CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. 6658
for
CEMEX CONSTRUCTION MATERIALS, L.P.
(MOORPARK FACILITY)
(CA0059315)

I. Reporting Requirements

A. Cemex Construction Materials, L.P. (hereinafter Cemex 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 July 15, 2002.

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

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

C. The Discharger shall submit an annual summary report (for both dry and wet weather discharges), containing a discussion of the previous year's effluent and receiving water monitoring data, as well as graphical and tabular summaries of the data. The data shall be submitted to the Regional Board on hard copy and on a 3 ½ " computer diskette. Submitted data must be IBM compatible, preferably using EXCEL software. In addition, the Discharger shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with waste discharge requirements. This annual report is to be received by the Regional by March 1 of each year following the calendar year of data collection.

D. The Discharger shall inform the Regional Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.

II. Effluent Monitoring Requirements

A A sampling station shall be established for each point of discharge and shall be located where representative samples of that effluent can be obtained.

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. 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) or approved by the Executive Officer. A copy of the laboratory certification shall be provided with the first monitoring report and each time a new and/or renewal is obtained from ELAP.

D. Samples must be analyzed within allowable holding times as specified in 40 CFR Part 136.3. All Quality Assurance/Quality Control (QA/QC) analyses should be performed on the same dates when samples are actually analyzed and documentation shall accompany the laboratory reports.

E. 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*.

F. 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.

G. 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.

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 the final effluent:

Constituent	Units	Type of Sample	Sampling Frequency
Total waste flow[1/]	gal/day	----	once per discharge event[2/]
pH	pH units	grab	once per discharge event[2]
Total suspended solids	mg/L	grab	once per discharge event[2/]
Conductivity	µmho/cm	grab	once per discharge event[2/]
Turbidity	NTU	grab	once per discharge event[2/]
$BOD_5$20ºC	mg/L	grab	once per discharge event[2/]
Oil and grease	mg/L	grab	once per discharge event[2/]
Settleable solids	ml/L	grab	once per discharge event[2/]
Sulfate	mg/L	grab	once per discharge event[2/]
Chloride	mg/L	grab	once per discharge event[2/]
Boron	mg/L	grab	once per discharge event[2/]
Nitrate-N + Nitrite-N	mg/L	grab	once per discharge event[2/]
Ammonia as (N)	mg/L	grab	once per discharge event[2/]
Phenolic compounds	mg/L	grab	once per discharge event[2/]
Arsenic	µg/L	grab	once per discharge event[2/]
Barium	µg/L	grab	once per discharge event[2/]
Cadmium	µg/L	grab	once per discharge event[2/]
Copper	µg/L	grab	once per discharge event[2/]
Hexavalent chromium	µg/L	grab	once per discharge event[2/]
Lead	µg/L	grab	once per discharge event[2/]
Nickel	µg/L	grab	once per discharge event[2/]
Selenium	µg/L	grab	once per discharge event[2/]
Silver	µg/L	grab	once per discharge event[2/]
Zinc	µg/L	grab	once per discharge event[2/]
Methyl tertiary butyl ether	µg/L	grab	once per discharge event[2/]
Total Petroleum Hydrocarbons (both gasoline and diesel fractions)[3/]	µg/L	grab	once per discharge event[2/]
Toxicity - acute	% survival	grab	annually
Remaining priority pollutants (see page T-16)	µg/L	grab	annually

1/ Actual monitored flow from the outfall (not the maximum permitted flow) shall be reported.
2/ During periods of extended discharge, no more than one sample per week need be obtained.
3/ Analyses using USEPA Methods 8020A or 8260.

B. Monitoring shall be conducted for all regulated pollutants at the NPDES discharge point during periods when a discharge occurs. If no discharge occurs from the NPDES discharge point, then the Discharger shall provide the results of a sample from the lower basin/debris basin. For those pollutants with a monitoring frequency of once per discharge event, the Discharger is required to provide at least one sample from the lower basin/debris basin annually during the term of the permit. The sampling results from the debris basin (when there is no discharge) will not be required to meet the NPDES effluent limitations.

IV. Toxicity Monitoring Requirements

A. Acute Toxicity Effluent Monitoring Program

1. 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 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 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).

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/600/4-91/002 and EPA/600/R-95/136), 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 receiving 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. 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:

    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 includes basic data collection. Data collected as part of the accelerated monitoring requirement 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 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;

    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 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.

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 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.

4. 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.

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 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 in Toxicity Units (TU_a or TU_c) 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.

3. The full report shall be submitted by the end of the month in which the DMR is submitted.

4. 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.

5. 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 (±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;

   l. Available water quality measurements for each test (e.g., pH, D.O., temperature, conductivity, hardness, salinity, ammonia).

6. The Discharger shall notify this Regional Board immediately of any toxicity exceedance and in writing 14 days after the receipt of the results of a monitoring limit or trigger. The notification will 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.

7. Ammonia Removal

Except with prior approval from the Executive Officer of this Regional Board, ammonia shall not be removed from the bioassay samples. The Discharger must demonstrate that effluent toxicity is caused by ammonia, such as increasing test pH when conducting the toxicity test. The Discharger must also distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide.

The following are steps that the Discharger may perform to demonstrate that toxicity is caused by ammonia and not other toxicants:

a. There is consistent toxicity in the effluent/receiving water when the maximum pH in the toxicity test is in the range to cause toxicity due to unionized ammonia.

b. Acute ammonia LC50 values are 3 mg/L and 1 mg/L for *Ceriodaphnia dubia* and fathead minnows, respectively, at pH 8.0.

c. Conduct graduated pH tests as specified in the toxicity identification evaluation methods. For example, mortality should be higher at pH 8 and lower at pH 6 [EPA 1989a, 1989b, 1989c, 1991a, 1991b].

d. Pass the effluent through a zeolite column to remove ammonia. Mortality in the zeolite treated effluent should be lower than the non-zeolite treated effluent. Then, add ammonia back to the zeolite-treated samples to confirm toxicity due to ammonia.

e. Submit a written request to the Regional Board with documentation that toxicity is caused by ammonia. After receiving written approval from the Executive Officer, the Discharger may proceed to control the pH using appropriate procedures that do not significantly alter the nature of the effluent.

V. Storm Water Monitoring Requirements

A. Rainfall Monitoring

The Discharger shall measure and record the rainfall on each day of the month. The monitoring results shall be submitted in the next quarterly monitoring report.

B. Visual Observations

The Discharger shall make visual observations of all storm water discharge locations 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. 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 Happy Camp Canyon and shall include studies of those physical-chemical characteristics of the receiving water that may be impacted by the discharges.

A. Receiving Water Monitoring

1. Receiving Water Observations. General observations of the receiving water shall be made at each discharge point on a monthly basis and shall be reported in the quarterly 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.

   Several efforts are underway to develop and implement a coordinated receiving water, biological, and sediment monitoring program with other dischargers to the Calleguas Creek 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 III.A. of this monitoring and reporting program may be revised as appropriate.

VII. Interim Monitoring and Reporting

Pursuant to the California Water Code, Section 13267, the Discharger is required to submit data sufficient for: (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. Therefore, the Discharger shall conduct the following interim monitoring program for all California Toxics Rule priority pollutants until May 2004, or until ordered otherwise by the Regional Board. As described in Section I.A of this Program, monitoring reports must be submitted quarterly. The Discharger shall ensure that at least four samples are collected in the interim monitoring period (two per year), the results of which will be submitted along with the corresponding quartely reports.

A. Effluent monitoring shall be conducted for all pollutants at the NPDES discharge point during periods when a discharge occurs. If no discharge occurs from the NPDES discharge point, then the Discharger shall provide the results of a sample from the lower basin/debris basin.

B. Receiving water monitoring station shall be at 50 feet upstream from the discharge point of Happy Canyon to Arroyo Simi.

C. Monitoring frequency and type of sample of the effluent and the receiving water shall be collected and analyzed for all toxic pollutants listed below:

Constituent	**Units**	**Type of Sample**	**Monitoring Frequency**[1/]
pH	Standard Units	grab	semiannually
Hardness (as $CaCO_3$)	mg/L	grab	semiannually
PAHs	µg/L	grab	semiannually
Antimony	µg/L	grab	semiannually
Nickel	µg/L	grab	semiannually
Thallium	µg/L	grab	semiannually
Cyanide	µg/L	grab	semiannually
Acenaphthene	µg/L	grab	semiannually
Anthracene	µg/L	grab	semiannually
Benzo (a) Anthracene	µg/L	grab	semiannually
Benzo (a) Pyrene	µg/L	grab	semiannually
Benzo (b) Fluoranthene	µg/L	grab	semiannually
Benzo (k) Flouranthene	µg/L	grab	semiannually
Chrysene	µg/L	grab	semiannually
Dibenzo (a,h) Anthracene	µg/L	grab	Semiannually

Constituent	Units	Type of Sample	Monitoring Frequency[1/]
Fluoranthene	µg/L	grab	semiannually
Fluorene	µg/L	grab	semiannually
Indeno (1,2,3-cd) Pyrene	µg/L	grab	semiannually
Pyrene	µg/L	grab	semiannually
Aldrin	µg/L	grab	semiannually
alpha-BHC	µg/L	grab	semiannually
beta-BHC	µg/L	grab	semiannually
Chlordane	µg/L	grab	semiannually
Dieldrin	µg/L	grab	semiannually
alpha-Endosulfan	µg/L	grab	semiannually
beta-Endosulfan	µg/L	grab	semiannually
Heptachlor	µg/L	grab	semiannually
Heptachlor Expoxide	µg/L	grab	semiannually
4,4-DDT	µg/L	grab	semiannually
4,4-DDE	µg/L	grab	semiannually
4,4-DDD	µg/L	grab	Semiannually
Arochlor 1242	µg/L	grab	semiannually
Arochlor 1254	µg/L	grab	semiannually
Arochlor 1221	µg/L	grab	semiannually
Arochlor 1232	µg/L	grab	semiannually
Arochlor 1248	µg/L	grab	semiannually
Arochlor 1260	µg/L	grab	semiannually
Arochlor 1016	µg/L	grab	semiannually
Toxaphene	µg/L	grab	semiannually
Beryllium	µg/L	grab	semiannually
Asbestos	Fibers/L	grab	semiannually
Acrolein	µg/L	grab	semiannually
Acrylonitrile	µg/L	grab	semiannually
Benzene	µg/L	grab	semiannually
Bromoform	µg/L	grab	Semiannually
Carbon tetrachloride	µg/L	grab	semiannually
Chlorobenzene	µg/L	grab	semiannually
Chlorodibromomethane	µg/L	grab	semiannually
Chloroethane	µg/L	grab	semiannually
2-Chloroethylvinyl ether	µg/L	grab	semiannually
Chloroform	µg/L	grab	semiannually
Dichlorobromomethane	µg/L	grab	semiannually
1,1-Dichloroethane	µg/L	grab	semiannually
1,2-Dichloroethane	µg/L	grab	semiannually
1,1-Dichloroethylene	µg/L	grab	semiannually

Constituent	Units	Type of Sample	Monitoring Frequency[1/]
1,2-Dichloropropane	µg/L	grab	semiannually
1,3-Dichloropropylene	µg/L	grab	semiannually
Ethylbenzene	µg/L	grab	semiannually
Methyl bromide	µg/L	grab	Semiannually
Methyl chloride	µg/L	grab	semiannually
Methylene chloride	µg/L	grab	semiannually
1,1,2,2-Tetrachloroethane	µg/L	grab	semiannually
Tetrachloroethylene	µg/L	grab	semiannually
Toluene	µg/L	grab	semiannually
1,2-Trans-dichloroethylene	µg/L	grab	semiannually
1,1,1-Trichloroethane	µg/L	grab	semiannually
1,1,2-Trichloroethane	µg/L	grab	semiannually
Trichloroethylene	µg/L	grab	semiannually
Vinyl chloride	µg/L	grab	semiannually
2-Chlorophenol	µg/L	grab	semiannually
2,4-Dichlorophenol	µg/L	grab	semiannually
2,4-Dimethylphenol	µg/L	grab	semiannually
2-Methyl-4,6-Dinitrophenol	µg/L	grab	Semiannually
2,4-Dinitrophenol	µg/L	grab	semiannually
2-Nitrophenol	µg/L	grab	semiannually
4-Nitrophenol	µg/L	grab	semiannually
3-Methyl-4-Chlorophenol	µg/L	grab	semiannually
Pentachlorophenol	µg/L	grab	semiannually
2,4,6-Trichlorophenol	µg/L	grab	semiannually
Acenaphthylene	µg/L	grab	semiannually
Benzidine	µg/L	grab	semiannually
Benzo (g,h,i) Perylene	µg/L	grab	semiannually
Bis (2-Chloroethoxy) Methane	µg/L	grab	semiannually
Bis (2-Chloroethyl) Ether	µg/L	grab	semiannually
Bis (2-Chloroisopropyl) Ether	µg/L	grab	semiannually
Bis (2-Ethylhexyl) Phthalate	µg/L	grab	semiannually
4-Bromophenyl Phenyl Ether	µg/L	grab	Semiannually
Butylbenzyl Phthalate	µg/L	grab	semiannually
2-Chloronapthalene	µg/L	grab	semiannually
4-Chlorophenyl Phenyl Ether	µg/L	grab	Semiannually
1,2-Dichlorobenzene	µg/L	grab	semiannually
1,3-Dichlorobenzene	µg/L	grab	semiannually
1,4-Dichlorobenzene	µg/L	grab	semiannually
3,3-Dichlorobenzidine	µg/L	grab	semiannually

Constituent	Units	Type of Sample	Monitoring Frequency[1/]
Diethyl Phthalate	µg/L	grab	semiannually
Dimethyl Phthalate	µg/L	grab	semiannually
Di-n-Butyl Phthalate	µg/L	grab	semiannually
2,4-Dinitrotoluene	µg/L	grab	semiannually
2,6-Dinitrotoluene	µg/L	grab	semiannually
Di-n-Octyl Phthalate	µg/L	grab	semiannually
1,2-Diphenylhydrazine	µg/L	grab	semiannually
Hexachlorobenzene	µg/L	grab	semiannually
Hexachlorobutadiene	µg/L	grab	semiannually
Hexachlorocyclopentadiene	µg/L	grab	semiannually
Hexachloroethane	µg/L	grab	semiannually
Isophorone	µg/L	grab	semiannually
Napthalene	µg/L	grab	semiannually
Nitrobenzene	µg/L	grab	Semiannually
N-Nitrosodimethylamine	µg/L	grab	semiannually
N-Nitrosodi-n-Propylamine	µg/L	grab	semiannually
N-Nitrosodiphenylamine	µg/L	grab	semiannually
Phenanthrene	µg/L	grab	semiannually
1,2,4-Trichlorobenzene	µg/L	grab	semiannually
gamma-BHC	µg/L	grab	semiannually
delta-BHC	µg/L	grab	Semiannually
Endosulfan Sulfate	µg/L	grab	semiannually
Endrin	µg/L	grab	semiannually
Endrin Aldehyde	µg/L	grab	Semiannually

1/ Sampling shall be done during the first hour of discharge. For the dry seasons, a sample cannot be obtained during this period, a sample shall be obtained at the next opportunity of sampling and the reason for the delay shall be included in the report to satisfy the semiannual monitoring requirement.

D. Monitoring for TCDD Equivalents –The Discharger shall conduct effluent/receiving water monitoring for the presence of the 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD or Dioxin) congeners. The monitoring shall be a grab sample with a minimum frequency of once during dry weather and once during wet weather for 1 year. If no discharge occurs from the NPDES discharge point, then the Discharger shall provide the results of a sample from the lower basin/debris basin. 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.

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: May 23, 2002

Dennis A. Dickerson
Executive Officer