

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

TIME SCHEDULE ORDER R5-2011-0909  
REQUIRING  
THE CITY OF JACKSON  
WASTEWATER TREATMENT PLANT  
AMADOR COUNTY

TO COMPLY WITH REQUIREMENTS PRESCRIBED IN ORDER R5-2007-0133  
(NPDES PERMIT CA0079391)

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

1. On 25 October 2007, the Central Valley Water Board adopted Waste Discharge Requirements (WDR) Order R5-2007-0133, for the City of Jackson (Discharger) Wastewater Treatment Plant (Facility), Amador County.
2. WDR Order R5-2007-0133 section IV.A.1 includes, in part, the following final effluent limitations:
  - a. *The Discharger shall maintain compliance with the effluent limitations specified in Table 6:*

**Table 6. Effluent Limitations**

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Aluminum, Total Recoverable	µg/L	71.2	--	142.9	--	--
Copper, Total Recoverable	µg/L	3.22	--	6.46	--	--
Cyanide, Total	µg/L	4.26	--	8.54	--	--
Dichlorobromomethane	µg/L	0.56	--	1.12	--	--
Nitrate (as NO <sub>3</sub> )	mg/L	45	--	--	--	--
Total Coliform Organisms	MPN/100 mL	--	--	--	--	240
Zinc, Total Recoverable	µg/L	30.00	--	60.00	--	--

- f. *Ammonia. The following effluent limitations for ammonia are effective from 18 May 2010 until 5 years following the date of adoption of this Order:*
  - i. 1.2 mg/L, as an Average Monthly Effluent Limitation; and
  - ii. 4.2 mg/L, as a Maximum Daily Effluent Limitation.
- g. *Ammonia. The following effluent limitations for ammonia become effective 5 years following the date of adoption of this Order:*
  - i. 1.0 mg/L, as an Average Monthly Effluent Limitation; and
  - ii. 3.7 mg/L, as a Maximum Daily Effluent Limitation.

- i. *Turbidity. Effluent turbidity shall not exceed:*
  - i. *2 NTU, as a daily average;*
  - ii. *5 NTU, more than 5% of the time within a 24-hour period; and*
  - iii. *10 NTU, at any time.*
  
- j. *Total Coliform Organisms. Effluent total coliform organisms shall not exceed:*
  - i. *2.2 most probable number (MPN) per 100 mL, as a 7-day median; and*
  - ii. *23 MPN/100 mL, more than once in any 30-day period.*

### **Need for Time Schedule Extension and Legal Basis**

- 3. On 11 January and 20 May 2010, the Discharger submitted requests for additional time to comply with the final effluent limitations for aluminum, ammonia, copper, cyanide, dichlorobromomethane, nitrate, total coliform organisms, turbidity and zinc.
  
- 4. In a report dated 12 August 2011, the Discharger proposed a suite of Facility upgrades with a projected schedule to achieve compliance with the final effluent limitations for aluminum, ammonia, copper, cyanide, dichlorobromomethane, nitrate, total coliform organisms, turbidity and zinc by 1 March 2015.

### **Mandatory Minimum Penalties**

- 5. CWC sections 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)(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 or 13308, if all the [specified] requirements are met...for the purposes of this subdivision, the time schedule may not exceed five years in length...*”.
  
- 6. Per the requirements of CWC section 13385(j)(3), 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 violations that would otherwise be subject to CWC section 13385(h) and (i).
  
  - b. To comply with final effluent limitations, the Discharger proposed improvements to the secondary process, filter, and disinfection system. The Discharger also proposed site specific water quality studies to bring forth information for future potential modification of effluent limitations if the proposed improvements do not result in full compliance. The final effluent limitations for aluminum, ammonia, copper, cyanide, dichlorobromomethane, nitrate, total coliform organisms, turbidity and zinc were new, more stringent, or modified regulatory requirements that became applicable to the waste discharge after the effective date of the waste discharge requirements (14 December 2007) and after 1 July 2000.

New or modified control measures are necessary in order to comply with the final effluent limitations. The new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.

- c. This Order establishes a time schedule to bring the waste discharge into compliance with the effluent limitations 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 limitations.
7. By statute, a Cease and Desist Order or Time Schedule Order may provide protection from MMPs for no more than five years.
8. Violations of final effluent limitations in WDR Order R5-2007-0133 for aluminum, ammonia, copper, cyanide, dichlorobromomethane, nitrate, total coliform organisms, turbidity, and zinc have not previously been protected from mandatory minimum penalties. Compliance with this Order exempts the Discharger from mandatory minimum penalties for violations of the final effluent limitations for aluminum, ammonia, copper, cyanide, dichlorobromomethane, nitrate, total coliform organisms, turbidity, and zinc from the date of this Order until 1 March 2015.
9. In accordance with CWC section 13385(j)(3)(C), the total length of protection from mandatory minimum penalties for the final effluent limitations listed in Finding 8 above, does not exceed five years.
10. This Order provides a time schedule for completing the actions necessary to ensure compliance with the final effluent limitations for aluminum, ammonia, copper, cyanide, dichlorobromomethane, nitrate, total coliform organisms, turbidity, and zinc, contained in WDR Order R5-2007-0133. Since the time schedule for completion of actions necessary to bring the waste discharge into compliance exceeds one year, this Order includes interim effluent limitations and interim requirements and dates for their achievement.
11. This Order includes new, performance-based interim effluent limitations for aluminum, copper, cyanide, dichlorobromomethane, nitrate, total coliform organisms, turbidity, and zinc. This Order continues the interim effluent limitations for ammonia from WDR Order R5-2007-0133. The interim effluent limitations for total coliform organisms are based on the treatment capability of a secondary treatment plant (23 MPN/per 100 mL, as a 7-day median and 240 MPN/100 mL). The interim effluent limitations for turbidity are based on the treatment capability of the Facility between January 2008 and December 2010; a daily average of 3.70 NTU and a maximum of 13.6 NTU, at any time.

Maximum daily interim effluent limitations for aluminum, copper, cyanide, dichlorobromomethane, and zinc are based on the current treatment plant performance. With 10 or more sampling data points, sampling and laboratory variability is accounted for by establishing interim effluent limitations 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 maximum daily interim effluent limitations for aluminum, copper, cyanide, dichlorobromomethane, and zinc in this Order are established as the mean plus 3.3 standard deviations.

Similarly, average monthly interim effluent limitations for aluminum, copper, cyanide, dichlorobromomethane, nitrate, and zinc are based on normally distributed data where 95% of the data points will lie within 2.0 standard deviations of the mean. Therefore, the average monthly interim effluent limitations for aluminum, copper, cyanide, dichlorobromomethane, nitrate, and zinc in this Order are established as the mean plus 2.0 standard deviations. The following table shows the values used in the calculations and the resulting interim effluent limitations for aluminum, copper, cyanide, dichlorobromomethane, nitrate, and zinc:

Parameter	Units	Mean	Standard Deviation	Interim Effluent Limitation Maximum Daily <sup>1</sup>	Interim Effluent Limitation Average Monthly <sup>2</sup>
Aluminum	µg/L	71.2	53.2	247	178
Copper, Total Recoverable	µg/L	3.95	1.77	9.79	7.49
Cyanide, Total	µg/L	2.79	1.60	8.07	5.99
Dichlorobromomethane	µg/L	2.49	2.61	11.1	7.71
Nitrate, as NO <sub>3</sub>	mg/L	26.0	15.1	--	56.2
Zinc, Total Recoverable	µg/L	91.0	16.3	145	124
<sup>1</sup> Mean+3.3StDev <sup>2</sup> Mean+2.0StDev					

12. The Central Valley Water Board finds that the Discharger can maintain compliance with the interim effluent limitations included in this Order. Interim effluent limitations are established when compliance with the final effluent limitations cannot be achieved by the existing Facility. 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 effluent limitations, however, establish an enforceable ceiling concentration until compliance with the final effluent limitation can be achieved.

### Other Regulatory Requirements

13. 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.”*

14. This Order was issued in accordance with Section 13300 of the California Water Code and established a time schedule for compliance.
15. Section 13267 of the California Water Code states in part: *“In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”*
16. The Discharger owns and operates the wastewater treatment plant and sewage collection system which is subject to this Order. The technical and monitoring reports required by this Order are necessary to determine compliance with the WDRs and with this Order.
17. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.) (“CEQA”) pursuant to Water Code section 13389, since the adoption or modification of a NPDES permit for an existing source is statutorily 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.).
18. On 10 December 2009, the Central Valley Water Board adopted Resolution No. R5-2009-0114 to provide explicit authority to the Executive Officer to issue or modify time schedule orders, and to make this authority known to the public and regulated community.
19. The Central Valley Water Board has notified the Discharger and interested agencies and persons of its intent to adopt a new Time Schedule Order for this discharge and has provided them with an opportunity to submit their written views and recommendations. No adverse comments were received during the 30-day public comment period. Therefore, this Order is issued by the Executive Officer of the Central Valley Water Board.

**IT IS HEREBY ORDERED THAT:**

1. Pursuant to California Water Code Section 13300, the Discharger shall comply with the following time schedule to ensure completion of the compliance project described in Finding 4, above:

Task	Compliance Date
Submit New or Updated Pollution Prevention Plan for aluminum, ammonia, copper, cyanide, dichlorobromomethane, nitrate, total coliform organisms, turbidity, and zinc	Within 12 months of issuance of this Order
Move Point of Chlorination to after filtration	1 August 2012
Complete Planning, Design, and Bid Process for pH, DO, SCADA Monitoring, Recording, Controls, and Alarms	1 February 2013
Complete Planning, Design, and Bid Process for Lime Storage and Dosing System, Prefilter Coagulation/Flocculation improvements, and Increase in Chlorine Mixing Energy	1 November 2013
Complete Construction of pH, DO, SCADA Monitoring, Recording, Controls, and Alarms	1 March 2014
Complete Construction of Lime Storage and Dosing System, Prefilter Coagulation/Flocculation improvements, and Increase in Chlorine Mixing Energy	1 December 2014
Comply with Final Effluent Limitations for aluminum, ammonia, copper, cyanide, dichlorobromomethane, nitrate, total coliform organisms, turbidity, and zinc	1 March 2015
Submit Progress Reports <sup>1</sup>	Each of the above Compliance Dates
<sup>1</sup> The progress reports shall detail the steps taken to comply with this Order, including documentation showing completion of tasks, construction progress, evaluation of the effectiveness of the implemented measures, and assessment of whether additional measures are necessary to meet the compliance dates.	

2. The following interim effluent limitations for aluminum, ammonia, copper, cyanide, dichlorobromomethane, nitrate, total coliform organisms, turbidity, and zinc shall be effective upon adoption of this Order, and shall apply in lieu of the corresponding final effluent limitations in WDR Order R5-2007-0133. The Discharger shall maintain compliance with the following interim effluent limitations through **28 February 2015**, or when the Discharger is able to come into compliance with the final effluent limitations shown in Finding 2, whichever is sooner.

- a. **Aluminum, copper, cyanide, dichlorobromomethane, nitrate, and zinc.** Aluminum, copper, cyanide, dichlorobromomethane, nitrate, and zinc in the effluent shall not exceed:

Parameter	Units	Maximum Daily <sup>1</sup>	Average Monthly <sup>2</sup>
Aluminum	µg/L	247	178
Copper, Total Recoverable	µg/L	10	8
Cyanide, Total	µg/L	8	6
Dichlorobromomethane	µg/L	11	8
Nitrate, as NO <sub>3</sub>	mg/L	--	56
Zinc, Total Recoverable	µg/L	145	124
<sup>1</sup> Mean + (3.3) x (Standard Deviation) <sup>2</sup> Mean + (2.0) x (Standard Deviation)			

- b. **Total Coliform Organisms** <sup>1</sup>. Total coliform organisms in the effluent shall not exceed:
- i. 23 MPN/per 100 mL, as a 7-day median; and
  - ii. 240 MPN/100 mL, more than once in any 30-day period.
- c. **Turbidity** <sup>2</sup>. Turbidity in the effluent shall not exceed:
- i. 3.7 NTU, as a daily average;
  - ii. 13.6 NTU, at any time.
- d. **Ammonia** <sup>3</sup>: Effluent ammonia (as N) shall not exceed a daily maximum and a monthly average in accordance with the following tables.

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<sup>1</sup> The interim effluent limitations for total coliform organisms are based on the treatment capability of a secondary treatment plant

<sup>2</sup> The interim effluent limitations for turbidity are based on the treatment capability of the Facility between January 2008 and December 2010, indicating an average turbidity concentration of 3.70 NTU and a maximum turbidity concentration of 13.6 NTU.

<sup>3</sup> The interim effluent limitations for ammonia from WDR Order R5-2007-0133 are included in this Order.

**Interim Ammonia Maximum Daily Effluent Limitation  
 (mg N/L)**

<b>pH<sup>1</sup></b>	<b>Maximum Daily Limit</b>
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.

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

**Interim Ammonia Monthly Average Effluent Limitation (mg N/L)**

pH <sup>1</sup>	Temperature, °C (°F) <sup>2</sup>									
	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

<sup>1</sup> Effluent pH at time of effluent ammonia sampling.

<sup>2</sup> Effluent temperature at time of effluent ammonia sampling.

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

3. 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."*

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order or with the WDRs may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

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 Water Code 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, 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](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 signed by the Executive Officer of the California Regional Water Quality Control Board, Central Valley Region, on **3 November 2011**.

*Original Signed by*

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PAMELA C. CREEDON, Executive Officer