Norm Hanson; 485-2397 4/83

State of California
Resources Agency
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

ORDER NO. 79-156

WATER RECLAMATION REQUIREMENTS
FOR

CITY OF LOS ANGELES
(Los Angeles-Glendale Water Reclamation Plant)
(File No. 68-85)

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

1. City of Los Angeles reclaims wastewater for reuse at the Los Angeles-Glendale Water Reclamation Plant under requirements contained in Order No. 74-384 adopted by this Board.

2. City of Los Angeles operates the Los Angeles-Glendale Water Reclamation Plant at 4600 Colorado Boulevard, Los Angeles, California. The plant has a design capacity of 20.0 million gallons per day. All or a portion of the treated municipal wastewater may be reused for irrigation in Griffith Park, general park and golf course irrigation, fire fighting uses, and impoundments. A portion of the reclaimed water not utilized in Griffith Park may be sold by the City of Los Angeles for industrial cooling, cemetery irrigation, or irrigation of other parks.

3. The treated wastewater may also be discharged to Los Angeles River under separate waste discharge requirements and National Pollutant Discharge Elimination System permit adopted by this Board.

4. Treatment consists of primary sedimentation, activated sludge biological treatment, secondary sedimentation, filtration, and chlorination. The sludge from the primary and secondary treatment processes will be returned to the North Outfall Interceptor sewer line for treatment at the City of Los Angeles Hyperion Treatment Plant.

5. The areas of irrigation and impoundment reuse are generally located within the San Fernando Hydrologic Subunit.

6. The Board adopted a revised Water Quality Control Plan for Los Angeles River Basin on November 27, 1978. The Plan contains water quality objectives for the San Fernando Subunit. The requirements contained in this Order as they are met will be in conformance with the goals of the Water Quality Control Plan.

7. The beneficial uses of groundwaters in the San Fernando Subunit are: municipal supply, agricultural supply, industrial service and process supply.

8. Section 13523 of the California Water Code provides that a regional board, after consulting with and receiving the recommendations of the State Department of Health Services, and if it determines such action to be necessary to protect the public health, safety, or welfare, shall establish requirements for uses of water which is used or will be used directly as reclaimed wastewater. Section 13523 further provides that such requirements shall conform to the statewide reclamation criteria.

9. The direct use of reclaimed wastewater for impoundments and landscape irrigation could affect the public health, safety, or welfare; requirements for such uses are therefore necessary in accordance with Section 13523 of the Water Code.

10. City of Los Angeles has prepared a project report for Los Angeles-Glendale Water Reclamation Plant. The project report contains an Environmental Impact Statement (EIS). The EIS indicates there will be no probable effect of this project on the environment. No significant adverse water quality impacts were identified.

The Board has notified City of Los Angeles and interested agencies and persons of its intent to prescribe requirements for wastewater reclamation and has provided them with an opportunity to submit their written views and recommendations.

The Board in a public meeting heard and considered all comments pertaining to the wastewater reclamation and to the tentative requirements

IT IS HEREBY ORDERED, that City of Los Angeles shall comply with the following:

A. Effluent Limitations

1. Reclaimed water shall be limited to treated municipal wastewaters only, as proposed.

2. Reclaimed water shall not exceed the following limits:

		Discharge Limitations	
Constituent	Unit	30-day Average	Maximum
Suspended solids	mg/l	15	40
Settleable solids	ml/l	0.1	0.3
BOD_5 20°C	mg/l	20	60
Total dissolved solids	mg/l	---	900
Chloride	mg/l	---	150
Sulfate	mg/l	---	300
Boron	mg/l	---	1.5

3. The pH of reclaimed wastes shall at all times be within the range 6.0 to 9.0.

4. Radioactivity shall not exceed the limits specified in Title 22, Chapter 15, Article 5, Sections 64441 and 64443 of the California Administrative Code, or subsequent revisions.

B. Specifications for Use of Reclaimed Wastewater

1. Reclaimed water used for surface or spray irrigation of fodder, fiber, and seed crops shall have a level of quality no less tha that of primary effluent.

   Primary effluent is the effluent from a wastewater treatment process which provides removal of sewage solids so that it contains not more than 0.5 milliliter per liter per hour of settleable solids as determined by an approved laboratory method.

2. Reclaimed water used for the spray irrigation of food crops shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater. The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organism does not exceed 2.2 per 100 milliliters and the number of colif organisms does not exceed 23 per milliliters in more than one sample within any 30-day period. The median value shall be determined from the bacteriological results of the last 7 days for which analyses have been completed.

   An oxidized wastewater means wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen. A filtered wastewater means an oxidized, coagulated, clarified wastewater which has been passed through natural undistrubed soils or filter media, such as sand or diatomaceous earth, so that the turbidity as determined by an approved laboratory method does not exceed an average operating turbidity of 2 turbidity units and does not exceed 5 turbidity more than 5 percent of the time during any 24-hour period.

3. Reclaimed water used for surface irrigation of food crops shall be at all times an adequately disinfected, oxidized wastewater. The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 2.2 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed. Orchard and vineyards may be surface irrigated with reclaimed water that has the quality at least equivalent to that of primary effluent provide that no fruit is harvested that has come in contact with the irrigating water or the ground.

4. Exceptions to the quality requirements for reclaimed water used for irrigation of food crops may be considered on an individual case basis where the reclaimed water is to be used to irrigate a food crop which must undergo extensive commercial, physical or chemical processing sufficient to destroy pathogenic agents before it is suitable for human consumption.

5. Reclaimed water used for the irrigation of pasture to which milking cows or goats have access shall be at all times an adequately disinfected, oxidized wastewater. The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organism does not exceed 23 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed.

6. Reclaimed water used for the irrigation of golf courses, cemete freeway landscapes, and landscapes in other areas where the pub has similar access or exposure shall be at all times an adequat disinfected, oxidized wastewater. The wastewater shall be considered adequately disinfected if the median number of coliform organisms in the effluent does not exceed 23 per 100 milliliter as determined from the bacteriological results of the last 7 da for which analyses have been completed, and the number of colif organisms does not exceed 240 per 100 milliliters in any two consecutive samples.

7. Reclaimed water used for the irrigation of parks, playgrounds, schoolyards, and other areas where the public has similar acces or exposure shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater or a waste- water treated by a sequence of unit processes that will assure a equivalent degree of treatment and reliability. The wastewater shall be considered adequately disinfected if the median number of coliform organisms in the effluent does not exceed 2.2 per 100 milliliters as determined from the bacteriological results o the last 7 days for which analysis have been completed. and the number of coliform organisms does not exceed 23 per 100 milli- liters in any sample.

8. Reclaimed water used for irrigation shall not be allowed to run off into recreational lakes unless it meets the criteria for such lakes.

9. Reclaimed water used as a source of supply in a nonrestricted recreational impoundment (A body of reclaimed water in which no limitations are imposed on a body-contact water sport activities) shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater. The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 2.2 per 100 milliliters and the number of coliform organisms does not exceed 23 per 100 milliliters in more than one sample within any 30-day period. The median value shall be determined from the bacteriological results of the last 7 days for which analyses have been complete

10. Reclaimed water used as a source of supply in a restricted recreational impoundment (A body of reclaimed water in which recreation is limited to fishing, boating, and other non-body-contact water recreation activities) shall be at all times an adequately disinfected, oxidized wastewater. The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 2.2 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed.

11. Reclaimed water used as a source of supply in a landscape impoundment (A body of reclaimed water which is used for aesthet enjoyment or which otherwise serves a function not intended to include public contact) shall be at all times an adequately disinfected, oxidized wastewater. The wastewater shall be consider adequately disinfected if at some location in the treatment proc the median number of coliform organisms does not exceed 23 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed.

12. Reclaimed wastewater shall be retained on the areas of use and shall not be allowed to escape as surface flow except as provide for in a National Pollutant Discharge Elimination System permit. For the purpose of this requirement, however, minor amounts of irrigation return water, secondary or better, from peripheral areas shall not be considered a violation of this Order provided the discharge meets the requirements contained in a National Pollutant Discharge Elimination System Permit for the Los Angeles-Glendale Water Reclamation Plant.

13. Reclaimed wastewater shall not be directly used for uses other than those enumerated above until requirements for these uses have been established by this Board in accordance with Section 13523 of the California Water Code, unless the Board waives such requirements or finds that the above-cited standards are applicable to these uses.

14. Reclaimed water use shall not cause receiving groundwaters to contain trace constituents in concentrations exceeding the limits contained in the current California Drinking Water Standards.

C. General Requirements

1. Standby or emergency power facilities and/or storage capacity or other means shall be provided so that in the event of plant upset or outage due to power failure or other cause, discharge of raw or inadequately treated sewage does not occur.

2. Neither the treatment of waste nor any use thereof, shall cause pollution or nuisance.

3. The reclamation of wastes shall not result in problems due to breeding of mosquitoes, gnats, midges, or other pests.

4. The wastes reclaimed shall not impart tastes, odors, color, foaming, or other objectionable characteristics to receiving groundwaters.

5. Reclaimed wastewater which could affect receiving groundwaters shall not contain any substance in concentrations toxic to human, animal, or plant life.

6. Odors of sewage origin shall not cause a nuisance.

7. Facilities shall be protected from 100-year floods.

D. Provisions

1. A copy of these specifications shall be maintained at the reclamation facility so as to be available at all times to operating personnel.

2. In the event of any change in name, ownership, or control of these reclamation facilities, the City shall notify this Board of such change and shall notify the succeeding owner or operator of the existence of this order by letter, a copy of which shall be forwarded to the Board.

3. The City shall file with the Board technical reports on self monitoring work performed according to the detailed specification contained in any Monitoring and Reporting Programs as directed by the Executive Officer.

4. The City shall submit to the Board within three months from the date of adoption of this Order a report demonstrating compliance with the requirements specified in Chapter 3, Division 4, Title 2 California Administrative Code.

5. Supervisors and operators of this publicly owned wastewater treatment plant shall possess a certificate of appropriate grade as specified in California Administrative Code, Title 23 Chapter 3, Subchapter 14, Sections 2455 and 2460.

6. The City shall provide to each user of reclaimed water a copy of these requirements, to be maintained at the user's facility as to be available at all times to operating personnel.

7. Order No. 74-384, adopted by this Board on December 16, 1974, is hereby rescinded.

I, Raymond M. Hertel, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on September 24, 1979.

Raymond M. Hertel

RAYMOND M. HERTEL, Executive Officer

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

GENERAL MONITORING AND REPORTING PROVISIONS

1. All sampling, sample preservation, and analyses shall be performed in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the United States Environmental Protection Agency.

2. All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health.

3. Effluent samples shall be taken downstream of any addition to the treatment works and prior to mixing with the receiving waters.

4. The discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall ensure that both activities will be conducted.

5. A grab sample is defined as an individual sample collected in fewer than 15 minutes.

6. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period. The volume of each individual sample is proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

7. For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

8. By January 30 of each year, the discharger shall submit an annual report to the Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the discharger shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the waste discharge requirements.

9. The discharger shall maintain all sampling and analytical results, including strip charts; date, exact place, and time of sampling; date analyses were performed; analyst's name, analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge of when requested by the Board.

10. In reporting the monitoring data, the discharger shall arrange the data in tabular form so that the data, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with waste discharge requirements and, where applicable, shall include results of receiving water observations.

11. Monitoring reports shall be signed by:

    a. In the case of corporations, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;

    b. In the case of a partnership, by a general partner;

    c. In the case of a sole proprietorship, by the proprietor;

    d. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

12. Each report shall contain the following completed declaration:

    " I declare under penalty of perjury that the foregoing is true correct.

    Executed on the _____ day of _____ at _____.

    _____(Signature)

    _____(Title)"

13. The discharger shall mail a copy of each monitoring report to the following:

    California Regional Water Quality
    Control Board - Los Angeles Region
    107 South Broadway, Room 4027
    Los Angeles, CA 90012

    ATTN: Executive Officer

14. If no flow occurred (or no waste was deposited) during the reporting period, the report shall so state.

15. These records and reports are public documents and shall be made available for inspection during business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region. Records or reports which might disclose trade secrets, etc., may be excluded from this provision as provided in Section 13267 (b) of the Porter-Cologne Water Quality Control Act, if requested.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
MONITORING AND REPORTING PROGRAM NO. 6183
FOR
Water Reclamation
by

CITY OF LOS ANGELES
(Los Angeles-Glendale Water Reclamation Plant)
(File No. 68-85)

City of Los Angeles shall implement this monitoring program beginning November 1, 1979. Monitoring reports shall be submitted to the Board monthly by the first day of the second following month. The first monitoring report under this program is due by January 1, 1980.

Values obtained for the NPDES monitoring report during periods of discharge to surface waters may be reported here in lieu of duplicate testing, if representative. However, non-NPDES self-monitoring reports shall be submitted separately from the NPDES monitoring reports. Quarterly monitoring shall be performed during the months of January, April, July, and October.

If no water was delivered for reuse on any day(s), during the reporting period, the report shall so state.

Each monitoring report must affirm in writing that:

> All analyses were conducted at a laboratory certified for such analyses by the State Department of Health Services and in accordance with current EPA guideline procedures, or as specified in the Monitoring Program.

For any analysis performed for which no procedure is specified in the EPA guidelines or in this Monitoring Program, the constituent or parameter analyzed and the method or procedure used must be specified in the report.

I. Reclaimed Water Monitoring

A sampling station shall be established where representative samples of reclaimed water can be obtained. Reclaimed water samples may be obtained at a single station provided that station is representative of the quality at all discharge points. Each sampling station shall be identified. The following shall constitute the reclaimed water monitoring program:

City of Los Angeles
Los Angeles-Glendale
Water Reclamation Plant

File No. 68-85

Constituent	Unit	Type of Sample	Minimum Frequency of Analys
Flow	mgd	continuous 1/	------
Total chlorine residual	mg/l	continuous 2/	------
Turbidity 3/	N TU	continuous 3/	------
BOD_5 20°C	mg/l	24-hour composite	daily
Suspended solids	mg/l	24-hour composite	daily
Coliform group 4/	MPN/100 ml	grab	daily
pH	pH units	grab	daily
Settleable solids	ml/l	grab	daily
Total dissolved solids	mg/l	24-hour composite	monthly
Chloride	mg/l	24-hour composite	monthly
Sulfate	mg/l	24-hour composite	monthly
Boron	mg/l	24-hour composite	monthly
Radioactivity	pCi/l	24-hour composite	quarter
Total nitrogen	mg/l	24-hour composite	monthly
Fluoride	mg/l	24-hour composite	monthly

1/ The total amount reclaimed each day shall be reported. In addition, the monthly quantity of reclaimed wastewater delivered to each user and his use(s) of the water shall also be reported.

2/ The maximum value recorded each day shall be reported.

3/ The average value recorded each day and amount of time that 5 NTU wa exceeded each day shall be reported. Turbidity samples may be obtai anywhere in the treatment process subsequent to the filtration proce

4/ Samples shall be obtained at some point in the treatment process at a time when wastewater flow and characteristics are most demanding on the treatment facility and disinfection procedures. The location(s of the sampling point(s) and any changes thereto must be approved by the Executive Officer, and proposed changes shall not be made until such approval has been granted. If reclaimed water is used for irrigation of golf courses, cemeteries, freeway landscapes, parks, playgrounds, schoolyards, or other areas where the public has similar access or exposure, samples shall be obtained subsequent to the chlori nation procedure. Coliform values obtained must meet the strictest effluent requirement specified for all uses during periods of multiple use, unless separate coliform analyses are obtained at each particular point of use.

II. Groundwater Monitoring

The following wells shall be sampled as part of the groundwater monitoring program:

State Well Number

1S/13W-4 L 2, SBB&M (Pollock #4)
1N/14W-24 D 4, SBB&M (Headworks #27)
1N/13W-19 J 4, SBB&M (Steam Plant Well #2)

If any of the above becomes unsampleable, the Executive Officer shall designate an alternate well which shall be sampled.

The following shall constitute the groundwater monitoring program:

Constituent	Unit	Type of Sample	Minimum Frequency of Analysis
Total dissolved solids	mg/l	grab	quarterly
Nitrate nitrogen	mg/l	grab	quarterly
Detergents (as MBAS)	mg/l	grab	quarterly

III. Reporting

A. The City shall file a report with this Board describing the purposes for which reclaimed water from this facility is used, estimating quantities used for each type of use, depicting on a map or drawing the area(s) of use, and stating the name and address of each user of reclaimed water if other than the City. This report shall be updated at least annually, and shall be included with the annual report due January 30th each year.

B. Each monthly report shall include a statement that all reclaimed wastewater was used only as specified in the requirements during the month.

C. The attached General Monitoring and Reporting Provisions shall be applicable to this Program.

D. If no water was delivered for reuse during the month, the report shall so state.

Ordered by Raymond M Hertel
Executive Officer

SEP 2 4 1979
Date