

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

**MONITORING AND REPORTING PROGRAM NO. 8041
for
EXXON MOBIL OIL CORPORATION
(Former Mobil Station #18-LDM)
(CA0064262)**

I. Reporting Requirements

- A. Exxon Mobil Oil Corporation (hereinafter Mobil or Discharger) shall implement this monitoring program on the effective date of this Order. All monitoring reports shall be submitted quarterly and must be received by the Regional Board by the dates in the following schedule. All monitoring reports should be addressed to the Regional Board, Attention: Information Technology Unit. The first monitoring report under this Program is due by February 1, 2006.

Reporting Period	Report Due
January – March	May 1
April – June	August 1
July-September	November 1
October-December	February 1
Annual Summary Report	March 1

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

- B. 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 1/2" computer diskette. Submitted data must be IBM compatible, preferably using EXCEL software. This annual report is to be received by the Regional Board by March 1 of each year following the calendar year of data collection. The Regional Board and State Board are developing a database compliance monitoring management system that may require the Discharger to submit the monitoring and annual summary reports electronically when it becomes fully operational.
- C. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with waste discharge requirements, as well as all excursions of effluent limitations.

- 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. A representative sample shall be collected for the CATS effluent discharge through NPDES Discharge Serial No. 001A and PARS effluent through NPDES Discharge Serial No. 001B. Discharge Serial No. 001A (Latitude 34° 02' 39" North, Longitude 118° 27' 59" West) is located at a point before the CATS effluent mixes with the PARS effluent and its ultimate discharge to the storm drain through Discharge Serial No. 001. Discharge Serial No. 001B (Latitude 34° 02' 39" North, Longitude 118° 27' 59" West) is located at a point before the PARS effluent mixes with the CATS effluent. Discharge Serial No. 001 is located at Latitude 34° 02' 34" North, Longitude 118° 27' 50" West.
- 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 sections 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 the State Board. Laboratories analyzing effluent samples and receiving water samples shall be certified by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided each time a new certification and/or renewal of the certification are obtained from ELAP.

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; 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 A) are those published by the State Water Resources Control Board in the *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (or SIP), March 2, 2000*.

- D. Where possible, the MLs employed for effluent analyses shall be lower than the permit limitations 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 A 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 A;
2. When the Discharger and Regional Board agree to include in the permit a test method that is more sensitive than that specified in 40 Code of Federal Regulation (CFR) Part 136 (revised May 14, 1999);
3. When the Discharger agrees to use an ML that is lower than that listed in Attachment A;
4. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Attachment A, 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 United States Environmental Protection Agency (U.S. EPA) 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 section 136.3. All quality assurance and control (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. All analyses shall be accompanied by the chain of custody, including but not limited to data and time of sampling, sample identification, and name of person who performed sampling, date of analysis, name of person who performed analysis, QA/QC data, method detection limits, analytical methods, copy of laboratory certification, and a perjury statement executed by the person responsible for the laboratory.
- G. Annual effluent analyses shall be performed during the month of February. Results of monthly, quarterly, and annual analyses shall be reported in the appropriate quarterly monitoring report, as indicated in Section I.A.
- H. For parameters for which 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 1 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. This Order requires that sampling for effluent monitoring shall be conducted at the effluent of the CATS for Discharge Serial No. 001A and at the effluent of the PARS for Discharge Serial No. 001B. Monitoring is required to determine compliance with effluent limitations and characterize the discharge. The Discharger also is required to monitor the effluent for the California Toxics Rule (CTR) priority pollutants, to determine reasonable potential. The monitoring requirements for CTR priority pollutants are discussed in Section VI. Details of the toxicity tests are available in Section IV. The table below shall constitute the effluent monitoring program for NPDES Discharge Serial Nos. 001A, 001B and/or 001 when there are discharges from only one of the treatment systems.

Pollutant	Units	Type of Sample	Sampling Frequency
BOD ¹	mg/L	Grab	1/Month
Oil and Grease	mg/L	Grab	1/Month
pH	standard units	Grab	1/Month
Total Suspended Solids (TSS)	mg/L	Grab	1/Month
Lead, Total Recoverable ²	µg/L	Grab	1/Month
Benzene	µg/L	Grab	1/Month
1,1-Dichloroethane (1,1-DCA)	µg/L	Grab	1/Month
1,1-Dichloroethylene (1,1-DCE)	µg/L	Grab	1/Month
Ethylbenzene	µg/L	Grab	1/Month
Tetrachloroethylene	µg/L	Grab	1/Month
Toluene	µg/L	Grab	1/Month
1,1,1-Trichloroethane (1,1,1-TCA)	µg/L	Grab	1/Month
Trichloroethylene	µg/L	Grab	1/Month
Acute Toxicity ⁴	% survival	Grab	1/Year
Chronic Toxicity ⁴	TU _c	Composite	1/Year
Di-isopropyl ether	µg/L	Grab	1/Month
Ether tertiary butyl ether	µg/L	Grab	1/Month
Ethylene Dibromide	µg/L	Grab	1/Month
Flow, Total	gallons per day	Meter	Daily
Hydrocarbons, Total Petroleum ⁵	µg/L	Grab	1/Month ³
Methyl Tertiary Butyl Ether (MTBE)	µg/L	Grab	1/Month ³
Settleable Solids	ml/L	Grab	1/Month
Temperature	° F	Grab	1/Month
Tertiary amyl methyl ether	µg/L	Grab	1/Month
Tertiary Butyl Alcohol (TBA)	µg/L	Grab	1/Month ³
Turbidity	NTU	Grab	1/Month
Xylene	µg/L	Grab	1/Month
N-Nitrosodimethylamine (NDMA)	µg/L	Grab	1/Year
1,4-Dioxane	µg/L	Grab	1/Year
1,2,3-Trichloropropane	µg/L	Grab	1/Year
Ammonium perchlorate	µg/L	Grab	1/Year
Remaining Priority Pollutants ⁶ (except asbestos)	µg/L	Grab	1/Year

¹ 5-day biochemical oxygen demand at 20 °C.

² Analysis to be performed by Graphite Furnace Method

³ If any of these constituents exceeds the effluent limitations, the frequency of analysis shall be increased to weekly. After three consecutive weekly samples show full compliance with the discharge limitations, the frequency of analysis may revert to monthly

⁴ See Section IV – If the discharge to Outfall 001 is a mixture of wastewater from Outfalls 001A and 001B, sample is to be collected from Outfall 001. If the discharge comes solely from the CATS or PARS treatment system the appropriate outfall, Outfall 001A for CATS or 001B for PARS, or Outfall 001 is to be sampled.

⁵ Total Petroleum Hydrocarbons as gasoline.

⁶ See Attachment A.

IV. Toxicity Monitoring Requirements

A. Definition of Toxicity

1. Acute Toxicity.

Acute toxicity is a measure of primarily lethal effects that occur over a 96-hour period. Acute toxicity shall be measured in percent survival measured in undiluted (100%) effluent.

- a. The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and
- b. No single test shall produce less than 70% survival.

2. Chronic Toxicity.

Chronic toxicity measures a sublethal effect (e.g., reduced growth, reproduction) to experimental test organisms exposed to an effluent or ambient waters compared to that of the control organisms. Chronic toxicity shall be measured in TU_c , where $TU_c = 100/NOEC$. The No Observable Effect Concentration (NOEC) is expressed as the maximum percent effluent concentration that causes no observable effect on test organisms, as determined by the results of a critical life stage toxicity test.

This Order includes a chronic testing toxicity trigger defined as an exceedance of the monthly median of 1.0 TU_c in a critical life stage test for 100% effluent.

B. Acute Toxicity Effluent Monitoring Program

1. The Discharger shall conduct acute toxicity tests on effluent grab samples by methods specified in 40 CFR Part 136 which cites USEPA's *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, October 2002, USEPA, Office of Water, Washington D.C. (EPA/821-R-02-012) or a more recent edition to ensure compliance in 100 % effluent.
2. 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 effluent. The method for topsmelt is found in USEPA's *Short-term Method 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), or a more recent edition.

3. 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.
4. Effluent samples shall be collected after all treatment processes and before discharge to the receiving water.

C. Chronic Toxicity Effluent Monitoring Program

1. Effluent samples shall be collected after all treatment processes and before discharge to the receiving water.
2. Test Species and Methods:
 - a. The Discharger shall conduct critical life stage chronic toxicity tests on 24-hour composite 100 percent effluent samples in accordance with USEPA's *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Fourth Edition, October 2002 (EPA/21-R-02-013) or EPA's *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, Third Edition, October 2002, (EPA/821/R-02-014), or a more recent edition.
 - b. The Discharger shall conduct tests as follows: with a vertebrate, an invertebrate, and a plant for the first three suites of tests. After the screening period, monitoring shall be conducted using the most sensitive species.
 - c. Re-screening 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 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.
 - d. In brackish waters, the presence of chronic toxicity may 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), or a more recent edition.

D. Quality Assurance

1. 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).
2. 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/821-R-02-014), then the Discharger must re-sample and re-test at the earliest time possible.
3. Control and dilution water should be receiving water or laboratory water, as appropriate, 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.

E. Accelerated Monitoring and Initial Investigation Toxicity Reduction Evaluation Trigger

1. Special Provision VI.C.2.b of the Order requires the Discharger to develop and submit for approval an Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan.
2. If the results of a toxicity test exceed the acute toxicity effluent limitations or chronic toxicity trigger (as defined below):

Acute Toxicity:

- a. The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and
- b. No single test shall produce less than 70% survival.

Chronic Toxicity:

- a. This Order includes a chronic testing toxicity trigger defined as an exceedance of 1.0 TU_c in a critical life stage test for 100% effluent. (The monthly median for chronic toxicity of 100% effluent shall not exceed, 1 TU_c in a critical life stage test.)

then, the Discharger shall begin the investigation and evaluation as specified in the Discharger's Initial Investigation TRE Workplan and begin accelerated monitoring by conducting six additional tests, approximately every 2 weeks, over a 12-week period. The samples shall be collected and the tests initiated no less than 7 days apart. The Discharger shall ensure that they receive results of a failing acute toxicity test within 24 hours of the close of the test and the additional tests shall begin within 3 business days of the receipt of the result.

3. 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 Initial Investigation Toxicity Reduction Evaluation and resume routine testing frequency.
4. 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 Discharge Point 001 causes or contributes to the measured downstream chronic toxicity. If this first step in the Initial Investigation TRE Workplan shows that the Discharge Point 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 Freshwater Organisms*, Fourth Edition, October 2002 (EPA/821/R-02-013), or EPA's *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, Third Edition, October 2002, (EPA/821/R-02-014) then a report on this testing shall be submitted to the Board and the Initial Investigation TRE will be considered to be completed. Routine testing in accordance with the MRP shall be continued thereafter.

F. TRE/Toxicity Identification Evaluation Trigger (TIE)

1. If the accelerated testing shows consistent toxicity as defined below:
 - a. Acute Toxicity:
 - 1) If the results of any two of the six accelerated tests are less than 90% survival, or
 - 2) If the initial test and any of the additional six acute toxicity bioassay tests result in less than 70% survival
 - b. Chronic Toxicity
 - 1) If the results of two of the six accelerated tests exceed 1.0 TU_c

then, the Discharger shall immediately implement the Toxicity Reduction Evaluation (TRE) as described below.

G. Steps in TRE and TIE Procedures

1. 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 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:

- a. Further actions to investigate and identify the cause of toxicity;
 - b. Actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity;
 - c. Standards the Discharger will apply to consider the TRE complete and to return to normal sampling frequency; and,
 - d. A schedule for these actions.
2. The following is a stepwise approach in conducting the TRE:
- a. Step 1 – Basic data collection. Data collected for the accelerated monitoring requirements may be used to conduct the TRE;
 - b. Step 2 – Evaluates optimization of the treatment system operation, facility housekeeping, and the selection and use of in-plant process chemicals;
 - c. Step 3 – If Steps 1 and 2 are unsuccessful, Step 3 implements a TIE by employing all reasonable efforts and using currently available TIE methodologies. 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. The objective of the TIE is to identify the substance or combination of substances causing the observed toxicity;
 - d. Step 4 – Assuming successful identification or characterization of the toxicant(s), Step 4 evaluates final effluent treatment options;
 - e. Step 5 – evaluates in-plant treatment options; and,
 - f. 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 test results are less than or

- equal to 1.0 TU_c or six consecutive acute toxicity test results are greater than 90% survival).
3. If a TRE/TIE is initiated prior to completion of the accelerated testing schedule required by 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.
 4. Toxicity tests conducted as part of a TRE/TIE may also be used for compliance determination, if appropriate.
 5. The Regional Water 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 Regional Water Board will be based in part on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

H. Reporting

1. 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 as % survival for acute toxicity test results and as TU_c for chronic toxicity test results with the self monitoring reports (SMR) for the month in which the test is conducted.
2. If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, then those results also shall be submitted with the SMR for the period in which the investigation occurred.
 - a. The full report shall be submitted on or before the end of the month in which the SMR is submitted.
 - b. The full report shall consist of (1) the results; (2) the dates of sample collection and initiation of each toxicity test; (3) the acute toxicity average limit or chronic toxicity limit or trigger.
3. 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 or trigger as described in Order No. R4-2005-0058 sections I.B.3.a.1. and I.C.3.b.1; and (4) printout of the ToxCalc or CETIS program results.
 - a. Sample date(s);
 - b. Test initiation date;
 - c. Test species;

- d. End point values for each dilution (e.g., number of young, growth rate, percent survival);
 - e. NOEC value(s) in percent effluent;
 - f. IC₁₅, IC₂₅, IC₄₀ and IC₅₀ values in percent effluent;
 - g. TU_c values $\left(TU_c = \frac{100}{NOEC} \right)$;
 - h. Mean percent mortality (+standard deviation) after 96 hours in 100% effluent (if applicable);
 - i. NOEC and LOEC values for reference toxicant test(s);
 - j. IC₂₅ value for reference toxicant test(s);
 - k. Any applicable charts; and
 - l. Available water quality measurements for each test (e.g., pH, D.O., temperature, conductivity, hardness, salinity, ammonia).
4. The Discharger shall provide a compliance summary, which includes a summary table of toxicity data from all samples collected during that year.

The Discharger shall notify by telephone or electronically, this Regional Water 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 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. Receiving Water Monitoring

Since the discharges from Mobil enter a storm drain that transports the discharge underground, the Discharger is not required to perform general observations of the receiving water when discharges occur.

Ordered by: _____
Jonathan S. Bishop
Executive Officer

Date: September 1, 2005