

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

ORDER NO. 98-400
NPDES NO. CAG917001

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
GENERAL WASTE DISCHARGE REQUIREMENTS
FOR
DISCHARGES OF EXTRACTED AND TREATED GROUNDWATER
RESULTING FROM THE CLEANUP OF GROUNDWATER
POLLUTED BY VOLATILE ORGANIC CONSTITUENTS INTO SURFACE WATERS

The California Regional Water Quality Control Board, Colorado River Basin Region finds that:

1. On September 22, 1989, the U.S. Environmental Protection Agency (EPA), Region IX, authorized the State to issue general NPDES permits in accordance with Title 40 of the Code of Federal Regulations (CFR), Parts 122.28, 123.62 and 403.10. Title 40 CFR 122.28 provides for the issuance of general permits to regulate discharges of waste which result from similar operations, are the same types of waste, require the same effluent limitations, require similar monitoring, and are more appropriately regulated under a general permit rather than individual permits.
2. On May 15, 1992, the Regional Board adopted General Waste Discharge Requirements Order No. 92-010 (NPDES Permit No. CAG917001) in accordance with 40 CFR 122.28 to regulate discharges of extracted and treated petroleum hydrocarbon polluted groundwater into municipal drinking water sources and tributaries thereto within the Colorado River Basin Region (CRBR). Regional Board Order No. 92-010 expired in May 1997, but has been administratively extended pending adoption of an updated general permit.
3. Volatile organic compounds (VOCs) include purgeable halocarbons, aromatic halocarbons, petroleum hydrocarbons, and fuel octane enhancers. This general permit updates Order No. 92-010 and establishes requirements for wastes resulting from the site investigation and/or cleanup of groundwater polluted by VOCs and discharged into surface waters of the United States. Cleanup of these sites involves similar treatment technologies and result in similar discharges of wastes. Consequently, regulation of these discharges includes similar effluent limits and monitoring requirements. Therefore, these discharges are more efficiently regulated with a general permit.
4. Entities subject to this Regional Board Order (parties deemed responsible by the Regional Board for remediation of groundwater polluted by VOCs) are hereinafter referred to as the Discharger(s).
5. Wastewater from a groundwater cleanup project can include the following:
 - a. Treated groundwater from the cleanup of VOC contamination;
 - b. Groundwater pumped from beneath a layer of free product in order to establish a cone of depression to aid in the containment and extraction of pollutants;
 - c. Potentially polluted groundwater extracted during short- and long-term pump tests;
 - d. Potentially polluted well development water; and
 - e. Potentially polluted purge water prior to well sampling.

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

6. VOCs of concern include petroleum hydrocarbons (gasoline, diesel, kerosene, fuel oil and heavier ranges) and the following purgeable halocarbon and aromatic compounds:

Purgeable halocarbons
(EPA Method 601)

Carbon Tetrachloride
 1,2-Dichloroethane
 Vinyl Chloride
 1,1-Dichloroethane
 1,1-Dichloroethylene
 (cis + trans)-1,2-Dichloroethylene
 Methylene Chloride
 Tetrachloroethylene
 Trichloroethylene
 1,1,1-Trichloroethane
 1,1,2-Trichloroethane
 Trichlorotrifluoroethane
 Chloroform

Purgeable Aromatics
(EPA Method 602)

Benzene
 Ethylbenzene
 Toluene
 Xylenes

Further, they include fuel octane enhancers (e.g., methyl tertiary butyl ether (MTBE)). MTBE is a gasoline additive which was used sporadically in California in the 1970's and 1980's as an octane enhancer. The State Office of Environmental Health Hazard Assessment (OEHHA) issued a drinking water advisory of 35 µg/L for MTBE. Other octane enhancers used in California include Methanol, Ethanol, Tertiary butyl alcohol (TBA), and Di-isopropyl ether (DIPE). Tertiary amyl methyl ether (TAME) is another octane enhancer, but there is no information as to whether it has been used in California. Another pollutant of concern associated with fuels is tetraethyl lead.

7. Current wastewater treatment technology, primarily utilizing air stripping and/or activated carbon, can dependably remove these constituents to concentrations which are generally non-detectable by approved analytical technology. The commonly achieved detection levels are as follows:

<u>Constituent</u>	<u>Detection Level</u>	<u>Units</u>	<u>Analytical Method</u>
Total Petroleum Hydrocarbons (TPHs)	50	µg/L	EPA Method 8015
Benzene	0.5	µg/L	EPA Method 602
Toluene	0.5	µg/L	EPA Method 602
Xylene	0.5	µg/L	EPA Method 602
Ethyl benzene	0.5	µg/L	EPA Method 602
TCE	0.5	µg/L	EPA Method 602
PCE	0.5	µg/L	EPA Method 602
MTBE	0.5	µg/L	EPA Method 8260
Methanol	0.5	µg/L	EPA Method 8260

<u>Constituent</u>	<u>Detection Level</u>	<u>Units</u>	<u>Analytical Method</u>
Ethanol	0.5	µg/L	EPA Method 8260
TBA	0.5	µg/L	EPA Method 8260
DIPE	0.5	µg/L	EPA Method 8260
TAME	0.5	µg/L	EPA Method 8260
Tetraethyl lead	1	µg/L	Graphite Furnace AA
Other VOCs	0.5	µg/L	EPA Methods 601 and 602

8. The Regional Board adopted the Regional Water Quality Control Plan (Basin Plan) for the Colorado River Basin Region on November 17, 1993. The Basin Plan designates beneficial uses and contains water quality objectives for surface waters and groundwaters within the basin. These requirements implement the Basin Plan.
9. The Federal Water Quality Act of 1987 added Section 304(l) to the Clean Water Act. This section requires States to adopt lists of impaired water bodies, including a list of surface waters which do not meet applicable water quality standards due entirely or substantially to point-source discharges of toxic substances.
10. Pursuant to 40 CFR 131.12 and State Water Resources Control Board (State Board) Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California" (collectively the antidegradation policy), the Regional Board will ensure that any increase in pollutant loading to a receiving water meets the requirements stated in the foregoing policies. At a minimum, permitting actions will be consistent with the following:
 - a. Existing in-stream water uses and the level of water quality necessary to protect existing beneficial uses will be maintained and protected;
 - b. Where the quality of the waters exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, the quality will be maintained and protected unless the State Water Resources Control Board (State Board) finds, after full satisfaction of inter-governmental coordination and public participation provisions of the State Board's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located; and,
 - c. In those cases where potential water quality impairment associated with a thermal discharge is involved, the antidegradation policy and implementing method will be consistent with Section 316 of the Clean Water Act.
11. The Regional Board, in establishing the requirements contained herein, has considered the requirements of the State and Federal antidegradation policies and has determined that:
 - a. The discharge conditions and effluent limitations established in this Board Order for discharges of treated groundwater to surface waters in this Region ensure that the existing beneficial uses and quality of surface waters in the Region will be maintained and protected;
 - b. Discharges regulated by this Board Order should not lower water quality if the terms and conditions of this Board Order are met; and

- c. Thermal discharges potentially impairing water quality are not authorized under the terms and conditions of this Board Order, thus, Section 316 of the Clean Water Act is not applicable.
12. This Board Order does not authorize violation of any federal, state, or local laws or regulations.
13. Effluent and receiving water limitations in this Board Order are based on the Basin Plan, State Board's plans and policies, U.S. EPA National Toxics Rule, U.S. EPA guidance, best professional judgment, and best available technology economically achievable.
14. The Regional Board and EPA generally classify this type of discharge as a minor discharge. If an individual discharge is classified as a major discharge, this General Permit will not cover it.
15. A Discharger must file a Notice of Intent (NOI) to be eligible for coverage under this General Permit. The NOI shall consist of a Report of Waste Discharge (Form 200), an NPDES Application Form 2D, and the appropriate filing fee. Further, a Discharger must file the following information to be eligible for coverage under this General Permit:
 - a. An effluent reclamation feasibility study which shows that a discharge to surface waters is the only feasible method for disposing of treated effluent. A letter from the local POTW stating that they cannot accept the discharge must accompany the application;
 - b. A discussion of the proposed cleanup project in general terms including a review of the extraction and treatment systems' design and the status of delineation of the extent VOCs in groundwater;
 - c. A map showing the path from the point of initial discharge to the ultimate location of discharge; and
 - d. A discussion of why the proposed discharge is consistent with the type of discharge covered by this general permit;
16. In accordance with Section 13389, Chapter 5.5, Division 7 of the California Water Code, and Section 15263, Chapter 3, Title 14 of the California Code of Regulations, the issuance of these waste discharge requirements is exempt from the California Environmental Quality Act (Public Resources Code, Section 21100 et. seq.).
17. The Regional Board has notified the dischargers, and all known interested agencies of its intent to prescribe waste discharge requirements for said discharge and has provided them with an opportunity for a public meeting and opportunity to submit comments.
18. The Regional Board, in a public meeting, heard and considered all comments pertaining to said discharges.
19. This Board Order shall serve as an NPDES permit pursuant to Section 402 of the CWA, and amendments thereto, and shall take effect upon the date of hearing, provided EPA has no objections.

IT IS HEREBY ORDERED that Board Order No. 92-010 is terminated and the Discharger, its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act as amended and regulations and guidelines adopted thereunder, shall comply with following:

A. Applicability

1. All discharges covered by this Board Order shall be limited to groundwater from the investigation and cleanup of VOC groundwater pollution.
2. Persons seeking coverage under this Board Order shall file a complete NOI and the additional information described in Finding No. 15, above.
3. If the Regional Board's Executive Officer finds that the proposed discharge qualifies for coverage under this Board Order, the Discharger shall be issued a Notice of Applicability letter (NOA). Individual Dischargers are not covered by this Board Order until they have been issued the NOA by the Regional Board's Executive Officer. If a proposed discharge does not qualify for this general permit, it may receive its own permit.

B. Prohibitions

1. Discharge of material other than extracted and treated groundwater from the investigation and cleanup of VOCs groundwater pollution and added treatment chemicals approved by the Regional Board's Executive Officer is prohibited.
2. Bypass or overflow of untreated or partially treated polluted groundwater to waters of the State either at the treatment system or from any of the collection transport systems pump stations tributary to the treatment system is prohibited.
3. Neither the treatment nor the discharge of wastewater shall create a pollution, contamination, or nuisance as defined by Section 13050 of the California Water Code.
4. The discharge of oil, trash, industrial waste sludge, or other solids directly to the surface waters in this Region or in any manner which permit it to be washed into the surface waters in this Region is prohibited.
5. The discharge of extracted and treated groundwater from a specific site in excess of the flow rate specified in each Discharger's NOA letter from the Executive Officer is prohibited.

C. Effluent Limitations

1. The effluent (at a point after full treatment but before it joins or is diluted by any other waste stream, body of water, or substance) shall not contain constituents that excess of the following concentrations:

<u>Constituents</u>	<u>Instantaneous Maximum Limits (µg/L)</u>	<u>30-day Mean (µg/L)</u>
Carbon Tetrachloride	5	0.5
1,2-Dichloroethane	5	0.5
Vinyl Chloride	5	0.5
1,1-Dichloroethane	5	0.5

<u>Constituents</u>	<u>Instantaneous Maximum Limits (µg/L)</u>	<u>30-day Mean (µg/L)</u>
1,1-Dichloroethylene	5	0.5
cis-1,2-Dichloroethylene	5	0.5
trans-1,2-Dichloroethylene	5	0.5
Methylene Chloride	5	0.5
Tetrachloroethylene	5	0.5
Trichloroethylene	5	0.5
1,1,1-Trichloroethane	5	0.5
1,1,2-Trichloroethane	5	0.5
Trichlorotrifluoroethane	5	0.5
Chloroform	5	0.5
Benzene	1	0.5
Toluene	5	0.5
Ethyl benzene	5	0.5
Total Xylenes	5	0.5
Total Lead	5	50
MTBE	5	0.5
Methanol	5	0.5
Ethanol	5	0.5
TBA	5	0.5
DIPE	5	0.5
TAME	5	0.5
TPHs	100	< 50
Other VOCs ¹	5	0.5

2. The sum of the concentrations of the constituents listed in Effluent Limitation C.1, above, in any single sample in the discharge shall not exceed 5 µg/l (nondetectables shall be considered equal to zero).
3. The pH of the discharge shall not exceed 9.0 nor be less than 6.0.
4. There shall be no acute toxicity in the treated effluent being discharged to any surface water. Acute toxicity is defined as less than ninety percent survival, fifty percent of the time, and less than seventy percent survival, ten percent of the time, of standard test organisms in undiluted effluent in a 96-hour static or continuous-flow test.

D. Receiving Water Limitations

1. The discharge shall not cause the following conditions to exist in waters of the State:
 - a. An increase in turbidity, unless it can be demonstrated to the satisfaction of the Regional Board's Executive Officer that such alteration in turbidity does not adversely affect beneficial uses.
 - b. An increase in the total dissolved solids (TDS) content, unless it can be demonstrated to the satisfaction of the Regional Board's Executive Officer that such an increase does not adversely affect beneficial uses.

¹ As defined by US EPA Methods 601 and 602

- c. An increase in aquatic growth to the extent that such growths cause a nuisance or adversely affect beneficial uses.
 - d. Floating debris, scum, grease, oil, wax, or other unsightly matter; and
 - e. Objectionable color, odor and/or taste.
2. The dissolved oxygen concentration shall not be reduced by the discharge to below the following minimum levels:

<u>Waters Designation</u>	<u>Level</u>
WARM	5.0 mg/L
COLD	8.0 mg/L
WARM and COLD	8.0 mg/L

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Board as required by the Federal Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Regional Board will revise and modify this Board Order in accordance with said more stringent standards.

E. Provisions

1. 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 the conditions of this Board Order and in the authorization letters from the Regional Board's Executive Officer. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of this Board Order and authorization letters from the Regional Board's Executive Officer. All systems, both those in service and reserve, shall be inspected and maintained on a regular basis. Records shall be kept of the inspection results and maintenance performed and made available to the Regional Board. All of the above procedures shall be described in an Operation and Maintenance (O&M) Manual. The O&M Manual shall also contain a description of the safeguards to assure that, should there be reduction, loss, or failure of electric power, the Discharger will be able to comply with the terms and conditions of this Board Order and the authorization letters from the Regional Board's Executive Officer. The O&M Manuals shall describe preventive (fail-safe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. These plans shall identify the possible sources of accidental loss, untreated or partially treated waste bypass, and polluted drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes shall be considered.
2. If the discharge consistently exceeds the applicable chronic toxicity limitation, a toxicity reduction evaluation (TRE) is required. The TRE shall include all reasonable steps to identify the source(s) of toxicity. Once the source(s) of toxicity is identified, the Discharger shall take all reasonable steps necessary to reduce toxicity to the required level.

3. Upon receipt of a complete NOI and information required by term of Applicability A.2 for a proposed discharge, the Regional Board's Executive Officer will determine whether the proposed discharge complies with the following criteria and is eligible to discharge waste under this general permit: (a) the proposed discharge results from the cleanup of groundwater polluted by VOCs; (b) the proposed discharge is to surface waters in this region; (c) the proposed discharge is classified as a minor discharge; and (d) the proposed treatment system and associated operation, maintenance, and monitoring plans are believed to be reasonably capable of meeting the provisions, prohibitions, effluent limitations, and receiving water limitations of this Board Order.
4. If the Regional Board's Executive Officer determines that the proponent of the discharge is eligible to discharge waste under this general permit, the Regional Board's Executive Officer may (a) authorize the proposed discharge or (b) require the discharge proponent to obtain an individual NPDES permit prior to any discharge to inland surface waters in this Region. If the Regional Board's Executive Officer authorizes the discharge, a "Notice of Applicability" (NOA) letter will be transmitted to the discharge proponent (now an "authorized Discharger") authorizing the initiation of the discharge subject to the conditions of this Order and any other conditions necessary to protect the beneficial uses of the receiving waters.

The NOA letter will specify the maximum allowed discharge flow rate (which also limits the mass loading rate for each pollutant listed in Effluent Limitation C.1 of this Board Order) and the Self-Monitoring Program for the authorized discharge. The NOA letter may be terminated or revised by the Regional Board's Executive Officer at any time.

5. This Board Order may be modified by the Regional Board prior to the expiration date to include effluent or receiving water limitations for toxic constituents determined to be present in significant amounts in discharges regulated by this General Permit (through the comprehensive monitoring program included as part of this Board Order).
6. The Discharger shall comply with all applicable items of the "Standard Provisions, Reporting Requirements and Definitions" dated October 1990, which are attached hereto and by reference a part of this Board Order. This attachment and its individual paragraphs are commonly referenced as "Standard Provision(s)." For the purposes of this Board Order, the instantaneous maximum in Standard Provision C.10(b)(c) shall be the maximum daily.
7. Upon receipt of the Regional Board's Executive Officer's NOA letter, the Discharger shall comply with all conditions and limitations of this Board Order and any conditions specified in the NOA letter. Any permit noncompliance constitutes a violation of the Clean Water Act and the California Water Code and is grounds for enforcement action; for permit or NOA letter termination, revocation and reissuance, or modification; the issuance of an individual permit; or for denial of a renewal application.
8. The U.S. EPA Administrator may request the Regional Board's Executive Officer to require any Discharger authorized to discharge waste by the general permit to subsequently apply for and obtain an individual NPDES permit. An interested person may petition the Regional Board's Executive Officer or the U.S. EPA Regional Administrator to take action under this provision. Cases where an individual NPDES permit may be required include the following:
 - a. The Discharger is not in compliance with the conditions of this Board Order or the discharge authorization letter from the Regional Board's Executive Officer;
 - b. A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants applicable to the point source;

- c. Effluent limitation guidelines are promulgated for point sources covered by the general NPDES permit;
 - d. A water quality control plan containing requirements applicable to such point sources is approved; or
 - e. The requirements of 40 CFR 122.28(a) are not met.
9. Unless otherwise revoked this Board Order expires five years from the date of adoption. The Discharger must file an application for proposed discharge and a certification report as described in Standard Provision D.2. not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.
10. This Board Order shall serve as a general National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act and amendments thereto, and shall become effective 10 days after the date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Philip A. Gruenberg, 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, Colorado River Basin Region, on June 11, 1998.



Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

FACT SHEET
FOR

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
GENERAL WASTE DISCHARGE REQUIREMENTS
FOR
DISCHARGES OF EXTRACTED AND TREATED GROUNDWATER
RESULTING FROM THE CLEANUP OF GROUNDWATER
POLLUTED BY VOLATILE ORGANIC CONSTITUENTS
INTO SURFACE WATERS

Public Notice No. 7-98-06
Application NPDES No. CAG917001
Permit No. 98-400

1. Need for General Waste Discharge Requirements

There are currently over 230 cases of soil and/or groundwater pollution in the Colorado River Basin Region (CRBR) resulting from leaks at fuel storage and dispensing facilities and unauthorized discharges of volatile organic compounds (VOCs), including purgeable halocarbons and aromatic compounds, into State waters. More cases are expected. Remedial activities at many of these sites are expected to necessitate discharge of treated groundwater to surface waters within the CRBR. It is anticipated that their number will exceed the capacity of available staff to develop and bring individual tentative waste discharge requirements to the Board for adoption. The adoption of a general National Pollutant Discharge Elimination System (NPDES) permit and/or general waste discharge requirements will significantly alleviate this problem, and enable the Board to better utilize limited staff resources.

2. Description of General NPDES Permit

Title 40 CFR 122.28 provides for the issuance of general permits to regulate discharges of waste which result from similar operations, are the same types of waste, require the same effluent limitations, require similar monitoring, and are more appropriately regulated under a general permit rather than individual permits.

A general permit for existing and proposed discharges of extracted and treated groundwater polluted by VOCs into surface waters of the CRBR meets the requirements of 40 CFR 122.28. To qualify for this general permit, the discharges and proposed discharges must:

- a. Result from similar operations (all involve extraction, treatment, and discharge of groundwater);
- b. Be the same types of waste (i.e., groundwater polluted by VOCs);

- c. Require similar effluent limitations for the protection of the beneficial uses of surface waters in the CRBR;
- d. Require similar monitoring; and
- e. Be more appropriately regulated under a general permit rather than individual permits.

On June 8, 1989, the State Water Resources Control Board (State Board) submitted an application to the United States Environmental Protection Agency (EPA) requesting revisions to its NPDES program in accordance with 40 CFR 122.28, 123.62 and 403.10. The application included a request to add general permit authority to its approved NPDES program. On September 22, 1989, the EPA, Region IX, approved the State Board's request and granted authorization for the State to issue general NPDES permits.

3. Basis for Limitations in the proposed General Waste Discharge Requirements

The proposed effluent and receiving water limitations are based on the CRBR Basin Plan; State Plans and Policies; EPA Region IX's Draft "NPDES Permit Limitations for Discharge of Contaminated Ground Water: Guidance Document", July 1986; EPA MCLs for drinking water; State MCLs and DOHS Action Levels; EPA National Ambient Water Quality Criteria; analytical detection limits; best professional judgment; and best available technology economically achievable.

The technology for removal of VOCs from groundwater has advanced such that, for a properly designed and operated system, pollutants can routinely be reduced to below detection limits. Thus, it is the opinion of Regional Board staff that the limits established in the tentative Board Order can be met by best available technology economically achievable.

State and EPA guidance documents have stated that removal of most of the chlorinated hydrocarbons down to less than detectable levels is economically feasible, and set 5.0 ppb as the practical quantitation reporting limits. However, State Maximum Contaminant Levels for some chlorinated hydrocarbons are less than 5.0 ppb, and the effluent limitations for those is set at the State MCL. The effluent and receiving water limitations are intended to protect beneficial uses of the surface waters and groundwaters of the CRBR. Unless otherwise stated, the specific rationale for the Effluent Limitations tabulated below, are based on a combination of Best Available Technology Economically Achievable and Best Professional Judgment:

<u>Constituents</u>	<u>Instantaneous Maximum Limits (µg/L)</u>	<u>30-day Mean (µg/L)</u>
Carbon Tetrachloride	5	0.5
1,2-Dichloroethane	5	0.5
Vinyl Chloride	5	0.5
1,1-Dichloroethane	5	0.5
1,1-Dichloroethylene	5	0.5
cis-1,2-Dichloroethylene	5	0.5
trans-1,2-Dichloroethylene	5	0.5
Methylene Chloride	5	0.5
Tetrachloroethylene	5	0.5

<u>Constituents</u>	<u>Instantaneous Maximum Limits (µg/L)</u>	<u>30-day Mean (µg/L)</u>
Trichloroethylene	5	0.5
1,1,1-Trichloroethane	5	0.5
1,1,2-Trichloroethane	5	0.5
Trichlorotrifluoroethane	5	0.5
Chloroform	5	0.5
Benzene	1	0.5
Toluene	5	0.5
Ethyl benzene	5	0.5
Total Xylenes	5	0.5
Total Lead	5	50
MTBE	5	0.5
Methanol	5	0.5
Ethanol	5	0.5
TBA	5	0.5
DIPE	5	0.5
TAME	5	0.5
TPHs	100	<50
Other VOCs ¹	5	0.5
pH and Toxicity (Basin Plan)		

4. Antidegradation Policies

Pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California" (collectively the antidegradation policy), the Regional Board shall ensure that any increase in pollutant loading to a receiving water meets the requirements stated in the foregoing policies. At a minimum, permitting actions shall be consistent with the following:

- a. Existing in stream water uses and the level of water quality necessary to protect existing beneficial uses shall be maintained and protected;
- b. Where the quality of the waters exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, the quality shall be maintained and protected unless the State finds, after full satisfaction of inter-governmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located; and
- c. In those cases where potential water quality impairment associated with a thermal discharge is involved, the non-degradation policy and implementing method shall be consistent with Section 316 of the Clean Water Act.

¹ As defined by US EPA Methods 601 and 602

The Regional Board, in establishing the requirements contained herein, has taken into consideration the requirements of the State and federal non-degradation policies and has determined that:

- a. The conditions and effluent limitations established in this Board Order for discharges of treated groundwater to surface waters in this Region ensure that the existing beneficial uses and quality of surface waters in the Region will be maintained and protected;
- b. Discharges regulated by this Board Order should not lower water quality if the terms and conditions of this Board Order are met; and
- c. Thermal discharges potentially impairing water quality are not authorized under the terms and conditions of this Board Order, thus, Section 316 of the Clean Water Act is not applicable.

5. Impaired Water Bodies

The Water Quality Act of 1987 added Section 304(l) to the Clean Water Act. This section requires states to adopt lists of impaired water bodies, including a list of surface waters which do not meet applicable water quality standards due entirely or substantially to point-source discharges of toxic substances.

6. Prohibitions and Provisions

Prohibitions B.1 through B.5 of this Order would prohibit:

1. Discharge of material other than extracted and treated groundwater from the investigation and cleanup of VOCs groundwater pollution and added treatment chemicals approved by the Regional Board's Executive Officer;
2. Bypass or overflow of untreated or partially treated polluted groundwater to waters of the State either at the treatment system or from any of the collection transport systems pump stations tributary to the treatment system;
3. Pollution, contamination, or nuisance as defined by Section 13050 of the California Water Code;
4. The discharge of oil, trash, industrial waste sludge, or other solids directly to the surface waters in this Region or in any manner which permit it to be washed into the surface waters in this Region; and
5. The discharge of extracted and treated groundwater from a specific site in excess of the flow rate specified by the Board Order.

Monitoring of the groundwater treatment system influent and effluent and the receiving waters is required to satisfy the Basin Plan and NPDES requirements. Monitoring is the primary means of ensuring that the permit limitations are met. It is also the basis for enforcement actions against dischargers who are in violation of their permit limits. This Board Order authorizes and directs the Regional Board's Executive Officer to prescribe a monitoring program appropriate for the type of cleanup and proposed discharge. Results of

the Self-Monitoring Program analyses will be reviewed after six months and on a case by case basis, the Regional Board's Executive Officer may modify the Self-Monitoring Program to cover constituents of concern.

The Board Order will require that Discharger(s) (parties deemed responsible by the Regional Board for remediation of groundwater polluted by VOCs) file a Notice of Intent (NOI) to be eligible for coverage under this General Permit. The NOI shall consist of a Report of Waste Discharge (Form 200), an NPDES Application Form 2D, and the appropriate filing fee. Additionally, the Discharger must submit the following information:

- a. An effluent reclamation feasibility study, which shows that a discharge to surface waters is the only feasible method for disposing of treated effluent. A letter from the local POTW stating that they cannot accept the discharge must accompany the application;
- b. A discussion of the proposed cleanup project in general terms including a review of the extraction and treatment systems' design and the status of delineation of the extent of VOCs in groundwater;
- c. The certification report and associated O&M Manual as described in Provisions D.1. and D.2.;
- d. A map showing the path from the point of initial discharge to the ultimate location of discharge;
- e. A discussion of why the proposed discharge is consistent with the type of discharge covered by this general permit;
- f. Any other information deemed necessary by the Regional Board's Executive Officer;

The Board Order also contains standard provisions, which are placed in all NPDES permits issued by the Regional Board. These provisions include compliance with a self-monitoring program, immediate compliance with the Board Order, and submittal of an application for proposed discharge not later than 180 days in advance of the expiration of waste discharge requirements.

7. Discharge Authorization Letter

Upon receipt of a complete NOI and the additional information required by items "a" through "f," above, for a proposed discharge, the Regional Board's Executive Officer will determine whether the proposed discharge complies with the following criteria and is eligible to discharge waste under this general permit: (a) the proposed discharge results from the cleanup of groundwater polluted by VOCs; (b) the proposed discharge is to surface waters in this region; (c) the proposed discharge is classified as a minor discharge; and (d) the proposed treatment system and associated operation, maintenance, and monitoring plans are believed to be reasonably capable of meeting the provisions, prohibitions, effluent limitations, and receiving water limitations of this proposed Board Order.

If the Regional Board's Executive Officer determines that the proponent of the discharge is eligible to discharge waste under this General Permit, the Regional Board's Executive Officer may (a) authorize the proposed discharge or (b) require the discharge proponent to obtain an individual NPDES permit prior to any discharge to inland surface waters in this Region. If the Regional Board's Executive Officer authorizes the discharge, a "Notice of Applicability" (NOA) letter will be transmitted to the discharge proponent (now an "authorized Discharger") authorizing the initiation of the discharge subject to the conditions of this Board Order and any other conditions necessary to protect the beneficial uses of the receiving waters. The NOA letter will specify the maximum allowed discharge flow rate (which also limits the mass loading rate for each pollutant listed in Effluent Limitation C.1 of this Board Order) and the Self-Monitoring Program for the authorized discharge. The NOA letter may be terminated or revised by the Regional Board's Executive Officer at any time. If an NPDES Permit has not been issued and the Regional Board's Executive Officer does not provide written authorization for the initiation of a discharge under the terms and conditions of this Order, the discharge will not be allowed.

The Regional Board staff will submit a copy of the application for the proposed discharge and the discharge authorization letter to the State Board and EPA. A listing of the discharge authorization letters that have been issued will be reported in the Regional Board's meeting agenda. An interested person may petition the Regional Board's Executive Officer or Director of EPA to take action if the person objects to a discharge authorization letter.

8. Expiration Date

The expiration date of the tentative permit is June 15, 2003.

9. Additional Information

Beneficial uses of the receiving waters are described in the attached tentative Board Order. On the basis of preliminary staff review and application of lawful standards and regulations, the Regional Board proposes to adopt the attached general waste discharge requirements for discharges of extracted and treated groundwater resulting from the cleanup of groundwater polluted by fuel leaks and other related wastes from fuel storage and dispensing facilities.

The permit requirements, rationale, and other supporting information are on file at 73-720 Fred Waring Drive, Suite 100, Palm Desert, CA 92260. They may be inspected during normal business hours. For further information please contact Jose L. Angel at (760) 776-8932.

The Regional Board intends to hold a public hearing and consider adopting the Board Order during a public meeting on June 11, 1998, beginning at 10 a.m., at the 44-950 Eldorado Drive, Indian Wells, CA. 92210. Persons wishing to submit written comments or make oral comments at the hearing are requested to submit a written copy of their comments to Jose L. Angel of the Regional Board by May 15, 1998. (73-720 Fred Waring Drive, Suite 100, Palm Desert, CA 92260).

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION**

**STANDARD PROVISIONS
FOR
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
OCTOBER 1990**

FOR ALL PERMIT HOLDERS

1. Duty to Comply

- a. The discharger must comply with all of the conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and the Porter-Cologne Water Quality Control Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. [40 CFR Part 122.41(a)]
- b. The discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this permit has not been modified to incorporate the requirement. [40 CFR Part 122.41(a)(1)]

2. Duty to Reapply

If the discharger wishes to continue an activity regulated by this permit after the expiration date of this permit, the discharger must apply for and obtain a new permit. [40 CFR Part 122.4(b)]

- a. Any publicly owned treatment works (POTW) with a currently effective permit shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Regional Board. (The Regional Board shall not grant permission for applications to be submitted later than the expiration date of the existing permit.) [40 CFR Part 122.41(d)(1)]
- b. All other dischargers with currently effective permits shall submit a new application 180 days before the existing permit expires except that:
 1. The Regional Administrator of the Environmental Protection Agency may grant permission to submit an application later than the deadline for submission otherwise applicable, but no later than the permit expiration date; and
 2. The Regional Administrator of the Environmental Protection Agency may grant permission to submit the information after the permit expiration date required by paragraphs (g)(7),(9), and (10) of 40 CFR Part 122.21.

3. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [40 CFR Part 122.41(c)]

4. Duty to Mitigate

The discharger shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. [40 CFR Part 122.41(d)]

5. 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 this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a discharger only when necessary to achieve compliance with the conditions of this permit. [40 CFR Part 122.41 (e)]

6. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

- a. Violation of any terms or conditions of this permit; or
- b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
- c. A change in any condition that requires either a temporary or a permanent reduction or elimination of the authorized discharge; or
- d. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.

The Regional Board may also review and revise this permit at any time upon application of any person, or on the Regional Board's own motion. [CWC 13263(e)]

If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant to this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition and the discharger so notified. [40CFR Part 122.41(f)] The filing of a request by the discharger for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit conditions. [40 CFR Part 122.4(f)]

7. Property Rights

This permit does 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. [40 CFR Part 122.41(g)]

8. Duty to Provide Information

The discharger shall furnish the Regional Board, State Board, or EPA, within a reasonable time, any information which the Regional Board, State Board, or EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating a permit or to determine compliance with a permit. The discharger shall also furnish to the

Regional Board, upon request, copies of records to be kept by this permit. [40 CFR Part 122.41(h)]

The discharger shall conduct analysis on any sample provided by EPA as part of the Discharge Monitoring Quality Assurance (DMQA) program. The results of any such analysis shall be submitted to EPA's DMQA manager.

9. Inspection and Entry

The discharger shall allow the Regional Board, State Board, EPA, and/or other authorized representatives 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 are kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location. [40 CFR Part 122.41(i)]

10. Monitoring and Records

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. The discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 5 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Regional Board, State Board, or EPA at any time.
- c. Records of monitoring information shall include:
 1. The date, exact place, and time of sampling or measurements;
 2. The individual(s) who performed the sampling or measurements;
 3. The date(s) analyses were performed;
 4. The individual(s) who performed the analyses;
 5. The analytical techniques or methods used; and
 6. The results of such analyses.
- d. Monitoring must be conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this permit.

11. Signatory Requirements

- a. All permit applications, reports, or information submitted to the Regional Board, State Board, and/or EPA shall be signed as follows:
 1. For a corporation: by a responsible corporate officer. For the purpose of this provision, a responsible corporate officer means: a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy-or decision-making functions for the corporation, or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
 2. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 3. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a Federal agency includes: the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA). [40 CFR Part 122.22(a)]
- b. All reports required by this permit, other information requested by the Regional Board, State Board, or EPA, and all permit applications submitted for Group II stormwater discharges under 40 CFR Part 122.26(b)(3) shall be signed by a person described in paragraph a. of this provision, or by a duly authorized representative of that person. A person is a duly authorized representative only 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 a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
 3. The written authorization is submitted to the Regional Board. [40 CFR Part 122.22(b)]
- c. Changes to authorization. If an authorization under paragraph b. of this provision is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph b. of this provision must be submitted to the Regional Board prior to or together with any reports, information, or applications to be signed by an authorized representative. [40 CFR Part 122.22(c)]
- d. Certification. Any person signing a document under paragraph a. or b. of this provision shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my

inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment of knowing violations." [40 CFR Part 122.22(d)]

- e. The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification, in any record or other document submitted or required to be maintained under this permit including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 2 years per violation, or by both.

12. Reporting Requirements

- a. **Planned changes.** The discharger shall give notice to the Regional Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when:
 - 1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR Part 122.29(b); or
 - 2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged.
- b. **Anticipated noncompliance.** The discharger will give advance notice to the Regional Board of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- c. **Transfers**
 - 1. This permit is not transferable to any person except after notice to the Regional Board. The Regional Board may require modification or revocation and reissuance of the permit to change the name of the discharger and incorporate such other requirements as may be necessary under the Clean Water Act and the Porter-Cologne Water Quality Control Act.
 - 2. **Transfer by modification.** Except as provided in paragraph 3 below, a permit may be transferred by the discharger to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made to identify the new discharger and incorporate such other requirements as may be necessary under the Clean Water Act (CWA).
 - 3. **Automatic transfers.** As an alternative to transfers under paragraph 2 of this provision, any NPDES may be automatically transferred to a new discharger if:
 - a. The current discharger notifies the Regional Board at least 30 days in advance of the proposed transfer date in paragraph 3.b. of this provision;
 - b. The notice includes a written agreement between the existing and new dischargers containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
 - c. The Regional Board does not notify the existing discharger and the proposed new discharger of its intent to modify or revoke and reissue the permit. A modification under this subparagraph may also be a minor modification under

40 CFR Part 122.63. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 3. b. of this provision.

- d. **Definitions.** The following definitions shall apply unless specified in this permit:
1. "Daily Discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the sampling day. "Daily discharge" shall be the concentration of the composite sample. When grab samples are used, the "daily discharge" determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during the sampling day.
 2. "Daily Average" discharge limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.
 3. "Daily Maximum" discharge limitations means the highest allowable average "daily discharge" during a calendar month.
- e. **Monitoring reports.** Monitoring results shall be reported at the intervals specified elsewhere in this permit.
1. Monitoring results must be reported on a Discharge Monitoring Report (DMR).
 2. If the discharger monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
 3. Calculations for all limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
 4. As required by 40 CFR Part 122.45(b)(2), if a non-POTW discharger has production-based limitation, then the discharger shall submit with the DMR the level of production that actually occurred during each month and the limitations, standards, or prohibitions applicable to that level of production.
- f. **Compliance schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

- g. Twenty-four hour reporting. The discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within 5 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, 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 following shall be included as information that must be reported within 24 hours under this paragraph:

1. Any unanticipated bypass that exceeds any effluent limitation in the permit.
2. Any upset that exceeds any effluent limitation in the permit.
3. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Regional Board in this permit to be reported within 24 hours.

The Executive Officer may waive the above-required written report on a case-by-case basis for reports under this provision if the oral report has been received within 24 hours.

- h. Other noncompliance. The discharger shall report all instances of noncompliance not reported under paragraphs a., e., f. and g. of this provision, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph g. of this provision.
- i. Other information. Where the discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Board, the discharger shall promptly submit such facts or information. [40 CFR Part 122.41(1)]

13. Bypass

a. Definitions

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
2. "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. Bypass not exceeding limitations. The discharger may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it is essential maintenance to assure efficient operation. These bypasses are not subject to paragraphs c. and d. of this provision.

c. Notice

1. Anticipated bypass. If the discharger knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.

2. Unanticipated bypass. The discharger shall submit notice of an unanticipated bypass as required in paragraph g. of provision 12 above (24-hour notice).
- d. Prohibition of bypass. Bypass is prohibited, and the Regional Board may take enforcement action against the discharger for bypass, unless:
 1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 2. There were no feasible alternatives to the bypass, such as the use of auxilliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of downtime. 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 which occurred during normal periods of equipment downtime or preventive maintenance; and
 3. The discharger submitted notices as required under paragraph c. of this provision.
- e. Approval of anticipated bypass. The Regional Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Board determines that it will meet the three conditions listed above in paragraph d. of this provision. [40 CFR Part 122.41(m)]

14. Upset

- a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph c. of this provision are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administration action subject to judicial review.
- c. Conditions necessary for a demonstration of upset. A discharger that wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 1. An upset occurred and that the discharger can identify the cause(s) of the upset;
 2. The permitted facility was at the time being properly operated;
 3. The discharger submitted notice of the upset as required in paragraph g. of provision 12 (24-hour notice); and
 4. The discharger complied with any remedial measures required under provision 4.
- d. Burden of proof. In any enforcement proceeding, the discharger seeking to establish the occurrence of an upset has the burden of proof. [40 CFR Part 122.41(n)]

15. Enforcement

The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed \$25,000 per day of violation. Any person who negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment of not more than 1 year, or both. Higher penalties may be imposed for knowing violations and for repeat offenders. The Porter-Cologne Water Quality Control Act provides for civil and criminal penalties comparable to, and in some cases greater than, those provided under the Clean Water Act.

EXISTING MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURAL DISCHARGES

All existing manufacturing, commercial, mining and silvicultural dischargers must notify the Regional Board as soon as they know or have reason to believe:

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this permit, if that discharge will exceed the highest of the following "notification levels":
 - a. One hundred micrograms per liter (100 µg/l);
 - b. Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and 2-methyl-4-6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - c. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR Part 122.21(g)(7); or
 - d. The level established by the Regional Board in accordance with 40 CFR Part 122.44(f). [40 CFR Part 122.42(a)(1)]
2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - a. Five hundred micrograms per liter (500 µg/l);
 - b. One milligram per liter (1 mg/l for antimony);
 - c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR Part 122.21(g)(7); or
 - d. The level established by the Regional Board in accordance with 40 CFR Part 122.44(f). [40 CFR Part 122.42(a)(2)]

PUBLICLY OWNED TREATMENT WORKS (POTWs)

1. Notice of Changes

All POTWs must provide adequate notice to the Regional Board of the following:

- a. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Section 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; and
- b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the provision.

For purposes of this provision, adequate notice shall include information on (1) the quality and quantity of effluent introduced into the POTW, and (2) any anticipated impacts on the quantity or quality of effluent to be discharged from the POTW. [40 CFR Part 122.42(b)]

2. Pretreatment

Any POTW (or combination of POTWs operated by the same authority) with a total design flow greater than 5 million gallons per day (mgd) and receiving from industrial users pollutants which pass through or interfere with the operation of the POTW or are otherwise subject to Pretreatment Standards will be required to establish a POTW Pretreatment Program. The Regional Board may require that a POTW with a design flow of 5 mgd or less develop a POTW Pretreatment Program if it finds that the nature or volume of the industrial influent, treatment process upsets, violations of POTW effluent limitations, contamination of municipal sludge, or other circumstances warrant in order to prevent interference with the POTW or Pass Through. [40 CFR Part 403.8]

3. National Pretreatment Standards: Prohibited Discharges

- a. General Prohibitions. No source may introduce into a POTW any pollutant(s) which cause Pass Through or Interference. These general prohibitions and the specific prohibitions in paragraph b. of this provision apply to all non-domestic sources introducing pollutants into a POTW whether or not the source is subject to other National Pretreatment Standards or any national, state, or local Pretreatment Requirements.
- b. Specific prohibitions. In addition, the following pollutants shall not be introduced into a POTW:
 1. Pollutants which create a fire or explosion hazard in the POTW, including but not limited to, waste streams with a closed cup flash point of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR Part 261.21;
 2. Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the works is specifically designed to accommodate such discharges;
 3. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in interference;
 4. Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW;
 5. Heat in amounts which will inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities that the temperature at the

POTW Treatment Plant exceeds 40°C (104°F) unless the Regional Board, upon request of the POTW, approves alternate temperature limits;

6. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;
 7. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and
 8. Any trucked or hauled pollutants, except at discharge points designated by the POTW.
- c. When specific limits must be developed by a POTW.
1. POTWs developing POTW Pretreatment Programs pursuant to 40 CFR Part 403.8 shall develop and enforce specific limits to implement the prohibitions listed in paragraphs a. and b. of this provision.
 2. All POTWs shall, in cases where pollutant contributed by user(s) result in interference or pass through, and such violation is likely to recur, develop and enforce specific effluent limits for industrial user(s), and all other users, as appropriate, that, together with appropriate changes in the POTW treatment plant's facilities or operations, are necessary to ensure renewed and continued compliance with the POTW's NPDES permit, or sludge use, or disposal practices.
 3. Specific effluent limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond.
- d. Local limits. Where specific prohibitions or limits on pollutants or pollutant parameters are developed by a POTW in accordance with paragraph c. above, such limits shall be deemed Pretreatment Standards for the purposes of Section 307(d) of the Clean Water Act. [40 CFR Parts 403.5 (a) through (d)]

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION**

**MONITORING AND REPORTING PROGRAM NO. 98-400(03)
FOR**

**FORMER SHELL STATION/SHELL JOBBER
MTBE REMEDIATION PROJECT
201 S. LOVEKIN BOULEVARD AT I-10 FREEWAY
Blythe- Riverside County**

MONITORING

1. The collection, preservation and holding times of all samples shall be in accordance with U.S. Environmental Protection Agency approved procedures. Unless otherwise approved by the Regional Board's Executive Officer, all analyses shall be conducted by a laboratory certified for such analysis by the State Department of Health Services. All Analyses shall be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" (40 CFR 136), promulgated by the US Environmental Protection Agency.
2. If the facility is not in operation, or there is no discharge during a required reporting period, the discharger shall either forward a letter, or write a notation on the required monthly monitoring report to the Regional Board, indicating that there has been no activity during the required reporting period.

START-UP PHASE AND START-UP REPORTING

1. The discharger shall inform the Regional Board in writing concerning the location of all sampling stations for the monitoring as well as the date of start-up at least one week before start-up begins.
2. During the original start-up for the treatment system, sampling of the effluent must be performed on the first and fifth day. On the first day of the original start-up, the system shall be allowed to run until at least three (3) well volumes are removed and until three (3) consecutive readings for pH, conductivity and temperature are within five (5) percent of each other. Then the influent and effluent shall be sampled and submitted for analyses. All of this initially discharged effluent shall be discharged into a holding tank or sanitary sewer (not to the receiving water) until the results of the analyses (including the toxicity test) show the discharge to be within the effluent limits established in this Board Order and/or in the authorization letter.
3. If the first day's sampling shows compliance, the treatment system shall be operated for a total of five (5) days with the discharge to the storm sewer or other conveyance system leading to the receiving water, and be sampled again. While the fifth day's samples are being analyzed, the effluent may be discharged to the receiving water as long as the analyses are received within 48 hours of sampling, and then, continue to be discharged to the receiving water if the analyses show compliance. If the treatment system is shut down more than 48 hours during the original start-up (awaiting results of the analyses, etc.), the original start-up procedures and sampling must be repeated.
4. A report on the start-up phase shall be submitted to the Regional Board that presents the results of the laboratory analysis, flow-rates, chain of custody forms, and describes any changes or modifications to the treatment system. This report shall be submitted to the Regional Board no more than fifteen days after the end of the start-up phase.

INFLUENT MONITORING

Extracted groundwater shall be monitored for the following constituents immediately prior to treatment. All samples shall be taken between 6 a.m. and 6 p.m.

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Gasoline Range Organics (BTEX & MTBE) EPA Method 8015/8021	µg/L ¹	Grab	1 st and 5 th day Bi-annually thereafter

EFFLUENT MONITORING

Treated groundwater shall be monitored for the following constituents. All samples shall be taken between 6 a.m. and 6 p.m.

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Flow Rate	GPD ²	Continuous	Continuous
pH	pH units	Grab	Daily ³ for 5 days Monthly thereafter
Temperature	°C	Grab	Daily for 5 days Monthly thereafter
Conductivity	µ mhos/cm @ 25 °C	Grab	Daily for 5 days Monthly thereafter
Total Dissolved Solids	mg/L	Grab	Daily for 5 days Monthly thereafter
Dissolved Oxygen	mg/L	Grab	Daily for 5 days Monthly thereafter
Toxicity	tu _c / % survival	Grab	Quarterly for 1 year Annually thereafter
Gasoline Range Organics (BTEX, MTBE) EPA Method 8015/8021	µg/L	Grab	1 st and 5 th day Monthly for 1 st Quarter Quarterly thereafter

¹ µg/L - Micrograms per Liter

² GPD - Gallons-Per-Day

³ Reported monthly with monthly average daily flow

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Lead	µg/L	Grab	1 st and 5 th day Monthly for 1 st Quarter Quarterly for 1 st Year Annually thereafter

BIOASSAY REQUIREMENT

The fish species to be used for compliance in the toxicity test are the Fathead Minnow (*Pimephales promelas*) and Water Flea (*Ceriodaphnia dubia*).

TOXICITY TESTING

The discharger shall conduct toxicity testing on the treated effluent as follows:

<u>Test</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Test</u>
Chronic Toxicity	tu _c	8-HR Composite	Quarterly
Acute Toxicity	% survival	Composite	Quarterly

EFFLUENT CHRONIC TOXICITY TESTING

Both test species given below shall be used to measure acute and chronic toxicity:

<u>Species</u>	<u>Effect</u>	<u>Test Duration (Days)</u>	<u>Reference</u>
Fathead Minnow (<i>Pimephales promelas</i>)	Larval Survival	7	EPA/600/4-91/002 (chronic) EPA/600/4-90/027F (acute)
Water Flea (<i>Ceriodaphnia dubia</i>)	Survival; Number of Young	7	EPA/600/4-91/002 (chronic) EPA/600/4-90/027F (acute)

Toxicity Test Reference: Methods for measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fourth Edition, EPA-600-4-90-027F, August 1993. Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water for Freshwater Organisms, EPA-600-4-91-002, July 1994.

Dilution and control waters may be obtained from an unaffected area of receiving waters. Standard dilution is an option and may be used if the above source is suspected to have toxicity greater than 1.0 tu_c. The sensitivity of the test organism to a reference toxicant shall be determined concurrently with each bioassay and reported with the test results.

Chronic toxicity shall be expressed and reported as toxic units (tu_c) where:

$$tu_c = 100/NOEC$$

and the No Observed Effect Concentration (NOEC) is expressed as the maximum percent effluent of test water that causes no observed effect on a test organism, as determined in a critical life stage toxicity test indicated above.

Acute toxicity may be calculated from the results of the chronic toxicity test described above and shall be reported along with the results of each chronic test. Acute toxicity shall be expressed as percent survival of test organism over a ninety-six hour period in 100% effluent.

REPORTING

1. The discharger shall notify the Regional Board within one day if the self-monitoring program results exceed effluent limitations, or if any activity has occurred or will occur that would result in a frequent or routine discharge of any toxic pollutant not limited by this Order. If a violation of instantaneous maximum limits should occur (and be confirmed), the discharge shall be directed to a holding tank and contained, or the extraction and treatment system shall be shut down. The content of the holding tank shall be re-treated until the re-treated effluent is in compliance, or be disposed in accordance with State Water Resources Control Board and Integrated Waste Management Board's joint regulations (Title 27) of the California Code of Regulations and approved by the Regional Board's Executive Officer.
2. If the treatment system is shut down for more than 120 consecutive hours after the start-up period (maintenance, repair, violations, etc.) the reason(s) for shut-down, proposed corrective action(s) and estimated start-up date shall be orally reported to the Regional Board within five (5) days of shut-down and a written submission shall also be provided within 15 days of shut-down. If feasible, the corrective action(s) taken and the proposed start-up procedures shall be reported in writing to the Regional Board at least 15 days before start-up.
3. A report describing the need, method of chemical application and disposal shall be submitted to the Regional Board at least 30 days before the use of any chemicals in the treatment, or operation and maintenance of the treatment units, is to begin. This report shall include toxicity data. The Regional Board's Executive Officer must approve the use of any chemicals prior to the usage of any chemicals in the treatment, operation, and/or maintenance of the treatment units.
4. The discharger shall report the total amount of separate phase fuel (free product) removed by the treatment system each month in gallons and the cumulative total amount of separate phase fuel removed to date.
5. The daily status (e.g., personnel on site, in operation/on stand-by, shut down, standard observation results, etc.) of any treatment systems used to achieve compliance with this Order or associated discharge authorization letter from the Executive Officer shall be included in the Self-Monitoring Report submittal. The reason(s) for the treatment system being shut down shall also be included in this submittal.
6. The discharger shall arrange the data in tabular form so that the specified information is readily discernible. The data should be summarized in such a manner as to clearly illustrate whether the facility is operating in compliance with waste discharge requirements.

7. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurement(s);
 - b. The individual(s) who performed the sampling or measurement(s);
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
8. The results of any analysis of samples taken more frequently than required at the locations specified in this Monitoring and Reporting Program shall be reported to the Regional Board.
9. Monitoring reports shall be certified under penalty of perjury to be true and correct, and shall contain the required information at the frequency designated in this monitoring report.
10. Each report shall contain the following statement:

"I declare under the penalty of law that I personally examined and am familiar with the information submitted in this document, 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 a fine and imprisonment for knowing violations."
11. A duly authorized representative of the discharger may sign the documents if:
 - a. The authorization is made in writing by the person described above;
 - b. The authorization specified an individual or person having the responsibility for the overall operation of the regulated disposal system; and
 - c. The written authorization is submitted to the Regional Board's Executive Officer.
12. Daily, weekly, and monthly monitoring reports shall be submitted to the Regional Board by the 15th day of the following month. Quarterly monitoring reports shall be submitted by January 15, April 15, July 15, and October 15 of each year. Bi-annual monitoring shall be submitted by January 15, and July 15 of each year. Annual reports shall be submitted by January 15 of each year.
13. Submit reports to:

California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260

Ordered by: Philip A. Gemeny
Executive Officer
2-28-01
Date