

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2011-0003

AMENDING WASTE DISCHARGE REQUIREMENTS
ORDER NO. R5-2010-0090 (NPDES PERMIT NO. CA0077712)
CEASE AND DESIST ORDER NO. R5-2010-0091

CITY OF AUBURN
WASTEWATER TREATMENT PLANT
PLACER COUNTY

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

1. On 22 September 2010, the Central Valley Water Board adopted Waste Discharge Requirements Order R5-2010-0090 and Cease and Desist Order R5-2010-0091 for the City of Auburn (Discharger) Wastewater Treatment Plant.
2. USEPA developed National Recommended Ambient Water Quality Criteria (NAWQC) for protection of freshwater aquatic life for aluminum. The recommended 4-day average (chronic) and 1-hour average (acute) criteria for aluminum are 87 µg/L and 750 µg/L, respectively. Order R5-2010-0090 includes water quality-based effluent limitations (WQBELs) for aluminum of 70 µg/L and 146 µg/L, as an average monthly and maximum daily, respectively. These WQBELs were established based on the chronic criterion (87 µg/L) recommended in USEPA's NAWQC for aluminum, which was used to implement the Basin Plan's narrative toxicity objective.
3. In its 1999 National Recommended Water Quality Criteria – Correction, USEPA suggests the use of a water-effect ratio (WER) may be appropriate for implementation of its recommended chronic criterion for aluminum. One of the reasons that USEPA presents in footnote L in the 1999 Correction is that “EPA is aware of field data indicating that many high quality waters in the U.S. contain more than 87 µg aluminum/L, when either total recoverable or dissolved is measured.”
4. Due to uncertainties with the chronic aluminum criterion, on 16 November 2010, the Discharger submitted a report titled, “City of Auburn Aluminum Toxicity Study”, prepared by Stantec Consulting Services, Inc., identifying a site-specific water-effect ratio (WER) for aluminum. A site-specific aluminum WER for Auburn Ravine was calculated to be greater than 12.4. Application of the site-specific aluminum WER, results in a chronic aluminum water quality criterion of >1079 ug/L, which is greater than the National Ambient Water Quality Criteria acute criterion for aluminum. Therefore, the appropriate criterion to implement the Basin Plan's narrative toxicity objective for the protection of the aquatic beneficial use is the acute criterion of 750 ug/L, as recommended by USEPA's NAWQC. The MEC for aluminum is 720 ug/L, which is less than the acute aquatic life criterion of

750 ug/L. Therefore, there is no reasonable potential to cause or contribute to an exceedance of the Basin Plan's narrative toxicity objective, which ensures protection of the aquatic life beneficial uses. The next most stringent criterion for aluminum is the Department of Public Health Secondary Maximum Contaminant Level of 200 ug/L. The amended final effluent limitation for aluminum is 200 ug/L, implemented as an annual average. The amended aluminum effluent limitation will concurrently be protective of the aquatic life beneficial uses.

5. The City of Auburn Aluminum Toxicity Study contains new information regarding a new site-specific water-effect ratio resulting in a revision of the aluminum effluent limitations that is in accordance with federal anti-backsliding regulations. New information that was not available at the time of adoption of Order R5-2010-0090 indicates that the established final aluminum effluent limitations (average monthly effluent limitation of 70 ug/L and maximum daily effluent limitation of 146 ug/L) are overly stringent. The City of Auburn Aluminum Toxicity Study is new information that was not available at the time WDR Order R5-2010-0090 was adopted. Therefore, changing the effluent limitation for aluminum to 200 ug/L as an annual average is in accordance with federal antibacksliding policies.
6. Information regarding a site-specific water-effect ratio of >12.4 and subsequent revision of the final aluminum effluent limitations in Order R5-2010-0090 is in compliance with federal and state antidegradation regulations. This Order amends the monthly average aluminum effluent limitation from 70 ug/L to an annual average effluent limitation of 200 ug/L. Receiving water quality data indicates that the upstream aluminum concentration in Auburn Ravine is 41 ug/L, confirming that the receiving water is in attainment of corresponding water quality objectives. Receiving water quality data also indicates that the downstream aluminum concentration, resulting from the current discharge, is 44 ug/L. A final aluminum effluent limit of 200 ug/L results in a projected downstream aluminum concentration of 52 ug/L, which continues to be within water quality objectives. The Central Valley Water Board finds that allowing some degradation of Auburn Ravine water quality provides a social and economical benefit to the people of the State, and is therefore allowed. WDR Order R5-2010-0090 continues to require the Discharger to implement Best Practicable Treatment and Control (BPTC) measures.
7. The Discharger asserts that the Facility can immediately comply with the new final aluminum effluent limitations. Therefore, this Order amends Cease and Desist Order R5-2010-0091 removing the existing compliance schedule pertaining to the final aluminum effluent limitation.
8. 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.
9. The Central Valley Water Board has notified the Discharger and interested agencies and persons of its intent to amend Waste Discharge Requirements and the Monitoring Program

Requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.

10. 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 that this Order becomes final, except that if the thirtieth day following the date that this Order becomes final 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.

IT IS HEREBY ORDERED THAT:

Waste Discharge Requirements Order R5-2010-0090 and Cease and Desist Order R5-2010-0091 (NPDES No. CA0077712) is amended as shown in the following underline/strikeout format. This Order is effective upon adoption.

NPDES Permit

1. *Modify section IV.A.1.a, Table 6 of the Effluent Limitations as follows:*

Table 6. Final Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
<i>Non-Conventional Pollutants</i>						
Aluminum, Total Recoverable	µg/L	70	--	146	--	--

2. *Add section IV.A.1.k of the Effluent Limitations as follows:*

k. Aluminum, Total Recoverable. For a calendar year, the annual average effluent aluminum concentration shall not exceed 200 µg/L.

3. *Modify the Fact Sheet, Attachment F, section IV.C.2.d.i as follows:*

~~i. **Aluminum.** USEPA developed National Recommended Ambient Water Quality Criteria (NAWQC) for protection of freshwater aquatic life for aluminum. The recommended 4-day average (chronic) criterion for aluminum is 87 µg/L for waters with a pH of 6.5 to 9.0. USEPA recommends that the ambient criteria are protective of the~~

~~aquatic beneficial uses of receiving waters in lieu of site-specific criteria. The chronic criterion of 87 µg/L is based on studies conducted on waters with low pH (6.5 to 6.8 pH units) and hardness (<10 mg/L as CaCO₃). The receiving stream has been measured to have a low hardness—typically between 10 mg/L and 110 mg/L as CaCO₃. This condition is supportive of the applicability of the NAWQC chronic criteria for aluminum, according to USEPA's development document. USEPA advises that a WER may be appropriate to better reflect the actual toxicity of aluminum to aquatic organisms.~~

~~The Discharger submitted a *City of Auburn Wastewater Treatment Plant Technical Memorandum, Aluminum Water-Effects Ratio Study Initial Results (ECO:LOGIC)* dated 12 July 2010. The Discharger's study followed the *Interim Guidance on Determination and Use of Water-Effect Ratios for Metals*, USEPA, February 1994. Following the guidance, a sampling event was conducted on 15/16 June 2010 to assess ambient conditions and to calculate a freshwater aluminum WER using the primary test species, *Coriodaphnia dubia*. Results of the toxicity testing showed 100 percent survival at the highest spiked aluminum concentration of 5,000 µg/L. Based on the results of the initial study, the Discharger concluded that a WER for aluminum of >19.3, based on effluent data to represent low-flow, zero-dilution discharge conditions, is applicable to the discharge to Auburn Ravine. Application of a WER of 19.3 to the chronic criterion of 87 µg/L results in a chronic criterion 1,679 µg/L.~~

~~USEPA guidance recommends a minimum of three sampling events and confirmation testing using a secondary species. Although the initial testing indicates that application of a WER resulting in a chronic criterion less than the applicable Secondary MCL or acute criterion is unlikely, a complete study with a minimum of three sampling events and confirmation testing using a secondary species is necessary to adjust the chronic criterion. Application of a WER greater than 1 would result in less stringent effluent limitations for aluminum than those contained in the existing Order. Therefore, documentation of consistency with State and federal antidegradation and anti-backsliding policies must be provided in addition to a complete WER study. A reopener has been included in section VI.C.1.e of this Order to modify effluent limitations for aluminum based on submission of a complete WER study and satisfaction of State and federal antidegradation and anti-backsliding policies.~~

4. *Modify the Fact Sheet, Attachment F, section IV.C.3.d.i as follows:*

i. **Aluminum**

- (a) **WQO.** USEPA developed National Recommended Ambient Water Quality Criteria (NAWQC) for protection of freshwater aquatic life for aluminum. The recommended 4-day average (chronic) and 1-hour average (acute) criteria for aluminum are 87 µg/L and 750 µg/L, respectively, for waters with a pH of 6.5 to 9.0. USEPA recommends that the ambient criteria are protective of the aquatic beneficial uses of receiving waters in lieu of site-specific criteria. The most stringent of these criteria, the chronic criterion of 87 µg/L, is based on studies conducted on waters with low pH (6.5 to 6.8 pH units) and hardness (<10 mg/L as CaCO₃). The upstream receiving water pH ranged from 6.3 to 7.4. The upstream receiving stream has been measured to have a low hardness—typically between 10 mg/L and 110 mg/L as CaCO₃. In its 1999 National Recommended Water Quality Criteria – Correction, USEPA suggests the use of a water-effect ratio (WER) may be appropriate for implementation of its recommended chronic criterion for aluminum. One of the reasons that USEPA presents in footnote L in the 1999 Correction is that “EPA is aware of field data indicating that many high quality waters in the U.S. contain more than 87 µg aluminum/L, when either total recoverable or dissolved is measured.” This condition is supportive of the applicability of the NAWQC chronic criteria for aluminum, according to USEPA’s development document.

Due to uncertainties with the NAWQC chronic criterion, the Discharger conducted studies to evaluate the toxicity of aluminum in Auburn Ravine. In June 2010, the Discharger began an Aluminum Water-Effect Ratio (WER) Study using USEPA’s *Interim Guidance on Determination and Use of Water-Effect Ratios for Metals*. Toxicity tests were conducted using a range of dilutions from 100 percent effluent to 100 percent laboratory water. The test species was *Ceriodaphnia dubia*. 100 percent survival was observed at every aluminum concentration up to 5,000 µg/L. In October 2010, the Discharger continued the Aluminum WER study using 100 percent Auburn Ravine water ranging to 100 percent lab water. The test species were *Ceriodaphnia dubia* and Rainbow Trout. *Ceriodaphnia dubia* was the more sensitive test species. On 16 November 2010, the Discharger submitted a report titled “City of Auburn Aluminum Toxicity Study”, that presented information that may be used to develop a site-specific water-effect ratio

(WER) for aluminum. A site-specific aluminum WER for Auburn Ravine was calculated to be >12.4. The study showed that aluminum concentrations in excess of 5,000 ug/L had no significant effects on the tested species¹. Application of the site-specific aluminum WER results in a chronic aluminum water quality criterion of >1079 ug/L. The Aluminum Toxicity Study completed to date demonstrated that aluminum concentrations exceeding 5,000 ug/L had no significant effects on the tested species.

The City of Auburn Aluminum Toxicity Study followed USEPA's Interim Guidance on Determination and Use of Water-Effect Ratios for Metals, USEPA, February 1994. No significant effects were shown in samples containing extremely high aluminum concentrations, so only one testing event was conducted after consultation with Central Valley Water Board staff. This means that a complete WER study was not performed. However, the information provided in the City of Auburn Aluminum Toxicity Study is sufficient for use in interpreting the Basin Plan's narrative toxicity objective. The Aluminum Toxicity Study indicates that a WER of >12.4 applied to the NAWQC is protective of aquatic life in the Auburn Ravine. Implementing a WER of >12.4 to the 87 ug/L chronic criterion results in a chronic aquatic life criterion of >1078.8 ug/L. The Aluminum Toxicity Study did not evaluate the acute criterion, therefore, the appropriate criterion to implement the Basin Plan's narrative toxicity objective for the protection of the aquatic beneficial use is the acute criterion of 750 ug/L, as recommended by USEPA's NAWQC. In this instance, the most stringent water quality objective for aluminum is the Department of Public Health's Secondary Maximum Contaminant Level (MCL) of 200 ug/L. Based on the site-specific evaluation of the effluent data, implementation of the 200 ug/L MCL will be protective of aquatic life and human health beneficial uses.

(b) RPA Results. With an MEC of 720 ug/L and a maximum background receiving water aluminum concentration of 76 ug/L, there is no reasonable potential to cause or contribute to an exceedance of the Basin Plan's narrative toxicity objective implemented using the acute criterion recommended by USEPA's NAWQC. Furthermore, statistical analysis of the data revealed that the 99.9th percentile of the data set was 639.1 ug/L, which

¹ In fact, no significant effects were experienced in any test up to the maximum aluminium concentration. This is the reason for establishing the WER as greater than 12.4.

also does not exceed the acute criterion of 750 ug/L. Therefore, effluent limitations based on USEPA's NAWQC are not necessary.

The maximum annual average receiving water and effluent concentrations were used to evaluate reasonable potential to exceed the Basin Plan's narrative chemical constituents objective for the protection of the MUN beneficial use, which is implemented using the Secondary MCL. Based on input from DPH and the fact that MCLs are designed to protect human health over long exposure periods, the maximum annual average concentrations are appropriate. The MEC for aluminum was 720 µg/L. The maximum annual average effluent concentration was 232 µg/L, which was observed during the 2008 calendar year. Background receiving water monitoring for aluminum is not available. Therefore, aluminum in the discharge has a reasonable potential to cause or contribute to an in-stream excursion above the Basin Plan's narrative toxicity objective chemical constituents objective for the protection of the MUN beneficial use. Therefore, effluent limitations based on the Secondary MCL are necessary.

- (c) WQBELs.** This Order contains a final annual average effluent limitation ~~AMEL~~ and ~~maximum daily effluent limitation (MDEL)~~ for aluminum as shown in Table F-9 of this Fact Sheet based on protection of the Basin Plan's narrative ~~toxicity objective~~ chemical constituents objective for the protection of the MUN beneficial use.
- (d) Plant Performance and Attainability.** Analysis of the effluent data shows that the effluent calendar annual average aluminum concentration only exceeded 200 MEC of 720 µg/L is greater than applicable WQBELs. once in the past six years (2005-2010), therefore, the Discharger asserts that the Facility is able to immediately comply with the final aluminum effluent limitation and has not requested a compliance schedule. ~~CDO No. R5-2008-0010 provides a compliance schedule to achieve compliance with the final effluent limitations for aluminum by 16 March 2011. Consistent with CDO No. R5-2008-0010, a compliance time schedule for compliance with the aluminum effluent limitations is established in CDO No. R5-2010-XXXX, with compliance with final effluent limitations required by 16 March 2011, in accordance with CWC section 13300, that requires preparation and implementation of a pollution prevention plan in compliance with CWC section 13263.3.~~

5. Modify the Fact Sheet, Attachment F, section IV.D, Table F-9 as follows:

D. Final Effluent Limitations

Table F-9. Summary of Final Effluent Limitations

Parameter	Units	Effluent Limitations					Basis ¹
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Non-Conventional Pollutants							
Aluminum, Total Recoverable	µg/L	70200 ¹⁰	--	146--	--	--	NAWQCSEC MCL

¹⁰ Applied as an annual average effluent limitation.

6. Modify the Fact Sheet, Attachment F, section IV.D.2 as follows:

2. Averaging Periods for Effluent Limitations

40 CFR 122.45 (d) requires average weekly and average monthly discharge limitations for publicly owned treatment works (POTWs) unless impracticable. However, for toxic pollutants and pollutant parameters in water quality permitting, USEPA recommends the use of a maximum daily effluent limitation in lieu of average weekly effluent limitations for two reasons. *“First, the basis for the 7-day average for POTWs derives from the secondary treatment requirements. This basis is not related to the need for assuring achievement of water quality standards. Second, a 7-day average, which could comprise up to seven or more daily samples, could average out peak toxic concentrations and therefore the discharge’s potential for causing acute toxic effects would be missed.”* (TSD, pg. 96) This Order utilizes MDELs in lieu of average weekly effluent limitations for aluminum, ammonia, chlorodibromomethane, dichlorobromomethane, and lead as recommended by the TSD for the achievement of water quality standards and for the protection of the beneficial uses of the receiving stream. Furthermore, for BOD₅, TSS, pH, chlorine residual, and total coliform organisms, weekly average effluent limitations have been replaced or supplemented with effluent limitations utilizing shorter averaging periods. The rationale for using shorter averaging periods for these constituents is discussed in section IV.C.3 of this Fact Sheet.

This Order includes a final annual average effluent limitation for aluminum of 200 µg/L. Secondary MCLs are drinking water standards contained in Title 22 of the California Code of Regulations. Title 22 requires compliance with these standards on an annual average basis, when sampling at least quarterly. Since it is necessary to determine compliance on an annual average basis, it is impracticable to calculate average weekly and average monthly effluent limitations.

7. *Modify the Fact Sheet, Attachment F, section IV.D.3 as follows:*

3. Satisfaction of Anti-Backsliding Requirements

The CWA specifies that a revised permit may not include effluent limitations that are less stringent than the previous permit unless a less stringent limitation is justified based on exceptions to the anti-backsliding provisions contained in CWA sections 402(o) or 303(d)(4), or, where applicable, 40 CFR 122.44(l).

The effluent limitations in this Order are at least as stringent as the effluent limitations in the existing Order, with the exception of effluent limitations for aluminum, chloroform, copper, methyl tertiary butyl ether, methylene blue active substances, nickel, oil and grease, persistent chlorinated hydrocarbon pesticides (except beta-endosulfan, endrin aldehyde, and heptachlor), settleable solids, silver, and zinc. The effluent limitations for these pollutants have been relaxed or have not been retained from Order No. R5-2005-0030. Based on updated monitoring data and a new site-specific Aluminum Toxicity Study for aluminum, there is no reasonable potential to cause or contribute to an exceedance of the Basin Plan's narrative toxicity objective. Therefore, the existing monthly average effluent limitation of 70 ug/L and maximum daily effluent limitation of 146 ug/L are removed from this Order. Reasonable potential to cause or contribute to an exceedance of water quality objectives was evaluated using the Secondary MCL of 200 ug/L, resulting in the addition of an annual average effluent limitation for protection of human health and aquatic life. Based on updated monitoring data and new information that was not available at the time Order No. R5-2005-0030 or R5-2010-0090 were was issued, these parameters do not the effluent exhibits reasonable potential to cause or contribute to an exceedance of the Secondary MCL as the most stringent water quality objectives in the receiving water. Relaxation and Removal of the aluminum effluent limitations WQBELs in the previous permit is in accordance with CWA sections 303(d)(4) and 402(o), which allow for the removal relaxation of WQBELs for attainment waters where antidegradation requirements are satisfied. Removal of the WQBELs is based on new information that was not available at the time of adoption of Order R5-2010-0090, and is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution No. 68-16. Therefore, the modifications to these effluent limitations do not violate anti-backsliding requirements.

8. Modify Attachment G as follows:

ATTACHMENT G – SUMMARY OF REASONABLE POTENTIAL ANALYSIS

Constituent	Units	MEC	B	C	CMC	CCC	Water & Org	Org. Only	Basin Plan	MCL	Reasonable Potential
Aluminum, Total Recoverable	µg/L	720	NA	87200	750 ¹	107987 ² --	--	--	--	200	Yes

9. Modify Attachment H as follows:

ATTACHMENT H – CALCULATION OF WQBELS

Parameter	Units	Most Stringent Criteria			Human Health Calculations ¹			Aquatic Life Calculations ¹										Final Limitations		
		HH	CMC	CCC	ECA _{HH} = AMEL _{HH}	AMEL/MDEL Multiplier _{HH}	MDEL _{HH}	ECA _{acute}	ECA Multiplier _{acute}	LTA _{acute}	ECA _{chronic}	ECA Multiplier _{chronic}	LTA _{chronic}	Lowest LTA	AMEL Multiplier ₉₅	AMEL _{AL}	MDEL Multiplier ₉₉	MDEL _{AL}	AMEL	MDEL
Aluminum, Total Recoverable	µg/L	200	750	87	200	2.08	416	750	0.30	226	87	0.51	44	44	1.60	70	3.32	146	70	146

Cease and Desist Order

1. *Modify Finding 2 as follows:*

2. Order No. R5-2005-0030 included final effluent limitations for ~~aluminum~~, ammonia, nitrate plus nitrite, and nitrite which required, in part:

<u>Constituents</u>	<u>Units</u>	<u>Average Monthly</u>	<u>Average 4-Day</u>	<u>Average Daily</u>	<u>Average 1-Hour</u>
Aluminum¹	µg/L	71	--	140	--
	lbs/day²	0.99	--	2.0	--

¹ ~~Acid-soluble or total~~

² ~~Based upon a design treatment capacity of 1.67 mgd [x µg/l X (1 mg/1000 µg) X 8.345 X 1.67 mgd = y lbs/day]~~

³ ~~Based upon a design treatment capacity of 1.67 mgd (x mg/l X 8.345 X 1.67 mgd = y lbs/day)~~

⁴ ~~The mass limit (lb/day) for ammonia shall be equal to the concentration limit (from Attachments) multiplied by the design flow of 1.67 mgd and the unit conversion factor of 8.345 (see footnote 2 for equation).~~

2. *Modify Finding 5 as follows:*

5. CDO No. R5-2005-0031 included a schedule for achieving compliance with the effluent limitations for ~~aluminum~~, ammonia, nitrate plus nitrite, and nitrite by 1 December 2009.

3. *Modify Finding 7 as follows:*

7. On 22 September 2010, the Central Valley Water Board adopted Order No. R5-2010-0090 rescinding Order No. R5-2005-0030 and prescribing renewed WDRs for the Facility. Order No. R5 2010-0090 section IV.A.1.a contains Final Effluent Limitations for Discharge Point No. 001 which read, in part, as follows:

"Table 6. Final Effluent Limitations

<i>Parameter</i>	<i>Units</i>	<i>Effluent Limitations</i>				
		<i>Average Monthly</i>	<i>Average Weekly</i>	<i>Maximum Daily</i>	<i>Instantaneous Minimum</i>	<i>Instantaneous Maximum</i>
Non-Conventional Pollutants						
<i>Aluminum, Total Recoverable</i>	<i>µg/L</i>	<i>70</i>	<i>--</i>	<i>146</i>	<i>--</i>	<i>--</i>

4. *Modify Finding 9 as follows:*

9. The Central Valley Water Board finds that the Discharger is not able to consistently comply with the effluent limitations for ~~aluminum~~, ammonia, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, and nitrite. The schedules for completing the actions necessary to achieve full compliance exceed

the adoption date of this Order. Additional time is necessary to provide the necessary treatment to comply with the requirements of Order No. R5-2010-0090. New time schedules are necessary in a CDO for all the constituents listed above. These limitations were new requirements that became applicable to the Order after the effective date of adoption of the WDRs, 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.

5. Modify Finding 10 as follows:

10. Immediate compliance with the effluent limitations for ~~aluminum~~, ammonia, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, and nitrite is not possible or practicable. The Clean Water Act and the California Water Code authorize time schedules for achieving compliance.

Consistent with CDO No. R5-2008-0010, the Regional Water Board is providing no later than 16 March 2011 for the Discharger to comply with the requirements for ~~aluminum~~, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, and nitrite.

6. Modify Finding 15 as follows:

15. Because CDO Nos. R5-2005-0031 and R5-2008-0010 provided the Discharger with five years to comply with effluent limitations for ~~aluminum~~, nitrate plus nitrite, and nitrite, the exception from mandatory minimum penalties pursuant to CWC section 13385(j)(3) does not apply for these parameters. Pursuant to CWC section 13263.3(d)(1)(D), this Order requires the Discharger to update and implement the existing pollution prevention plans for these parameters.

7. Modify Finding 17 as follows:

17. The compliance time schedule in this Order includes interim effluent limitations for ~~aluminum~~, ammonia, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, and nitrite. In developing the interim limitations for ~~aluminum~~, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, and nitrite, 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 percent 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 mean plus 3.3-standard deviation interim limit, the maximum detected concentration has been established as the interim limitation. In developing the interim limitations, when there are less than 10

sampling data points available, the USEPA 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 10 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 maximum 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. Therefore, when there are less than 10 sampling points for a constituent, an interim limitation is based on 3.11 times the maximum observed effluent concentration to obtain the daily maximum interim limitation (TSD, Table 5-2). The following table summarizes the calculations of the interim performance-based effluent limitations for aluminum, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, and nitrite:

Interim Effluent Limitation Calculation Summary

Parameter	Units	MEC	Mean	Std. Dev.	# of Samples	Interim Maximum Daily Effluent Limitation
Aluminum, Total Recoverable	µg/L	720	492	424	53	720 ¹

8. *Modify Provision 1 as follows:*

1. The Discharger shall comply with the following time schedule to ensure compliance with the final effluent limitations in R5-2010-0090 for aluminum, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, and nitrite:

Task

Date Due

- | | |
|--|--|
| i. Update and implement Pollution Prevention Plan ¹ as specified in CWC Section 13263.3 for aluminum, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, and nitrite | Within 90 days after adoption of this Order |
| ii. Progress Report ² | 1 December 2010 |
| iii. Full compliance with aluminum, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, and nitrite effluent limitations | 16 March 2011 |

¹ The pollution prevention plan shall be updated and implemented for aluminum, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, and nitrite, as appropriate, and shall meet the requirements specified in CWC section 13263.3.

² The progress report 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.

9. *Modify Provision 3 as follows:*

3. The following interim effluent limitations for ~~aluminum~~, chlorodibromomethane, dichlorobromomethane, nitrate plus nitrite, and nitrite shall be effective immediately, and shall remain in effect through **15 March 2011**, or when the Discharger is able to come into compliance with the final effluent limitations, whichever is sooner.

Parameter	Units	Maximum Daily Effluent Limitation
Aluminum, Total Recoverable	µg/L	720

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 **3 February 2011**.

Original Signed By

PAMELA C. CREEDON, Executive Officer