CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. CI 8702
for
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY.
(EASTSIDE LIGHT RAIL TRANSIT PROJECT)
(CA0064513)

I. Reporting Requirements

A. The Los Angeles County Metropolitan Transportation Authority (hereinafter MTA 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 Los Angeles Regional Water Quality Control Board (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, 2004.

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, containing a discussion of the previous year's effluent 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. 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 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. 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.

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 the State Board.

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 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 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 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 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 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. Laboratory analyses – all chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP), and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be submitted with the Annual Report.

F. 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.

G. All analyses shall be accompanied by the chain of custody, including but not limited to date 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.

H. 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

A. The following shall constitute the effluent monitoring program for all discharge outfalls (Outfalls 4000, 4010, 4020, 4030, 4040, 4050, 4060, 4070, 4080, 4090, 4100, 4110, 4120, 4130, 4140, and 4150):

Constituent	Units	Type of Sample	Sampling Frequency[1/]
Total waste flow[2/]	gal/day	----	daily
pH	standard units	grab	weekly[3/]
Turbidity	NTU	grab	weekly[3/]
Settleable solids	ml/L	grab	weekly[3/]
Total suspended solids	mg/L	grab	weekly[3/]
Oil and grease	mg/L	grab	weekly[3/]
Sulfate	mg/L	grab	weekly[3/]
Chloride	mg/L	grab	weekly[3/]
Sulfides	mg/L	grab	weekly[3/]
Nitrate-N	mg/L	grab	weekly[3/]
Nitrite-N	mg/L	grab	weekly[3/]
Nitrate-N + Nitrite-N	mg/L	grab	weekly[3/]
Ammonia	mg/L	grab	weekly[3/]
$BOD_5$20º C	mg/L	grab	quarterly
Arsenic	µg/L	grab	weekly[3/]
Cadmium	µg/L	grab	weekly[3/]
Copper	µg/L	grab	weekly[3/]
Chromium III	µg/L	grab	weekly[3/]
Chromium VI	µg/L	grab	weekly[3/]
Lead	µg/L	grab	weekly[3/]
Mercury	µg/L	grab	weekly[3/]
Nickel	µg/L	grab	weekly[3/]
Selenium	µg/L	grab	weekly[3/]
Silver	µg/L	grab	weekly[3/]
Zinc	µg/L	grab	weekly[3/]
Trichloroethene	µg/L	grab	weekly[3/]
Tetrachloroethene	µg/L	grab	weekly[3/]
1,1,1-trichloroethane	µg/L	grab	weekly[3/]
1,1-Dichloroethene	µg/L	grab	weekly[3/]
Methyl tertiary butyl ether	µg/L	grab	monthly[4/]
Total Petroleum Hydrocarbons (both gasoline and diesel fractions)[5/]	µg/L	grab	monthly[4/]
Phenols	mg/L	grab	monthly[4/]
Phenolic compouns (chlorinated)	µg/L	grab	monthly[4/]

Constituent	Units	Type of Sample	Sampling Frequency[1/]
Perchlorate	µg/L	grab	monthly[4/]
Benzene	µg/L	grab	weekly[3/]
Carbon tetrachloride	µg/L	grab	Monthly[4/]
Ethyl benzene	µg/L	grab	weekly[3/]
Tertiary butyl alcohol	µg/L	grab	monthly[4/]
Toluene	µg/L	grab	weekly[3/]
Xylene	µg/L	grab	weekly[3/]
Vinyl chloride	µg/L	grab	monthly[4/]
1,4-dichlorobenzene	µg/L	grab	weekly[3/]
1,2-dichloroethene	µg/L	grab	weekly[3/]
Remaining priority pollutants (see page T-15)	µg/L	grab	monthly[4/]
Toxicity – acute	% survival	grab	quarterly[6/]

1/ If any constituent exceeds the limit in Order No. R4-2004-0029, the discharge shall be terminated and shall only be resumed after remedial measures have been implemented, and full compliance with the requirements has been ascertained.

2/ Actual monitored flow from the outfall (not the maximum permitted flow) shall be reported.

3/ Constituent shall be monitored daily during the first week and three times a week for the next three weeks. If all the analytical results meet the discharge limits for the first four week period, monitoring thereafter shall revert to the frequency specified in the monitoring period. If there is an exceedance in the first weeks, monitoring will remain three times a week till four week continuous compliance of the limit is achieved.

4/ Constituent shall be monitored weekly for the first three months. If all the analytical results meet the discharge limits for the first three month period, monitoring thereafter shall revert to the frequency specified in the monitoring period. Monitoring will remain weekly till three month continuous compliance of the limit is achieved.

5/ Analyses using USEPA Methods 418.1 and 8015 (Modified).

6/ Monitoring shall be on a monthly basis for the first three months, from the date of adoption of the permit. Monitoring thereafter shall revert to the frequency specified in the monitoring program.

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 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*, 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. Steps in Toxicity Reduction Evaluation (TRE) and Toxicity Identification Evaluation (TIE):

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. 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 acute toxicity results are in compliance with effluent limitations established in Section I.B.3.(a)(i) of the Order).

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 Part I.B.3.a. 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.

D. 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 limit or chronic toxicity limit 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 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

Receiving water monitoring data is required (in addition to the effluent monitoring data) to: (1) determining if water quality-based effluent limitations for priority pollutants are required, and (2) to calculate effluent limitations, if required. The *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (March 2, 2000) requires that the data be provided.

A. Monitoring Stations – Two surface water monitoring stations shall be established as follows:

RW1: A point approximately 50 feet upstream from the discharge point of uppermost storm drain to the Los Angeles River.

RW2: A point 50 feet downstream from the discharge point of last storm drain to the Los Angeles River.

B. Receiving Water Monitoring – The receiving water monitoring stations (RW1, RW2) shall be sampled during the periods of effluent discharge. Samples shall be taken quarterly. If there is no discharge of effluent, during a semi-annual period, then the missed receiving water monitoring shall be performed in the next sampling period. Samples shall be obtained within ten inches of the surface. Monitoring frequency and type of sample of the receiving water that shall be collected and analyzed for all toxic pollutants are listed below:

Constituent	Units	Type of Sample	Monitoring Frequency
pH	Standard Units	grab	quarterly
Hardness (as $CaCO_3$)	mg/L	grab	quarterly
PAHs	µg/L	grab	quarterly
Arsenic	µg/L	grab	quarterly
Antimony	µg/L	grab	quarterly
Cadmium	µg/L	grab	quarterly
Copper	µg/L	grab	quarterly

Constituent	Units	Type of Sample	Monitoring Frequency
Chromium III	µg/L	grab	quarterly
Chromium VI	µg/L	grab	quarterly
Lead	µg/L	grab	quarterly
Mercury	µg/L	grab	quarterly
Nickel	µg/L	grab	quarterly
Selenium	µg/L	grab	quarterly
Silver	µg/L	grab	quarterly
Thallium	µg/L	grab	quarterly
Cyanide	µg/L	grab	quarterly
Methyl tertiary butyl ether	µg/L	grab	monthly[7]
Total Petroleum Hydrocarbons (both gasoline and diesel fractions)[5]	µg/L	grab	monthly[7]
Tertiary butyl alcohol	µg/L	grab	monthly[7]
Perchlorate	µg/L	grab	monthly[7]
Acenaphthene	µg/L	grab	quarterly
Anthracene	µg/L	grab	quarterly
Benzo (a) Anthracene	µg/L	grab	quarterly
Benzo (a) Pyrene	µg/L	grab	quarterly
Benzo (b) Fluoranthene	µg/L	grab	quarterly
Benzo (k) Flouranthene	µg/L	grab	quarterly
Chrysene	µg/L	grab	quarterly
Dibenzo (a,h) Anthracene	µg/L	grab	quarterly
Fluoranthene	µg/L	grab	quarterly
Fluorene	µg/L	grab	quarterly
Indeno (1,2,3-cd) Pyrene	µg/L	grab	quarterly
Pyrene	µg/L	grab	quarterly
Aldrin	µg/L	grab	quarterly
Alpha-BHC	µg/L	grab	quarterly
Beta-BHC	µg/L	grab	quarterly
Chlordane	µg/L	grab	quarterly
Dieldrin	µg/L	grab	quarterly
Alpha-Endosulfan	µg/L	grab	quarterly
Beta-Endosulfan	µg/L	grab	quarterly
Heptachlor	µg/L	grab	quarterly
Heptachlor Expoxide	µg/L	grab	quarterly
4,4-DDT	µg/L	grab	quarterly
4,4-DDE	µg/L	grab	quarterly
4,4-DDD	µg/L	grab	quarterly
Arochlor 1242	µg/L	grab	quarterly
Arochlor 1254	µg/L	grab	quarterly
Arochlor 1221	µg/L	grab	quarterly
Arochlor 1232	µg/L	grab	quarterly

Constituent	Units	Type of Sample	Monitoring Frequency
Arochlor 1248	µg/L	grab	quarterly
Arochlor 1260	µg/L	grab	quarterly
Arochlor 1016	µg/L	grab	quarterly
Toxaphene	µg/L	grab	quarterly
Beryllium	µg/L	grab	quarterly
Asbestos	Fibers/L	grab	quarterly
Acrolein	µg/L	grab	quarterly
Acrylonitrile	µg/L	grab	quarterly
Benzene	µg/L	grab	quarterly
Bromoform	µg/L	grab	quarterly
Carbon tetrachloride	µg/L	grab	quarterly
Chlorobenzene	µg/L	grab	quarterly
Chlorodibromomethane	µg/L	grab	quarterly
Chloroethane	µg/L	grab	quarterly
2-Chloroethylvinyl ether	µg/L	grab	quarterly
Chloroform	µg/L	grab	quarterly
Dichlorobromomethane	µg/L	grab	quarterly
1,1-Dichloroethane	µg/L	grab	quarterly
1,2-Dichloroethane	µg/L	grab	quarterly
1,1-Dichloroethylene	µg/L	grab	quarterly
1,2-Dichloropropane	µg/L	grab	quarterly
1,3-Dichloropropylene	µg/L	grab	quarterly
Ethylbenzene	µg/L	grab	quarterly
Methyl bromide	µg/L	grab	quarterly
Methyl chloride	µg/L	grab	quarterly
Methylene chloride	µg/L	grab	quarterly
1,1,2,2-Tetrachloroethane	µg/L	grab	quarterly
Tetrachloroethylene	µg/L	grab	quarterly
Toluene	µg/L	grab	quarterly
1,2-Trans-dichloroethylene	µg/L	grab	quarterly
1,1,1-Trichloroethane	µg/L	grab	quarterly
1,1,2-Trichloroethane	µg/L	grab	quarterly
Trichloroethylene	µg/L	grab	quarterly
Vinyl chloride	µg/L	grab	quarterly
2-Chlorophenol	µg/L	grab	quarterly
2,4-Dichlorophenol	µg/L	grab	quarterly
2,4-Dimethylphenol	µg/L	grab	quarterly
2-Methyl-4,6-Dinitrophenol	µg/L	grab	quarterly
2,4-Dinitrophenol	µg/L	grab	quarterly
2-Nitrophenol	µg/L	grab	quarterly
4-Nitrophenol	µg/L	grab	quarterly
3-Methyl-4-Chlorophenol	µg/L	grab	quarterly
Pentachlorophenol	µg/L	grab	quarterly

Constituent	Units	Type of Sample	Monitoring Frequency
2,4,6-Trichlorophenol	µg/L	grab	quarterly
Acenaphthylene	µg/L	grab	quarterly
Benzidine	µg/L	grab	quarterly
Benzo (g,h,i) Perylene	µg/L	grab	quarterly
Bis (2-Chloroethoxy) Methane	µg/L	grab	quarterly
Bis (2-Chloroethyl) Ether	µg/L	grab	quarterly
Bis (2-Chloroisopropyl) Ether	µg/L	grab	quarterly
Bis (2-Ethylhexyl) Phthalate	µg/L	grab	quarterly
4-Bromophenyl Phenyl Ether	µg/L	grab	quarterly
Butylbenzyl Phthalate	µg/L	grab	quarterly
2-Chloronapthalene	µg/L	grab	quarterly
4-Chlorophenyl Phenyl Ether	µg/L	grab	quarterly
1,2-Dichlorobenzene	µg/L	grab	quarterly
1,3-Dichlorobenzene	µg/L	grab	quarterly
1,4-Dichlorobenzene	µg/L	grab	quarterly
3,3-Dichlorobenzidine	µg/L	grab	quarterly
Diethyl Phthalate	µg/L	grab	quarterly
Dimethyl Phthalate	µg/L	grab	quarterly
Di-n-Butyl Phthalate	µg/L	grab	quarterly
2,4-Dinitrotoluene	µg/L	grab	quarterly
2,6-Dinitrotoluene	µg/L	grab	quarterly
Di-n-Octyl Phthalate	µg/L	grab	quarterly
1,2-Diphenylhydrazine	µg/L	grab	quarterly
Hexachlorobenzene	µg/L	grab	quarterly
Hexachlorobutadiene	µg/L	grab	quarterly
Hexachlorocyclopentadiene	µg/L	grab	quarterly
Hexachloroethane	µg/L	grab	quarterly
Isophorone	µg/L	grab	quarterly
Napthalene	µg/L	grab	quarterly
Nitrobenzene	µg/L	grab	quarterly
N-Nitrosodimethylamine	µg/L	grab	quarterly
N-Nitrosodi-n-Propylamine	µg/L	grab	quarterly
N-Nitrosodiphenylamine	µg/L	grab	quarterly
Phenanthrene	µg/L	grab	quarterly
1,2,4-Trichlorobenzene	µg/L	grab	quarterly
Gamma-BHC	µg/L	grab	quarterly
Delta-BHC	µg/L	grab	quarterly
Endosulfan Sulfate	µg/L	grab	quarterly
Endrin	µg/L	grab	quarterly
Endrin Aldehyde	µg/L	grab	quarterly

VI. Monitoring for TCDD Equivalents –

The Discharger shall conduct effluent and receiving water monitoring for the presence of the 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD or Dioxin) congeners. The monitoring shall be in the first year only with semi-annual monitoring frequency. Effluent and receiving water monitoring shall be conducted on the same day. The Discharger shall calculate Toxic Equivalence (TEQ) for each congener by multiplying its analytical concentration by the appropriate Toxicity Equivalence Factors (TEF). Compliance with the dioxin limitation shall be determined by the summation of the 17 individual TEQs. The results shall be submitted with the corresponding quarterly monitoring reports.

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: January 29, 2004
Dennis A. Dickerson
Executive Officer