

California Regional Water Quality Control Board
Santa Ana Region

November 30, 2007

STAFF REPORT

ITEM: 12

SUBJECT: Amendment of Order No. R8-2004-0020, NPDES No. CA8000073, as amended by Order No. R8-2006-0038, and Order No. R8-2006-0010, NPDES No. CA0105279, Waste Discharge and Producer/User Water Recycling Requirements for Inland Empire Utilities Agency's Carbon Canyon Water Reclamation Facility and RP-1/RP-4 Water Reclamation Facilities - Order No. R8-2007-0078,

DISCUSSION:

On August 13, 2004, the Regional Board adopted Order No. R8-2004-0020, NPDES No. CA8000073, prescribing Waste Discharge and Producer/User Water Reclamation Requirements for Inland Empire Utilities Agency's Carbon Canyon Water Reclamation Facility, for the discharge of tertiary treated wastewater into Reach 2 of Chino Creek, a tributary to Reach 3 of the Santa Ana River. On May 19, 2006, Order No. R8-2004-0020 was amended by Order No. R8-2006-0038 to extend the compliance date for complying with the final effluent limitations for free cyanide that are specified in the Order. The amendment Order extended the compliance date from December 31, 2005 to October 21, 2007, to coincide with the compliance date specified for free cyanide in the renewed Waste Discharge and Producer/User Water Recycling Requirements Order No. R8-2006-0010 issued to Inland Empire Utilities Agency's RP-1/RP-4 Water Reclamation Facilities.

On May 19, 2006, the Regional Board adopted Order No. R8-2006-0010, NPDES No. CA0105279, prescribing Waste Discharge and Producer/User Water Reclamation Requirements for Inland Empire Utilities Agency's Regional Water Reclamation Plant No. 1 and No. 4, for the discharge of tertiary treated wastewater into Chino Creek, a tributary to Reach 3 of the Santa Ana River. Order No. R8-2006-0010 included interim and final effluent limitations for free cyanide with compliance date to be achieved as soon as possible but no later than October 21, 2007.

Order No. R8-2004-0020, as amended, and Order No. R8-2006-0010 specified that compliance with the final free cyanide limitations in the Orders be achieved as soon as possible but no later than October 21, 2007, unless the discharger provides justification that compliance by this date is infeasible. The Discharger implemented an approved plan and schedule for achieving compliance with the final free cyanide effluent limitations and submitted progress reports for achieving compliance.

On October 13, 2007, the Discharger requested a nine month extension of the cyanide compliance schedules and interim effluent limitations specified in Orders No. R8-2004-0020, as amended, and R8-2006-0010. In the request, IEUA provided justification that compliance by October 21, 2007 is infeasible.

In April 2007, the Discharger proposed to use Total Cyanide (Total CN) results in lieu of Weak Acid Dissociable Cyanide (WAD-CN). The monitoring data showed a major discrepancy between the two results. In a June 2007 meeting with IEUA staff, Regional Board staff requested additional testing for cyanide using an additional analytical method and splitting samples with a contract laboratory in order to compare results. IEUA will need additional time to conduct the study. The Discharger will provide all the results of this portion of the study, along with QA/QC data.

The following show the proposed changes to the Order. Additions are bold and highlighted. Deletions are stricken-out.

1. Order No. R8-2004-0020 as amended, page 6 of 32, Findings Section, modify Finding 28. as follows:
 28. On July 1, 2004, IEUA requested that a compliance schedule for free cyanide limitations be included in this Order. IEUA demonstrated that immediate compliance with the proposed effluent limitations for free cyanide is infeasible. Prior to December 2003, IEUA had conducted analysis for total cyanide, rather than free cyanide, in samples collected from all IEUA treatment plants, in accordance with then applicable waste discharge requirements. IEUA began analysis for free cyanide in December 2003. The data indicate the likelihood that free cyanide is formed during the disinfection process at CCWRF. IEUA has initiated a free cyanide investigation that will address all treatment plants (RP-1, RP-4, RP-5 and CCWRF). The first phase of the investigation will focus on CCWRF. Data collection is expected to be complete by December 31, 2004. Based on analysis of these data and review of experience with this problem elsewhere, the need for and type of remedial actions will be identified. It is anticipated that compliance will be achieved as soon as possible but no later than ~~October 21, 2007~~ **August 1, 2008**. This schedule will be reconsidered and revised as appropriate if it is demonstrated that additional time is required to identify and implement appropriate control measures. This Order will be reopened to consider appropriate changes to the compliance schedule if and as necessary based on submission of additional justification.

2. Order No. R8-2004-0020 as amended, page 9 of 32, Discharge Specifications Section, modify Trace Constituent Limitations Table in Discharge Specifications A.1.e. as follows:

Constituent	Maximum Daily Concentration Limit	Average Monthly Concentration Limit	Maximum Daily Mass Emission Rate ⁵	Average Monthly Mass Emission Rate ⁵
	(µg/l)	(µg/l)	(lbs/day)	(lbs /day)
Final Limit effective August 13, 2004				
Total Recoverable Chromium VI ¹²	16.3	8.2	1.55	0.78
Total Recoverable Selenium	8.2	4.1	0.78	0.39
Bis(2-ethylhexyl) phthalate	11.8	5.9	1.12	0.56
Interim Limit effective from August 13, 2004 through October 21, 2007 July 31, 2008 ¹³				
Free Cyanide	8.5	8	0.81	0.76
Final Limit effective October-22, 2007 August 1, 2008				
Free Cyanide	8.5	4.3	0.81	0.41

3. Order No. R8-2004-0020 as amended, page 24 of 32, Required Notices and Reports Section, modify Required Notices and Reports H.10.c. as follows:
- c. A proposed plan and schedule for implementation of recommended control measures. The plan and schedule shall assure that control measures are implemented so that compliance with the final free cyanide limitations in this Order is achieved as soon as possible but no later than ~~October 21,~~ **August 1, 2008**, unless the discharger provides justification that compliance by this date is infeasible. (see also K.9. Permit Re-opening, Revision, Revocation and Re-issuance.)

4. Order No. R8-2006-0010, page 12, Section IV. Effluent Limitations and Discharge Specifications, modify Table 6 as follows:

Table 6. Tertiary Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	20	30	--	--	--
Total Suspended Solids	mg/L	20	30	--	--	--
pH ²	standard units	--	--	--	6.5	8.5
Total Chlorine Residual ³	mg/L	--	--	--	--	0.1
Ammonia-Nitrogen	mg/L	4.5	--	--	--	--
Cyanide, Free* (effective on October 21, 2007 August 1, 2008)	µg/L	4.2	--	8.5	--	--
Selenium	µg/L	4.1	--	8.2	--	--
Bis(2-ethylhexyl) phthalate	µg/L	5.9	--	11.8	--	--

* Interim effluent limitations are specified for this constituent in IV.A.2., below.

5. Order No. R8-2006-0010, page 13, Section IV. Effluent Limitations and Discharge Specifications, modify paragraph A.2.a. as follows:
- a. During the period beginning May 19, 2006 and ending on ~~October 20, 2007~~ **July 31, 2008**, the discharge of tertiary effluent shall maintain compliance with the following limitations at Discharge Points 001 and 002, with compliance measured at Monitoring Locations M-001A and M-002A as described in the attached MRP. These interim effluent limitations shall apply in lieu of the corresponding final effluent limitations specified for the same parameters during the time period indicated in this provision.

6. Order No. R8-2006-0010, Attachment F, page F-23, modify the first paragraph of Section F as follows:

F. Interim Effluent Limitations – DP 001 and DP 002

Based on SIP Section 2.1 - Compliance Schedules, the Discharger demonstrated that it is infeasible for the Discharger to achieve immediate compliance with CTR criterion for cyanide and requested a compliance schedule. This Order includes interim effluent limits for cyanide, which shall be effective starting on July 8, 2006 and ending on ~~October 20, 2007~~ **July 31, 2008**. Compliance with the final cyanide limits are to be achieved as soon as possible but no later than ~~October 20, 2007~~ **August 1, 2008**.

7. Order No. R8-2006-0010, Attachment F, page F-29, modify last paragraph of Section VII.B.7 as follows:

The proposed permit allows the Discharger up to ~~October 20, 2007~~ **August 1, 2008** to achieve compliance with the final Cyanide limitations. Quarterly reporting is required to inform the Regional Board about the progress made by the Discharger to achieve compliance with the final limitations within the specified time.

RECOMMENDATION:

Adopt Order No. R8-2007-0078, as presented.

Comments were solicited from the following agencies:

U.S. Environmental Protection Agency, Permits Issuance Section (WTR-5) – Doug Eberhardt
U.S. Army District, Los Angeles, Corps of Engineers, Regulatory Branch
U.S. Fish and Wildlife Service, Carlsbad
State Water Resources Control Board, Office of the Chief Counsel - Erik Spiess
State Water Resources Control Board, Division of Water Quality – Phil Isorena
State Department of Water Resources, Glendale
State Department of Fish and Game, Ontario
State Department of Public Health, San Bernardino – Sean McCarthy
San Bernardino County Environmental Health Services – Daniel Avera
Orange County Water District - Nira Yamachika
City of Chino - Public Works Department, Engineering Division – Jim Hill
City of Chino Hills, Public Works Department
City of Upland, City Manager
City of Montclair, Mike Hudson
Santa Ana River Discharger's Association

Santa Ana Watershed Project Authority – Celeste Cantu
Inland Empire Waterkeeper – Lee Reeder
Orange County Coastkeeper – Garry Brown
Lawyers for Clean Water C/c San Francisco Baykeeper

California Regional Water Quality Control Board
Santa Ana Region

ORDER NO. R8-2007-0078

Amendment of Waste Discharge and Producer/User Recycling Requirements

Contained in Order No. R8-2004-0020, NPDES No. CA8000073 as amended by Order
No. R8-2006-0038, and Order No. R8-2006-0010, NPDES No. CA0105279

for

Inland Empire Utilities Agency
Carbon Canyon Water Reclamation Facility and RP-1/RP-4 Water Reclamation
Facilities
San Bernardino County

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter, Board), finds that:

1. On August 13, 2004, the Board adopted Order No. R8-2004-0020, NPDES No. CA8000073, prescribing Waste Discharge and Producer/User Recycling Requirements for Inland Empire Utilities Agency's (IEUA) Carbon Canyon Water Reclamation Facility for the discharge of tertiary treated wastewater into Reach 2 of Chino Creek, a tributary to Reach 3 of the Santa Ana River. Order No. R8-2004-0020 will expire on August 1, 2009. On May 19, 2006, Order No. R8-2004-0020 was amended by Order No. R8-2006-0038 to extend the compliance date for complying with the final effluent limitations for free cyanide that are specified in the Order. The amendment Order extended the compliance date from December 31, 2005 to October 21, 2007, to coincide with the compliance date specified for free cyanide in the renewed Waste Discharge and Producer/User Water Recycling Requirements Order No. R8-2006-0010 issued to Inland Empire Utilities Agency's RP-1/RP-4 Water Reclamation Facilities.
2. On May 19, 2006, the Regional Board adopted Order No. R8-2006-0010, NPDES No. CA0105279, prescribing waste discharge and Producer/User Water Reclamation Requirements for Inland Empire Utilities Agency's Regional Water Reclamation Plant No. 1 and No. 4, for the discharge of tertiary treated wastewater into Chino Creek, a tributary to Reach 3 of the Santa Ana River. Order No. R8-2006-0010 also included interim and final effluent limitations for free cyanide with compliance to be achieved as soon as possible but no later than October 21, 2007.

3. Both Orders No. R8-2004-0020, as amended, and R8-2006-0010 included interim and final effluent limitations for free cyanide and a time schedule for compliance with the free cyanide final effluent limitations in accordance with Section 2.1 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California. Order No. R8-2004-0020 as amended and Order No. R8-2006-0010 specified that compliance with the final free cyanide limitations in the Order is to be achieved as soon as possible but no later than October 21, 2007, unless the discharger provides justification that compliance by this date is infeasible.
4. On October 13, 2007, the Discharger requested an extension of the cyanide compliance schedules and interim effluent limitations specified in Order No. R8-2004-0020, as amended, and Order No. R8-2006-0010.
5. It is appropriate to extend the compliance schedule and interim limits in Order No. R8-2004-0020, as amended, and Order No. R8-2006-0010 in light of the difficulties encountered in identifying interferences in analytical methods of Total Cyanide (Total CN) and Weak Acid Dissociable Cyanide (WAD-CN).
6. In accordance with Water Code Section 13389, amending the waste discharge requirements for this discharge is exempt from those provisions of the California Environmental Quality Act contained in Chapter 3 (commencing with Section 21100), Division 13 of the Public Resources Code.
7. The Board has notified the discharger and other interested agencies and persons of its intent to amend waste discharge requirements for the discharge and has provided them with an opportunity to submit their written views and recommendations.
8. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that Orders No. R8-2004-0020 and R8-2006-0010 be amended as follows:

1. Order No. R8-2004-0020, as amended, page 6 of 32, Findings Section, modify Finding 28. as follows:

28. On July 1, 2004, IEUA requested that a compliance schedule for free cyanide limitations be included in this Order. IEUA demonstrated that immediate compliance with the proposed effluent limitations for free cyanide is infeasible. Prior to December 2003, IEUA had conducted analysis for total cyanide, rather than free cyanide, in samples collected from all IEUA treatment plants, in accordance with then applicable waste discharge requirements. IEUA began analysis for free cyanide in December 2003. The data indicate the likelihood that free cyanide is formed during the disinfection process at CCWRF. IEUA has initiated a free cyanide investigation that will address all treatment plants (RP-1, RP-4, RP-5 and CCWRF). The first phase of the investigation will focus on CCWRF. Data collection is expected to be complete by December 31, 2004. Based on analysis of these data and review of experience with this problem elsewhere, the need for and type of remedial actions will be identified. It is anticipated that compliance will be achieved as soon as possible but no later than August 1, 2008. This schedule will be reconsidered and revised as appropriate if it is demonstrated that additional time is required to identify and implement appropriate control measures. This Order will be reopened to consider appropriate changes to the compliance schedule if and as necessary based on submission of additional justification.

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Constituent	Maximum Daily Concentration Limit	Average Monthly Concentration Limit	Maximum Daily Mass Emission Rate ⁵	Average Monthly Mass Emission Rate ⁵
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Final Limit effective August 13, 2004				
Total Recoverable Chromium VI ²	16.3	8.2	1.55	0.78
Total Recoverable Selenium	8.2	4.1	0.78	0.39
Bis(2-ethylhexyl) phthalate	11.8	5.9	1.12	0.56
Interim Limit effective from August 13, 2004 through July 31, 2008 ³				

² Total hardness used in calculating metal limits is 144 mg/l, based on the median of CCWRF effluent flow data from January 2000 through December 2003.

³ See Section H. 10. Required Notices and Reports; Section K.9. Permit Re-opening, Revisions, Revocation and Re-issuance; and J. 27. Provisions.

Constituent	Maximum Daily Concentration Limit	Average Monthly Concentration Limit	Maximum Daily Mass Emission Rate ⁵	Average Monthly Mass Emission Rate ⁵
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pH ²	standard units	--	--	--	6.5	8.5
Total Chlorine Residual ³	mg/L	--	--	--	--	0.1
Ammonia-Nitrogen	mg/L	4.5	--	--	--	--
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5. Order No. R8-2006-0010, page 13, Section IV. Effluent Limitations and Discharge Specifications, modify paragraph A.2.a. as follows::

a. During the period beginning May 19, 2006 and ending on July 31, 2008, the discharge of tertiary effluent shall maintain compliance with the following limitations at Discharge Points 001 and 002, with compliance measured at Monitoring Locations M-001A and M-002A as described in the attached MRP. These interim effluent limitations shall apply in lieu of the corresponding final effluent limitations specified for the same parameters during the time period indicated in this provision.

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F. Interim Effluent Limitations – DP 001 and DP 002

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7. Order No. R8-2006-0010, Attachment F, page F-29, modify last paragraph of Section VII.B.7 as follows:

The proposed permit allows the Discharger up to August 1, 2008 to achieve compliance with the final Cyanide limitations. Quarterly reporting is required to inform the Regional Board about the progress made by the Discharger to achieve compliance with the final limitations within the specified time.

8. All other conditions and requirements of Order No. R8-2004-0020, as amended, and Order No. R8-2006-0010 shall remain unchanged.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the forgoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on November 30, 2007.

Gerard J. Thibeault
Executive Officer