California Regional Water Quality Control Board
Los Angeles Region

MONITORING AND REPORTING PROGRAM No. 7352
for
TOSCO REFINING COMPANY
(Los Angeles Refinery, Carson Plant)
(CA0063185)

I. REPORTING REQUIREMENTS

A. The Discharger shall implement this monitoring program on the effective date of this Order. All monitoring reports shall be submitted monthly and must be received by the Regional Board by the first day of the second month following each monthly sampling period. All monitoring reports should be addressed to the Regional Board, Attention: Information Technology Unit. The first monitoring report under this Program (for August 2001) is due by October 1, 2001.

B. If there is no discharge during any reporting period, the report shall so state.

C. The Discharger shall submit an annual summary report (for both dry and wet weather discharges), containing a discussion of the previous year's effluent and receiving water monitoring data, as well as graphical and tabular summaries of the data. The data shall be submitted to the Regional Board on hard copy and on a 3½ inch computer diskette. Submitted data must be IBM compatible, preferably using EXCEL software. 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 waste discharge requirements. This annual report is to be received by the Regional by March 1 of each year following the calendar year of data collection.

D. The Discharger shall inform the Regional Board well in advance of any construction activity proposed that could potentially affect compliance with applicable requirements.

II. EFFLUENT MONITORING REQUIREMENTS

A. A sampling station shall be established for each point of discharge and shall be located where representative samples of that effluent can be obtained. In the event that waste streams from sources are combined for treatment or discharge, representative sampling stations shall be so located to ensure that the quantity of each pollutant or pollutant property attributable to each waste source regulated by effluent limitations can be determined.

B. This Regional Board shall be notified in writing of any change in the sampling stations once established or in the methods for determining the quantities of pollutants in the individual waste streams.

C. Pollutants shall be analyzed using the analytical methods described in 40 CFR 136.3, 136.4, and 136.5 (revised May 14, 1999); or, where no methods are specified for a given pollutant, by methods approved by this Regional Board or State Board. Laboratories analyzing effluent and receiving water samples must be certified by the California Department of Health Services and must include quality assurance/quality control (QA/QC) data in their report.

The monitoring reports shall specify the analytical method used, the Method Detection Limit (MDL) and the Minimum Level (ML) for each pollutant. For the purpose of reporting compliance with numerical limitations, performance goals, and receiving water limitations, analytical data shall be reported by one of the following methods, as appropriate:

1. An actual numerical value for sample results greater than or equal to the ML; or,

2. "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML. The estimated chemical concentration of the sample shall also be reported. For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+ or – a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory; or,

3. "Not-Detected (ND)" for sample results less than the laboratory's MDL with the MDL indicated for the analytical method used.

Current MLs (Attachment T-1) are those published by the State Water Resources Control Board in the *Policy for the Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, March 2, 2000*.

D. Where possible, the MLs employed for effluent analyses shall be lower than the permit limits established for a given pollutant. If the ML value is not below the effluent limitation, then the lowest ML value and its associated analytical method shall be selected for compliance purposes. At least once a year, the Discharger shall submit a list of the analytical methods employed for each test and associated laboratory QA/QC procedures.

The Regional Board, in consultation with the State Board's Quality Assurance Program, shall establish an ML that is not contained in Attachment T-1 in any of the following situations:

1. When the pollutant under consideration is not included in Attachment T-1;

2. When the Discharger and the Regional Board agree to include in the permit a test method that is more sensitive than those specified in 40 CFR 136 (revised May 14, 1999);

3. When the Discharger agrees to use an ML that is lower than those listed in Attachment T-1;

4. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to established the ML in Attachment T-1 and proposes an appropriate ML for their matrix; or,

5. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the USEPA-approved method 1613 for dioxins and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, the Regional Board, and the State Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.

E. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR Part 136.3. All QA/QC items must be run on the same dates the samples were actually analyzed, and the results shall be reported in the Regional Board format and submitted with the laboratory reports. Proper chain of custody procedures must be followed and a copy of the chain of custody shall be submitted with the report.

F. Quarterly effluent analyses shall be performed during the months of February, May, August and November. Semiannual effluent analyses shall be performed during the months of February and August. Annual effluent analyses shall be performed during the month of February. Results of quarterly, semiannual and annual analyses shall be reported in the appropriate monthly monitoring report.

G. For parameters where both monthly average and daily maximum limits are specified but where the monitoring frequency is less than four times a month, the following procedure shall apply: If an analytical result is greater than the monthly average limit, the sampling frequency shall be increased (within one week of receiving the laboratory results) to a minimum of once weekly at equal intervals until at least four consecutive weekly samples have been obtained and compliance with the monthly average limit has been demonstrated again, and the Discharger has set forth for the approval of the Executive Officer a program which ensures future compliance with the monthly average limit.

III. EFFLUENT MONITORING PROGRAM

The following shall constitute the effluent monitoring program for the final effluent:

Constituent	Units	Type of Sample	Monitoring Frequency [1/2/]
Total flow	gal/day	----	once per discharge event
Temperature	^{o}F or ^{o}C	grab	once per discharge event
pH	pH units	grab	once per discharge event

Constituent	Units	Type of Sample	Monitoring Frequency [1/2/]
Hardness (as $CaCO_3$)	mg/L	grab	once per discharge event
BOD	mg/L	grab	once per discharge event
Suspended solids	mg/L	grab	once per discharge event
Settleable solids	ml/L	grab	once per discharge event
Oil and grease	mg/L	grab	once per discharge event
Phenolic compounds	mg/L	grab	once per discharge event
Total chromium	mg/L	grab	once per discharge event
Hexavalent chromium	mg/L	grab	once per discharge event
COD	mg/L	grab	once per discharge event
Fecal coliform	MPN/100mL	grab	once per discharge event
Residual chlorine	mg/L	grab	once per discharge event
Ammonia (as N)	mg/L	grab	once per discharge event
Copper	µg/L	grab	once per discharge event
Lead	µg/L	grab	once per discharge event
Mercury	µg/L	grab	once per discharge event
Nickel	µg/L	grab	once per discharge event
Silver	µg/L	grab	once per discharge event
Zinc	µg/L	grab	once per discharge event
Cyanide	µg/L	grab	once per discharge event
Benzene[3/]	µg/L	grab	once per discharge event
Ethylbenzene[3/]	µg/L	grab	once per discharge event
Toluene[3/]	µg/L	grab	once per discharge event
Xylene[3/]	µg/L	grab	once per discharge event
Methyl t-Butyl Ether	µg/L	grab	once per discharge event
Benzidine	µg/L	grab	once per discharge event
Acenapthylene[3/]	µg/L	grab	once per discharge event
Anthracene[3/]	µg/L	grab	once per discharge event
Benzo (a) Anthracene[3/]	µg/L	grab	once per discharge event
Benzo (a) Pyrene[3/]	µg/L	grab	once per discharge event
Benzo (b) Fluoranthene[3/]	µg/L	grab	once per discharge event
Benzo (ghi) Perylene[3/]	µg/L	grab	once per discharge event
Benzo (k) Fluoranthene[3/]	µg/L	grab	once per discharge event
Chrysene[3/]	µg/L	grab	once per discharge event
Dibenzo (a,h) Anthracene[3/]	µg/L	grab	once per discharge event
Fluorene[3/]	µg/L	grab	once per discharge event
Indeno (1,2,3-cd) Pyrene[3/]	µg/L	grab	once per discharge event
Phenanthrene[3/]	µg/L	grab	once per discharge event
Pyrene[3/]	µg/L	grab	once per discharge event
3,3-Dichlorobenzidine	µg/L	grab	once per discharge event
1,2-Diphenylhydrazine	µg/L	grab	once per discharge event
Hexachlorobenzene	µg/L	grab	once per discharge event
Bis (2-Ethylhexyl) Phthalate	µg/L	grab	once per discharge event
Aldrin	µg/L	grab	once per discharge event
alpha-BHC	µg/L	grab	once per discharge event

Constituent	Units	Type of Sample	Monitoring Frequency 1/2/
beta-BHC	µg/L	grab	once per discharge event
Chlordane	µg/L	grab	once per discharge event
4,4-DDT	µg/L	grab	once per discharge event
4,4-DDE	µg/L	grab	once per discharge event
4,4-DDD	µg/L	grab	once per discharge event
Dieldrin	µg/L	grab	once per discharge event
alpha-Endosulfan	µg/L	grab	once per discharge event
beta-Endosulfan	µg/L	grab	once per discharge event
Endrin	µg/L	grab	once per discharge event
Heptachlor	µg/L	grab	once per discharge event
Heptachlor Epoxide	µg/L	grab	once per discharge event
Arochlor 1242	µg/L	grab	once per discharge event
Arochlor 1254	µg/L	grab	once per discharge event
Arochlor 1221	µg/L	grab	once per discharge event
Arochlor 1232	µg/L	grab	once per discharge event
Arochlor 1248	µg/L	grab	once per discharge event
Arochlor 1260	µg/L	grab	once per discharge event
Arochlor 1016	µg/L	grab	once per discharge event
Toxaphene	µg/L	grab	once per discharge event
Total oxidants (chlorine and/or bromine)	mg/L	grab	once per discharge event
Sulfide	mg/L	grab	once per discharge event
Toxicity – acute	% survival	grab	quarterly
chronic	TU_c	grab	annually

1/ During periods of extended rainfall, no more than one sample per week needs to be taken. Sampling shall be during the first hour of discharge. If, for safety reasons, a sample cannot be obtained during the first hour of discharge, a sample shall be obtained at the first safe opportunity and the reason for the delay shall be included in the report.

2/ During the dry weather, monitoring frequencies for total flow and temperature shall revert to daily, monitoring frequency for pH shall revert to weekly, and all other constituents shall revert to monthly.

3/ The Discharger must notify the Regional Board staff (via telephone, e-mail, or fax) within 48 hours of any detectable result for this pollutant.

IV. TOXICITY MONITORING REQUIREMENTS

1. Acute Toxicity Effluent Monitoring Program

a. The Discharger shall conduct acute toxicity tests on 100 % effluent grab samples by methods specified in 40 CFR Part 136 which cites USEPA's *Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms*, August 1993, (EPA/600/4-90/027F) or a more recent edition.

b. The fathead minnow, *Pimephales promelas*, shall be used as the test species for fresh water discharges and the topsmelt, *Atherinops affinis*, shall be used as the test species for brackish discharges. The method for topsmelt is found in

USEPA's *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, First Edition, August 1995 (EPA/600/R-95/136).

c. In lieu of conducting the standard acute toxicity testing with the fathead minnow, the Discharger may elect to report the results or endpoint from the first 48 hours of the chronic toxicity test as the results of the acute toxicity test, but only if the Discharger uses USEPA's August 1993 protocol (EPA/600/4-90/027F) to conduct the chronic toxicity test.

2. Chronic Toxicity Effluent/Receiving Water Monitoring Program

a. The Discharger shall conduct critical life stage chronic toxicity tests on grab 100% effluent samples or receiving water samples in accordance with USEPA's *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Third Edition, July 1994 (EPA/600/4-91/002) or USEPA's *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, August 1995, (EPA/600/R-95/136).

b. Effluent samples shall be collected after all treatment processes and before discharge to the receiving water. Receiving water samples shall be collected in accordance with the conditions specified in this MRP. Receiving water samples shall be collected at mid-depth.

c. Freshwater Test Species and Methods:

i. The Discharger shall conduct short-term tests with the cladoceran, water flea (*Ceriodaphnia dubia* – survival and reproduction test), the fathead minnow (*Pimephales promelas* – larval survival and growth test), and the green alga (*Selanastrum capricornutum* - growth test) as an initial screening process for a minimum of three, but not to exceed five, suites of tests to account for potential variability of the effluent. After this screening period, monitoring shall be conducted using the most sensitive species.

ii. Re-screeining is required every 15 months. The Discharger shall re-screen with the three species listed above and continue to monitor with the most sensitive species. If the first suite of re-screening tests demonstrates that the same species is the most sensitive, then the re-screening does not need to include more than one suite of tests. If a different species is the most sensitive or if there is ambiguity then the Discharger shall proceed with suites of screening tests for a minimum of three, but not to exceed five suites.

iii. The presence of chronic toxicity shall be estimated as specified in USEPA's *Short-Term Methods for Estimating Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms*, Third Edition, July, 1994, (EPA/600/4-91/002).

3. Additional Requirements for Acute and Chronic Toxicity Monitoring Programs

a. Quality Assurance

i. Concurrent testing with a reference toxicant shall be conducted. Reference toxicant tests shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc).

ii. If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the test methods manuals (EPA/600/4-91/002, EPA/600/R-95/136, or EPA/600/4-90/027F), then the Discharger must re-sample and re-test within 14 days.

iii. Control and dilution water should be receiving water or laboratory water, as appropriate, as described in the manual. If the dilution water used is receiving water, a second control using culture water shall be used.

b. Accelerated Monitoring

i. If toxicity exceeds the limitations (as defined in Parts I.B.4.a., I.B.4.b., or I.C.4.e. of this Order), then the Discharger shall immediately implement the Initial Investigation of the TRE Workplan. The Discharger shall ensure that they receive results of a failing toxicity test within 24 hours of the completion of the test and the additional tests shall begin within 3 business days of receipt of the results.

ii. If implementation of the Initial Investigation TRE Workplan indicates the source of toxicity, then the Discharger may discontinue the TIE.

c. Steps in Toxicity Reduction Evaluation (TRE) and Toxicity Identification Evaluation (TIE)

i. Following a TRE trigger, the Discharger shall initiate a TRE in accordance with the facility's initial investigation TRE workplan. At a minimum, the Discharger shall use USEPA manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) as guidance. The Discharger will expeditiously develop a more detailed TRE workplan for submittal to the Executive Officer within 15 days of the trigger that will include, but not be limited to:

1. Further actions to investigate and identify the cause of toxicity;

2. Actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity;

3. Standards the Discharger will apply to consider the TRE complete and to return to normal sampling frequency; and

4. A schedule for these actions.

ii. The following is a stepwise approach in conducting the TRE:

1. Step 1 includes basic data collection. Data collected as part of the accelerated monitoring requirement may be used to conduct the TRE;

2. Step 2 evaluates optimization of the treatment system operation, facility housekeeping, and the selection and use of in-plant process chemicals;

3. If Steps 1 and 2 are unsuccessful, Step 3 implements the Toxicity Identification Evaluation (TIE) employing all reasonable efforts using currently available TIE methodologies. The objective of the TIE is to identify the substance or combination of substances causing the observed toxicity;

4. Assuming successful identification or characterization of the toxicant(s), Step 4 evaluates final effluent treatment options;

5. Step 5 evaluates in-plant treatment options; and

6. Step 6 consists of confirmation once a toxicity control method has been implemented.

Many recommended TRE elements parallel source control, pollution prevention, and storm water control program best management practices (BMPs). To prevent duplication of efforts, evidence of implementation of these control measures may be sufficient to comply with the TRE requirements. By requiring that the first steps of a TRE be accelerated testing and review of the facility's TRE workplan, a TRE may be ended in its early stages. All reasonable steps shall be taken to reduce toxicity to the required level. The TRE may be ended at any stage if monitoring finds there is no longer toxicity (or three consecutive chronic toxicity results are less than or equal to 1.0 TU_c).

iii. The Discharger may initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. The Discharger shall use the USEPA acute and chronic manuals, EPA/600/6-91/005F (Phase I), EPA/600/R-96-054 (for marine), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III) as guidance.

iv. If a TRE/TIE is initiated prior to completion of the accelerated testing schedule, then the accelerated testing may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer.

v. Toxicity tests conducted as part of a TRE/TIE may also be used for compliance, if appropriate.

vi. The Board recognizes that toxicity may be episodic and identification of causes of and reduction of sources of toxicity may not be successful in all

cases. Consideration of enforcement action by the Board will be based in part on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

d. Reporting

i. The Discharger shall submit a full report of the toxicity test results, including any accelerated testing conducted during the month. Test results shall be reported in Toxicity Units (% survival for acute or TU_c for chronic) with the discharge monitoring reports (DMR) for the month in which the test is conducted.

If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, then those results also shall be submitted with the DMR for the period in which the investigation occurred.

ii. The full report shall be submitted by the end of the month the DMR is submitted.

iii. The full report shall consist of (1) the results; (2) the dates of sample collection, initiation, and completion of each toxicity test; and (3) the acute toxicity limit or chronic toxicity limit.

iv. Test results for toxicity tests also shall be reported according to the appropriate manual chapter on Report Preparation and shall be attached to the DMR. Routine reporting shall include, at a minimum, as applicable, for each test:

1. sample date(s);
2. test initial date;
3. test species;
4. end point values for each dilution (e.g. number of young, growth rate, percent survival);
5. NOEC value(s) in percent effluent;
6. IC_{15}, IC_{25}, IC_{40}, and IC_{50} values in percent effluent;
7. TU_c values $\left(TU_c = \frac{100}{NOEC} \right)$;
8. Mean percent mortality (±standard deviation) after 96 hours in 100% effluent (if applicable);
9. NOEC and LOEC values for reference toxicant test(s);
10. IC_{25} value for reference toxicant test(s);
11. Any applicable control charts; and,
12. Available water quality measurements for each test (e.g. pH, D.O., temperature, conductivity, hardness, salinity, ammonia).

v. The Discharger shall provide a compliance summary that includes a summary table of toxicity data from at least eleven of the most recent samples.

vi. The Discharger shall notify, by telephone or electronically, this Regional Board of any toxicity exceedance of the limit or trigger within 24 hours of receipt of the results followed by a written report within 14 calendar days of receipt of the results. The verbal or electronic notification shall include the exceedance and the plan the Discharger will pursue. The written report shall describe acyions the Discharger has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by the permit, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

V. STORM WATER MONITORING REQUIREMENTS

A. Rainfall Monitoring

The Discharger shall measure and record the rainfall intensity on each day of the month. This information shall be included in the next monthly monitoring report for that period.

B. Visual observations

The Discharger shall make visual observations of all storm water discharge locations during at least one storm event per month that produces a significant storm water discharge to observe the presence of floating and suspended materials, oil and grease, discoloration, turbidity, and odor. “Significant storm water discharge” is a continuous discharge of storm water for a minimum of one hour, or the intermittent discharge of storm water for a minimum of three hours in a 12-hour period.

VI. RECEIVING WATER MONITORING REQUIREMENTS

The receiving water monitoring program shall consist of periodic surveys of Dominguez Channel and shall include studies of those physical-chemical characteristics of the receiving water that may be impacted by the discharges.

The Discharger may participate in a coordinated receiving water, biomonitoring, and sediment monitoring program with other dischargers to the Dominguez Channel in order to provide the Regional Board with a comprehensive water and sediment quality database for this water body. Upon approval by the Regional Board of such a coordinated water quality and sediment quality monitoring program, provisions of Section(s) VI (and VII.B.) of this monitoring and reporting program may be revised, as appropriate.

The Discharger shall prepare and submit a work plan for biomonitoring to the Executive Officer of the Regional Board for approval within 90 days of the effective date of this permit. The workplan shall detail a proposed biomonitoring assessment including, but not limited to, details for: using caged bivalves, specifying species to be used, parameters of the tests (including an acceptable size or age range of organisms), bivalve or sampling locations (including upstream and downstream of discharge), time periods when outplanting will occur, durations of the outplants and other analytical parameters.

A. Receiving Water Monitoring

1. Monitoring Stations: Receiving water sampling stations shall be established as follows:

   - RW1 - 50 feet from the center of the outfall line in the direction of tidal flow at the time of sampling. If sampled at slack tide, this station shall be in the direction where the channel waters have been influenced by the discharge at the time of sampling.

   - RW2 - 250 feet from the center of the outfall line in the direction of tidal flow at the time of sampling. If sampled at slack tide, this station shall be in the direction where the channel waters have been influenced by the discharge at the time of sampling.

   - RW3 - 250 feet from the center of the outfall line in the opposite direction of tidal flow at the time of sampling. If sampled at slack tide, this station shall be located opposite of where the channel waters have been influenced by the discharge at the time of sampling.

2. Receiving Water Observations: General observations of the receiving water shall be made at each discharge point on a monthly basis and shall be reported in the monthly monitoring report. If no discharge occurred during the observation period, this shall be reported.

   Observations shall be descriptive where applicable, such that colors, approximate amounts, or types of materials are apparent. The following observations shall be made:

   a. Tidal stage, time, and date of monitoring
   b. Weather conditions
   c. Color of water
   d. Appearance of oil films or grease, or floatable materials
   e. Extent of visible turbidity or color patches
   f. Direction of tidal flow
   g. Description of odor, if any, of the receiving water
   h. Presence and activity of California Least Tern and California Brown Pelican.

3. Receiving Water Monitoring: The receiving water monitoring stations (RW1-RW3) shall be sampled during periods of discharge other than rainfall runoff, if possible, at least quarterly. If no discharge other than rainfall runoff occurs, this shall be reported. Samples shall be obtained within ten centimeters of the surface and shall be analyzed for the constituents listed below:

Parameter	Units	Stations	Type of Sample	Minimum Frequency
pH	pH units	RW1-RW3	surface grab	quarterly
Dissolved oxygen	mg/L	RW1-RW3	surface grab	quarterly
Temperature	^{o}F or ^{o}C	RW1-RW3	surface grab	quarterly
Fecal coliform	MPN/100 mL	RW1-RW3	surface grab	quarterly
Sulfide	mg/L	RW1-RW3	surface grab	quarterly
Hardness[3/]	mg/L	RW1-RW3	subsurface grab	quarterly
Salinity[4/]	g/kg	RW1-RW3	subsurface grab	quarterly
Ammonia[3/] (total)	mg/L	RW1-RW3	subsurface grab	quarterly
Nitrate (as N)	mg/L	RW1-RW3	subsurface grab	quarterly
Residual chlorine	mg/L	RW1-RW3	subsurface grab	quarterly
Copper	µg/L	RW1-RW3	subsurface grab	quarterly
Lead	µg/L	RW1-RW3	subsurface grab	quarterly
Zinc	µg/L	RW1-RW3	subsurface grab	quarterly
Chronic toxicity	TUc	RW1-RW3	subsurface grab	semi-annually
Ammonia[3/] (un-ionized)	mg/L	RW1-RW3	calculation	quarterly
Visual observations	------	each discharge point	------	monthly

3/ Receiving water samples for ammonia, salinity, and hardness shall be taken concurrently with the effluent sample for ammonia.

4/ Salinity will be used for determination of the ammonia receiving water objective.

B. Sediment Monitoring

1. Monitoring Stations: Sediment sampling stations shall be established as follows:

   R1 - At Anaheim Road
   R2 - At Pacific Coast Highway
   R3 - At Sepulveda Boulevard
   R4 - At Alameda Street
   R5 - At Wilmington Avenue
   R6 - At Avalon Boulevard
   R7 - At Main Street

2. Sediment Monitoring Program: Sediment samples shall be collected and analyzed from the seven sediment monitoring stations (R1-R7) annually. The first sediment monitoring results shall be included in the February 2002 monitoring report.

   Grab samples containing the upper two centimeters of sediment shall be taken from an Ekman grab (or another method approved by the Executive Officer) collected at each station and shall be analyzed for the following:

Parameter	Units	Stations	Type of Sample	Minimum Frequency
Chronic toxicity	TUc	R1-R7	surface grab	annually
Sediment grain size [5/]	-----	R1-R7	surface grab	annually
Total organic carbon	mg/kg	R1-R7	surface grab	annually
Total petroleum hydrocarbons	mg/kg	R1-R7	surface grab	annually
Cadmium	mg/kg	R1-R7	surface grab	annually
Chromium	mg/kg	R1-R7	surface grab	annually
Copper	mg/kg	R1-R3	surface grab	annually
Lead	mg/kg	R1-R3	surface grab	annually
Nickel	mg/kg	R1-R7	surface grab	annually
Zinc	mg/kg	R1-R7	surface grab	annually
PCBs [6/]	µg/kg	R1-R7	surface grab	annually
PAHs [7/]	µg/kg	R1-R7	surface grab	annually
DDT [8/]	µg/kg	R1-R7	surface grab	annually
Description of odor and color [9/]	------	R1-R7	surface grab	annually

5/ Percent sand, silt and clay.

6/ PCBs mean the sum of Arochlor 1016, Arochlor 1221, Arochlor 1232, Arochlor 1242, Archlor 1248, Arochlor 1254, and Arochlor 1260.

7/ PAHs means the sum of acenapthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo(k)fluoranthene, 1,12-benzoperylene, benzo(a)pyrene, chrysene, dibenzo(ah)anthracene, fluorene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene.

8/ DDT means the sum of 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD, and 2,4'-DDD.

9/ Note visible aquatic life in sediment.

VII. INTERIM MONITORING

Pursuant to the California Water Code, Section 13267, the Discharger is required to submit data sufficient for determination of priority pollutants that require water quality-based effluent limitations. The Discharger shall conduct the following interim monitoring program for all California Toxic Rule pollutants for three years, or until ordered otherwise by the Regional Board.

A. Effluent: Discharge Serial No. 001.

B. Receiving Water: The monitoring station shall be 50 feet upstream from the point of Discharge Serial No. 001.

C. Monitoring Frequency: Once during the wet weather season (November 1 through April 30) and once during the dry weather season (May 1 through October 31), samples of the effluent and the receiving water shall be collected and analyzed for all toxic pollutants listed below:

Constituent	Units	Type of Sample	Monitoring Frequency[10/]
Antimony	µg/L	grab	once per discharge season
Arsenic	µg/L	grab	once per discharge season
Beryllium	µg/L	grab	once per discharge season
Cadmium	µg/L	grab	once per discharge season
Selenium	µg/L	grab	once per discharge season
Thallium	µg/L	grab	once per discharge season
Asbestos	fibers/L	grab	once per discharge season
Acrolein	µg/L	grab	once per discharge season
Acrylonitrile	µg/L	grab	once per discharge season
Benzene	µg/L	grab	once per discharge season
Bromoform	µg/L	grab	once per discharge season
Carbon tetrachloride	µg/L	grab	once per discharge season
Chlorobenzene	µg/L	grab	once per discharge season
Chlorodibromomethane	µg/L	grab	once per discharge season
Chrloroethane	µg/L	grab	once per discharge season
2-Chloroethylvinyl ether	µg/L	grab	once per discharge season
Chloroform	µg/l	grab	once per discharge season
Dichlorobromomethane	µg/L	grab	once per discharge season
1,1-Dichloroethane	µg/L	grab	once per discharge season
1,2-Dichloroethane	µg/L	grab	once per discharge season
1,1-Dichloroethylene	µg/L	grab	once per discharge season
1,2-Dichloropropane	µg/L	grab	once per discharge season
1,3-Dichloropropylene	µg/L	grab	once per discharge season
Ethylbenzene	µg/L	grab	once per discharge season
Methyl bromide	µg/L	grab	once per discharge season
Methyl chloride	µg/L	grab	once per discharge season
Methylene chloride	µg/L	grab	once per discharge season
1,1,2,2-Tetrachloroethane	µg/L	grab	once per discharge season
Tetrachloroethylene	µg/L	grab	once per discharge season
Toluene	µg/L	grab	once per discharge season
1,2-Trans-dichloroethylene	µg/L	grab	once per discharge season
1,1,1-Trichloroethane	µg/L	grab	once per discharge season
1,1,2-Trichloroethane	µg/L	grab	once per discharge season
Trichloroethylene	µg/L	grab	once per discharge season
2-Chlorophenol	µg/L	grab	once per discharge season
2,4-Dichlorophenol	µg/L	grab	once per discharge season
2,4-Dimethylphenol	µg/L	grab	once per discharge season
2-Methyl-4,6-Dinitrophenol	µg/L	grab	once per discharge season
2,4-Dinitrophenol	µg/L	grab	once per discharge season
2-Nitrophenol	µg/L	grab	once per discharge season
4-Nitrophenol	µg/L	grab	once per discharge season
3-Methyl-4-Chlorophenol	µg/L	grab	once per discharge season
Pentachlorophenol	µg/L	grab	once per discharge season
Phenol	µg/L	grab	once per discharge season
2,4,6-Trichlorophenol	µg/L	grab	once per discharge season

Constituent	Units	Type of Sample	Monitoring Frequency[10/]
Acenaphthene	µg/L	grab	once per discharge season
Acenaphthylene	µg/L	grab	once per discharge season
Anthracene	µg/L	grab	once per discharge season
Benzo (ghi) Perylene	µg/L	grab	once per discharge season
Bis (2-Chloroethoxy) Methane	µg/L	grab	once per discharge season
Bis (2-Chloroethyl) Ether	µg/L	grab	once per discharge season
Bis (2-Chloroisopropyl) Ether	µg/L	grab	once per discharge season
4-Bromophenyl Phenyl Ether	µg/L	grab	once per discharge season
Methyl t-Butyl Ether	µg/L	grab	once per discharge season
Butylbenzyl Phthalate	µg/L	grab	once per discharge season
2-Chloronapthalene	µg/L	grab	once per discharge season
4-Chlorophenyl Phenyl Ether	µg/L	grab	once per discharge season
1,2-Dichlorobenzene	µg/L	grab	once per discharge season
1,3-Dichlorobenzene	µg/L	grab	once per discharge season
1,4-Dichlorobenzene	µg/L	grab	once per discharge season
Diethyl Phthalate	µg/L	grab	once per discharge season
Dimethyl Phthalate	µg/L	grab	once per discharge season
Di-n-Butyl Phthalate	µg/L	grab	once per discharge season
2,4-Dinitrotoluene	µg/L	grab	once per discharge season
2,6-Dinitrotoluene	µg/L	grab	once per discharge season
Di-n-Octyl Phthalate	µg/L	grab	once per discharge season
Fluoranthene	µg/L	grab	once per discharge season
Fluorene	µg/L	grab	once per discharge season
Hexachlorobenzene	µg/L	grab	once per discharge season
Hexachlorobutadiene	µg/L	grab	once per discharge season
Hexachlorocyclopentadiene	µg/L	grab	once per discharge season
Hexachloroethane	µg/L	grab	once per discharge season
Isophorone	µg/L	grab	once per discharge season
Napthalene	µg/L	grab	once per discharge season
Nitrobenzene	µg/L	grab	once per discharge season
N-Nitrosodimethylamine	µg/L	grab	once per discharge season
N-Nitrosodi-n-Propylamine	µg/L	grab	once per discharge season
N-Nitrosodiphenylamine	µg/L	grab	once per discharge season
Phenanthrene	µg/L	grab	once per discharge season
Pyrene	µg/L	grab	once per discharge season
1,2,4-Trichlorobenzene	µg/L	grab	once per discharge season
gamma-BHC	µg/L	grab	once per discharge season
delta-BHC	µg/L	grab	once per discharge season
Endosulfan Sulfate	µg/L	grab	once per discharge season
Endrin Aldehyde	µg/L	grab	once per discharge season
Hardness (as $CaCO_3$)	mg/L	grab	once per discharge season

10/ Sampling shall be during the first hour of discharge. If, for safety reasons, a sample cannot be obtained during the first hour of discharge, a sample shall be obtained at the first safe opportunity and the reason for the delay shall be included in the report.

If there is no discharge to surface water during the year, samples shall be collected from the effluent that discharges into the sanitary sewer (the report shall so state). In this event, the monitoring frequency shall be once during the wet season. Wet weather samples shall be collected during the first hour of discharge.

D. Monitoring for TCDD Equivalents: The Discharger shall conduct effluent and receiving water monitoring point for the presence of the 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD or Dioxin) congeners. The monitoring shall be a grab sample with a minimum frequency of once during dry weather and once during wet weather. The Discharger shall calculate Toxic Equivalence (TEQ) for each congener by multiplying its analytical concentration by the appropriate Toxicity Equivalence Factor (TEF) listed below:

Congeners	TEF
2,3,7,8-tetra CDD	1.0
1,2,3,7,8-penta CDD	1.0
1,2,3,4,7,8-hexa CDD	0.1
1,2,3,6,7,8-hexa CDD	0.1
1,2,3,7,8,9-hexa CDD	0.1
1,2,3,4,6,7,8-hepta CDD	0.01
Octa CDD	0.0001
2,3,7,8-tetra CDF	0.1
1,2,3,7,8-penta CDF	0.05
2,3,4,7,8-penta CDF	0.5
1,2,3,4,7,8-hexa CDF	0.1
1,2,3,6,7,8-hexa CDF	0.1
1,2,3,7,8,9-hexa CDF	0.1
2,3,4,6,7,8-hexa CDF	0.1
1,2,3,4,6,7,8-hepta CDF	0.01
1,2,3,4,7,8,9-hepta CDF	0.01
Octa CDF	0.0001

Ordered by: _____ Date: May 24, 2001

Dennis A. Dickerson
Executive Officer