

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

CEASE AND DESIST ORDER NO. R5-2010-0091-01
(as amended by Order R5-2011-0003)

REQUIRING
THE CITY OF AUBURN
WASTEWATER TREATMENT PLANT
PLACER COUNTY
TO CEASE AND DESIST
FROM DISCHARGING CONTRARY TO REQUIREMENTS

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

1. On 17 March 2005, the Central Valley Water Board adopted Waste Discharge Requirements (WDRs) Order No. R5-2005-0030, and Cease and Desist Order (CDO) No. R5-2005-0031 prescribing waste discharge requirements and compliance time schedules for the City of Auburn (hereafter Discharger) Wastewater Treatment Plant (hereafter Facility). The Facility is designed to provide tertiary treatment for average dry weather flows of 1.67 million gallons per day (MGD) for discharges to Auburn Ravine, a tributary to East Side Canal, Natomas Cross Canal, and the Sacramento River.
2. Order No. R5-2005-0030 included final effluent limitations for ammonia, nitrate plus nitrite, and nitrite which required, in part:

<u>Constituents</u>	<u>Units</u>	<u>Average Monthly</u> Attachment B	<u>Average 4-Day</u> Attachment C	<u>Average Daily</u>	<u>Average 1-Hour</u> Attachment D
Ammonia (as N)	mg/L lbs/day ³	1 4	-- 4	--	-- 4
Nitrite (as N)	mg/L lbs/day ³	14	--	--	--
Nitrate + Nitrite (as N)	mg/L lbs/day ³	10 140	--	--	--

³ Based upon a design treatment capacity of 1.67 mgd ($x \text{ mg/l} \times 8.345 \times 1.67 \text{ mgd} = y \text{ lbs/day}$)

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).

3. Order No. R5-2005-0030 included final effluent limitations for dibromochloromethane (also known as chlorodibromomethane) and dichlorobromomethane, 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>	<u>Instantaneous Maximum</u>
Chloroform	µg/L	1.1	--	--	--	--
	lbs/day	0.015	--	--	--	--
Dibromochloromethane	µg/L	0.41	--	0.84	--	--
	lbs/day	0.0057	--	0.012	--	--
Dichlorobromomethane	µg/L	0.56	--	1.0	--	--
	lbs/day	0.0078	--	0.014	--	--

4. Order No. R5-2005-0030 included a schedule for achieving compliance with the effluent limitations for chlorodibromomethane and dichlorobromomethane by 1 December 2009. Order No. R5-2005-0030 expired on 1 March 2010.
5. CDO No. R5-2005-0031 included a schedule for achieving compliance with the effluent limitations for ammonia, chloroform, nitrate plus nitrite, and nitrite by 1 December 2009.
6. On 25 January 2008, the Central Valley Water Board rescinded CDO No. R5-2005-0031 and adopted CDO No. R5-2008-0010, which retained the 1 December 2009 compliance date for ammonia and extended the time schedules for aluminum, chlorodibromomethane, chloroform, dichlorobromomethane, nitrite, and nitrate plus nitrite. The extended compliance schedules allowed additional time for the Discharger to either upgrade its existing facility to meet all effluent limitations or to participate in a regionalization project and decommission its existing treatment facility, thus ceasing its current surface water discharge. CDO No. R5-2008-0010 required the Discharger to submit a formal decision regarding which option the Discharger had selected to achieve compliance with these constituents by 1 June 2008. If the formal decision included onsite improvements, the CDO required compliance with the final effluent limitations in Order No. R5-2005-0030 by 16 March 2011. If the formal decision included regionalization, the CDO required compliance with the final effluent limitations in Order No. R5-2005-0030 by 31 January 2013. The Discharger submitted a letter dated 30 May 2008 to the Central Valley Water Board providing a formal decision to construct improvements to the existing Facility; therefore, compliance with final effluent limitations is required by 16 March 2011.
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

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Priority Pollutants						
Chlorodibromomethane	µg/L	0.41	--	1.1	--	--
Chloroform	µg/L	1.1	--	--	--	--
Dichlorobromomethane	µg/L	0.56	--	1.2	--	--
Non-Conventional Pollutants						

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Ammonia Nitrogen, Total (as N)	mg/L	1.9	--	5.8	--	--
	lbs/day ¹	26	--	81	--	--
Nitrate Plus Nitrite (as N)	mg/L	10	--	--	--	--
Nitrite Nitrogen, Total (as N)	mg/L	1.0	--	--	--	--

¹ Mass-based effluent limitations are based on a permitted average dry weather flow of 1.67 MGD.

8. Section 13301 of the California Water Code (CWC) states in 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 preventative 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 such 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, or in accordance with the procedure set forth in Section 13302.”*
9. The Central Valley Water Board finds that the Discharger is not able to consistently comply with the effluent limitations for ammonia, chlorodibromomethane, chloroform, 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.
10. Immediate compliance with the effluent limitations for ammonia, chlorodibromomethane, chloroform, 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 chlorodibromomethane, chloroform, dichlorobromomethane, nitrate plus nitrite, and nitrite.

The Discharger indicated in the *City of Auburn Wastewater Treatment Plant Infeasibility Report for Effluent Ammonia* (Infeasibility Report) submitted 10 July 2010 that additional time is required to comply with the final effluent limitations for ammonia. The Discharger identified five possible compliance options in the Infeasibility Report, which include:

- Option 1 – Optimizing control of the aerators within the existing oxidation ditch;
- Option 2 – Constructing a separate anoxic zone upstream of the existing oxidation ditch;
- Option 3 – Adding a second oxidation ditch with a reduction in flows to each oxidation ditch;
- Option 4 – Providing full nitrification in the existing oxidation ditch and adding methanol to encourage denitrification in the tertiary sand filters; and
- Option 5 – Operating the existing oxidation ditch to provide full denitrification and obtain a dilution credit for nitrate.

The Discharger estimated in the Infeasibility Report that up to 2 ½ years are necessary to complete the necessary actions if Option 1 or Option 5 are selected and that up to 4 years are necessary to complete the necessary actions if Option 2, Option 3, or Option 4 are selected. The Regional Water Board is providing no later than 1 March 2013, if Option 1 or Option 5 is selected, or 1 September 2014, if Option 2, Option 3, or Option 4 is selected, for the Discharger to comply with these requirements.

Mandatory Minimum Penalties

11. CWC section 13385(h) and (i) require the Central Valley Water Board to impose mandatory minimum penalties (MMPs) upon dischargers that violate certain effluent limitations. CWC section 13385(j) exempts certain violations 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...For the purposes of this subdivision, the time schedule may not exceed five years in length....*”
12. By statute, a Cease and Desist Order or Time Schedule Order may provide protection from MMPs for no more than five years. Consistent with CDO No. R5-2008-0010, this compliance with this Order exempts the Discharger from mandatory minimum penalties for violations of the final effluent limitations for chlorodibromomethane and dichlorobromomethane in accordance with CWC section 13385(j)(3). Protection from MMPs for these constituents begins on the adoption date of this Order and may not extend beyond 16 March 2011.
13. Compliance schedules for the more stringent fixed effluent limitations for ammonia in Order No. R5-2010-0090 have not previously been included in an enforcement order. Therefore, compliance with this Order exempts the Discharger from mandatory minimum penalties for violations of the final effluent limitations for ammonia in accordance with CWC section

13385(j)(3). Protection from MMPs for ammonia begins on the adoption date of this Order and may not extend beyond 1 March 2013 if Option 1 or Option 5 is selected, or 1 September 2014 if Option 2, Option 3, or Option 4 is selected.

14. CWC section 13385(j)(3) requires the preparation and implementation of a pollution prevention plan pursuant to section 13263.3 of the CWC. This Order requires the Discharger to update and implement the existing pollution prevention plans for ammonia, chlorodibromomethane, and dichlorobromomethane in order to effectively reduce the effluent concentrations by source control measures.
15. Because CDO Nos. R5-2005-0031 and R5-2008-0010 provided the Discharger with five years to comply with effluent limitations for chloroform, 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.
16. The time schedules for completion of actions necessary to bring the waste discharge into compliance is less than one year. This Order includes interim requirements and dates for their achievement. The time schedules do not exceed five years.
17. The compliance time schedule in this Order includes interim effluent limitations for ammonia, chlorodibromomethane, chloroform, dichlorobromomethane, nitrate plus nitrite, and nitrite. In developing the interim limitations for chlorodibromomethane, chloroform, 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 chlorodibromomethane, chloroform, dichlorobromomethane, nitrate plus nitrite, and nitrite:

Interim Effluent Limitation Calculation Summary

Parameter	Units	MEC	Mean	Std. Dev.	# of Samples	Interim Maximum Daily Effluent Limitation
Chlorodibromomethane	µg/L	1.9	0.45	0.52	38	2.2
Chloroform	µg/L	56	21	14	38	67
Dichlorobromomethane	µg/L	10	3.9	2.6	38	12
Nitrate Plus Nitrite (as N)	mg/L	19	4.7	3.9	71	19 ¹
Nitrite Nitrogen, Total (as N)	mg/L	2.1	0.12	0.29	71	2.1 ¹

¹ Because the maximum effluent concentration for this parameter was greater than the statistically calculated effluent limitations, the interim limitation was established at the maximum effluent concentration.

Interim limitations for ammonia are established as the pH- and temperature-based floating limitations established in Order No. R5-2005-0030.

18. The Regional Water Board finds that the Discharger can undertake source control and treatment plant measures to maintain compliance with the interim limitations 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.

19. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.) ("CEQA") for the following reasons, each of which is an independent basis for exemption.

a. This Order does not modify any compliance dates or other requirements of NPDES Order No. R5-2005-0030, which requires compliance with the effluent limitations addressed by this Order. This Order serves to enforce Order No. R5-2005-0030. This Order is exempt from CEQA under Water Code Section 13389, since the adoption or modification of a NPDES permit for an existing source is exempt and this Order only serves to implement a NPDES permit. (*Pacific Water Conditioning Ass'n, Inc. v. City Council of City of Riverside* (1977) 73 Cal.App.3d 546, 555-556.).

b. This Order does not have the potential to cause a significant impact on the environment (Title 14 CCR section 15061(b)(3)) and is not a "project" as defined by CEQA. This Order enforces preexisting requirements to improve the quality of ongoing discharges that are part of the CEQA "baseline"; and includes interim effluent limitations to ensure that discharges do not increase above the CEQA baseline. This Order imposes requirements that will maintain the CEQA baseline while the Discharger attains compliance with the existing requirements. The pollution prevention plan will identify source control measures in order to meet the preexisting effluent limitations. Since the compliance schedule is as short as possible and any actions to comply with the existing

requirements are already required, this Order does not allow or cause any environmental impacts to occur; those impacts would occur regardless of this Order.

- c. Which source control measures the Discharger will identify or select for implementation as a result of source control review in the pollution prevention plan is indefinite and uncertain. In addition, the Discharger is required to study alternatives and potential adverse impacts in its pollution prevention plan, under Water Code Section 13263.3(d)(2).
- d. This Order is exempt pursuant to CEQA Guidelines Section 15321. The discharges subject to this Order are not "hazardous materials." Also, the discharges occur offsite and do not occur at the site itself.

20. On **22 September 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 an amendment to a Cease and Desist Order under CWC section 13301 to amend a time schedule to achieve compliance with waste discharge requirements.

IT IS HEREBY ORDERED THAT Cease and Desist Order No. R5-2008-0010 is rescinded, and, pursuant to CWC Section 13301:

1. The Discharger shall comply with the following time schedule to ensure compliance with the final effluent limitations in R5-2010-0090 for chlorodibromomethane, chloroform, 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 chlorodibromomethane, chloroform, 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 chlorodibromomethane, chloroform, dichlorobromomethane, nitrate plus nitrite, and nitrite effluent limitations | 16 March 2011 |

¹ The pollution prevention plan shall be updated and implemented for chlorodibromomethane, chloroform, 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.

2. The Discharger shall comply with the following time schedule to ensure compliance with the final effluent limitations in R5-2010-0090 for ammonia:

<u>Task</u>	<u>Date Due</u>
i. Submit Method of Compliance Workplan/Schedule ¹	Within 6 months after adoption of this Order
ii. Update and implement Pollution Prevention Plan ² as specified in CWC Section 13263.3 for ammonia	Within 90 days after adoption of this Order
iii. Complete collection of data to confirm process performance ³	1 March 2012
iv. Complete necessary process enhancements ³	1 March 2013
v. Complete financial planning, CEQA documentation, and final design of improvements ⁴	1 September 2012
vi. Obtain bids and project funding and award construction contract ⁴	1 March 2013
vii. Complete construction of improvements	1 September 2014
viii. Complete collection of data and perform mixing zone study ⁵	1 March 2012
ix. Modify diffuser ⁵	1 September 2012
x. Reopen Order No. R5-2010-0090 to revise effluent limitations for nitrate plus nitrite ⁵	1 March 2013
xi. Progress Reports ⁶	30 January, annually , after approval of work plan until final compliance
xii. Full compliance with ammonia effluent limitations	1 March 2013^{3,5} 1 September 2014⁴

¹ The Method of Compliance Workplan/Schedule shall indicate the preferred option as described in the 10 July 2010 *City of Auburn Wastewater Treatment Plant Infeasibility Report for Effluent Ammonia* (Nexgen Utility Management) and as outlined in Finding 10 of this Order.

² The pollution prevention plan shall be updated and implemented for ammonia, as appropriate, and shall meet the requirements specified in CWC section 13263.3.

³ If Option 1 is the preferred alternative identified in the Method of Compliance Workplan/Schedule submitted in accordance with Task i.

⁴ If Option 2, Option 3, or Option 4 is the preferred alternative identified in the Method of Compliance Workplan/Schedule submitted in accordance with Task i.

⁵ If Option 5 is the preferred alternative identified in the Method of Compliance Workplan/Schedule submitted in accordance with Task i.

⁶ The progress reports 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.

3. The following interim effluent limitations for chlorodibromomethane, chloroform, 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
Chlorodibromomethane	µg/L	2.2
Chloroform	µg/L	67
Dichlorobromomethane	µg/L	12
Nitrate Plus Nitrite (as N)	mg/L	19
Nitrite Nitrogen, Total (as N)	mg/L	2.1

4. The following interim effluent limitations for ammonia shall be effective immediately, and shall remain in effect through 28 February 2013, if Option 1 or Option 5 is selected, or 31 August 2014, if Option 2, Option 3, or Option 4 is selected, or when the Discharger is able to come into compliance with the final effluent limitations, whichever is sooner.

a. Interim 1-Hour Average Effluent Limitations for Ammonia

pH ¹	Ammonia Nitrogen, Total (as N) 1-Hour Average Effluent Limitation (mg/L)
6.5	32.6
6.6	31.3
6.7	29.8
6.8	28.0
6.9	26.2
7.0	24.1
7.1	21.9
7.2	19.7
7.3	17.5
7.4	15.3
7.5	13.3
7.6	11.4
7.7	9.64
7.8	8.11
7.9	6.77
8.0	5.62
8.1	4.64
8.2	3.83
8.3	3.15
8.4	2.59
8.5	2.14
8.6	1.77
8.7	1.47
8.8	1.23
8.9	1.04
9.0	0.885

¹ Effluent pH at time of sampling.

$$CMC = \left(\frac{0.275}{1 + 10^{7.204 - pH}} + \frac{39.0}{1 + 10^{pH - 7.204}} \right)$$

b. Interim 4-Day Average Effluent Limitations for Ammonia

pH ¹	Ammonia Nitrogen, Total (as N) 4-Day Average Effluent Limitation (mg/L)									
	Temperature (°C/°F) ²									
	0 (32)	14 (57)	16 (61)	18 (64)	20 (68)	22 (72)	24 (75)	26 (79)	28 (82)	30 (86)
6.5	16.7	16.7	15.1	13.3	11.8	10.3	9.04	7.95	6.99	6.14
6.6	16.4	16.4	14.9	13.1	11.5	10.1	8.91	7.83	6.88	6.05
6.7	16.1	16.1	14.6	12.9	11.3	9.94	8.74	7.68	6.75	5.94
6.8	15.7	15.7	14.3	12.8	11.1	9.71	8.54	7.51	6.60	5.80
6.9	15.3	15.3	13.9	12.2	10.7	9.44	8.30	7.30	6.41	5.64
7.0	14.8	14.8	13.4	11.8	10.4	9.12	8.02	7.05	6.19	5.45
7.1	14.2	14.2	12.9	11.3	9.95	8.75	7.69	6.76	5.94	5.22
7.2	13.5	13.5	12.3	10.8	9.46	8.32	7.31	6.43	5.65	4.97
7.3	12.7	12.7	11.5	10.1	8.91	7.84	6.89	6.05	5.32	4.68
7.4	11.8	11.8	10.8	9.46	8.31	7.31	6.42	5.65	4.96	4.36
7.5	10.9	10.9	9.92	8.72	7.66	6.74	5.92	5.20	4.57	4.02
7.6	9.94	9.94	9.03	7.94	6.98	6.14	5.39	4.74	4.17	3.66
7.7	8.95	8.95	8.13	7.15	6.28	5.52	4.85	4.27	3.75	3.30
7.8	7.96	7.96	7.23	6.36	5.59	4.91	4.32	3.79	3.34	2.93
7.9	6.99	6.99	6.36	5.59	4.91	4.32	3.80	3.34	2.93	2.58
8.0	6.08	6.08	5.53	4.86	4.27	3.76	3.30	2.90	2.55	2.24
8.1	5.24	5.24	4.77	4.19	3.68	3.24	2.85	2.50	2.20	1.93
8.2	4.48	4.48	4.07	3.58	3.15	2.77	2.43	2.14	1.88	1.65
8.3	3.81	3.81	3.46	3.04	2.68	2.35	2.07	1.82	1.60	1.40
8.4	3.22	3.22	2.93	2.58	2.26	1.99	1.75	1.54	1.35	1.19
8.5	2.72	2.72	2.48	2.18	1.91	1.68	1.48	1.30	1.14	1.00
8.6	2.30	2.30	2.09	1.84	1.61	1.42	1.25	1.10	0.964	0.848
8.7	1.95	1.95	1.77	1.55	1.37	1.20	1.06	0.928	0.816	0.717
8.8	1.65	1.65	1.50	1.32	1.16	1.02	0.897	0.788	0.693	0.609
8.9	1.41	1.41	1.28	1.13	0.992	0.872	0.766	0.674	0.592	0.520
9.0	1.22	1.22	1.11	0.971	0.854	0.751	0.660	0.580	0.510	0.448

¹ Effluent pH at time of effluent ammonia sampling.

² Effluent temperature at time of effluent ammonia sampling.

$$CCC = 2.5 \times \left(\frac{0.0577}{1 + 10^{7.688 - \text{pH}}} + \frac{2.487}{1 + 10^{\text{pH} - 7.688}} \right) \times \text{MIN}(2.85, 1.45 \times 10^{0.028(25 - T)})$$

c. Interim Average Monthly Effluent Limitations for Ammonia

pH ¹	Ammonia Nitrogen, Total (as N) Average Monthly Effluent Limitation (mg/L)									
	Temperature (°C/°F) ²									
	0 (32)	14 (57)	16 (61)	18 (64)	20 (68)	22 (72)	24 (75)	26 (79)	28 (82)	30 (86)
6.5	6.67	6.67	6.06	5.33	4.68	4.12	3.62	3.18	2.80	2.46
6.6	6.57	6.57	5.97	5.25	4.61	4.05	3.56	3.13	2.75	2.42
6.7	6.44	6.44	5.86	5.15	4.52	3.98	3.50	3.07	2.70	2.37
6.8	6.29	6.29	5.72	5.03	4.42	3.89	3.42	3.00	2.64	2.32
6.9	6.12	6.12	5.56	4.89	4.30	3.78	3.32	2.92	2.57	2.25
7.0	5.91	5.91	5.37	4.72	4.15	3.65	3.21	2.82	2.48	2.18
7.1	5.67	5.67	5.15	4.53	3.98	3.50	3.08	2.70	2.38	2.09
7.2	5.39	5.39	4.90	4.31	3.78	3.33	2.92	2.57	2.26	1.99
7.3	5.08	5.08	4.61	4.06	3.57	3.13	2.76	2.42	2.13	1.87
7.4	4.73	4.73	4.30	3.78	3.32	2.92	2.57	2.26	1.98	1.74
7.5	4.36	4.36	3.97	3.49	3.06	2.69	2.37	2.08	1.83	1.61
7.6	3.98	3.98	3.61	3.18	2.79	2.45	2.16	1.90	1.67	1.47
7.7	3.58	3.58	3.25	2.86	2.51	2.21	1.94	1.71	1.50	1.32
7.8	3.18	3.18	2.89	2.54	2.23	1.96	1.73	1.52	1.33	1.17
7.9	2.80	2.80	2.54	2.24	1.96	1.73	1.52	1.33	1.17	1.03
8.0	2.43	2.43	2.21	1.94	1.71	1.50	1.32	1.16	1.02	0.897
8.1	2.10	2.10	1.91	1.68	1.47	1.29	1.14	1.00	0.879	0.773
8.2	1.79	1.79	1.63	1.43	1.26	1.11	0.973	0.855	0.752	0.661
8.3	1.52	1.52	1.39	1.22	1.07	0.941	0.827	0.727	0.639	0.562
8.4	1.29	1.29	1.17	1.03	0.906	0.796	0.700	0.615	0.541	0.475
8.5	1.09	1.09	0.990	0.870	0.765	0.672	0.591	0.520	0.457	0.401
8.6	0.920	0.920	0.836	0.735	0.646	0.568	0.499	0.439	0.386	0.339
8.7	0.778	0.778	0.707	0.622	0.547	0.480	0.422	0.371	0.326	0.287
8.8	0.661	0.661	0.601	0.528	0.464	0.408	0.359	0.315	0.277	0.244
8.9	0.565	0.565	0.513	0.451	0.397	0.349	0.306	0.269	0.237	0.208
9.0	0.486	0.486	0.442	0.389	0.342	0.300	0.264	0.232	0.204	0.179

¹ Effluent pH at time of effluent ammonia sampling.

² Effluent temperature at time of effluent ammonia sampling.

$$CCC = \left(\frac{0.0577}{1 + 10^{7.688 - \text{pH}}} + \frac{2.487}{1 + 10^{\text{pH} - 7.688}} \right) \times \text{MIN}(2.85, 1.45 \times 10^{0.028(25 - T)})$$

- For the compliance schedules required by this Order the Discharger shall submit to the Regional Water Board on or before each 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 issue a complaint for Administrative Civil Liability.

7. Any person signing a document submitted under this Order shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my knowledge and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

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 22 September 2010 and amended on 3 February 2011.

Original Signed by Kenneth D. Landau for
PAMELA C. CREEDON, Executive Officer