

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

BOARD ORDER NO. 6-93-106

GENERAL WASTE DISCHARGE REQUIREMENTS

FOR

LAND DISPOSAL OF TREATED GROUND WATER

Lahontan Region

The California Regional Water Quality Control Board, Lahontan Region, (Regional Board) finds:

1. Justification for the General Order

Numerous unauthorized releases of petroleum product and chlorinated hydrocarbon pollutants have impacted ground waters of the Lahontan Region. Releases occur from leaking underground and aboveground fuel tanks and other unauthorized discharges.

Several treatment technologies currently employed for remediation include the extraction and aboveground treatment of ground water. Where other means of disposal are not available or practical, treated water may be proposed for discharge to land. Since treated water discharges from cleanup sites are often similar in nature, it is appropriate to regulate these discharges with general Waste Discharge Requirements (WDRs). The general Order will streamline the process for discharges resulting from site cleanups.

The discharge of water from a ground water treatment unit to land is a discharge of waste that could affect the quality of the ground waters. This Order covers the discharge of treated ground water to land.

2. Issuance of the General Order

The responsible party(ies) and property owner, or solely the property owner, are considered to be the "Discharger" for the purposes of this Order.

A complete Report of Waste Discharge (RWD) must be filed by the Discharger for each proposed discharge to be covered by this Order. The RWD must include the appropriate filing fee. Information necessary to support the application is listed in a separate document titled Information to Support Discharge of Treated Ground Water to Land. This document may be obtained from either of the Regional Board offices.

This Order shall only apply to Dischargers to whom a Notice of Applicability (NOA) has been issued by the Executive Officer. A NOA must be issued for each proposed discharge.

3. Wastewater Description

The primary pollutants covered by this Order are petroleum product and chlorinated hydrocarbon constituents. Petroleum product constituents include total petroleum hydrocarbons (measured as gasoline, diesel, kerosene, aviation fuel, fuel oil and heavier ranges of fuels and oils); benzene; toluene; xylene; ethylbenzene; and tetraethyl lead. Other additives may also be present. Chlorinated hydrocarbons include trichloroethene, tetrachloroethene and their secondary degradation products. A complete list of constituents covered by this Order are included in the Discharge Specifications section of this Order.

4. Method of Discharge

Treated wastewater may either be disposed of by subsurface infiltration, surface infiltration trenches or basins, evaporation and/or percolation ponds, land spreading, spray disposal, or through irrigation of landscaping. This Order does not cover injection of treated wastewater directly to the ground water aquifer or discharge to surface waters or municipal wastewater collection systems.

5. North/South Lahontan Basin Plans

The Regional Board adopted Water Quality Control Plans for the North and South Lahontan Basins on June 26, 1975 and May 8, 1975, respectively. This Order implements these Plans, as amended.

The State Water Resources Control Board has adopted a Water Quality Plan for the Lake Tahoe Basin. This Plan contains water quality objectives for all waters of the Lake Tahoe Basin. This Order implements the Lake Tahoe Plan.

The North Lahontan and South Lahontan Basin Plans contain prohibitions for the discharge of waste to land in specific areas of the Lahontan Region.

a. North Lahontan Basin Plan Prohibitions

- i. Glenshire and Devonshire subdivisions
- ii. Areas southwest of Piute Creek and north of Susan River and included in Sections 21, 25, 26, 27, 28, 33, 34, 35, and 36, T30N, R11E, MDB&M
- iii. Eagle Lake Basin - Spaulding Tract, Stones-Bengard Subdivision and Eagle's Nest Summer Home Tract

- b. South Lahontan Basin Plan Prohibitions
 - i. Mono - Owens Planning Area
 - (1) Rush Creek Watershed above the outlet of Grant Lake
 - (2) Mammoth Creek Watershed including the drainage area of the community of Mammoth Lakes, and the Sherwin Creek watershed upstream of the confluence of Sherwin and Mammoth Creeks
 - (3) Inyo County Service Area No. 1
 - (a) Assessment District No. 1
 - (b) Assessment District No. 2
 - (c) Rocking K Subdivision
 - (d) City of Bishop
 - ii. Antelope Valley Planning Area
 - (1) The Antelope Hydrologic Unit above an elevation of 3500 feet.
 - iii. Mojave River Planning Area
 - (1) The Silverwood Lake Watershed
 - (2) The Deep Creek Watershed above an elevation of 3200 feet
 - (3) The Grass Valley Creek Watershed above an elevation of 3200 feet
 - (4) Areas north of State Highway 18 within the area commonly known as Apple Valley and Desert Knolls.
 - iv. Hilton Creek / Crowley Lake communities

6. Beneficial Uses

The beneficial uses of ground water designated in the Water Quality Control Plan for the North and South Lahontan Region are:

- a. municipal supply
- b. industrial supply
- c. agricultural supply
- d. freshwater replenishment

These beneficial uses apply to all ground waters of the Lahontan Region except where lesser beneficial uses are designated in the Water Quality Control Plans for the North and South Lahontan Basin.

7. Discharge Prohibition Exemption

The proposed discharges covered by this Order treat polluted ground water to nondetectable contaminant concentrations and will not individually or collectively, directly or indirectly, affect water quality or result in a pollution or nuisance. Therefore the proposed discharges may be granted an exemption to the above discharge prohibitions where such exemptions are allowed for in the Basin Plans.

8. Water Quality Criteria

State Water Resource Control Board (SWRCB) Resolution No. 68-16

SWRCB Resolution No. 68-16 is a part of the North and South Lahontan Basin Plans and describes a nondegradation policy for the waters of the State. Man-made fuel constituents are not naturally occurring, and thus pre-existing background concentrations of these constituents are considered to be nondetectable (below current analytical laboratory detection limits) in waters of the Lahontan Region. SWRCB Resolution No. 68-16 requires discharges to be treated utilizing Best Practicable Treatment (BPT). Existing BPT for the treatment of polluted ground water is capable of dependably removing most man-made constituents to nondetectable levels. The commonly achieved detection limits for these constituents of concern in ground water are as follows:

Constituent	Detection Level	Units	Analytical Method*
Total Petroleum Hydrocarbons	50	µg/l	EPA Method 8015 (C ₂ -C ₄₆)
Benzene	0.5	µg/l	EPA Method 602
Toluene	0.5	µg/l	EPA Method 602

Constituent	Detection Level	Units	Analytical Method*
Xylene	0.5	µg/l	EPA Method 602
Ethylbenzene	0.5	µg/l	EPA Method 602
Total Lead	1.0	µg/l	Graphite Furnace AA
Naphthalene	0.5	µg/l	EPA 610
Methyl t-butylether (MTBE)	40.0	µg/l	EPA 8020 or 8015
Ethylene Dibromide (EDB)	0.02	µg/l	DHS-AB1803
1,2 Dichloroethane (1,2 DCA)	0.5	µg/l	EPA 601
Trichloroethane (1,1,1 TCA)	0.5	µg/l	EPA 601
Tetrachloroethene (PCE)	0.5	µg/l	EPA 601
Trichloroethene (TCE)	0.5	µg/l	EPA 601
Trans-1,2 Dichloroethene (Trans-1,2 DCE)	0.5	µg/l	EPA 601
Cis-1,2 Dichloroethene (Cis-1,2 DCE)	0.5	µg/l	EPA 601
1,1 Dichloroethene (1,1 DCE)	0.5	µg/l	EPA 601
1,1 Dichloroethane (1,1 DCA)	0.5	µg/l	EPA 601
1,1,2 Trichloroethane (1,1,2 TCA)	0.5	µg/l	EPA 601
Vinyl Chloride	0.5	µg/l	EPA 601

* Alternative analytical methods may be proposed in the RWD provided that such methods achieve the same or lower detection limit.

Primary Drinking Water Standards

The State of California and/or the US Environmental Protection Agency (USEPA) have set primary drinking water standards for the following petroleum product constituents as follows:

Constituent	Level	Units	Consideration
Ethylene Dibromide (EDB)	0.02	µg/l	Primary State of CA MCL
Ethylene Dichloride (1,2 DCA)	0.5	µg/l	Primary State of CA MCL
Total Lead	15	µg/l	Primary Federal MCL
Benzene	1.0	µg/l	Primary State of CA MCL
Toluene	100	µg/l	Primary State of CA MCL
Xylenes	680	µg/l	Primary State of CA MCL
Ethylbenzene	1760	µg/l	Primary State of CA MCL
PCE	5	µg/l	Primary State of CA MCL
TCE	5	µg/l	Primary State of CA MCL

Constituent	Level	Units	Consideration
1,1,1 TCA	200	µg/l	Primary State of CA MCL
trans-1,2 DCE	10	µg/l	Primary State of CA MCL
cis-1,2 DCE	6	µg/l	Primary State of CA MCL
1,1 DCE	6	µg/l	Primary State of CA MCL
1,1 DCA	5	µg/l	Primary State of CA MCL
1,1,2 TCA	32	µg/l	Primary State of CA MCL
Vinyl Chloride	0.5	µg/l	Primary State of CA MCL

Secondary Drinking Water Standards

The State of California has set secondary drinking water standards for taste and odor of all constituents at a maximum contaminant level of three threshold odor units (TOU) Section 64473, Title 22, of the California Code of Regulations. The Federal EPA has proposed secondary drinking water standards for a select group of constituents based on a three TOU concentration (Federal Register, Vol. 54, No. 97, pp. 22138,22139). The following proposed secondary standards are lower than or equal to the primary drinking water standards set for these constituents by the State of California.

Constituent	Level	Units	Consideration
Total Petroleum Hydrocarbons (C ₂ -C ₄₆)	100	µg/l	Taste and Odor
Toluene	42	µg/l	Taste and Odor
Ethylbenzene	29	µg/l	Taste and Odor
Total Xylenes	17	µg/l	Taste and Odor

EPA Health Advisory Levels

The USEPA has established Health Advisory levels for selected petroleum product constituents in ground water as follows:

Constituent	Level	Units	Consideration
Naphthalene	20	µg/l	Health Advisory
Methyl t-butyl ether (MTBE)	40	µg/l	Health Advisory

9. California Environmental Quality Act Compliance

The Regional Board approved a Negative Declaration on November 19, 1993 in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code 21000 et seq.).

10. Notification of Interested Parties

The Regional Board has notified the interested agencies and persons of its intent to prescribe WDRs in this general Order and has provided them with an opportunity for a public hearing and an opportunity to submit their written comments.

11. Consideration of Public Comments

The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the Discharger(s) shall comply with the following:

I. DISCHARGE SPECIFICATIONS

A. Effluent/Discharge Limitations

Numerical effluent limitations listed below include 30-day median and daily maximum values. 30-day median concentration limits listed below are based on the what is achievable by Best Practicable Treatment (BPT). BPT for petroleum and chlorinated hydrocarbons is generally capable of reliably treating wastewater to remove contaminants to below current laboratory detection limits, which are listed in the findings above. Daily maximum values are based on established water quality standards which are protective of beneficial uses of ground waters of the Lahontan Region.

30-day median values are to be calculated based on the analytical results of samples obtained over 30 successive days ("running 30-day median"). A sufficient number of samples must be collected and analyzed over a 30 day period to demonstrate that the effluent limitations are being met.

Discharge Specifications of this Order list 30-day median effluent limitations. If the analytical results of effluent sampling indicate detectable concentrations of a constituent listed in the NOA, then sufficient samples must be collected in the ensuing 30 days to demonstrate compliance with the 30-day median effluent limitation. The time frame of the 30-day median shall begin on the date when the sample was collected which exceeded a 30-day median limit. Any constituent detected at a concentration above the daily maximum effluent limitation is a violation of the Order.

1. The discharge of an effluent in excess of the following limits is prohibited. All samples shall be single grab samples.

Constituents	Units	30-day Median	Daily Maximum
Total Petroleum			
Hydrocarbons (C ₂ -C ₄₆)	µg/l	<50	100
Benzene	µg/l	<0.50	1.0
Toluene	µg/l	<0.50	42.0
Ethylbenzene	µg/l	<0.50	29.0
Total Xylenes	µg/l	<0.50	17.0
Total Lead	µg/l	<1.0*	15.0
Naphthalene	µg/l	<0.5	20
MTBE	µg/l	<40	40
EDB	µg/l	<0.02	0.02
1,2 DCA	µg/l	<0.50	0.50
1,1,1 TCA	µg/l	<0.50	200
PCE	µg/l	<0.50	5.0
Trichloroethene (TCE)	µg/l	<0.50	5.0
Trans-1,2 DCE	µg/l	<0.50	10
Cis-1,2 Dichloroethene			
Cis-1,2 DCE)	µg/l	<0.50	6
1,1 DCE	µg/l	<0.50	6
1,1 DCE	µg/l	<0.50	5
1,1,2 TCA	µg/l	<0.50	32
Vinyl Chloride	µg/l	<0.50	0.5

* This 30-day median limit could be set above 1.0 µg/l if the Discharger can demonstrate in the RWD that background Total Lead concentrations in the receiving water are greater than 1.0 µg/l. Any 30-day median limit allowed above 1.0 µg/l will be listed in the NOA. All samples for Total Lead are to be filtered samples.

2. The discharge shall have a pH of not less than 6.0 pH units nor more than 9.0 pH units.
3. All wastewater made available to the authorized disposal/reclamation sites shall have a dissolved oxygen concentration not less than 1.0 mg/l.

B. Receiving Water Limitations

The discharge of waste shall not cause the presence of the following substances or conditions in ground waters of the North or South Lahontan Basins:

1. Any perceptible color, odor, taste or foaming.

2. Toxic substances in concentrations that individually, collectively or cumulatively cause detrimental physiological responses in humans, plants, animals, or aquatic life.
3. Identifiable chlorinated hydrocarbons, organophosphates, carbamates and other pesticide and herbicide groups, in summations, in excess of the lowest detectable levels.

C. Reclamation Requirements

All effluent made available for reclamation shall comply with standard Department of Health Services Reclamation Requirements as specified in Chapter 3, Division 4, Title 22 of the California Code of Regulations.

D. General Requirements and Discharge Prohibitions

1. All discharges covered by this Order shall be limited to treated ground water from the investigation and remediation of ground water pollution. This Order shall apply only to discharges that meet of the following conditions:
 - a. The identified pollutants have effluent limitations prescribed in this general Order;
 - b. The treatment system is capable of reliably meeting all prescribed effluent limitations in this general Order; and
 - c. The general water quality of the discharge is of equal or better quality than the receiving water. Information on the quality of the receiving water is required as part of the RWD.
2. This Order does not apply to projects required to prepare an environmental impact report pursuant to section 21151.1(a)(2) of the California Environmental Quality Act. This includes projects for which a hazardous waste facilities permit has been issued pursuant to Section 25200 of the Health and Safety Code.
3. There shall be no discharge, bypass, or diversion of raw or treated wastewater, sludge, grease, or oils from the collection, transport, treatment, or disposal facilities to adjacent land areas or surface waters.
4. The vertical distance between the liquid surface elevation and the lowest point of a pond dike or the invert of an overflow structure shall not be less than two feet.

5. The discharge shall not cause a pollution as defined in Section 13050 of the California Water Code, or a threatened pollution.
6. Neither the treatment nor the discharge shall cause a nuisance as defined in Section 13050 of the California Water Code.
7. The discharge of wastewater except to the authorized disposal/reclamation sites is prohibited.
8. The integrity of ponds berms and liners shall be maintained throughout the life of the ponds and shall not be diminished as the result of any maintenance or cleaning operation.
9. The Discharger shall comply with all existing federal and state laws and regulations that apply to sludge use and disposal practices.

II. PROVISIONS

A. Discharge Prohibitions

Discharges regulated by this Order are hereby exempt from the Discharge Prohibitions described in the North and South Lahontan Basin Plans where the Basin Plans provide for such exemptions.

B. Standard Provisions

The Discharger shall comply with the "Standard Provisions for Waste Discharge Requirements", dated July 1, 1993, in Attachment "A", which is made part of this Order.

C. Monitoring and Reporting

1. Pursuant to the California Water Code Section 13267(b), the Discharger shall comply with Monitoring and Reporting Program No. 93-106 as specified by the Executive Officer.
2. The Discharger shall comply with the "General Provisions for Monitoring and Reporting", dated July 1, 1993, which is attached to and made part of the Monitoring and Reporting Program.

D. Applicability

1. The following sources of wastewater generated from the investigation and/or remediation of ground water pollution are covered by this Order:

- a. Ground water extracted from the underlying aquifer as part of the ground water remediation process.
- b. Potentially polluted ground water generated during aquifer pump tests.
- c. Potentially polluted well development water.
- d. Potentially polluted well purge water generated during ground water monitoring.

These wastewaters may be treated on a continuous or batch basis.

2. This Order does not pre-empt or supersede the authority of other agencies to prohibit, restrict or control the discharge of treated ground water subject to their control.
3. If individual WDRs are issued to a Discharger otherwise subject to this Order, the applicability of this Order to the Discharger is automatically terminated on the effective date of the individual Order.
4. Persons seeking coverage under this Order shall submit a complete RWD. If the Executive Officer finds that the proposed discharge qualifies for coverage under this Order, the Discharger shall be issued a NOA. Individual Dischargers are not covered by this Order until they have been issued a NOA by the Executive Officer.

E. Definitions

"Waste" as used in this Order includes, but is not limited to, any waste or waste constituent as defined in Section 13050 of the California Water Code, or Section 2601, Article 10, Chapter 15, Title 23, of the California Code of Regulations.

F. Operation and Maintenance

The Discharger shall not allow pollutant-free wastewater to be discharged into the collection, treatment, and disposal system in amounts that significantly diminish the system's capability to comply with this Order. Pollutant-free wastewater may include rainfall, ground water, surface water, cooling waters, and condensates.

G. Notifications of Modifications

1. At least 180 days prior to making any change in the discharge point (Outfall), place of use, or purpose of use of the wastewater, the Discharger shall file a new RWD/WDR application. Any change in the character of the influent shall be reported to the Regional Board.
2. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter. A copy of this letter should be immediately forwarded to this office.
3. The Discharger shall notify the Regional Board within 30 days when the cleanup activities are complete or the discharge will no longer occur. At that time the Executive Officer will consider withdrawal of the NOA. Once the NOA is withdrawn the Discharger will be notified by the Executive Officer that they are no longer covered by this Order.

I, Harold J. Singer, Executive Officer do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on November 19, 1993.

HAROLD J. SINGER
EXECUTIVE OFFICER

Attachments: A. Standard Provisions for Waste Discharge Requirements

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

STANDARD PROVISIONS
FOR WASTE DISCHARGE REQUIREMENTS

1. Inspection and Entry

The discharger shall permit Regional Board staff:

- a. to enter upon premises in which an effluent source is located or in which any required records are kept;
- b. to copy any records relating to the discharge or relating to compliance with the waste discharge requirements;
- c. to inspect monitoring equipment or records; and
- d. to sample any discharge.

2. Reporting Requirements

- a. Pursuant to California Water Code 13267(b), the discharger shall immediately notify the Regional Board by telephone whenever an adverse condition occurred as a result of this discharge; written confirmation shall follow within two weeks. An adverse condition includes, but is not limited to, spills of petroleum products or toxic chemicals, or damage to control facilities that could affect compliance.
- b. Pursuant to California Water Code Section 13260 (c), any proposed material change in the character of the waste, manner or method of treatment or disposal, increase of discharge, or location of discharge, shall be reported to the Regional Board at least 120 days in advance of implementation of any such proposal. This shall include, but not be limited to, all significant soil disturbances.
- c. The owner(s) of, and discharger upon, property subject to waste discharge requirements shall be considered to have a continuing responsibility for ensuring compliance with applicable waste discharge requirements in the operations or use of the owned property. Pursuant to California Water Code Section 13260(c), any change in the ownership and/or operation of property subject to the waste discharge requirements shall be reported to the Regional Board. Notification of applicable waste discharge requirements shall be furnished in writing to the new owners and/or operators and a copy of such notification shall be sent to the Regional Board.
- d. If a discharger becomes aware that any information submitted to the Regional Board is incorrect, the discharger shall immediately notify the Regional Board, in writing, and correct that information.

- e. Reports required by the waste discharge requirements, and other information requested by the Regional Board, must be signed by a duly authorized representative of the discharger. Under Section 13268 of the California Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars (\$1000) for each day of violation.
- f. If the discharger becomes aware that their waste discharge requirements are no longer needed (because the project will not be built or the discharge will cease) the discharger shall notify the Regional Board in writing and request that their waste discharge requirements be rescinded.

3. Right to Revise Waste Discharge Requirements

The Board reserves the privilege of changing all or any portion of the waste discharge requirements upon legal notice to and after opportunity to be heard is given to all concerned parties.

4. Duty to Comply

Failure to comply with the waste discharge requirements may constitute a violation of the California Water Code and is grounds for enforcement action or for permit termination, revocation and reissuance, or modification.

5. Duty to Mitigate

The discharger shall take all reasonable steps to minimize or prevent any discharge in violation of the waste discharge requirements which has a reasonable likelihood of adversely affecting human health or the environment.

6. Proper Operation and Maintenance

The discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the discharger to achieve compliance with the waste discharge requirements. Proper operation and maintenance includes adequate laboratory control, where appropriate, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the discharger, when necessary to achieve compliance with the conditions of the waste discharge requirements.

7. Waste Discharge Requirement Actions

The waste discharge requirements may be modified, revoked and reissued, or terminated for cause. The filing of a request by the discharger for waste discharge requirement modification, revocation and reissuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any of the waste discharge requirements conditions.

8. Property Rights

The waste discharge requirements do not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

9. Enforcement

The California Water Code provides for civil liability and criminal penalties for violations or threatened violations of the waste discharge requirements including imposition of civil liability or referral to the Attorney General.

10. Availability

A copy of the waste discharge requirements shall kept and maintained by the discharger and be available at all times to operating personnel.

11. Severability

Provisions of the waste discharge requirements are severable. If any provision of the requirements is found invalid, the remainder of the requirements shall not be affected.

12. Public Access

General public access shall be effectively excluded from treatment and disposal facilities.

13. Transfers

Providing there is no material change in the operation of the facility, this Order may be transferred to a new owner or operation. The owner/operator must request the transfer in writing and receive written approval from the Regional Board Executive Officer.

14. Definitions

- a. "Surface waters" as used in this Order, include, but are not limited to, live streams, either perennial or ephemeral, which flow in natural or artificial water courses and natural lakes and artificial impoundments of waters. "Surface waters" does not include artificial water courses or impoundments used exclusively for wastewater disposal.
- b. "Ground waters" as used in this Order, include, but are not limited to, all subsurface waters being above atmospheric pressure and the capillary fringe of these waters.

15. Storm Protection

All facilities used for collection, transport, treatment, storage, or disposal of waste shall be adequately protected against overflow, washout, inundation, structural damage or a significant reduction in efficiency resulting from a storm or flood having a recurrence interval of once in 100 years.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

MONITORING AND REPORTING PROGRAM NO. 93-106

**GENERAL ORDER FOR LAND DISPOSAL
OF TREATED GROUND WATER, LAHONTAN REGION**

I. MONITORING

The Information to Support Discharge of Treated Ground Water to Land necessitates the submittal of laboratory analytical data from ground water samples collected from ground water monitoring wells within the ground water pollution plume. Based on these analysis, the complete Report of Waste Discharge (RWD) should indicate all constituents of concern (COCs) that will be treated by the ground water treatment system.

The following Influent, Effluent, and Receiving Water Monitoring schedules detail sampling frequency. Constituents to be sampled for will be listed in the Notice Of Applicability (NOA). The frequency of sampling or number of parameters analyzed may be reduced if the Discharger provides justification to the Executive Officer that such a reduction is warranted. Under certain adverse conditions, more frequent sampling is required if it is appropriate. An adverse condition is defined as any problem which does or could affect treatment facility efficiency. If at any time the system is shut down for a continuous time period greater than 60 days, the following influent and effluent monitoring programs must be reinitiated unless otherwise specifically approved by the Executive Officer.

A. Treatment Facility Startup Monitoring

Prior to disposal of any treatment plant effluent, the Discharger shall conduct startup monitoring to confirm that the plant will produce effluent that complies with standards prescribed in the Waste Discharge Requirements (WDRs). During startup monitoring, the Discharger shall direct the effluent to a temporary, impervious storage container. Startup monitoring shall be conducted until two consistent, consecutive sample results indicate system stability and compliance with the Order. Samples shall be taken a minimum of twelve hours apart and a maximum of 72 hours apart. Only treatment plant effluent is required to be analyzed during startup monitoring. Effluent that does not meet the Discharge Specifications for effluent shall not be discharged to land.

B. Treatment Facility Flow Monitoring

The following information shall be recorded in a permanent log book:

1. The total volume, in gallons, of wastewater flow to the treatment facility for each day.

2. The total volume, in gallons, of wastewater flow to the treatment facility for each month.
3. The average flow rate, in gallons per day, of wastewater to the treatment facility calculated for each month.
4. The total volume, in gallons, of wastewater flow to the disposal facility(ies) for each month.
5. If applicable, the freeboard (distance from the top of the lowest part of the dike to the wastewater surface in the pond) shall be measured each month in each pond. If a pond does not contain wastewater, indicate that it is empty.

II. TREATMENT FACILITY INFLUENT MONITORING

The purpose of the influent monitoring is to verify the efficiency of the treatment system. Influent samples shall be collected after the last connection before the waste enters the treatment process. Influent samples should be representative of the volume and nature of the influent. Time of collection of a grab sample shall be recorded. Specific constituents to be monitored shall be named in the NOA.

The minimum frequency of sampling shall be as follows:

- A. During the first two months of treatment operation, samples shall be collected on the 1st, 2nd, 4th, 7th, 14th, 21st, 28th, 42nd and 56th days of operation.
- B. During the third to sixth month, the sampling shall be every 30 days.
- C. Thereafter, the sampling frequency shall be every 90 days.

III. TREATMENT FACILITY EFFLUENT MONITORING

Effluent samples shall be collected after the last connection through which wastes can be admitted into the discharge. Effluent samples should be representative of the volume and nature of the discharge. Time of collection of a grab sample shall be recorded. The sampling parameters and frequency shall be the same as described in Item II, above.

IV. RECEIVING WATER MONITORING

The complete RWD shall demonstrate the existing ground water quality in the area of the proposed wastewater disposal location(s), and shall include a list of proposed ground water monitoring wells to be sampled during the project.

These wells shall be located so as to monitor both the hydrologic and ground water quality impacts of the Discharge. An approved list of monitoring wells will be listed in the NOA. Constituents and parameters to be analyzed in ground water samples will be listed in the NOA. Sampling frequency shall be outlined in the NOA.

V. REPORTING

A. General Provisions

The Discharger shall comply with the "General Provisions for Monitoring and Reporting", dated July 1, 1993, which is attached to and made part of this Monitoring and Reporting Program. General Provision 2.b.ii. does not apply to this Order.

B. Submittal Periods

Quarterly monitoring reports shall be submitted to the Regional Board by the fifteenth (15th) day of January, April, July and October of each year. These reports shall contain the following information in addition to what is required in the General Provisions for Monitoring and Reporting.

- a. All water quality monitoring data from the previous three month period.
- b. A map or aerial photograph showing the locations of monitoring wells in the receiving water monitoring program.
- c. Ground water elevations for all wells utilized in the receiving water monitoring program.

In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly the compliance with WDRs.

The Discharger shall submit a report to the Regional Board by the thirtieth (30) of January of each year. 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 WDRs. This report may be combined with the fourth quarterly report or submitted under separate cover.

The Discharger shall implement the above monitoring program immediately upon the commencement of the initial discharge covered by the general Order. This Monitoring and Reporting Program may be modified by the Executive Officer for individual discharges.

Ordered by: _____ Dated: November 19, 1993

HAROLD J. SINGER
EXECUTIVE OFFICER

Attachments: General Provisions for Monitoring and Reporting

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

GENERAL PROVISIONS
FOR MONITORING AND REPORTING

1. **SAMPLING AND ANALYSIS**

- a. All analyses shall be performed in accordance with the current edition(s) of the following documents:
 - i. Standard Methods for the Examination of Water and Wastewater
 - ii. Methods for Chemical Analysis of Water and Wastes, EPA
- b. All analyses shall be performed in a laboratory certified to perform such analyses by the California State Department of Health Services or a laboratory approved by the Regional Board Executive Officer. Specific methods of analysis must be identified on each laboratory report.
- c. Any modifications to the above methods to eliminate known interferences shall be reported with the sample results. The methods used shall also be reported. If methods other than EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Regional Board Executive Officer prior to use.
- d. The discharger shall establish chain-of-custody procedures to insure that specific individuals are responsible for sample integrity from commencement of sample collection through delivery to an approved laboratory. Sample collection, storage, and analysis shall be conducted in accordance with an approved Sampling and Analysis Plan (SAP). The most recent version of the approved SAP shall be kept at the facility.
- e. The discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall insure that both activities will be conducted. The calibration of any wastewater flow measuring device shall be recorded and maintained in the permanent log book described in 2.b, below.
- f. A grab sample is defined as an individual sample collected in fewer than 15 minutes.
- g. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period at equal intervals. The volume of each individual sample shall be 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.

2. OPERATIONAL REQUIREMENTS

a. Sample Results

Pursuant to California Water Code Section 13267(b), the discharger shall maintain all sampling and analytical results including: strip charts; date, exact place, and time of sampling; date analyses were performed; sample collector's name; 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, or when requested by the Regional Board.

b. Operational Log

Pursuant to California Water Code Section 13267(b), an operation and maintenance log shall be maintained at the facility. All monitoring and reporting data shall be recorded in a permanent log book.

3. REPORTING

- a. 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 shall submit a timetable for correction.
- b. Pursuant to California Water Code Section 13267(b), all sampling and analytical results shall be made available to the Regional Board upon request. Results 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, or when requested by the Regional Board.
- c. The discharger shall provide a brief summary of any operational problems and maintenance activities to the Board with each monitoring report. Any modifications or additions to, or any major maintenance conducted on, or any major problems occurring to the wastewater conveyance system, treatment facilities, or disposal facilities shall be included in this summary.
- d. Monitoring reports shall be signed by:
 - i. In the case of a corporation, 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;
 - ii. In the case of a partnership, by a general partner;
 - iii. In the case of a sole proprietorship, by the proprietor; or

- iv. 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.
- e. Monitoring reports are to include the following:
 - i. Name and telephone number of individual who can answer questions about the report.
 - ii. The Monitoring and Reporting Program Number.
 - iii. WDID Number.
- f. Modifications

This Monitoring and Reporting Program may be modified at the discretion of the Regional Board Executive Officer.

4. NONCOMPLIANCE

Under Section 13268 of the Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars (\$1,000) for each day of violation.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

BOARD ORDER NO. 6-93-106A1
WDID NO. 6A099311007

AMENDED WASTE DISCHARGE REQUIREMENTS
FOR
LAND DISPOSAL OF TREATED GROUND WATER

Lahontan Region

The California Regional Water Quality Control Board, Lahontan Region (Board) finds:

1. Justification for the General Order

Numerous unauthorized releases of petroleum product and chlorinated hydrocarbon pollutants have impacted ground waters of the Lahontan Region. Releases occur from leaking underground and aboveground fuel tanks and other unauthorized discharges.

Several treatment technologies currently employed for remediation include the extraction and aboveground treatment of ground water. Where other means of disposal are not available or practical, treated water may be proposed for discharge to land. Since treated water discharges from cleanup sites are often similar in nature, it is appropriate to regulate these dischargers with general Waste Discharge Requirements (WDRs). This general WDR expedites the process for discharges resulting from site cleanups.

The discharge of water from a ground water treatment unit to land is a discharge of waste that could affect the quality of the ground waters. This Order covers the discharge of treated ground water to land.

2. Permit History

Waste Discharge Requirements (WDRs) Board Order No. 6-93-106 was adopted on November 19, 1993.

3. Reason for Action

Board Order No. 6-93-106 is being amended at this time to reflect changes in groundwater detection limits and effluent/discharge limitations for total petroleum hydrocarbons, methyl tertiary-butyl ether (MTBE), and tertiary butyl alcohol (TBA).

4. California Environmental Quality Act Compliance

This amendment results in minor changes to detection limits and discharge limitations based on current technology and drinking water standards. Regional Board staff has determined that this action is exempt from the provisions of the California Environmental Quality Act (CEQA) in accordance with Title 14, California Code of Regulations, Chapter 3, Section 15308 (actions by regulatory agencies for protection of the environment). This change will not result in any adverse impacts to ground waters of the State. For the adoption of the Waste Discharge Requirements, Board Order No. 6-93-106, the Regional Board certified a negative declaration on November 19, 1993.

5. Notification of Interested Parties

The Regional Board has notified interested parties of its intent to issue amended waste discharge requirements for the discharge.

6. Consideration of Public Comments

The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that Water Quality Standards and Discharge Specifications of Board Order No. 6-93-106 be amended as follows:

8. Established Water Quality Standards

SWRCB Resolution No. 68-16

SWRCB Resolution No. 68-16 is a part of the Basin Plan for the Lahontan Region and describes a nondegradation policy for the waters of the State. Man-made fuel and solvent constituents are not naturally occurring, and thus pre-existing background concentrations of these constituents are considered nondetectable (below current analytical laboratory detection limits) in waters of the Region.

Existing Best Practicable Treatment (BPT) for the treatment of organic constituents in polluted water is capable of reliably removing most man-made constituents to nondetectable levels. The commonly achieved detection limits for these constituents in treated water are as follows:

Constituent	Detection Level	Units	Analytical Methods*
Total Petroleum Hydrocarbons	50	µg/l	EPA Method 8015 (C ₂ - C ₁₅)
Total Petroleum Hydrocarbons	100	µg/l	EPA Method 8015 (C ₁₆ - C ₄₆)
Benzene	0.1	µg/l	EPA Method 602

Toluene	0.5	µg/l	EPA Method 602
Xylene	0.5	µg/l	EPA Method 602
Ethylbenzene	0.5	µg/l	EPA Method 602
Total Lead	1.0	µg/l	Graphite Furnace AA
Naphthalene	0.5	µg/l	EPA 610
Methyl tertiary-butyl ether (MTBE)	0.5	µg/l	EPA 8020 or 8260
Tertiary butyl alcohol (TBA)	5.0	µg/l	EPA 8260
Ethylene Dibromide (EDB)	0.02	µg/l	DHS-AB1803
1,2-Dichloroethane (1,2-DCA)	0.5	µg/l	EPA 601
Trichloroethane (1,1,1-TCA)	0.5	µg/l	EPA 601
Tetrachloroethene (PCE)	0.5	µg/l	EPA 601
Trichloroethene (TCE)	0.5	µg/l	EPA 601
Trans-1,2-Dichloroethene (Trans-1,2-DCE)	0.5	µg/l	EPA 601
Cis-1,2-Dichloroethene (Cis-1,2-DCE)	0.5	µg/l	EPA 601
1,1-Dichloroethene (1,1-DCE)	0.5	µg/l	EPA 601
1,1-Dichloroethane (1,1-DCA)	0.5	µg/l	EPA 601
1,1,2-Trichloroethane (1,1,2-TCA)	0.5	µg/l	EPA 601
Vinyl Chloride	0.5	µg/l	EPA 601

* Alternative analytical methods that provide equivalent or better detection limits may be proposed in the General Permit application or site specific Sampling and Analysis Plan.

Primary Drinking Water Standards

The State of California and/or the USEPA have set primary drinking water standards for the following hydrocarbon constituents as follows:

Constituent	Level	Units	Consideration
EDB	0.02	µg/l	Primary State of CA MCL
1,2-DCA	0.5	µg/l	Primary State of CA MCL
Total Lead	15	µg/l	Primary State of CA MCL
Benzene	1	µg/l	Primary State of CA MCL
Toluene	150	µg/l	Primary State of CA MCL
Xylenes	1750	µg/l	Primary State of CA MCL
Ethylbenzene	700	µg/l	Primary State of CA MCL
MTBE	14	µg/l	Draft State of CA PHG
PCE	5	µg/l	Primary State of CA MCL
TCE	5	µg/l	Primary State of CA MCL
1,1,1-TCA	200	µg/l	Primary State of CA MCL
trans-1,2-DCE	10	µg/l	Primary State of CA MCL

cis-1,2-DCE	6	µg/l	Primary State of CA MCL
1,1-DCE	6	µg/l	Primary State of CA MCL
1,1-DCA	5	µg/l	Primary State of CA MCL
1,1,2-TCA	32	µg/l	Primary State of CA MCL
Vinyl Chloride	0.5	µg/l	Primary State of CA MCL

Secondary Drinking Water Standards

The State of California has set secondary drinking water standards for taste and odor of all constituents at a maximum contaminant level of three threshold odor units (TOU), Section 64473, Title 22, of the California Code of Regulations. The Federal EPA has proposed secondary drinking water standards for a select group of constituents based on a three TOU concentration (Federal Register, Vol. 54, No. 97, pp. 22138, 22139). The Regional Board considers the following constituent values to reflect the 3 TOU value. These values are lower than or equal to the primary drinking water standards set for these constituents by the State of California.

Constituent	Level	Units	Consideration
Total Petroleum Hydrocarbons (C ₂ -C ₁₅)	50	µg/l	Taste and Odor
Total Petroleum Hydrocarbons (C ₁₆ -C ₄₆)	100	µg/l	Taste and Odor
Toluene	42	µg/l	Taste and Odor
Ethylbenzene	29	µg/l	Taste and Odor
Total Xylenes	17	µg/l	Taste and Odor
MTBE	5	µg/l	Taste and Odor

EPA Health Advisory Levels and DHS Action Levels

The USEPA has established Health Advisory levels for selected petroleum product constituents in ground water as follows:

Constituent	Level	Units	Consideration
Naphthalene	20	µg/l	Health Advisory
MTBE	35	µg/l	Action Level

I. DISCHARGE SPECIFICATIONS

A. Effluent/Discharge Limitations

Numerical effluent limitations listed below include 30-day median and daily maximum values. Thirty-day median concentration limits listed below are based on what is achievable by Best Practicable Treatment (BPT). BPT for petroleum and chlorinated hydrocarbon constituents is capable of reliably treating to below laboratory detection limits. Daily maximum values are based on established water quality standards which are protective of beneficial uses of ground and surface waters of the Lahontan Region.

Thirty-day median values are to be calculated based on the analytical results of samples obtained over 30 successive days ("running 30-day median"). A sufficient number of samples must be collected and analyzed to demonstrate compliance with the effluent limitations.

Discharge Specifications of this Permit list the 30-day median effluent limitations for specific constituents. Constituents required to be monitored are listed in the Notice of Applicability (NOA) issued to the Discharger. If the analytical results of effluent sampling indicate a detectable concentration of a constituent that is listed in the NOA, then sufficient samples must be collected and analyzed during the ensuing 30 days to demonstrate compliance with the 30-day median effluent limitations. The running 30-day median time frame shall begin the day the sample containing a detectable concentration was collected. Any detected concentration above a daily maximum value listed in this Permit is a violation of the Permit.

1. The discharge of an effluent in excess of the following limits is prohibited. All samples of effluent are to be single grab samples.

Constituents	Units	30-day Daily	
		Median	Maximum
Total Petroleum Hydrocarbons (C ₂ -C ₁₅)	µg/l	<50	50
Total Petroleum Hydrocarbons (C ₁₆ -C ₄₆)	µg/l	<50	100
Benzene	µg/l	<0.5	1
Toluene	µg/l	<0.5	42
Ethylbenzene	µg/l	<0.5	29
Total Xylenes	µg/l	<0.5	17
Total Lead	µg/l	<1*	15
Naphthalene	µg/l	<0.5	20
MTBE	µg/l	<0.5	5
TBA	µg/l	<5	50
EDB	µg/l	<0.02	0.02
1,2-DCA	µg/l	<0.5	0.5
1,1,1-TCA	µg/l	<0.5	200
PCE	µg/l	<0.5	5
TCE	µg/l	<0.5	5
Trans-1,2-DCE	µg/l	<0.5	10
Cis-1,2-DCE	µg/l	<0.5	6
1,1-DCE	µg/l	<0.5	6
1,1-DCA	µg/l	<0.5	5
1,1,2-TCA	µg/l	<0.5	32
Vinyl chloride	µg/l	<0.5	0.5

* This 30-day median limit could be set above 1 µg/l if the Discharger can demonstrate in the General Permit Application that background Total Lead

concentrations in the receiving water are greater than 1 µg/l. Any 30-day median limit allowed above 1 µg/l will be listed in the NOA. All samples for total lead are to be filtered samples.

2. The discharge shall not have a pH of less than 6.5 nor greater than 8.5.

There are no other amendments to Board Order No. 6-93-106. All Findings, Discharge Specifications, and Provisions contained in Board Order No. 6-93-106 not amended by this Order remain in effect.

I, Harold J. Singer, 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, Lahontan Region, on September 9, 1999.

HAROLD J. SINGER
EXECUTIVE OFFICER

DP/shT:gwater.amd