

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION**

**MONITORING AND REPORTING PROGRAM NO. 5742  
for  
EXXONMOBIL OIL CORPORATION  
(Torrance Refinery, Torrance)  
(CA0055387)**

**I. Reporting Requirements**

- A. ExxonMobil Oil Corporation (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 (for November 2001) under this program is due by January 1, 2002.
- 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 3 ½-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 proposed construction activity 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. Treated groundwater and storm water runoff shall be monitored separately prior to discharge to Outfall 001.
- 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/or 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 reports. For the purpose of monitoring pH, dissolved oxygen,

September 19, 2001

residual chlorine, and temperature, tests may be conducted at the field sampling location or in an ExxonMobil laboratory provided that all requirements of the approved analytical methods for NPDES use in 40 CFR 136 are met.

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;
2. "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML. For the purpose 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 (+/- a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.
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 (State Board) in the *Policy for the Implementation of Toxics 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 parameter. 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 Quality Assurance Program, shall establish an ML that is not contained in Attachment T-1, to be included in the Discharger's permit, 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 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 establish 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 (when it becomes available) 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 that both monthly average and daily maximum limits are specified and the monitoring frequency is less than four times a month, the following 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 test 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. The Discharger shall provide for the approval of the Executive Officer a program to ensure future compliance with the monthly average limit.

### III. Effluent Monitoring Program

- A. The following shall constitute the effluent monitoring program for the effluent:

Outfall 001a - Treated Groundwater:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Monitoring Frequency</u>
Total flow	gal/day	---	continuous
Temperature	°F or °C	grab	weekly
pH	pH units	grab	weekly
Settleable solids	ml/L	grab	monthly
Suspended solids	mg/L	grab	monthly
BOD <sub>5</sub> 20°C	mg/L	grab	monthly
Oil and grease	mg/L	grab	monthly
Turbidity	NTU	grab	monthly
Residual chlorine	mg/L	grab	monthly
Fecal Coliform	MPN/100ml	grab	monthly
Naphthalene	µg/L	grab	monthly
Hexavalent chromium	µg/L	grab	monthly

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Monitoring Frequency</u>
Total Chromium	µg/L	grab	monthly
Arsenic	µg/L	grab	monthly
Copper	µg/L	grab	monthly
Lead	µg/L	grab	monthly
Zinc	µg/L	grab	monthly
Ammonia	µg/L	grab	monthly
BTEX	µg/L	grab	monthly
Toxicity – acute	% survival	grab	quarterly <sup>2/</sup>
Toxicity –chronic	TU <sub>c</sub> <sup>1/</sup>	grab	annually <sup>2/</sup>

Outfall 001b - Storm Water:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Monitoring Frequency</u> <sup>3/</sup>
Total flow	gal/day	---	daily
Temperature	°F or °C	grab	once per discharge event
pH	pH units	grab	once per discharge event
Oil and grease	mg/L	grab	once per discharge event
Suspended Solids	mg/L	grab	once per discharge event
BOD <sub>5</sub> 20°C	mg/L	grab	once per discharge event
Turbidity	NTU	grab	once per discharge event
Fecal Coliform	MPN/100ml	grab	once per discharge event
Chromium (VI)	µg/L	grab	once per discharge event
Total Chromium	µg/L	grab	once per discharge event
Copper	µg/L	grab	once per discharge event
Lead	µg/L	grab	once per discharge event
Zinc	µg/L	grab	once per discharge event
Toxicity – acute	% survival	grab	once per discharge event
Total organic carbon	mg/L	grab	once per discharge event
Ammonia (as N)	mg/L	grab	once per discharge event
BTEX	µg/L	grab	once per discharge event

<sup>1/</sup> TU<sub>c</sub> = 100/NOEL, where NOEL (No Observed Effect Level) is expressed as the maximum percent effluent that causes no observable effect on an organism.

<sup>2/</sup> Chronic toxicity shall be addressed by the TIE and TRE work specified in the consent decree between USEPA and the Discharger.

<sup>3/</sup> 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.

**IV. Toxicity Monitoring Requirements**

1. Acute Toxicity 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 topsmelt, *Atherinops affinis*, shall be used as the test species for brackish discharges. The method for topsmell is found in USEPA's *short term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine*, First Edition, August 1995 (EPA/600/4R-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. 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 of notification by the laboratory of an invalid test.
- iii. Control and dilution water shall be receiving water or laboratory water as described in the manual. If the dilution water used is different from the culture water, a second control using culture water shall be used.

b. Accelerated Monitoring

- i. If toxicity exceeds the limitations (as defined in Order No. 01-XXX, Sections I.B.c.3., I.D.5., or I.D.6.), then the Discharger shall immediately implement accelerated testing, as specified at Sections I.B.c.3 or I.D.5 of Order No. 01-XXX. 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. If the accelerated testing shows consistent toxicity, the discharger shall immediately implement the Initial Investigation of the TRE Workplan.
- ii. If implementation of the initial investigation TRE workplan indicates the

source of toxicity (e.g., a temporary plant upset, etc.), then the Discharger may discontinue the TIE.

- iii. The first step in the initial Investigation TRE Workplan for downstream receiving water toxicity can be a toxicity test protocol designed to determine if the effluent from Outfall 001 causes or contributes to the measured downstream chronic toxicity. If this first step TRE testing shows that the Outfall 001 effluent does not cause or contribute to downstream chronic toxicity, using EPA'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), then a report on this testing shall be submitted to the Board and the TRE will be considered to be completed. Routine testing in accordance with MRP No. 5742 shall be continued thereafter.
- 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 EPA manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) as guidance. The Discharger shall expeditiously develop a more detailed TRE workplan for submittal to the Executive Officer within 30 days of the trigger, which 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 - Basic data collection. Data collected for the accelerated monitoring requirements 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 a Toxicity

Identification Evaluation (TIE) and employment of all reasonable efforts and 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 TRE requirements. By requiring the first steps of a TRE to 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 indicates there is no longer toxicity (or six consecutive chronic toxicity results are less than or equal to 1.0 TU<sub>c</sub>).

- 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 EPA 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 required by Part 3.b.i. of this permit, then the accelerated testing schedule 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 as required by this permit. Test results shall be reported in Toxicity Units (percent survival or TU<sub>c</sub>) 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, pursuant to Section 3.b.i, those results shall also be submitted with the DMR for the period in which the Investigation occurred.

- ii. The full report shall be submitted on or before the end of the month in which 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 tests; (3) the acute toxicity limit or chronic toxicity limit as described in 1a, 2a, and 3b.
- 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 initiation 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<sub>15</sub>, IC<sub>25</sub>, IC<sub>40</sub> and IC<sub>50</sub> values in percent effluent;
  7. TU<sub>c</sub> values  $\left( TU_c = \frac{100}{NOEC} \right)$ ;
  8. Mean percent mortality ( $\pm$  standard deviation) after 96 hours in 100% effluent (if applicable);
  9. NOEC and LOEC values for reference toxicant test(s);
  10. IC<sub>25</sub> 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, which 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 actions 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 on each day of the month. This information shall be included in the monitoring report for that month.

### **B. Visual Observations**

The Discharger shall make visual observations of the Discharge Serial No. 001 on 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. A "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, biological, 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 Sections VI and VII C of this monitoring and reporting program may be revised as appropriate. The approved coordinated water quality monitoring and sediment water quality monitoring program may include sampling station locations that are different than those shown in Sections VI.A.1. and VI.B.1. In this case, water quality and sediment sampling shall be conducted at the stations identified in the coordinated monitoring program and sampling at the stations shown in Sections VI.A.1. and VI.B.1. is not required.

Upon approval by the Regional Board of a coordinated water quality, biological, and

sediment quality monitoring program, chronic toxicity monitoring for the receiving water may also be conducted using appropriate aquatic species and test guidelines as approved by the Regional Board, and described in a monitoring plan. Physical/chemical characteristics of the receiving water (e.g., salinity, hardness) will be considered in test species and methodology selection. The plan will also include provisions for additional monitoring and basin-wide toxicity identification/reduction efforts to be undertaken if chronic toxicity is observed. The plan may include alternative sampling locations for chronic toxicity monitoring, and if approved by the Executive Officer, these alternative locations shall replace the sampling locations described in Section VI.A.4. Barring the establishment of a coordinated program, a monitoring plan will be submitted by ExxonMobil which describes the same considerations and actions relative only to the potential impact of ExxonMobil's discharge on the receiving water and addressing the stations as outlined below.

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 work plan shall detail a proposed biomonitoring assessment including, but not limited to detail for using caged bivalves, specifying species to be used, parameters of the test (including an acceptable size or age range of organisms), bivalve or sampling locations, time periods when outplanting will occur, durations of the outplants, and other analytical parameters.

A. Receiving Water Monitoring

1. Monitoring Stations – Surface water monitoring stations shall be established around each discharge point as follows:
  - RW1 : 50 feet from the confluence of the Torrance Flood Control Lateral with the Dominguez Channel 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 confluence of the Torrance Flood Control Lateral with the Dominguez Channel 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 confluence of the Torrance Flood Control Lateral with the Dominguez Channel 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 - Observations of the receiving water shall be made at Discharge Serial No. 001 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 analyzed for the constituents listed below:

<u>Parameter</u>	<u>Units</u>	<u>Stations</u>	<u>Type of Sample</u>	<u>Minimum Frequency</u>
pH	pH units	RW1-RW3	surface grab	quarterly
Dissolved oxygen	mg/L	RW1-RW3	surface grab	quarterly
Temperature	°F or °C	RW1-RW3	surface grab	quarterly
Sulfide	mg/L	RW1-RW3	surface grab	quarterly
Hardness <sup>1/</sup>	mg/L	RW1-RW3	surface grab	quarterly
Salinity <sup>2/</sup>	g/kg	RW1-RW3	surface grab	quarterly
Ammonia <sup>1/</sup> (total)	mg/L	RW1-RW3	surface grab	quarterly
Nitrate (as N)	mg/L	RW1-RW3	surface grab	quarterly
Chlorine residual	mg/L	RW1-RW3	surface grab	quarterly
Copper	µg/L	RW1-RW3	surface grab	quarterly
Lead	µg/L	RW1-RW3	surface grab	quarterly
Zinc	µg/L	RW1-RW3	surface grab	quarterly
Fecal Coliform	µg/L	RW1-RW3	surface grab	quarterly
Chronic toxicity	TUc	RW1-RW3	surface grab	semiannually
Visual observations	-----	each discharge point	-----	monthly

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

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

4. Receiving Water Chronic Toxicity Monitoring Program

- a. The Discharger shall conduct critical life stage chronic toxicity tests on receiving water samples in accordance with EPA'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 EPA'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.
- c. Test Species and Methods:
  - i. The Discharger shall conduct tests as follows: with a vertebrate, an invertebrate, and an alga for the first three suites of tests. After the screening period, monitoring shall be conducted using the most sensitive species.
  - ii. Every 18 months, the Discharger shall re-screen once with the three species listed above and continue to monitor with the most sensitive species. Re-screening shall be conducted at a different time of year from the previous re-screening.
  - iii. The presence of chronic toxicity shall be estimated as specified using West Coast marine organisms according to EPA' s Short-Term Methods for Estimating Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine and Estuarine Organisms, August, 1995 (EPA/600/R-95/136).

**B. Sediment Monitoring**

- 1. 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 annually from the seven sediment monitoring stations (R1-R7). The first sediment monitoring results shall be included in the July 2002 monitoring report.

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

Type of Minimum

<u>Parameter</u>	<u>Units</u>	<u>Stations</u>	<u>Sample</u>	<u>Frequency</u>
Chronic toxicity	TUc	R1-R7	surface grab	semiannually
Sediment grain Size <sup>1/</sup>	----	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

<u>Parameter</u>	<u>Units</u>	<u>Stations</u>	<u>Type of Sample</u>	<u>Minimum Frequency</u>
PCBs <sup>2/</sup>	µg/kg	R1-R7	surface grab	annually
PAHs <sup>3/</sup>	µg/kg	R1-R7	surface grab	annually
DDT <sup>4/</sup>	µg/kg	R1-R7	surface grab	annually
Description of Odor and color <sup>5/</sup>	-----	R1-R7	surface grab	annually

1/ Percent sand, silt, and clay.

2/ The sum of Aroclors 1242, 1254, 1221, 1232, 1248, 1260, and 1016.

3/ PAHs: Acenaphthene, Fluoranthene, Naphthalene, Benzo(a) anthracene, Benzo(a) pyrene, Benzo(b) fluoranthene, Benzo(k) fluoranthene, Benzo(ghi) perylene, Dibenzo(a,h) anthracene, Chrysene, Acenaphthylene, Anthracene, Fluorene, Pyrene, Phenanthrene, Indo(1,2,3-cd) pyrene.

4/ DDT: The sum of 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD, and 2,4'-DDD.

5/ 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 determining which priority pollutants require water quality-based effluent limitations. The Discharger shall conduct the following interim monitoring program for three years, or until ordered otherwise by the Regional Board.

- A. Effluent: Outfall 001a. The minimum monitoring frequency shall be quarterly.
- B. Effluent: Outfall 001b. The minimum monitoring frequency shall be once during the wet season (November 1 through April 30) and once during the dry season (May 1 through October 31).
- C. Receiving Water: This Monitoring Station shall be consistent with RW1 in Section VI

(A)(1). The minimum monitoring frequency shall be once during the wet season (November 1 through April 30) and once during the dry season (May 1 through October 31).

D. Samples of the effluent and receiving water shall be collected and analyzed for all toxic pollutants listed in the table below:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>
Mercury	µg/L	grab
Nickel	µg/L	grab
Silver	µg/L	grab
Thallium	µg/L	grab
Cyanide	µg/L	grab
Acrylonitrile	µg/L	grab
Carbon tetrachloride	µg/L	grab
1,1-Dichloroethylene	µg/L	grab
Ethylene Dibromide	µg/L	grab
Pentachlorophenol	µg/L	grab
2,4,6-Trichlorophenol	µg/L	grab
Benzidine	µg/L	grab
Bis (2-Chloroethyl) Ether	µg/L	grab
Bis (2-ethylhexyl)Phthalate	µg/L	grab
3,3-Dichlorobenzidine	µg/L	grab
2,4-Dinitrotoluene	µg/L	grab
Hexachlorobenzene	µg/L	grab
Hexachloroethane	µg/L	grab
N-Nitrosodi-n-Propylamine	µg/L	grab
4,4-DDE	µg/L	grab
4,4-DDD	µg/L	grab
Aldrin	µg/L	grab
PAHs <sup>1/</sup>	µg/L	grab
ChemA <sup>2/</sup>	µg/L	grab
4,4'-DDT	µg/L	grab
Total PCBs	µg/L	grab
1,2-dichloroethane	µg/L	grab
MTBE	µg/L	grab

1/ The Discharger must notify the Regional Board staff (via telephone, e-mail, or fax) within 48 hours of any detectable results for these pollutants.

2/ ChemA: Endrin, Chlordane, Dieldrin, Alpha-endosulfan, Beta-endosulfan, Heptachlor, Heptachlor epoxide, Toxaphene, Alpha-BHC, Beta-BHC, Gamma-BHC.

If there is no discharge from the outfall 001b to surface water, samples shall be collected from discharges into the sanitary sewer (the report shall so state).

D. Monitoring for TCDD Equivalents: The Discharger shall conduct effluent/receiving

water monitoring for the presence of the 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD or Dioxin) congeners. A grab sample shall be collected at minimum frequency of once during dry weather and once during wet weather for three years. The Discharger shall calculate the Toxic equivalence (TEQ) for each congener by multiplying its analytical concentration by the appropriate Toxicity Equivalence Factor (TEF) listed below.

<u>Congeners</u>	<u>(TEF)</u>
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	0.01
Octa CDF	0.0001

Ordered by: \_\_\_\_\_  
Dennis A. Dickerson  
Executive Officer

Date: September 19, 2001