



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

ORDER NO. 91-100

WATER RECLAMATION REQUIREMENTS FOR
GROUND WATER RECHARGE

FOR

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY
CENTRAL AND WEST BASIN WATER REPLENISHMENT DISTRICT
(Rio Hondo & San Gabriel River Spreading Grounds)

(FILE NO. 71-67)

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

1. Los Angeles County Department of Public Works, County Sanitation Districts of Los Angeles County, and Central and West Basin Water Replenishment District (hereinafter called the Reclaimer as a whole) reclaim water for ground water recharge at Rio Hondo and San Gabriel River Spreading Grounds under water reclamation requirements contained in Order No. 87-40 adopted by this Board on March 23, 1987.
2. County Sanitation Districts of Los Angeles County (Districts) operate the Pomona Water Reclamation Plant at 295 Humane Way, Pomona, California; the San Jose Creek Water Reclamation Plant at 1965 South Workman Mill Road, Whittier, California; and the Whittier Narrows Water Reclamation Plant at 301 North Rosemead Boulevard, El Monte, California.
3. Wastewater treatment at the San Jose Creek and Whittier Narrows Plants consists of primary sedimentation, activated sludge biological treatment, secondary clarification, coagulation, inert media filtration, chlorination and dechlorination. Wastewater treatment at the Pomona Plant is similar except no coagulation occurs and carbon filtration is used along with inert media filtration. All solids separated from the wastewater at each plant are returned to the trunk sewer for final treatment and disposal at the Districts' Joint Water Pollution Control Plant.
4. Effluent from three plants is discharged to surface waters or reclaimed for irrigation and industrial process purposes. These discharges are subject to separate

National Pollutant Discharge Elimination System (NPDES) permits and water reclamation requirements.

5. A portion of the effluent discharged to surface waters is delivered to the Los Angeles County Department of Public Works spreading facilities for ground water recharge. The Central and West Basin Water Replenishment District (CWBWRD) purchases the effluent from the San Jose Creek Water Reclamation Plant and the Whittier Narrows Water Reclamation Plant from the Districts for ground water recharge through the Rio Hondo and San Gabriel Spreading Grounds. The Rio Hondo and San Gabriel River Spreading Grounds, located in the Montebello Forebay of the Central Basin, are owned and operated by the Los Angeles County Department of Public Works (LACDPW).
6. The Montebello Forebay area extends southward from the Whittier Narrows and currently is the most important area of recharge in the Central Basin. Ten fresh-water-bearing aquifers underlie the Montebello Forebay area: Gaspar, Artesia, Exposition, Gage, Gardena, Hollydale, Jefferson, Ly-wood, Silverado, and Sunnyside.
7. The Reclaimer also uses both local water (dry weather runoff, rising water (when it occurs), and storm water) and imported water for ground water recharge at the spreading areas. CWBWRD purchases the imported water and LACDPW spreads it.
8. Order No. 87-40 provides that the maximum quantity of reclaimed water spread in any one water year (October through the following September) shall not exceed 50,000 acre-feet (AF) or 50 percent of the total inflow into the Montebello Forebay for that year, whichever is less.

The Reclaimer has requested that Order No. 87-40 be modified as follows:

The average quantity of reclaimed water spread, based on a running 3-year average, shall not exceed 50,000 AF per year. The maximum quantity of reclaimed water spread in any one water year shall not exceed 60,000 AF or 50 percent of the total inflow into the Montebello Forebay for that year, whichever is less; additionally, the maximum quantity of reclaimed water spread in any 3-year period shall not exceed 150,000 AF and 35 percent of the total inflow all sources into the Montebello Forebay during that period.

9. Section 60320 of the State Water Reclamation Criteria (Article 5.1, Chapter 3, Division 4, Title 22 of the Code of California Regulations) specifies that the State Department of Health Services (DHS) shall provide recommendations to the Regional Board on proposed expansions of existing ground water recharge projects. These recommendations shall be based on all relevant aspects of the project including: treatment provided, effluent quality and quantity; spreading area operations, soil characteristics, hydrogeology, residence time, and distance to withdrawal. The DHS did concur with the proposed change of ground water recharge.
10. 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 after determining such action to be necessary to protect the public health, safety, or welfare, shall prescribe water reclamation requirements for treated wastewater which is used or proposed to be used as reclaimed water. Section 13523 further provides that such requirements shall conform to the statewide Water Reclamation Criteria.

The use of reclaimed water from the Pomona, San Jose Creek and Whittier Narrows Water Reclamation Plants for ground water recharge could affect the public health, safety, or welfare, and requirements for such use are therefore necessary.

12. The Board adopted a revised Water Quality Control Plan for the Los Angeles River Basin on November 27, 1978. The Plan contains water quality objectives for ground water in the Central Hydrologic Subarea which is part of the Coastal Plain of Los Angeles County.
13. The beneficial uses of the ground waters in the Coastal Plain of Los Angeles County are municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.
14. The requirements contained in this Order, as they are met, will be in conformance with the goals of the Wastewater Reclamation Criteria and Water Quality Control Plan for the Los Angeles River Basin.
15. These revised water reclamation requirements are being adopted for an ongoing project, and as such, this action is exempt from the provisions of the California

Environmental Quality Act (Public Resources Code, Section 21100 et seq.) in accordance with Section 15261, Chapter 3, Title 14, Code of California Regulations.

The Board has notified the dischargers and interested agencies and persons of its intent to revise requirements for the use of reclaimed water for ground water recharge 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 this use of reclaimed water.

IT IS HEREBY ORDERED, that County Sanitation Districts of Los Angeles County, Central and West Basin Water Replenishment District, and Los Angeles County Department of Public Works shall comply with the following:

A. Reclaimed Water Limitations

1. Reclaimed water discharged for ground water recharge shall be limited to treated municipal wastewater only, as proposed.
2. Reclaimed water discharged for ground water recharge shall not exceed the following limits:

<u>Constituent</u>	<u>Units</u>	<u>Discharge Limitations</u>		
		<u>30-Day Average</u>	<u>7-Day Average</u>	<u>Daily Maximum</u>
Fluoride	mg/l	---	---	1.6
Chloride	mg/l	---	---	250
Boron	mg/l	---	---	1
NO ₃ +NO ₂ as N	mg/l	10	---	---
Sulfate	mg/l	---	---	250
Settleable solids	ml/l	0.1	---	0.3
Suspended solids	mg/l	15	40	---
Total dissolved solids	mg/l	---	---	700
Oil and grease	mg/l	10	---	15

3. Reclaimed water discharged for ground water recharge shall at all times be adequately disinfected. For the purposes of this requirement, reclaimed water shall be considered adequately disinfected if the median number of coliform organisms at some point in the treatment process 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 samples taken on seven sampling days each week, at least one sample per sampling day, collected at a time when wastewater flow and characteristics are most demanding on the treatment facilities and disinfection procedures.

4. Reclaimed water discharged for ground water recharge shall have received treatment equivalent to that of a filtered wastewater. Filtered wastewater means an oxidized, coagulated, clarified wastewater which has been passed through natural undisturbed 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 units more than 5 percent of the time during any 24-hour period.

For the purpose of this requirement, carbon filtration may be accepted if in the judgement of the Executive Officer it can be demonstrated to produce an equivalent quality wastewater. Nothing herein shall be construed to prevent the use of any alternative treatment process(es) provided that they can be demonstrated to the satisfaction of the Executive Officer to achieve compliance with the reclaimed water limitations and requirements.

5. The pH of reclaimed water discharged for ground water recharge shall at all times be within the range 6.0 to 9.0.
6. The temperature of reclaimed water discharged for ground water recharge shall not exceed 100°F.
7. Reclaimed water shall not contain trace constituents in concentrations in excess of values contained in the current edition of California drinking water standards or in excess of action levels established by the State Department of Health Services as determined by a running annual average.
8. Reclaimed water discharged shall not cause a measurable increase in organic chemical contaminants in the ground water.

B. Quantity Limitation

The average quantity of reclaimed water spread, based on a running 3-year average, shall not exceed 50,000 AF per year. The maximum quantity of reclaimed water spread in any one water year shall not exceed 60,000 AF or 50 percent of the total inflow into the Montebello Forebay for that year, whichever is less; additionally, the maximum quantity of reclaimed water spread in any 3-year period shall not exceed 150,000 AF and 35 percent of the total inflow all sources into the Montebello Forebay during that period.

C. General Requirements

1. Reclaimed water discharged for ground water recharge shall not cause odors, Color, persistent foaming, or other objectionable characteristics in the receiving waters.
2. Reclaimed water discharged for ground water recharge shall not contain any substances in concentrations toxic to human, animal, plant, or aquatic life.
3. Reclaimed water discharged for ground water recharge shall not contain visible oil or grease, and shall not cause the appearance of grease, oil or oily slick, or persistent foam in the receiving waters or on channel banks, walls, inverts or other structures.
4. Reclaimed water discharged for ground water recharge shall not damage water conservation or flood control structures or facilities.
5. Reclaimed water discharged for ground water recharge to flood control channels or watercourses shall not result in problems due to breeding of mosquitoes, gnats, midges or other pests.
6. Reclaimed water discharged for ground water recharge shall not cause the growth of undesirable organisms in the receiving waters.
7. Reclaimed water discharged for ground water recharge shall not increase the natural turbidity of the receiving waters at the time of discharge.
8. Reclaimed water discharged for ground water recharge shall not cause the formation of sludge deposits.

9. Reclaimed water discharged for ground water recharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by this Board or the State Water Resources Control Board.
10. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

D. Provisions

1. Any discharge of reclaimed water at any point(s) other than specifically described in this Order is prohibited, and constitutes a violation of the Order.
2. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
 - a. Violation of any term or condition contained in this Order;
 - b. Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;
 - c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
3. This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the discharger for a modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
4. The discharger shall furnish, within a reasonable time, any information the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.
5. The discharger shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.

6. Bypass (the intentional diversion of waste streams from any portion of a treatment facility) is prohibited. The Regional Board may take enforcement action against the discharger for bypass unless:
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. (Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.);
 - b. There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that could occur during normal periods of equipment downtime or preventive maintenance; and
 - c. The discharger submitted a notice at least ten days in advance of the need for a bypass to the Regional Board.

The discharger may allow a bypass to occur that does not cause reclaimed water limitations to be exceeded, but only if it is for essential maintenance to assure efficient operation. In such a case, the above bypass conditions are not applicable.

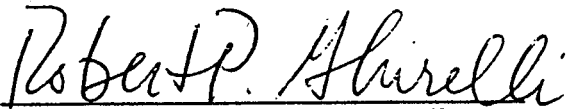
The discharger shall submit notice of an unanticipated bypass as required in Standard Provision, Item 17.

7. This Order includes "Standard Provisions Applicable to Waste Discharge Requirements."

E. Rescission

Order No. 87-40 adopted by this Board on March 23, 1987, is hereby rescinded.

I, Robert P. Ghirelli, 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 9, 1991.



ROBERT P. GHIRELLI, D.Env.
Executive Officer

GK/

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

MONITORING AND REPORTING PROGRAM NO. 5728
FOR

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY
CENTRAL AND WEST BASIN WATER REPLENISHMENT DISTRICT
(Rio Hondo & San Gabriel River Spreading Grounds)

(FILE NO. 71-67)

The Reclaimer shall implement this monitoring program on the effective date of the Order. All monitoring reports shall be submitted monthly, by the fifteenth day of the second month following each monthly sampling period. The first monitoring report under this program is due by October 15, 1991.

By December 15 of each year, the Reclaimer 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 water year. In addition, the Reclaimer 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 water reclamation requirements.

Bimonthly analyses shall be performed during months of February, April, June, August, October, December. Quarterly reclaimed water and ground water analyses and/or measurements shall be performed during the months of February, June, August, and December. Semi-annual analyses on ground water samples shall be performed during the months of June and December.

If no water was reclaimed during the reporting period, the monitoring report shall so state.

Each monitoring report shall state whether or not there was any change in the discharge as described in the Order during the reporting period.

Flow Measurement

For recharge water monitoring the estimated quantities of individual water supplies spread in each of the spreading grounds on the day of intake water sampling shall be reported. Estimated quantities of all inflows to the Montebello Forebay shall be included in the annual monitoring report together with the calculated percentage of reclaimed water to total inflow for the year.

Recharge Water Monitoring

A sampling station shall be established for each point of discharge from the Pomona, San Jose Creek, and Whittier Narrows Water Reclamation Plants and for each point of intake to Rio Hondo spread ground and San Gabriel River spreading ground. These sampling stations shall be located where representative water samples can be obtained. Intake water samples may be obtained at a single station provided that station is representative of the water quality at all intake points.

All sampling, sample preservation, and analyses must be conducted according to test procedures under 40 CFR Part 136, except for samples taken from production wells which will be tested under requirements of Title 22 of the California Code of Regulations.

Analysis method used shall be such that no detection limits are higher than Maximum Contaminant Levels of Drinking Water Standards or Action Levels. For any constituents or parameters where the detection limits specified in these test procedures are higher than the State Department of Health Services' "Drinking Water Standards" or "action levels", the proposed method(s) and procedure(s) of analyses must be approved, in writing, by the Executive Officer prior to the use of such methods and procedures.

The following shall constitute the water monitoring program:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis¹</u>
Total dissolved solids	mg/l	24-hr. composite	monthly
<u>MAJOR MINERALS</u>			
Calcium	mg/l	24-hr. composite	bimonthly
Magnesium	mg/l	24-hr. composite	bimonthly
Sodium	mg/l	24-hr. composite	bimonthly
Potassium	mg/l	24-hr. composite	bimonthly
Chloride	mg/l	24-hr. composite	bimonthly
Boron	mg/l	24-hr. composite	bimonthly
Hardness	mg/l	24-hr. composite	bimonthly
Alkalinity	mg/l	24-hr. composite	bimonthly
Fluoride	mg/l	24-hr. composite	bimonthly

¹For intake water minimum frequency of analysis should be monthly for the first year after the effective date of the Order and quarterly thereafter.

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis¹</u>
Carbonate	mg/l	24-hr. composite	bimonthly
Bicarbonate	mg/l	24-hr. composite	bimonthly
Sulfate	mg/l	24-hr. composite	bimonthly
<u>NITROGEN</u>			
Nitrate-N	mg/l	24-hr. composite	monthly
Nitrite-N	mg/l	24-hr. composite	monthly
Ammonia Nitrogen	mg/l	24-hr. composite	monthly
Organic Nitrogen	mg/l	24-hr. composite	monthly
<u>OXIDANTS AND REDUCTANTS</u>			
Chemical Oxygen Demand	mg/l	24-hr. composite	monthly
Biochemical Oxygen Demand	mg/l	24-hr. composite	weekly
Total Organic Carbon	mg/l	24-hr. composite	monthly
<u>BASE/NEUTRAL EXTRACTABLE ORGANICS</u>			
Bis (2-ethylhexyl) phthalate	ug/l	grab	bimonthly
Phenanthrene	ug/l	grab	bimonthly
Fluoranthene	ug/l	grab	bimonthly
Aroclor 1242	ug/l	grab	bimonthly
Aroclor 1254	ug/l	grab	bimonthly
PCBs	ug/l	grab	bimonthly
<u>ACID EXTRACTABLE ORGANICS</u>			
1,2,4-Trichlorobenzene	ug/l	grab	bimonthly
2,4,6-Trichlorophenol	ug/l	grab	bimonthly
2,4,5-Trichlorophenol	ug/l	grab	bimonthly
2,3,4-Trichlorophenol	ug/l	grab	bimonthly
2,3,6-Trichlorophenol	ug/l	grab	bimonthly
3,4,5-Trichlorophenol	ug/l	grab	bimonthly
Pentachlorophenol	ug/l	grab	bimonthly
Phenol	ug/l	grab	bimonthly
<u>PESTICIDES</u>			
DDT	ug/l	grab	bimonthly
BHC	ug/l	grab	bimonthly
Aldrin	ug/l	grab	bimonthly
Dieldrin	ug/l	grab	bimonthly

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis¹</u>
Endrin	ug/l	grab	bimonthly
Toxaphene	ug/l	grab	bimonthly
Atrazine	ug/l	grab	bimonthly
Simazine	ug/l	grab	bimonthly
Methoxychlor	ug/l	grab	bimonthly
2,4-Dichlorophenoxyacetic acid	ug/l	grab	bimonthly
2,4,5-Trichlorophenoxy-propionic acid	ug/l	grab	bimonthly
Lindane	ug/l	grab	bimonthly
Heptachlor	ug/l	grab	bimonthly
Heptachlor Epoxide	ug/l	grab	bimonthly
<u>PURGEABLE ORGANICS</u>			
Methylene Chloride	ug/l	grab	bimonthly
Chloroform	ug/l	grab	bimonthly
Bromodichloromethane	ug/l	grab	bimonthly
Dibromochloromethane	ug/l	grab	bimonthly
Bromoform	ug/l	grab	bimonthly
Carbon Tetrachloride	ug/l	grab	bimonthly
1,1-Dichloroethane	ug/l	grab	bimonthly
1,2-Dichloroethane	ug/l	grab	bimonthly
1,1,1-Trichloroethane	ug/l	grab	bimonthly
1,1,2-Trichloroethane	ug/l	grab	bimonthly
1,1-Dichloroethylene	ug/l	grab	bimonthly
Cis-1,2-Dichloroethylene	ug/l	grab	bimonthly
Trichloroethylene	ug/l	grab	bimonthly
Tetrachloroethylene	ug/l	grab	bimonthly
Benzene	ug/l	grab	bimonthly
Toluene	ug/l	grab	bimonthly
Chlorobenzene	ug/l	grab	bimonthly
o-Dichlorobenzene	ug/l	grab	bimonthly
m-Dichlorobenzene	ug/l	grab	bimonthly
p-Dichlorobenzene	ug/l	grab	bimonthly
Trans-1,2-Dichloroethylene	ug/l	grab	bimonthly
Bromoethane	ug/l	grab	bimonthly
Chloroethane	ug/l	grab	bimonthly
2-Chloroethylvinylether	ug/l	grab	bimonthly
Chloromethane	ug/l	grab	bimonthly
1,2-Dichloropropene	ug/l	grab	bimonthly
Cis-1,3-Dichloropropene	ug/l	grab	bimonthly
Trans-1,3-Dichloropropene	ug/l	grab	bimonthly
1,1,2,2-Tetrachloroethane	ug/l	grab	bimonthly

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis¹</u>
Vinyl Chloride	ug/l	grab	bimonthly
Xylenes	ug/l	grab	bimonthly
Trichlorofluordmethane	ug/l	grab	bimonthly
Bromomethane	ug/l	grab	bimonthly
Dichlorodifluoromethane	ug/l	grab	bimonthly
Ethylbenzene	ug/l	grab	bimonthly
Methyl ethyl ketone	ug/l	grab	bimonthly
Methyl isobutyl ketone	ug/l	grab	bimonthly
<u>MISCELLANEOUS ORGANICS</u>			
Phenylacetic Acid	ug/l	grab	bimonthly
MBAS	mg/l	grab	bimonthly
<u>PHYSICAL PROPERTIES</u>			
pH	pH units	grab	daily
Temperature	°F	grab	daily
Color	CU	grab	monthly
Turbidity ^{2,3}	NTU	continuous	
<u>BACTERIA</u>			
Coliform Organisms ^{3,4}	MPN/100ml	grab	daily

²The following shall be reported:

- a. maximum value recorded each day,
- b. total time (in minutes) each day when turbidity exceeded 5 turbidity units (TU), and
- c. flow-proportioned average daily value and monthly mean.

³Not required for intake water sampling.

⁴Coliform 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 facilities and disinfection procedures. The location(s) of the sampling point(s) and any proposed changes thereto must be approved by the Executive Officer, and the proposed changes shall not be made until such approval has been granted.

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis¹</u>
<u>VIRUS</u>			
Total Enteric Virus ³	IU/gallon	grab	quarterly
<u>IRON AND MANGANESE</u>			
Iron	ug/l	24-hr. composite	quarterly
Manganese	ug/l	24-hr. composite	quarterly
<u>TRACE CONSTITUENTS</u>			
Arsenic	ug/l	24-hr. composite	quarterly
Barium	ug/l	24-hr. composite	quarterly
Cadmium	ug/l	24-hr. composite	quarterly
Chromium (Hexavalent)	ug/l	24-hr. composite	quarterly
Chromium (Total)	ug/l	24-hr. composite	quarterly
Copper	ug/l	24-hr. composite	quarterly
Lead	ug/l	24-hr. composite	quarterly
Mercury	ug/l	24-hr. composite	quarterly
Nickel	ug/l	24-hr. composite	quarterly
Selenium	ug/l	24-hr. composite	quarterly
Silver	ug/l	24-hr. composite	quarterly
Zinc	ug/l	24-hr. composite	quarterly
<u>RADIOACTIVITY</u>			
Gross alpha	pCi/l	24-hr. composite	quarterly
Gross beta ⁵	pCi/l	24-hr. composite	quarterly
Uranium ⁶	pCi/l	24-hr. composite	quarterly
Radium-226 ⁷	pCi/l	24-hr. composite	quarterly

⁵Whenever the gross beta particle activity exceeds 50 pCi/l, an analysis of the sample shall be performed to identify the major radioactive constituents present.

⁶Analysis for this constituent should only be done if the gross alpha radioactivity exceeds 10 pCi/l.

⁷Analysis for this constituent should only be done if the gross alpha radioactivity exceeds 5 pCi/l.

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis¹</u>
Radium-228 ⁸	pCi/l	24-hr. composite	quarterly
Tritium	pCi/l	24-hr. composite	quarterly
Strontium-90	pCi/l	24-hr. composite	quarterly
Radon	pCi/l	grab	quarterly

Ground Water Monitoring

The Reclaimer shall submit to the Board a Ground Water Sampling and Analysis Plan for Executive Officer's approval within thirty days from the effective date of this monitoring program.

The following water wells are designated as the ground water monitoring stations:

Well No. Depth(ft) Perforation(ft) Aquifers

Spreading Ground Wells

1582W	141	70-132	Gaspur
1590AL	101	51-91	Gaspur
1612T	901	60-80	Gaspur
1613V	110	35-110	Gaspur
1620RR	90	50-80	Gaspur
2909Y	125	60-115	Gaspur

Production Wells

1514A	883	500-600	Lynwood
1543J	290	126-275	Gage, Hollydale
1562E	590	422-556	Silverado
1566A	609	345-572	Lynwood, Silverado
1581N	660	230-648	Gaspur, Gardena, Hollydale, Jefferson, Lynwood, Silverado
1583X	492	235-422	Hollydale, Silverado
1591H	600	281-572	Silverado, Sunnyside
1600X	474	294-456	Silverado, Sunnyside
1606U	385	193-364	Gage, Hollydale, Jefferson
1612Q	520	242-446	Lynwood, Silverado
162000	530	305-462	Silverado

⁸Analysis for this constituent should only be done if the radium-226 radioactivity exceeds 3 pCi/l.

1620PP	570	172-520	Gardena, Jefferson, Lynwood, Silverado
1621MM	728	184-698	Jefferson, Lynwood, Silverado, Sunnyside
1621T	633	75-611	Gaspur, Jefferson, Lynwood, Sunnyside
2899I	364	60-352	Gaspur, Gage, Lynwood, Silverado
2908V	250	160-230	Sunnyside
2909V	425	148-399	Lynwood, Silverado
2947LM	820	180-800	Gardena, Jefferson, Lynwood, Silverado, Sunnyside
2958A	190	150-190	Gardena

The following shall constitute the ground water monitoring program:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis⁹</u>
Water level ¹⁰	+/- ft MSL	----	bimonthly
Total dissolved solids	mg/l	grab	bimonthly
<u>MAJOR MINERALS</u>			
Calcium	mg/l	grab	bimonthly
Magnesium	mg/l	grab	bimonthly
Sodium	mg/l	grab	bimonthly
Potassium	mg/l	grab	bimonthly
Carbonate	mg/l	grab	bimonthly
Bicarbonate	mg/l	grab	bimonthly
Sulfate	mg/l	grab	bimonthly
Chloride	mg/l	grab	bimonthly
Boron	mg/l	grab	bimonthly
Hardness	mg/l	grab	bimonthly
Alkalinity	mg/l	grab	bimonthly
Fluoride	mg/l	grab	bimonthly
<u>NITROGEN</u>			
Nitrate-N	mg/l	grab	bimonthly
Nitrite-N	mg/l	grab	bimonthly

⁹Minimum frequency of analysis for production wells should be semiannually.

¹⁰Not required for production wells.

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis⁹</u>
Ammonia Nitrogen	mg/l	grab	bimonthly
Organic Nitrogen	mg/l	grab	bimonthly
<u>OXIDANTS AND REDUCTANTS</u>			
Chemical Oxygen Demand	mg/l	grab	bimonthly
Total Organic Carbon	mg/l	grab	bimonthly
<u>BASE/NEUTRAL EXTRACTABLE ORGANICS</u>			
Bis (2-ethylhexyl) phthalate	ug/l	grab	bimonthly
Phenanthrene	ug/l	grab	bimonthly
Fluoranthene	ug/l	grab	bimonthly
Aroclor 1242	ug/l	grab	bimonthly
Aroclor 1254	ug/l	grab	bimonthly
PCBs	ug/l	grab	bimonthly
<u>ACID EXTRACTABLE ORGANICS</u>			
1,2,4-Trichlorobenzene	ug/l	grab	bimonthly
2,4,6-Trichlorophenol	ug/l	grab	bimonthly
2,4,5-Trichlorophenol	ug/l	grab	bimonthly
2,3,4-Trichlorophenol	ug/l	grab	bimonthly
2,3,6-Trichlorophenol	ug/l	grab	bimonthly
3,4,5-Trichlorophenol	ug/l	grab	bimonthly
Pentachlorophenol	ug/l	grab	bimonthly
Phenol	ug/l	grab	bimonthly
<u>PESTICIDES</u>			
DDT	ug/l	grab	bimonthly
BHC	ug/l	grab	bimonthly
Aldrin	ug/l	grab	bimonthly
Dieldrin	ug/l	grab	bimonthly
Endrin	ug/l	grab	bimonthly
Toxaphene	ug/l	grab	bimonthly
Atrazine	ug/l	grab	bimonthly
Simazine	ug/l	grab	bimonthly
Methoxychlor	ug/l	grab	bimonthly
2,4-Dichlorophenoxyacetic acid	ug/l	grab	bimonthly
2,4,5-Trichlorophenoxy-propionic acid	ug/l	grab	bimonthly
Lindane	ug/l	grab	bimonthly

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis⁹</u>
Heptachlor	ug/l	grab	bimonthly
Heptachlor Epoxide	ug/l	grab	bimonthly
<u>PURGEABLE ORGANICS</u>			
Methylene Chloride	ug/l	grab	bimonthly
Chloroform	ug/l	grab	bimonthly
Bromodichloromethane	ug/l	grab	bimonthly
Dibromochloromethane	ug/l	grab	bimonthly
Bromoform	ug/l	grab	bimonthly
Carbon Tetrachloride	ug/l	grab	bimonthly
1,1-Dichloroethane	ug/l	grab	bimonthly
1,2-Dichloroethane	ug/l	grab	bimonthly
1,1,1-Trichloroethane	ug/l	grab	bimonthly
1,1,2-Trichloroethane	ug/l	grab	bimonthly
1,1-Dichloroethylene	ug/l	grab	bimonthly
Cis-1,2-Dichloroethylene	ug/l	grab	bimonthly
Trichloroethylene	ug/l	grab	bimonthly
Tetrachloroethylene	ug/l	grab	bimonthly
Benzene	ug/l	grab	bimonthly
Toluene	ug/l	grab	bimonthly
Chlorobenzene	ug/l	grab	bimonthly
o-Dichlorobenzene	ug/l	grab	bimonthly
m-Dichlorobenzene	ug/l	grab	bimonthly
p-Dichlorobenzene	ug/l	grab	bimonthly
Trans-1,2-Dichloro-ethylene	ug/l	grab	bimonthly
Bromoethane	ug/l	grab	bimonthly
Chloroethane	ug/l	grab	bimonthly
2-Chloroethylvinylether	ug/l	grab	bimonthly
Chloromethane	ug/l	grab	bimonthly
1,2-Dichloropropene	ug/l	grab	bimonthly
Cis-1,3-Dichloropropene	ug/l	grab	bimonthly
Trans-1,3-Dichloropropene	ug/l	grab	bimonthly
1,1,2,2-Tetrachloroethane	ug/l	grab	bimonthly
Vinyl Chloride	ug/l	grab	bimonthly
Xylenes	ug/l	grab	bimonthly
Trichlorofluoromethane	ug/l	grab	bimonthly
Bromomethane	ug/l	grab	bimonthly
Dichlorodifluoromethane	ug/l	grab	bimonthly
Ethylbenzene	ug/l	grab	bimonthly
Methyl ethyl ketone	ug/l	grab	bimonthly
Methyl isobutyl ketone	ug/l	grab	bimonthly

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u> ⁹
<u>MISCELLANEOUS ORGANICS</u>			
Phenylacetic Acid	ug/l	grab	bimonthly
MBAS	mg/l	grab	bimonthly
<u>PHYSICAL PROPERTIES</u>			
pH	pH units	grab	bimonthly
Temperature	°F	grab	bimonthly
Color	CU	grab	bimonthly
<u>BACTERIA</u>			
A narrative report and analysis shall be included in the annual report which will review coliform organism monitoring by individual production wells performed during the year.			
<u>IRON AND MANGANESE</u>			
Iron	ug/l	grab	bimonthly
Manganese	ug/l	grab	bimonthly
<u>TRACE CONSTITUENTS</u>			
Arsenic	ug/l	grab	bimonthly
Barium	ug/l	grab	bimonthly
Cadmium	ug/l	grab	bimonthly
Chromium (Hexavalent)	ug/l	grab	bimonthly
Chromium (Total)	ug/l	grab	bimonthly
Copper	ug/l	grab	bimonthly
Cyanide	ug/l	grab	bimonthly
Lead	ug/l	grab	bimonthly
Mercury	ug/l	grab	bimonthly
Nickel	ug/l	grab	bimonthly
Selenium	ug/l	grab	bimonthly
Silver	ug/l	grab	bimonthly
Zinc	ug/l	grab	bimonthly
<u>RADIOACTIVITY</u>			
Gross alpha	pCi/l	grab	bimonthly
Gross beta ⁵	pCi/l	grab	bimonthly
Uranium ⁶	pCi/l	grab	bimonthly
Radium-226 ⁷	pCi/l	grab	bimonthly
Radium-228 ⁸	pCi/l	grab	bimonthly
Tritium	pCi/l	grab	bimonthly
Strontium-90	pCi/l	grab	bimonthly

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Radon	pCi/l	grab	bimonthly

Reporting Provisions

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. In reporting the monitoring data, the Reclaimer shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernable. The data shall be summarized to demonstrate compliance with water reclamation requirements and, where applicable, shall include results of receiving water observations.
3. For every item where the requirements are not met, the Reclaimer 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.
4. If the Reclaimer monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR Part 136 or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report.
5. Calculations for all limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this Order.
6. Each monitoring report must affirm in writing that:

"all analyses were conducted at a laboratory certified for such analyses by the State Water Resources Control Board or approved by the Executive Officer and in accordance with current EPA guideline procedures or as specified in this Monitoring Program.

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

Ordered by:

Robert P. Ghirelli

ROBERT P. GHIRELLI, D.Env.
Executive Officer

Date: September 9, 1991

GK/

STANDARD PROVISIONS
APPLICABLE TO WASTE DISCHARGE REQUIREMENTS

1. DUTY TO COMPLY

The discharger must comply with all conditions of these waste discharge requirements. A responsible party has been designated in the Order for this project, and is legally bound to maintain the monitoring program and permit. Violations may result in enforcement actions, including Regional Board orders or court orders requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Regional Board.

[CWC Section 13261, 13263, 13265, 13268, 13300, 13301, 13304, 13340, 13350].

2. GENERAL PROHIBITION

Neither the treatment nor the discharge of waste shall create a pollution, contamination or nuisance, as defined by Section 13050 of the California Water Code (CWC).

[H & SC Section 5411, CWC Section 13263]

3. AVAILABILITY

A copy of these waste discharge requirements shall be maintained at the discharge facility and be available at all times to operating personnel. [CWC Section 13263]

4. CHANGE IN OWNERSHIP

The discharger must notify the Executive Officer, in writing at least 30 days in advance of any proposed transfer of this Order's responsibility and coverage to a new discharger. The notice must include a written agreement between the existing and new discharger containing a specific date for the transfer of this Order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgement that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on. [CWC Sections 13267 and 13263]

5. CHANGE IN DISCHARGE

In the event of a material change in the character, location, or volume of a discharge, the discharger shall file with this Regional Board a new Report of Waste Discharge. [CWC Section 13260(c)]. A material change includes, but is not limited to, the following:

Standard Provisions Applicable to
Waste Discharge Requirements

- (a) Addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the Waste.
- (b) Significant change in disposal method,—e.g., change from a land disposal to a direct discharge to water, or change in the method of treatment which would significantly alter the characteristics of the waste.
- (c) Significant change in the disposal area,—e.g., moving the discharge to another drainage area, to a different water body, or to a disposal area significantly removed from the original area potentially causing different water quality or nuisance problems.
- (d) Increase in flow beyond that specified in the waste discharge requirements.
- (e) Increase in area or depth to be used for solid waste disposal beyond that specified in the waste discharge requirements [CCR Title 23 Section 2210]

6. REVISION

These waste discharge requirements are subject to review and revision by the Regional Board.—[CCR Section 13263]

7. TERMINATION

Where the discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Regional Board, it shall promptly submit such facts or information. [CWC Sections 13260 and 13267]

8. VESTED RIGHTS

This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, do not protect the discharger from his liability under Federal, State or local laws, nor do they create a vested right for the discharger to continue the waste discharge. [CWC Section 13263(g)]

Standard Provisions Applicable to
Waste Discharge Requirements

9. SEVERABILITY

Provisions of these waste discharge requirements are severable. If any provision of these requirements are found invalid, the remainder of these requirements shall not be affected. [CWC 921]

10. OPERATION AND MAINTENANCE

The discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order. [CWC Section 13263(f)]

11. HAZARDOUS RELEASES

Except for a discharge which is in compliance with these waste discharge requirements, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with Section 8574.7) of Chapter 7 of Division 1 of Title 2 of the Government Code, and immediately notify the State Board or the appropriate Regional Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of Section 13271 of the Water Code unless the discharger is in violation of a prohibition in the applicable Water Quality Control plan. [CWC Section 13271(a)]

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Waste Discharge Requirements

12. PETROLEUM RELEASES

Except for a discharge which is in compliance with these waste discharge requirements, any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) such person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Article 3.5 (commencing with Section 8574.1) of Chapter 7 of Division 1 of Title 2 of the Government Code. This provision does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to Section 311 of the Clean Water Act or the discharge is in violation of a prohibition in the applicable Water Quality Control Plan. [CWC Section 13272]

13. ENTRY AND INSPECTION

The discharger shall allow the Regional Board, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:

- (a) Enter upon the discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
- (d) Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order, or as otherwise authorized by the California Water Code, any substances or parameters at any location. [CWC Section 13267]

Standard Provisions Applicable to
Waste Discharge Requirements

14. MONITORING PROGRAM AND DEVICES

The discharger shall furnish, under penalty of perjury, technical monitoring program reports; such reports shall be submitted in accordance with specifications prepared by the Executive Officer, which specifications are subject to periodic revisions as may be warranted. [CWC Section 13267]

All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year, or more frequently, to ensure continued accuracy of the devices. Annually, the discharger shall submit to the Executive Officer a written statement, signed by a registered professional engineer, certifying that all flow measurement devices have been calibrated and will reliably achieve the accuracy required.

Unless otherwise permitted by the Regional Board Executive officer, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services.—The Regional Board Executive Officer may allow use of an uncertified laboratory under exceptional circumstances, such as when the closest laboratory to the monitoring location is outside the State boundaries and therefore not subject to certification. All analyses shall be required to be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" [40 CFR Part 136] promulgated by the U.S. Environmental Protection Agency. [CCR Title 23, Section 2230]

15. TREATMENT FAILURE

In an enforcement action, it shall not be a defense for the discharger that it would have been necessary to halt or to reduce the permitted activity in order to maintain compliance with this Order.—Upon reduction, loss, or failure of the treatment facility, the discharger shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies, for example, when the primary source of power of the treatment facility fails, is reduced, or is lost. [CWC Section 13263(f)]

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16. DISCHARGES TO NAVIGABLE WATERS

Any person discharging or proposing to discharge to navigable waters from a point source (except for discharge of dredged or fill material subject to Section 404 of the Clean Water Act and discharge subject to a general NPDES permit) must file an NPDES permit application with the Regional Board. [CCR Title 2 Section 22357]

17. ENDANGERMENT TO HEALTH AND ENVIRONMENT

The discharger shall report any noncompliance which may endanger health or the environment. Any such information shall be provided verbally to the Executive Officer within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Executive officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. The following occurrence(s) must be reported to the Executive Officer within 24 hours:

- (a) Any bypass from any portion of the treatment facility.
- (b) Any discharge of treated or untreated wastewater resulting from sewer line breaks, obstruction, surcharge or any other circumstances.
- (c) Any treatment plant upset which causes the effluent limitation of this Order to be exceeded. [CWC Sections 13263 and 13267]

18. MAINTENANCE OF RECORDS

The discharger shall retain records of all monitoring information including all calibration and maintenance records, all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of three years from the date of the sample, measurement, report, or application. This period may be extended during the course

Standard Provisions Applicable to
Waste Discharge Requirements

of any unresolved litigation regarding this discharge or when requested by the Regional Board Executive Officer.

Records of monitoring information shall include:

- (a) The date, exact place, and time of sampling or measurements;
- (b) The individual(s) who performed the sampling or measurements;
- (c) The date(s) analyses were performed;
- (d) The individual(s) who performed the analyses;
- (e) The analytical techniques or method used; and
- (f) The results of such analyses.

19. (a) All application reports or information to be submitted to the Executive Officer shall be signed and certified as follows:

- (1) For a corporation -- by a principal executive officer or at least the level of vice president.
- (2) For a partnership or sole proprietorship -- by a general partner or the proprietor, respectively.
- (3) For a municipality, state, federal, or other public agency -- by either a principal executive officer or ranking elected official.

(b) A duly authorized representative of a person designated in paragraph (a) of this provision may sign documents if:

- (1) The authorization is made in writing by a person described in paragraph (a) of this provision.
- (2) The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity; and

Standard Provisions Applicable to
Waste Discharge Requirements

- (3) The written authorization is submitted to the Executive Officer.

Any person signing a document under this Section 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 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. [CWC Sections 13263, 13267, and 13268]

20. OPERATOR CERTIFICATION

Supervisors and operators of municipal wastewater treatment plants and privately owned facilities regulated by the PUC, used in the treatment or reclamation of sewage and industrial waste shall possess a certificate of appropriate grade in accordance with Title 23, California Code of Regulations Section 3680. State Boards may accept experience in lieu of qualification training. In lieu of a properly certified wastewater treatment plant operator, the State Board may approve use of a water treatment plant operator of appropriate grade certified by the State Department of Health Services where reclamation is involved.

Each plant shall be operated and maintained in accordance with the operation and maintenance manual prepared by the municipality through the Clean Water Grant Program. [CWC Title 23, Section 2233(d).]

ADDITIONAL PROVISIONS APPLICABLE TO
PUBLICLY OWNED TREATMENT WORKS' ADEQUATE CAPACITY

21. Whenever a publicly owned wastewater treatment plant will reach capacity within four years the discharger shall notify the Regional Board. A copy of such notification shall be sent to appropriate local elected officials, local permitting agencies and the press. The discharger must demonstrate that adequate steps are being taken to address the capacity problem. The discharger shall submit a technical report to

**Standard Provisions Applicable to
Waste Discharge Requirements**

the Regional Board showing flow volumes will be prevented from exceeding capacity, or how capacity will be increased, within 120 days after providing notification to the Regional Board, or within 120 days after receipt of notification from the Regional Board, of a finding that the treatment plant will reach capacity within four years. The time for filing the required technical report may be extended by the Regional Board. An extension of 30 days may be granted by the Executive Officer, and longer extensions may be granted by the Regional Board itself. [CCR Title 23, Section 2232]