

California Regional Water Quality Control Board
Los Angeles Region

MONITORING AND REPORTING PROGRAM No. 2165
for
ULTRAMAR INC.
(Wilmington Marine Terminal)
(CA0055719)

I. REPORTING REQUIREMENTS

- A. The Discharger shall implement this monitoring program on the effective date of this order. Monitoring reports shall be submitted by the dates in the following schedule:

<u>Reporting Period</u>	<u>Report Due</u>
January – March	April 15
April - June	July 15
July - September	October 15
October – December	January 15
Annual Summary Report	March 1

The first monitoring report under this program (from January - March 2002) is due by April 15, 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 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 B) 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 B in any of the following situations:

1. When the pollutant under consideration is not included in Attachment B;
 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 B;
 4. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Attachment B 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 Discharge Serial Nos. 001, 002, and 003:

1. For storm water runoff:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Monitoring Frequency</u> ^{1/}
Total flow	gal/day	---	once per discharge event
pH	pH units	grab	once per discharge event
Conductivity	µmho/cm	grab	once per discharge event
Oil and grease	mg/L	grab	once per discharge event
Total organic carbon	mg/L	grab	once per discharge event
Suspended solids	mg/L	grab	once per discharge event
Phenolic compounds	mg/L	grab	once per discharge event
Ammonia (as N)	mg/L	grab	once per discharge event
Arsenic	µg/L	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
Mercury	µg/L	grab	once per discharge event
Nickel	µg/L	grab	once per discharge event
Selenium	µg/L	grab	once per discharge event
Silver	µg/L	grab	once per discharge event
Zinc	µg/L	grab	once per discharge event
Benzene	µg/L	grab	once per discharge event
Ethylbenzene	µg/L	grab	once per discharge event
Toluene	µg/L	grab	once per discharge event
Xylene	µg/L	grab	once per discharge event
Acute Toxicity	% survival	grab	annually (1 st discharge of the wet season)
Remaining Priority	µg/L	grab	annually ^{2/}
<u>Pollutants (see Attachment T-2)</u>			<u>(1st discharge of the wet season)</u>

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/ If a pollutant is detected then the minimum monitoring frequency shall increase to once per discharge event until at least three consecutive test results are not detected, after which the frequency of analysis shall revert to annually.

2. For hydrostatic test water from integrity testing of new or rehabilitated pipes, and petroleum storage tanks:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Monitoring Frequency</u>
Total flow	gal/day	----	once per discharge event
pH	pH units	grab	once per discharge event
Temperature	°F or °C	grab	once per discharge event
Suspended solids	mg/L	grab	once per discharge event
Settleable solids	ml/L	grab	once per discharge event
Turbidity	mg/L	grab	once per discharge event
BOD ₅ 20°C	mg/L	grab	once per discharge event
Residual chlorine	mg/L	grab	once per discharge event
Sulfides	mg/L	grab	once per discharge event
Oil and grease	mg/L	grab	once per discharge event
Arsenic	µg/L	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
Mercury	µg/L	grab	once per discharge event
Nickel	µg/L	grab	once per discharge event
Selenium	µg/L	grab	once per discharge event
Silver	µg/L	grab	once per discharge event
Zinc	µg/L	grab	once per discharge event
Benzene ^{1/}	µg/L	grab	once per discharge event
Ethylbenzene ^{1/}	µg/L	grab	once per discharge event
Toluene ^{1/}	µg/L	grab	once per discharge event
Xylene ^{1/}	µg/L	grab	once per discharge event
Phenol ^{1/}	µg/L	grab	once per discharge event
Acute Toxicity	% survival	grab	annually
Remaining Priority ^{1/} Pollutants (see Attachment T-2)	µg/L	grab	annually ^{2/}

1/ Not applicable to new pipes and storage tanks.

2/ If a pollutant is detected then the minimum monitoring frequency shall increase to once per discharge event until at least three consecutive test results are not detected, after which the frequency of analysis shall revert to annually.

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).

2. Quality Assurance

- a. 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).
- b. 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 and EPA/600/R-95/136), then the Discharger must re-sample and re-test at the earliest time possible.
- c. 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.

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

- a. Following a TRE trigger, the Discharger shall initiate a TRE. 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:
 - i. Further actions to investigate and identify the cause of toxicity;
 - ii. Actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity;
 - iii. Standards the Discharger will apply to consider the TRE complete and to

return to normal sampling frequency; and

- iv. A schedule for these actions.
- b. The following is a stepwise approach in conducting the TRE:
 - i. Step 1 includes basic data collection. Data collected as part of the accelerated monitoring requirement may be used to conduct the TRE;
 - ii. Step 2 evaluates optimization of the treatment system operation, facility housekeeping, and the selection and use of in-plant process chemicals;
 - iii. If Steps 1 and 2 are unsuccessful, Step 3 implements the 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;
 - iv. Assuming successful identification or characterization of the toxicant(s), Step 4 evaluates final effluent treatment options;
 - v. Step 5 evaluates in-plant treatment options; and
 - vi. 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.

- c. 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.
- d. 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.
- e. Toxicity tests conducted as part of a TRE/TIE may also be used for compliance,

if appropriate.

- f. 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 toxicity.

4. Reporting

- a. 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 toxicity) with the discharge monitoring reports (DMR) for the month in which the test is conducted.
- b. 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.
- c. The full report shall be submitted by the end of the month the DMR is submitted.
- d. 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.
- e. 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:
 - i. sample date(s);
 - ii. test initial date;
 - iii. test species;
 - iv. end point values for each dilution (e.g. number of young, growth rate, percent survival);
 - v. NOEC value(s) in percent effluent;
 - vi. IC₁₅, IC₂₅, IC₄₀, and IC₅₀ values in percent effluent;
 - vii. TU_a values $\left(TU_c = \frac{100}{LC_{50}} \right)$;
 - viii. Mean percent mortality (\pm standard deviation) after 96 hours in 100% effluent

(if applicable);

- ix. NOEC and LOEC values for reference toxicant test(s);
 - x. IC₂₅ value for reference toxicant test(s);
 - xi. Any applicable control charts; and,
 - xii. Available water quality measurements for each test (e.g. pH, D.O., temperature, conductivity, hardness, salinity, ammonia).
- f. The Discharger shall provide a compliance summary that includes a summary table of toxicity data from at least eleven of the most recent samples.
- g. 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

1. 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.

2. Visual Observation

The Discharger shall make visual observations of the discharge points 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

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

1. Receiving Water Monitoring

- A. Monitoring Stations – Surface water monitoring stations shall be established as follows:

RW1 : A point less than 50 feet from the effluent discharge point (within the influence of the of discharge) by Slip 1. The direction of the tidal flow at the time of sample collection shall be away from the discharge point and towards the sampling point.

RW2: A point greater than 50 feet from the effluent discharge point (outside the influence of the of discharge) by Slip 1. The direction of the tidal flow at the time of sample collection shall be towards the discharge point and away from the sampling point.

- B. Receiving Water Observations - Observations of the receiving water shall be made at Slip 1 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.

- C. Receiving Water Monitoring - The receiving water monitoring stations (RW1, RW2) shall be sampled during periods of discharge or within 12 hours of discharge. Samples shall be taken quarterly. In addition, during the period of a year (four sampling events), samples shall be taken both during discharges of primarily hydrostatic test water and discharges of primarily storm water. If no discharges occur during a quarter, no samples need be taken and this shall be reported in the monthly report. 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-RW2	surface grab	quarterly
Dissolved oxygen	mg/L	RW1-RW2	surface grab	quarterly
Fecal Coliform ^{1/}	MPN/100ml	RW1-RW2	surface grab	quarterly
Visual observations	-----	each discharge point	-----	monthly

1/ Not applicable to hydrostatic test water.

Several efforts are underway to develop and implement a coordinated receiving water, biological, and sediment monitoring program with other dischargers to the Dominguez Channel Estuary and Los Angeles Inner Harbor in order to provide the Regional Board with a comprehensive water and sediment quality database for this water body. The Discharger may participate in the coordinated water quality and sediment quality monitoring program upon approval by the Regional Board of such monitoring program. Thus, provisions of Sections VI. and VII.A.4. 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 the station mentioned in Sections VI. and VII.A.4. In this case, water quality and sediment sampling shall be conducted at the stations identified in the coordinated monitoring program and sampling at the station mentioned in Sections VI. and VII.A.4 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 monitoring plan will also include provisions for additional monitoring and basin-wide toxicity identification/reduction efforts to be undertaken if chronic toxicity is observed. The monitoring 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 Sections VI. and VII.A.4. Barring the establishment of a coordinated program, a monitoring plan will be submitted by Ultramar which describes the same considerations and actions relative only to the potential impact of Ultramar's discharge on the receiving water and addressing the stations outlined below.

VII. INTERIM MONITORING AND REPORTING

Pursuant to the California Water Code, Section 13267 and in accordance with the SIP, the Discharger is hereby directed to conduct seven quarters (**from July 2001 to March 2003**) of effluent and receiving water sampling/monitoring for all the constituents listed in Attachment A. To the extent there is any conflict between the requirements contained

in this provision VII and a previous directive issued by the Regional Board on August 31, 2001, the requirements of this provision VII control. The Discharger may use any data previously collected and analyses previously performed in response to the aforementioned directive to comply with the requirements of this provision VII.

A. Interim Monitoring Requirements

1. The data collected for all the constituents listed in Attachment A must be compiled to perform a Reasonable Potential Analysis (RPA), and if necessary to develop effluent limits.
2. The effluent sample shall be collected at Discharge Serial Nos. 001, 002, and 003.
3. The Discharger must monitor the effluent and receiving water for the presence of the 17 congeners of 2,3,7,8-TCDD listed in Attachment A, once during the dry weather and once during the wet weather (a total of two samples) during this period. The Discharger must report for each congener the analytical results of the effluent monitoring, including the quantifiable limit and the Method Detection Limit (MDL), and the measured or estimated concentration. The Discharger must multiply each measured or estimated congener concentration by its respective Toxicity Equivalent Factors (TEFs) and report the sum of these values.
4. The receiving water samples shall be collected upstream of the effluent discharge point in the receiving water outside the influence of the discharge. Where feasible receiving water sample should be collected at a point outside of the influence of the effluent discharge (i.e., at least 50 feet from the point of discharge to Slip 1 and in an opposite direction of the tidal flow at the time of sample collection.)

B. Interim Monitoring Report

1. The RPA monitoring reports must be submitted every quarter according to the schedule below: You may conduct the quarterly/semi-annually sampling during the periods prescribed in the monitoring and reporting section of your current permit, but the data must be submitted according to the Monitoring and Reporting Schedule which follows. However, if quarterly/semi-annually sampling is not required in your current permit, you must sample your effluent and the receiving water, and submit a report according to the Monitoring and Reporting Schedule below. Please note that the report for this required monitoring must be submitted separately from the self-monitoring reports.

Monitoring and Reporting Schedule	
Monitoring Period	Report Due Date
January – March	April 15
April – June	July 15
July – September	October 15
October – December	January 15
Semi-annual sampling (to be conducted during October to March, and during April to September)	April 15 & October 15, Respectively

Semi-annual sampling results shall be reported in the quarterly reports submitted on the 15th day of April and October respectively.

2. SWRCB-approved laboratory methods and the corresponding minimum levels (MLs) for the examination of each priority pollutant are listed in Attachment B. Reporting requirements for the data to be submitted are listed in Attachment C. We recommend that you select the analytical method from Attachment A capable of achieving the lowest ML for each pollutant as listed on Attachment B. ML is necessary for determining compliance for a priority pollutant when an effluent limit is below the MDL.
3. The laboratory analytical data shall include applicable MLs, MDL, quality assurance/quality control data, and shall comply with the reporting requirements contained in the Attachments B & C.
4. In conformance with a prior directive, the first monitoring data under this program was due **October 15, 2001**, and the last report is due pursuant to this MRP on **April 15, 2003**, to this Regional Board. The last monitoring data shall include all the analytical data from the previous sampling events under this program. You must provide these analytical results in both **electronic format** (available as a **Microsoft Excel Spreadsheet** on our Web site http://www.swrcb.ca.gov/~rwqcb4/html/programs/watershed_reg.html) and in **paper format**.
5. Please forward all interim monitoring data/report to The Regional Board, Attn: Industrial Permitting Unit, and please include a reference to "Compliance File No. CI-2165 and NPDES No. CA00055719".

Ordered by: _____
Dennis A. Dickerson
Executive Officer

Date: January 24, 2002