CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. 1558
for
EXXONMOBIL OIL CORPORATION
SOUTHWESTERN TERMINAL AREA 1
(CA0003689)

I. Reporting Requirements

A. ExxonMobil Oil Corporation (hereinafter EMOC 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 April 15, 2005.

Reporting Period	Report Due
January – March	April 15
April – June	July 15
July-September	October 15
October-December	January 15
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 ½" 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.

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 (WDRs). This section shall clearly list all non-compliance with WDRs, 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 prior to discharge. The effluent sample shall be collected at a point prior to Discharge Serial No. 001 so that sampling and analysis can be performed prior to discharge (i.e., at the discharge line from the oil-water separator to the Inner Harbor).

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 is obtained from ELAP.

The monitoring reports shall specify the analytical method used, the Method Detection Limitation (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 B) 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, 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 B 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 B;

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 CFR Part 136 (revised May 14, 1999);

3. When the Discharger agrees to use an ML that is lower than that 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 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 limitation and that limitation will substitute for the ML for reporting and compliance determination purposes.

E. Water/wastewater samples must be analyzed within allowable holding time limitations as specified in 40 CFR section 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. The facility stores a substantial quantity of water before treating and discharging the effluent. Effluent sampling and analysis is required and compliance with all effluent limitations must be confirmed prior to initiating each discharge event.

G. 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 limitations, analytical methods, copy of laboratory certification, and a perjury statement executed by the person responsible for the laboratory.

III. Effluent Monitoring Program

A. The following shall constitute the effluent monitoring program for wastewater discharges from NPDES Discharge Serial No. 001 (Latitude 33°44'02", Longitude 118°16'20"):

Constituent	Units	Type of Sample	Frequency [1]
Total Waste Flow [2]	Gallons	Metered	Once per discharge event [1,3]
Daily Average Waste Flow [2]	gpd	Calculated	Once per discharge event
pH	Standard Units	Grab	Once per discharge event [1,3]
Temperature	Deg. F	Grab	Once per discharge even t
Turbidity	NTU	Grab	Once per discharge event
Settleable solids	ml/L	Grab	Once per discharge event
Total suspended solids	mg/L,	Grab	Once per discharge event
Oil and grease	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
Detergents (as MBAS)	mg/L,	Grab	Once per discharge event
Sulfides	Mg/L	Grab	Once per discharge event
Phenols [4]	Mg/L	Grab	Once per discharge event
Ammonia	Mg/L	Grab	Once per discharge event
Total Petroleum Hydrocarbons (TPH) [5]	µg/L	Grab	Once per discharge event
Copper [6]	µg/L	Grab	Once per discharge event [1,3]
Cadmium [6]	µg/L	Grab	Once per discharge event [1,3]
Chromium VI [6]	µg/L	Grab	Once per discharge event [1,3]
Lead [6]	µg/L	Grab	Once per discharge event [1,3]
Mercury [6]	µg/L	Grab	Once per discharge event [1,3]
Nickel [6]	µg/L	Grab	Once per discharge event [1,3]
Zinc [6]	µg/L	Grab	Once per discharge event [1,3]
Thallium	µg/L	Grab	Once per discharge event [1,3]
Benzene	µg/L	Grab	Once per discharge event [1,3]

Constituent	Units	Type of Sample	Frequency [1]
Toluene	µg/L	Grab	Once per discharge event [1,3]
Ethylbenzene	µg/L	Grab	Once per discharge event [1,3]
Xylene	µg/L	Grab	Once per discharge event [1,3]
Tributyltin	µg/L	Grab	Semi-annual [7]
Methyl Tertiary Butyl Ether (MTBE)	Mg/L	Grab	Semi-annual
Remaining Priority Pollutants (see Page T-16)	µg/L	Grab	Annual [7]
Acute Toxicity	% survival	Grab	Annual

1. During periods of extended discharge, no more than one sample per month need to be taken. Sampling shall be performed 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. The Discharger is required to sample and analyze the effluent and determine compliance with effluent limitations prior each batch discharge event.

2. Total waste flow will indicate the volume of water (in gallons) discharged with each batch discharge event. The Discharger shall also calculate the daily average flow for each discharge event by dividing the total discharge flow by the number of days over which the discharge occurred; this shall represent the daily average flow (gpd).

3. If there is no discharge to surface waters, then as a minimum sampling shall be conducted for reasonable potential analysis (RPA) from the final storage tank (single Outfall) semi-annually for the first three years, and the analytical results submitted with the corresponding monitoring report. The Discharger will indicate under statement of perjury that no effluent was discharged to surface water. Regional Board will not take enforcement action for exceedance of pollutants from submission of such data.

4 Total phenols measured by EPA Method 420.1 or 420.2 (using the 4AAP method).

5. TPH measured by U.S. EPA Methods 418.1 or 8015 for both the gas and diesel ranges.

6. Expressed as total recoverable.

7. If there is no discharge to surface waters, then sampling shall be conducted for the remaining priority pollutants for RPA from the final storage tanks (for four Outfalls) annually and the analytical results submitted with the annual monitoring report. The Discharger will indicate under statement of perjury that no effluent was discharged to surface water. Regional Board will not take enforcement action for exceedance of pollutants from submission of such data.

IV. Toxicity Monitoring Requirements

A. 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 U.S. EPA's *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, October 2002, U.S. EPA, 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 U.S. EPA's *Short-term Method for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, Third Edition, October 2002 (EPA/821-R-02-014).

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.

B. 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/821-R-02-013 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.

C. Accelerated Monitoring

1. If toxicity exceeds the limitations (as defined in Order No. R4-2004-0069,

Section I.B.3.a.i.), then the Discharger shall immediately implement accelerated testing as specified in Section I.B.3.a.ii. 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. If the accelerated testing shows consistent toxicity, the Discharger shall immediately implement the Initial Investigation of the Toxicity Reduction Evaluation (TRE) Workplan.

2. 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 Toxicity Identification Evaluation (TIE).

3. 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 Serial No. 001 causes or contributes to the measured downstream acute toxicity. If this first step TRE testing shows that the Discharge Serial No. 001 effluent does not cause or contribute to downstream acute toxicity, using U.S. EPA's *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, October 2002, U.S. EPA, Office of Water, Washington D.C. (EPA/821-R-02-012), 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.1558 shall be continued thereafter.

D. 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 EPA manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) as guidance or current versions. At a minimum, the TRE workplan must contain the provision in Attachment C. 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. If Steps 1 and 2 are unsuccessful, Step 3 implements a 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;

   d. 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 results are less than or equal to 1.0 TU_c).

3. 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.

4. If a TRE/TIE is initiated prior to completion of the accelerated testing schedule required by Section I.B.3.a.ii 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.

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

6. 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.

E. 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 with the discharge monitoring reports (DMR) 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 DMR 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 DMR 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 limitation or chronic toxicity limitation or trigger.

3. 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:

   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. IC_{15}, IC_{25}, IC_{40} and IC_{50} values in percent effluent;
   g. TU_c values $\left(TU_c = \frac{100}{NOEC} \right)$;
   h. Mean percent mortality ($\pm$standard deviation) after 96 hours in 100% effluent (if applicable);

i. NOEC and LOEC values for reference toxicant test(s);
j. C_{25} 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 Board of any toxicity exceedance of the limitation 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 Requirements

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

A. Receiving Water Observations. General observations of the receiving water shall be made during each effluent discharge and shall be reported in the quarterly monitoring report. Observations shall be descriptive where applicable, such that colors, approximate amounts, or types of materials are apparent. The following observations shall be made:

1. Tidal stage, if any, time, and date of monitoring
2. Weather conditions
3. Color of water
4. Appearance of oil films or grease, or floatable materials
5. Extent of visible turbidity or color patches
6. Direction of tidal flow, if any
7. Description of odor, if any, of the receiving water

B. Receiving Water Monitoring for Reasonable Potential Determination. The *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (March 2, 2000) requires that the Regional Boards require periodic monitoring for pollutants for which criteria or objectives apply and for which no effluent limitations have been established. Accordingly, the Regional

Board is requiring that the Discharger conduct receiving water monitoring of the CTR priority pollutants. The receiving water samples shall be collected at a point that is outside the influence of the effluent discharge. This will be accomplished by collecting the sample at a location that is at least 50 feet from the point of discharge and is in a direction that is opposite the direction of tidal flow at the discharge point a the time of collection. Receiving water monitoring shall be conducted on an annual basis for 2 years. Receiving water samples shall be collected at the same time as effluent samples are collected. If there is no effluent discharge during the year, then no receiving water samples shall be collected for that year. A statement will be included in the annual report to that effect. Further, the Discharger must analyze pH, hardness, and salinity of the receiving water at the same time priority pollutants are analyzed.

Monitoring data shall be submitted in accordance with the reporting schedule in Section I.A. of this Monitoring and Reporting Program.

Constituent	**Units**	**Type of Sample**	**Sampling Frequency**
pH	Standard units	Grab	Annually
Hardness (as $CaCO_3$)	mg/L	Grab	Annually
Salinity	g/L	Grab	Annually
Arsenic	µg/L	Grab	Annually
Antimony[1]	µg/L	Grab	Annually
Beryllium	µg/L	Grab	Annually
Cadmium [1]	µg/L	Grab	Annually
Chromium III [1]	µg/L	Grab	Annually
Chromium VI [1]	µg/L	Grab	Annually
Copper [1]	µg/L	Grab	Annually
Lead [1]	µg/L	Grab	Annually
Mercury [1]	µg/L	Grab	Annually
Nickel [1]	µg/L	Grab	Annually
Selenium [1]	µg/L	Grab	Annually
Silver [1]	µg/L	Grab	Annually
Thallium	µg/L	Grab	Annually
Zinc [1]	µg/L	Grab	Annually
Cyanide	µg/L	Grab	Annually
Asbestos	Fibers/L	Grab	Annually
Acrolein	µg/L	Grab	Annually
Acrylonitrile	µg/L	Grab	Annually
Benzene	µg/L	Grab	Annually

Constituent	Units	Type of Sample	Sampling Frequency
Bromoform	µg/L	Grab	Annually
Carbon Tetrachloride	µg/L	Grab	Annually
Chlorobenzene	µg/L	Grab	Annually
Chlorodibromomethane	µg/L	Grab	Annually
Chloroethane	µg/L	Grab	Annually
2-Chloroethylvinyl ether	µg/L	Grab	Annually
Chloroform	µg/L	Grab	Annually
Dichlorobromomethane	µg/L	Grab	Annually
1,1-Dichloroethane	µg/L	Grab	Annually
1,2-Dichloroethane	µg/L	Grab	Annually
1,1-Dichloroethylene	µg/L	Grab	Annually
1,2-Dichloropropane	µg/L	Grab	Annually
1,3-Dichloropropylene	µg/L	Grab	Annually
Ethylbenzene	µg/L	Grab	Annually
Methyl bromide	µg/L	Grab	Annually
Methyl chloride	µg/L	Grab	Annually
Methylene chloride	µg/L	Grab	Annually
1,1,2,2-Tetrachloroethane	µg/L	Grab	Annually
Tetrachloroethylene	µg/L	Grab	Annually
Toluene	µg/L	Grab	Annually
1,2-Trans-dichloroethylene	µg/L	Grab	Annually
1,1,1-Trichloroethane	µg/L	Grab	Annually
1,1,2-Trichloroethane	µg/L	Grab	Annually
Trichloroethylene	µg/L	Grab	Annually
Vinyl Chloride	µg/L	Grab	Annually
2-Chlorophenol	µg/L	Grab	Annually
2,4-Dichlorophenol	µg/L	Grab	Annually
2,4-Dimethylphenol	µg/L	Grab	Annually
2-Methyl-4,6-Dinitrophenol	µg/L	Grab	Annually
2,4-Dinitrophenol	µg/L	Grab	Annually
2-Nitrophenol	µg/L	Grab	Annually
4-Nitrophenol	µg/L	Grab	Annually
3-Methyl-4-Chlorophenol	µg/L	Grab	Annually
Pentachlorophenol	µg/L	Grab	Annually
Phenol	µg/L	Grab	Annually
2,4,6-Trichlorophenol	µg/L	Grab	Annually
Acenaphthene	µg/L	Grab	Annually
Acenaphthylene	µg/L	Grab	Annually

Constituent	Units	Type of Sample	Sampling Frequency
Anthracene	µg/L	Grab	Annually
Benzidine	µg/L	Grab	Annually
Benzo(a)Anthracene	µg/L	Grab	Annually
Benzo(a)Pyrene	µg/L	Grab	Annually
Benzo(b)Fluoranthene	µg/L	Grab	Annually
Benzo(ghi)Perylene	µg/L	Grab	Annually
Benzo(k)Fluoranthene	µg/L	Grab	Annually
Bis(2-Chloroethoxy)Methane	µg/L	Grab	Annually
Bis(2-Chloroethyl)Ether	µg/L	Grab	Annually
Bis(2-Chloroisopropyl)Ether	µg/L	Grab	Annually
Bis(2-Ethylhexyl)Phthalate	µg/L	Grab	Annually
4-Bromophenyl Phenyl Ether	µg/L	Grab	Annually
Butylbenzyl Phthalate	µg/L	Grab	Annually
2-Chloronaphthalene	µg/L	Grab	Annually
4-Chlorophenyl Phenyl Ether	µg/L	Grab	Annually
Chrysene	µg/L	Grab	Annually
Dibenzo(a,h)Anthracene	µg/L	Grab	Annually
1,2-Dichlorobenzene	µg/L	Grab	Annually
1,3-Dichlorobenzene	µg/L	Grab	Annually
1,4-Dichlorobenzene	µg/L	Grab	Annually
3,3'-Dichlorobenzidine	µg/L	Grab	Annually
Diethyl Phthalate	µg/L	Grab	Annually
Dimethyl Phthalate	µg/L	Grab	Annually
Di-n-Butyl Phthalate	µg/L	Grab	Annually
2,4-Dinitrotoluene	µg/L	Grab	Annually
2,6-Dinitrotoluene	µg/L	Grab	Annually
Di-n-Octyl Phthalate	µg/L	Grab	Annually
1,2-Diphenylhydrazine	µg/L	Grab	Annually
Fluoranthene	µg/L	Grab	Annually
Fluorene	µg/L	Grab	Annually
Hexachlorobenzene	µg/L	Grab	Annually
Hexachlorobutadiene	µg/L	Grab	Annually
Hexachlorocyclopentadiene	µg/L	Grab	Annually
Hexachloroethane	µg/L	Grab	Annually
Indeno(1,2,3-cd)Pyrene	µg/L	Grab	Annually
Isophorone	µg/L	Grab	Annually
Naphthalene	µg/L	Grab	Annually
Nitrobenzene	µg/L	Grab	Annually

Constituent	Units	Type of Sample	Sampling Frequency
N-Nitrosodimethylamine	µg/L	Grab	Annually
N-Nitrosodi-n-Propylamine	µg/L	Grab	Annually
N-Nitrosodiphenylamine	µg/L	Grab	Annually
Phenanthrene	µg/L	Grab	Annually
Pyrene	µg/L	Grab	Annually
1,2,4-Trichlorobenzene	µg/L	Grab	Annually
Aldrin	µg/L	Grab	Annually
alpha-BHC	µg/L	Grab	Annually
beta-BHC	µg/L	Grab	Annually
gamma-BHC	µg/L	Grab	Annually
delta-BHC	µg/L	Grab	Annually
Chlordane	µg/L	Grab	Annually
4,4' -DDT	µg/L	Grab	Annually
4,4' -DDE	µg/L	Grab	Annually
4,4' -DDD	µg/L	Grab	Annually
Dieldrin	µg/L	Grab	Annually
alpha-Endosulfan	µg/L	Grab	Annually
beta-Endolsulfan	µg/L	Grab	Annually
Endosulfan Sulfate	µg/L	Grab	Annually
Endrin	µg/L	Grab	Annually
Endrin Aldehyde	µg/L	Grab	Annually
Heptachlor	µg/L	Grab	Annually
Heptachlor Epoxide	µg/L	Grab	Annually
PCBs sum[2]	µg/L	Grab	Annually
Toxaphene	µg/L	Grab	Annually

[1] Measured as total recoverable.

[2] PCBs sum refers to sum of PCB Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260.

VI. Interim TCDD Monitoring of Effluent and Receiving Water

A. The Discharger must monitor the effluent and receiving for the presence of the 16 congeners of 2,3,7,8-TCDD listed below, semi-annually during the first year only. If there is no discharge in a semi-annual period, then it should be made-up by sampling in the following semi-annual period. Discharger must report for each congener the analytical results of the effluent monitoring, including the quantifiable limitation and the Method Detection Limitation (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.

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: December 13, 2004
Jonathan S. Bishop
Executive Officer