

**State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

**ORDER NO. R4-2010-XXXX
REVISING
ORDER NO. R4-2006-0091**

NPDES NO. CA0056227

**WASTE DISCHARGE REQUIREMENTS
FOR
CITY OF LOS ANGELES
(Donald C. Tillman Water Reclamation Plant)
(File No. 70-117)**

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The California Regional Water Quality Control Board, Los Angeles Region (hereafter Regional Board), finds:

PURPOSE OF ORDER

1. The City of Los Angeles (City or Discharger) discharges tertiary-treated wastewater from its Donald C. Tillman Water Reclamation Plant (Tillman WRP or Plant) under Waste Discharge Requirements (WDRs) contained in Order No. 98-046, adopted by this Regional Board on June 15, 1998. Order No. 98-046 also serves as a permit under the National Pollutant Discharge Elimination System (NPDES No. CA0056227), which regulates the discharge of treated wastewater to the Los Angeles River and its tributaries in Van Nuys, California, a water of the State of California and of the United States.
2. Order No. 98-046 has an expiration date of May 10, 2003. Section 122.6 of Title 40, Code of Federal Regulations (40 CFR), and section 2235.4 of Title 23, California Code of Regulations (CCR), state that an expired permit continues in force until the effective date of a new permit, provided that the permittee has made a timely submittal of a complete application for a new permit. On July 1, 2002, the City filed a Report of Waste Discharge (ROWD) and applied to the Regional Board for reissuance of WDRs and NPDES permit to continuously discharge tertiary-treated wastewater. Therefore, the Discharger's permit has been administratively extended until the Regional Board acts on the new WDRs and NPDES permit.
3. This Order is the reissuance of WDRs that serves as a NPDES permit for the Tillman WRP.

LITIGATION HISTORY – CHRONOLOGY

4. **1998** – On July 14, 1998, the City filed a petition with the State Water Resources Control Board (State Board) for a stay of Order No. 98-046. The State Board dismissed the City's petition for review and its request for stay without review for the Donald C. Tillman WRP's NPDES permit.

For all parameters that have reasonable potential to cause or contribute to an exceedance of a WQO/criteria, numeric WQBELs are required. Section 1.4, Step 5 of the SIP (Page 8) states that MDELs shall be used for publicly-owned treatment works (POTWs) in place of average weekly limitations. WQBELs are based on CTR, USEPA water quality criteria, applicable TMDLs, and Basin Plan objectives (among which are the MCLs included by reference).

If the data are unavailable or insufficient to conduct the RPA for the pollutant, or if all reported detection limitations of the pollutant in the effluent are greater than or equal to the WQO, the Regional Board shall require additional monitoring, in accordance with Section 1.3. of the SIP.

A numerical limitation has not been prescribed for a toxic constituent if it has been determined that it has no reasonable potential to cause or contribute to excursions of water quality standards. However, if the constituent had a limitation in the previous permit, and if none of the Antibracksliding exceptions apply, then the limitation will be retained. A narrative limitation to comply with all water quality objectives is provided in *Standard Provisions* for the priority pollutants, which have no available numeric criteria.

- b. **RPA Data** – The RPA conducted in 2006 was based on effluent monitoring data for January 1998 through November 2005. During the settlement negotiations preceding the January 25, 2010 settlement agreement, an updated RPA was conducted in February 2009, using available data that were representative of the treated effluent following the NDN upgrade and the ammonia add-back process change. Effluent monitoring data were collected between January 1, 2008 and December 31, 2008 (see Table A6 of the Fact Sheet). In response to comments received, the dataset was expanded to include data from 2009; spreadsheets in the accompanying Fact Sheet were revised; and an updated reasonable potential analysis was conducted on March 3, 2010, yielding similar results. Effluent limitations for cyanide, tetrachloroethylene, bis(2-ethylhexyl)phthalate, and gamma-BHC are removed in this order for constituents that no longer have reasonable potential, as required by State Board Order WQ 2003-0009. Table A5 of the Fact Sheet summarizes the RPA, lists the constituents, and where available, the lowest, adjusted WQO, the MEC, the “Reasonable Potential” result, and the limitations from the previous permit.

- i. **Metals Water Quality Objective** – For metals, the lowest applicable Water Quality Objective (WQO) was expressed as total recoverable, and where applicable, adjusted for hardness. Regional Board Staff used a hardness value of 246 mg/L, which is the value used in the calculation of the Metal TMDL for the Los Angeles River Watershed (Resolution No. R05-006 adopted on June 2, 2005), to convert the dissolved metal CTR criteria into the total recoverable metal form.
- ii. **Interim Monitoring Requirements** – In accordance with the SIP, the Regional Board may impose interim monitoring requirements upon the

65. In conformance with the CTR and the relevant provisions of SIP Section 2.1, the Discharger has submitted documentation that diligent efforts have been made to quantify pollutant levels in the discharge and the sources of the pollutants entering the POTW. In addition, the Discharger already has in place a source control and pollutant minimization approach through its existing pollutant minimization strategies and through the pretreatment program. The duration of interim requirements established in this Order was developed in coordination with Regional Board staff and the Discharger, and the proposed schedule is as short as practicable. The five-year compliance schedule is based on the maximum allowable compliance schedule. However, the Discharger anticipates it will take longer than five years to achieve the final limitations.

CEQA AND NOTIFICATION

66. The action to adopt a NPDES permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (Public Resources Code §21100, et. seq.) in accordance with California Water Code §13389.
67. The Regional Board has notified the Discharger and interested agencies and persons of its intent to renew waste discharge requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.
68. The Regional Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements.
69. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Clean Water Act, or amendments thereto, and is effective ~~50-30~~ 50 days (~~February 2, 2007~~ May 21, 2010) from the date of its adoption because of significant_public comment, in accordance with federal law, provided the Regional Administrator, USEPA has no objections.
70. Pursuant to California Water Code Section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Board. A petition must be sent to the State Water Resources Control Board, P.O. Box 100, Sacramento, California, 95812, within 30 days of adoption of the Order.

IT IS HEREBY ORDERED that the City of Los Angeles, as owner and operator of the Tillman Water Reclamation Plant, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

I. DISCHARGE REQUIREMENTS

1. Effluent Limitations

- A. Wastes discharged shall be limited to treated municipal and industrial wastewater only, as proposed in the ROWD.

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have the potential to cause, or will contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters.

4. This Order may also be modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR Parts 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this Order, endangerment to human health or the environment resulting from the permitted activity, or acquisition of newly obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the District for an Order modification, revocation and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
5. This Order may be modified, in accordance with the provisions set forth in 40 CFR, Parts 122 to 124, to include new MLs.
6. This Order may be reopened and modified, to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of a water quality objective, or the adoption of a TMDL for the Los Angeles River Watershed.
7. This Order may be reopened and modified, to revise effluent limitations as a result of the delisting of a pollutant from the 303(d) list.
8. This Order may be reopened and modified to revise the chronic toxicity effluent limitation, to the extent necessary, to be consistent with State Board precedential decisions, new policies, new laws, or new regulations.
9. This Order may be reopened to modify final effluent limitations, if at the conclusion of necessary studies conducted by the Discharger, the Regional Board determines that dilution credits, attenuation factors, water effects ratio, or metal translators are warranted.

VI. EXPIRATION DATE

This Order expires on November 10, 2011.

The Discharger must file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.

VII. RESCISSION

Order No. 98-046, adopted by this Regional Board on June 15, 1998, ~~is hereby rescinded~~ **was superseded upon the effective date of Order No. R4-2006-0091**, except for enforcement purposes. ~~This rescission is dependent upon and relative to the issuance and enforceability of this Order.~~ To the extent any provisions, limitations, or requirements set forth in this Order that supercede analogous provisions, limitations, or requirements in

State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
320 West 4th Street, Suite 200, Los Angeles

FACT SHEET

WASTE DISCHARGE REQUIREMENTS
FOR
CITY OF LOS ANGELES
(Donald C. Tillman Water Reclamation Plant)
(File No. 70-117)

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NPDES No. CA0056227

Public Notice No.: ~~0610-056008~~

PLANT ADDRESS

Donald C. Tillman Water Reclamation Plant
6100 Woodley Avenue
Van Nuys, CA 91406

MAILING ADDRESS

City of Los Angeles
1149 S. Broadway 9th Floor
Los Angeles, CA 90015

Contact Person: Hiddo Netto
Title: Plant Manager
Phone No.: 818-778-4121

Contact Person: Enrique C. Zaldivar
Title: Director
Bureau of Sanitation
Phone No.: 213-473-7999

I. PUBLIC PARTICIPATION

1. The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is considering issuance of Waste Discharge Requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the above-referenced plant. As an initial step in the WDR process, the Regional Board staff has developed tentative WDRs. The Regional Board encourages public participation in the WDR adoption process.

A. Public Comment Period

The staff determinations are tentative. Interested persons are invited to submit written comments only on the changes contained within the tentative WDRs, MRP, and this Fact Sheet for the City of Los Angeles (City or Discharger), Donald C. Tillman Water Reclamation Plant (Tillman WRP). The added text is underlined and the deleted text is in strikethrough. Comments should be submitted either in person or by mail to:

EXECUTIVE OFFICER
California Regional Water Quality Control Board, Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, CA 90013
ATTN: Don Tsai

Table F1 - 2005 Annual Summary Effluent Monitoring Summary					
CTR#	Constituent	Unit	Average	Maximum	Minimum
112	alpha-Endosulfan	ug/L	<0.0014	<0.0014	<0.0014
113	beta-Endosulfan	ug/L	<0.001	<0.001	<0.001
114	Endosulfan sulfate	ug/L	<0.004	<0.004	<0.004
115	Endrin	ug/L	<0.007	<0.007	<0.007
116	Endrin aldehyde	ug/L	<0.002	<0.002	<0.002
117	Heptachlor	ug/L	<0.002	<0.002	<0.002
118	Heptachlor epoxide	ug/L	<0.0018	<0.0018	<0.0018
	Polychlorinated biphenyls (PCBs)				
119	Aroclor 1016	ug/L	<5.7	<7	<4.4
120	Aroclor 1221	ug/L	<20.5	<40	<1
121	Aroclor 1232	ug/L	<6.35	<12	<0.7
122	Aroclor 1242	ug/L	<2.7	<3	<2.4
123	Aroclor 1248	ug/L	<15.05	<26	<4.1
124	Aroclor 1254	ug/L	<22.5	<26	<19
125	Aroclor 1260	ug/L	<8.15	<11	<5.3
126	Toxaphene	ug/L	<0.4	<0.4	<0.4
	Mirex	ug/L	<0.008	<0.008	<0.008
	Methoxychlor	ug/L	<0.007	<0.007	<0.007
	2,4-D	ug/L	<0.02	<0.02	<0.02
	2,4,5-TP	ug/L	<0.01	<0.01	<0.01

Table F1.1 contains the more recent set of data that was used to conduct an updated reasonable potential analyses for cyanide, tetrachloroethylene, bis(2-ethylhexyl)phthalate, and gamma-BHC.

Table F1.1 – 2008-2009 Annual Summary Effluent Monitoring Summary					
CTR#	Constituent	Unit	Average	Maximum	Minimum
<u>14</u>	<u>Cyanide</u>	<u>ug/L</u>	<u><0.004</u> <u><0.00091</u>	<u><0.004</u> <u>0.005</u>	<u><0.004</u>
<u>38</u>	<u>Tetrachloroethylene</u>	<u>ug/L</u>	<u><0.15</u> <u><0.02</u>	<u><0.22</u> <u>0.36</u>	<u><0.10</u>
<u>68</u>	<u>Bis(2-ethylhexyl)phthalate</u>	<u>ug/L</u>	<u><1.0</u>	<u>±2.0</u>	<u><1.0</u>
<u>105</u>	<u>Gamma-BHC (Lindane)</u>	<u>ug/L</u>	<u><0.0031</u>	<u>0.006</u>	<u><0.002</u>

VII. STUDIES

1. Lake Balboa Fish Tissue Study

- A. The Lake Balboa Fish Tissue Study for Tillman WRP was conducted to fulfill a requirement of the Time Schedule Order No. 98-070. The purpose of the Study was to determine the degree of pollutant bioaccumulation, which occurs in fish caught in Lake Balboa and to determine if the human consumption of these fish is likely to cause an unacceptable risk to human health.

the WQO. The Regional Board exercised its discretion in identifying all available, applicable ambient background data in accordance with SIP Section 1.4.3 (Page 16).

- iii. For the third tier, other information is used to determine RPA, such as the current CWA 303(d) List. Section 1.3 of the SIP describes the type of information that can be considered in Tier 3.

For all parameters that have reasonable potential to cause or contribute to an exceedance of a WQO/criteria, numeric WQBELs are required. Section 1.4, Step 5 of the SIP (Page 8) states that MDELs shall be used for publicly-owned treatment works (POTWs) in place of average weekly limitations. WQBELs are based on CTR, USEPA water quality criteria, applicable TMDLs, and Basin Plan objectives (among which are the MCLs included by reference).

If the data are unavailable or insufficient to conduct the RPA for the pollutant, or if all reported detection limitations of the pollutant in the effluent are greater than or equal to the WQO, the Regional Board shall require additional monitoring, in accordance with Section 1.3. of the SIP.

A numerical limitation has not been prescribed for a toxic constituent if it has been determined that it has no reasonable potential to cause or contribute to excursions of water quality standards. However, if the constituent had a limitation in the previous permit, and if none of the Antibracksliding exceptions apply, then the limitation will be retained. A narrative limitation to comply with all water quality objectives is provided in *Standard Provisions* for the priority pollutants, which have no available numeric criteria.

- b. **RPA Data** – The RPA conducted in 2006 was based on effluent monitoring data for January 1998 through November 2005. During the settlement negotiations preceding the January 25, 2010 settlement agreement, an updated RPA was conducted in February 2009, using available data that were representative of the treated effluent following the NDN upgrade and the ammonia add-back process change. Effluent monitoring data were collected between January 1, 2008 and December 31, 2008 (see Table A6 of this Fact Sheet). In response to comments received, the dataset was expanded to include data from 2009; spreadsheets in this Fact Sheet were revised; and an updated reasonable potential analysis was conducted on March 3, 2010, yielding similar results. Effluent limitations for cyanide, tetrachloroethylene, bis(2-ethylhexyl)phthalate, and gamma-BHC are removed in the accompanying Order for constituents that no longer have reasonable potential, as required by State Board Order WQ 2003-0009. Table A5 of theis Fact Sheet summarizes the RPA, lists the constituents, and where available, the lowest, adjusted WQO, the MEC, the “Reasonable Potential” result, and the limitations from the previous permit.

amount of activity by the swimmer, comfortable temperatures range from 20°C to 30°C (68 °F to 86 °F).

- ii. Temperature also affects the self-purification phenomenon in water bodies and therefore the aesthetic and sanitary qualities that exist. Increased temperatures accelerate the biodegradation of organic material both in the overlying water and in bottom deposits which makes increased demands on the dissolved oxygen resources of a given system. The typical situation is exacerbated by the fact that oxygen becomes less soluble as water temperature increases. Thus, greater demands are exerted on an increasingly scarce resource which may lead to total oxygen depletion and obnoxious septic conditions. Increased temperature may increase the odor of water because of the increased volatility of odor-causing compounds. Odor problems associated with plankton may also be aggravated.
- iii. Temperature changes in water bodies can alter the existing aquatic community. Coutant (1972) has reviewed the effects of temperature on aquatic life reproduction and development. Reproductive elements are noted as perhaps the most thermally restricted of all life phases, assuming other factors are at or near optimum levels. Natural short-term temperature fluctuations appear to cause reduced reproduction of fish and invertebrates.

The Basin Plan lists temperature requirements for the receiving waters. Based on the requirements of the Basin Plan and a white paper developed by Regional ~~Water~~ Board staff entitled *Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region*, a maximum effluent temperature limitation of 86 °F is included in the Order. The white paper evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel. The new temperature effluent limitation is reflective of new information available that indicates that the 100°F temperature is not protective of aquatic organisms. A survey was completed for several kinds of fish and the 86°F temperature was found to be protective. It is impracticable to use a 7-day average or a 30-day average limitation for temperature, because it is not as protective as of beneficial uses as a daily maximum limitation is. A daily maximum limitation is necessary to protect aquatic life and is consistent with the fishable/swimmable goals of the CWA.

Section I.1.D. of the WDR contains the following effluent limitation for temperature:

"The effluent temperature shall not exceed 86°F, except as a result of external ambient temperature."

Section IV.5.E. of the WDR explains how compliance with the receiving water temperature limitation will be determined.

ii. Lowest MDEL = 0.120 µg/L (Based on Human Health protection)

- G. A numerical limitation has not been prescribed for a toxic constituent if it has been determined that it has no reasonable potential to cause or contribute to excursions of water quality standards. A narrative limitation to comply with all water quality objectives is provided in *Standard Provisions* for the priority pollutants, which have no available numeric criteria.
- H. The numeric limitations contained in the accompanying Order were derived using best professional judgement and are based on applicable state and federal authorities, and as they are met, will be in conformance with the goals of the aforementioned water quality control plans, and water quality criteria; and will protect and maintain existing and potential beneficial uses of the receiving waters.

XII. GROUNDWATER RECHARGE PROTECTION

1. The issue of using MCLs as the basis for establishing final effluent limitations in an NPDES permit, to protect the GWR beneficial use of surface waters and the MUN beneficial use of the groundwater basins, has been addressed by the State Board in its WQO No. 2003-0009, in the *Matter of the Petitions of County Sanitation District No. 2 of Los Angeles and Bill Robinson for Review of Waste Discharge Requirements Order No. R4-2002-0142 and Time Schedule Order No. R4-2002-0143 for the Whittier Narrows Water Reclamation Plant*. The groundwater recharge (GWR) beneficial use is premised on a hydrologic connection between surface waters and groundwater, where the groundwater in this case is designated with an existing MUN beneficial use. Since there are no criteria or objectives specific to the GWR beneficial use, the Los Angeles Regional Board's Basin Plan, staff based effluent limitations for the GWR use on the groundwater MUN objectives. By doing so, the Regional Board ensures that the use of surface waters to recharge groundwater used as an existing drinking water source is protected. The fact that there are no criteria or objectives specific to the GWR beneficial use does not deprive the Regional Board the ability to protect the use. The CWA contemplates enforcement of both beneficial uses as well as criteria in state water quality standards. In California, an NPDES permit also serves as waste discharge requirements under state law.
2. The prior NPDES permit for the Tillman WRP contained effluent limitations for tetrachloroethylene and bis(2-ethylhexyl)phthalate, based on MCLs and expressed as daily maximum, which had to be met at the end of pipe.

Reasonable potential analysis was conducted using new data and the TSD methodology. The analysis showed that the discharge had no reasonable potential to exceed the MCLs for the constituents listed in the above Table in Section XI.7.D, therefore a no limitations for these constituents are included in the permit. However, the point of compliance was changed from surface water to groundwater for these three MCL based limitations, given the conditionally designated p*MUN beneficial use for the Los Angeles River, the need to protect the groundwater recharge (GWR)

~~beneficial use in the surface waters, and the MUN beneficial use in the groundwater basins. In addition, the limitation was expressed as a monthly average rather than a daily maximum, because it was assumed that the groundwater basins have assimilative capacity for these pollutants. The monthly averaging period is justified because these pollutants are not expected to produce acute effects. The City raised the issue that, aside from their effluent, there are several sources recharging the groundwater basins. The City does not have the ability to control those other sources. However, the City does have control over what they discharge through their final effluent outfall. Since the discharge has reasonable potential to exceed the MCLs, final effluent limitations are needed. Therefore, the groundwater receiving water limitations have been deleted and replaced with end-of-pipe limitations.~~

~~The California MCL for Bis(2-ethylhexyl)phthalate is more stringent than the USEPA MCL and more stringent than the CTR criteria, therefore the monthly average effluent limitation for Bis(2-ethylhexyl)phthalate is the only limitation more stringent than the federal requirements. Therefore, an economic analysis should be done for Bis(2-ethylhexyl)phthalate.~~

3. According to Section 13241 of the CWC, the factors to be considered by a regional board in establishing water quality objectives include, but are not necessarily be limited to, all of the following:
 - A. Past, present, and probable future beneficial uses of water.
 - B. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.
 - C. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.
 - D. Economic considerations.
 - E. The need for developing housing within the region.
 - F. The need to develop and use recycled water.

Regional Board staff have considered all of the above factors.

- A. The proposed Order is protective of all beneficial uses of surface waters (using CWA) and ground water (using CWC);
- B. The environmental characteristics of the discharge and of the watershed in which the facility is located have been taken into consideration and provisions of the applicable TMDLs have been incorporated into the Order, in an attempt to restore waters under section 303(d) of the CWA;