. The TSD recognizes that a minimum of ten data points is necessary to conduct a valid statistical analysis. The

multipliers contained in Table 5-2 of the TSD are used to determine a daily limitation based on a long-term average objective. In this case, the long-term average objective is to maintain, at a minimum, the current plant performance level. Thus, when there are less than ten sampling points for a constituent, interim limitations are based on 3.11 times the maximum observed effluent concentration (MEC) to obtain the daily interim limitation (TSD, Table 5-2). If the statistically projected interim limitation is less than the maximum observed effluent concentration, the interim limitation is established as the maximum observed concentration. The following table summarizes the calculation of the interim effluent limitation for aluminum and copper:

Parameter	Units	MEC	Mean	Standard Deviation	Number of Samples	Interim Limitation
<u>Aluminum</u>	<u>µg/L</u>	<u>870</u>	<u>147</u>	<u>135</u>	<u>63</u>	<u>870¹</u>
<u>Copper</u>	<u>µug/L</u>	<u>1.62</u>	<u>0.64.25</u>	<u>0.260.65</u>	<u>638</u>	<u>1.6²6.2</u>

¹ Maximum daily and average monthly interim effluent limitation.

² Average monthly interim effluent limitation.

- ~~13.~~23. The Central Valley Water Board finds that the Discharger can maintain compliance with the interim limitation included in this Order. Interim limitations are established when compliance with the final 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, can 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.
- ~~14.~~24. On ~~[Date of Board Meeting]~~ 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 to consider a Time Schedule Order under CWC section 13300 to establish a time schedule to achieve compliance with waste discharge requirements.
- ~~15.~~25. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code section 21000, et seq.), in accordance with CWC section 15321 (a)(2), Title 14, of the California Code of Regulations.
- ~~16.~~26. Any person adversely affected by this action of the Board may petition the State Water Resources Control Board to review this action. The petition must be received by the State Water Resources Control Board, Office of the Chief Counsel, P.O. Box 100, Sacramento, CA 95812-0100, within 30 days of the date on which this action was taken. Copies of the law and regulations applicable to filing petitions will be provided on request.

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, contained in WDR Order No. R5-2010-0059 as described in the above Findings:

Task	Date Due
Update and Implement Pollution Prevention Plan pursuant to CWC Section 13263.3 for Copper	90 days after the effective date of this Order
Submit Formal Decisions for Compliance	Within 1 year after the permit effective date
Progress Reports ¹	1 January and 1 June of each year
<u>Implement Pollution Prevention Plan pursuant to CWC section 13263.3 for aluminum</u>	<u>90 days after the effective date of this Order</u>
<u>Submit final design and compliance project</u>	<u>31 October 2016</u>
<u>Begin compliance project (e.g. construction)</u>	<u>30 April 2016</u>
Full Compliance with <u>Aluminum and Copper Effluent Limitations</u> or Elimination of Surface Water Discharge	<u>30 November 2017 Within 5 years after the permit effective date</u>
¹ The progress reports for <u>aluminum and copper</u> 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 limitation shall be effective immediately. The interim effluent limitation at Discharge Point No. 001 for aluminum shall be effective until **30 November 2017**, or when the Discharger is able to come into compliance, whichever is sooner.

Parameter	Units	Maximum Daily Effluent Limitation
<u>Aluminum, Total Recoverable</u>	<u>µg/L</u>	<u>870</u>
<u>Copper, Total Recoverable</u>	<u>µg/L</u>	<u>--¹</u>

¹—Based on monitoring data for copper from May 2010 through April 2015, the MEC of 1.6 µg/L for copper is less than the current final MDEL of 2.3 µg/L; therefore no interim maximum daily effluent limitation for copper is being established as part of this order.

3. The following interim average monthly maximum daily effluent limitations shall be effective immediately. The interim effluent limitations at Discharge Point No. 001 for aluminum and copper shall be effective until **30 November 2017** through 5 years from ~~permit effective date~~, or when the Discharger is able to come into compliance, whichever is sooner.

Parameter	Units	Average Monthly Maximum Daily Effluent Limitation
<u>Aluminum, Total Recoverable</u>	<u>µg/L</u>	<u>870</u>
<u>Copper, Total Recoverable</u>	<u>µg/L</u>	<u>1.66-2</u>

4. For the compliance schedule required by this Order, the Discharger shall submit to the Central Valley Water 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 Regional Water Board by letter when it returns to compliance with the time schedule.
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. 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, and would be subject to issuance of a Cease and Desist Order in accordance with CWC section 13301.

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, and amended by Order R5-2015-0099 on 31 July 2015.

Original signed by

PAMELA C CREEDON, Executive Officer