

State of California  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. CI-6520  
for  
HITCO CARBON COMPOSITES, INC.  
(CA0059048)

**I. REPORTING REQUIREMENTS**

- A. The Discharger shall implement this monitoring program on the effective date of this Order. The first monitoring report under this Program is due by July 15, 2001.

Monitoring reports shall be submitted by the dates in the following schedule:

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

- B. If there is no discharge, during any reporting period, the report shall so state. Monitoring reports must be addressed to the Regional Board, Attention: Information Technology Unit.
- C. 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). A copy of the laboratory certification shall be provided each time a new and/or renewal is obtained from ELAP.
- D. For every item where the requirements are not met, the Discharger shall submit a statement of the cause(s), and actions undertaken or proposed which will bring the discharge into full compliance with waste discharge requirements at the earliest possible time, including a timetable for implementation of these actions.
- E. By March 1 of each year, the Discharger shall submit an annual report to the Regional Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous calendar year. 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 the waste discharge requirements.

- F. Any mitigation/remedial activity including any pre-discharge treatment conducted at the site must be reported in the quarterly monitoring report.

## II. EFFLUENT MONITORING REQUIREMENTS

- A. Sampling station(s) shall be established for the point of discharge and shall be located where representative samples of that effluent can be obtained. Provisions shall be made to enable visual inspection before discharge. If oil sheen, debris, and/or other objectionable materials or odors are present, the discharge shall not be commenced until compliance with the requirements has been demonstrated. All visual observations shall be included in the monitoring report.
- 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 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, methods approved by Regional Board or State Board. Laboratories analyzing monitoring samples shall be certified by the California Department of Health Services and must include quality assurance/quality control (QA/QC) data with their report.

The monitoring report shall specify the USEPA 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 MDL indicated for the analytical method used.

Current MLs (Attachment T-1) 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 (in the annual report), the Discharger shall submit a list of the analytical methods employed for each test and associated laboratory quality assurance/quality control (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 T-1 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 T-1;
  2. When the Discharger and Regional Board agree to include in the permit a test method that is more sensitive than those specified in 40 CFR 136 (revised May 14, 1999);
  3. When the Discharger agrees to use an ML that is lower than that listed in Attachment T-1;
  4. When a Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Attachment T-1 and proposes an appropriate ML for their matrix; or,
  5. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the USEPA-approved Method 1613 for dioxins and furans, Method 1624 for volatile organic substances, and Method 1625 for semi-volatile organic substances. In such cases, the Discharger, the Regional Board, and the State Board shall agree on a lowest quantifiable limit, and that limit will substitute for the ML for reporting and compliance determination purposes.
- E. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR Part 136.3. All QA/QC samples must be run on the same dates the samples were actually analyzed, and the results must be reported in the Regional Board format if available, and submitted with the laboratory reports.
- 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. Each monitoring report must affirm in writing that: "All analyses were conducted at a laboratory certified for such analyses by the California Department of Health Services, and in accordance with current USEPA guideline procedures or as specified in this Monitoring Program."

H. Each report shall contain the following completed declaration:

"I declare under penalty of law that I have personally examined, and am familiar with, the information submitted in this document and all attachments, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. [CWC Sections 13263, 13267, and 13268]".

Executed on the \_\_\_\_\_ day of \_\_\_\_\_ at \_\_\_\_\_.

\_\_\_\_\_  
(Signature)  
\_\_\_\_\_  
(Title)

### III. EFFLUENT MONITORING PROGRAM

The following shall constitute the effluent monitoring program for the final effluent at Discharge No. 001:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Total waste flow	gal/day	----	monthly
Temperature	°F	grab	monthly
Acute toxicity	% survival	grab	quarterly
Chronic toxicity	TU <sub>c</sub>	grab	quarterly
Fecal coliform	MPN/100ml	grab	quarterly
Ammonia	mg/L	grab	semiannually
Total residual chlorine	mg/L	grab	semiannually
pH	pH units	grab	semiannually
Oil and grease	mg/L	grab	semiannually
Turbidity	NTU	grab	semiannually
Settleable solids	ml/L	grab	semiannually
Total suspended solids	mg/L	grab	semiannually

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
BOD <sub>5</sub> (20°C)	mg/L	grab	semiannually
Chromium	µg/L	grab	quarterly
Copper	µg/L	grab	quarterly
Lead	µg/L	grab	quarterly
Zinc	µg/L	grab	quarterly
Chlordane	µg/L	grab	quarterly
Aldrin	µg/L	grab	quarterly
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)fluoranthene	µg/L	grab	quarterly
Chrysene	µg/L	grab	quarterly
Dibenzo(a,h)anthracene	µg/L	grab	quarterly
Dieldrin	µg/L	grab	quarterly
DDT	µg/L	grab	quarterly
Endrin	µg/L	grab	quarterly
Endosulfan	µg/L	grab	quarterly
Fluoranthene	µg/L	grab	quarterly
Fluorene	µg/L	grab	quarterly
Heptachlor	µg/L	grab	quarterly
Heptachlor epoxide	µg/L	grab	quarterly
alpha HCH	µg/L	grab	quarterly
beta HCH	µg/L	grab	quarterly
gamma HCH (lindane)	µg/L	grab	quarterly
Indeno(1,2,3-cd)pyrene	µg/L	grab	quarterly
PCBs	µg/L	grab	quarterly
Pyrene	µg/L	grab	quarterly
Toxaphene	µg/L	grab	quarterly

#### IV. ADDITIONAL ACUTE AND CHRONIC TOXICITY MONITORING REQUIREMENTS

##### A. ACUTE TOXICITY MONITORING REQUIREMENTS

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 to Freshwater and Marine Organisms, August, 1991 (EPA/600/4-90/027) 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 Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine to Freshwater Organisms, First Edition, August, 1995 (EPA/600/4-95/136).
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.

##### B. CHRONIC TEST SPECIES AND METHODS FOR FRESHWATER

1. The Discharger shall conduct critical life stage chronic toxicity tests on 24-hour composite 100 percent effluent samples or receiving water samples in accordance with EPA's Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Third Edition, July 1994 (EPA/600/4-91/002) or EPA's Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, August 1995, (EPA/600/R-95/136).

Effluent samples shall be collected after all treatment processes before discharge to the receiving water in accordance with the conditions specified in the Monitoring and Reporting Program No. CI-6520 .

2. Test Species and Methods for Freshwater Habitat.
  - a. The Discharger shall conduct short-term tests with the cladoceran, water flea (*Ceriodaphnia dubia* - survival and reproduction test), the fathead minnow (*Pimephales promelas* - larval survival and growth test), and the green alga (*Selenastrum capricornutum* - growth test) as an initial screening process for a

minimum of three, but not to exceed five, suites of tests to account for potential variability of the effluent / receiving water. After this screening period, monitoring shall be conducted using the most sensitive species.

- b. 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 demonstrate that the same species is the most sensitive than the 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.
- c. The presence of chronic toxicity shall be estimated as specified in EPA's Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms, Third Edition, July 1994 (EPA/600/4-91/002).

#### **C. 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 within 14 days.
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.

#### **D. ACCELERATED MONITORING**

1. If toxicity is detected as defined in Monitoring and Reporting Program No. CI-6520, Sections I.B.4.a., or I.B.4. b., then the Discharger shall conduct six additional tests, approximately every 7 days, over a six-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. If two of the six tests exceed  $1.0 TU_c$ , the Discharger shall immediately implement the Initial Identification Evaluation (TIE).

2. If implementation of the initial investigation TIE indicates the source of toxicity (e.g., a temporary plant upset, etc.), then the Discharger shall return to the normal sampling frequency required in Part III of this monitoring and reporting program.
3. If implementation of the initial investigation workplan indicates the source of toxicity (e.g., a temporary plant upset, etc.), then the Discharger shall return to the normal sampling frequency required in Part III of this permit.
4. If a TIE is initiated prior to completion of the accelerated testing schedule required by Part IV.D. of this permit, then the accelerated testing schedule may be terminated, or used as necessary in performing the TIE, as determined by the Executive Officer.
5. The Discharger shall obtain 6 consecutive chronic toxicity results less than or equal to  $1 TU_c$  in order to return to the normal sampling frequency required in Part III of this permit.

#### **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 Part I.B.4. of this permit. Test results shall be reported in Toxicity Units (percent survival or  $TU_c$ ) with the discharge monitoring reports (DMR) for the month in which the test is conducted.

If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, pursuant to Section IV.D.4., then those results also shall be submitted with the DMR for the period in which the Investigation occurred.

2. The full report shall be submitted by the end of the month in which the DMR is submitted.
3. 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 as described in Sections I.B.4.a.1., and I.B.4.b.1.
4. 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<sub>15</sub>, IC<sub>25</sub>, IC<sub>40</sub> and IC<sub>50</sub> values in percent effluent
  - g. TU<sub>c</sub> values  $\left( TU_c = \frac{100}{NOEC} \right)$
  - h. Mean percent mortality ( $\pm$ standard deviation) after 96 hours in 100% effluent (if applicable)
  - h. NOEC and LOEC values for reference toxicant test(s)
  - i. IC<sub>25</sub> value for reference toxicant test(s)
  - j. Available water quality measurements for each test (e.g., pH, D.O., temperature, conductivity, hardness, salinity, ammonia)
5. The Discharger shall provide a compliance summary which includes a summary table of toxicity data from at least eleven of the most recent samples.
  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.

## V. INTERIM MONITORING

Pursuant to the California Water Code, Section 13267, the Discharger is required to submit data sufficient for determination of priority pollutants that require water quality-based effluent limitations. The Discharger shall conduct an interim monitoring program for all California Toxics Rule pollutants for three years, or until ordered otherwise by the Regional Board.

**A. Effluent – Discharge No. 001.**

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Arsenic	µg/L	grab	quarterly <sup>1</sup>
Beryllium	µg/L	grab	quarterly <sup>1</sup>
Cadmium	µg/L	grab	quarterly <sup>1</sup>
Nickel	µg/L	grab	quarterly <sup>1</sup>
Selenium	µg/L	grab	quarterly <sup>1</sup>
Silver	µg/L	grab	quarterly <sup>1</sup>
Antimony	µg/L	grab	quarterly <sup>1</sup>
Mercury	µg/L	grab	quarterly <sup>1</sup>
Thallium	µg/L	grab	quarterly <sup>1</sup>
Cyanide	µg/L	grab	quarterly <sup>1</sup>
Dieldrin	µg/L	grab	quarterly <sup>1</sup>
4,4'-DDE	µg/L	grab	quarterly <sup>1</sup>
4,4'-DDD	µg/L	grab	quarterly <sup>1</sup>
Alpha-endosulfan	µg/L	grab	quarterly <sup>1</sup>
Beta-endosulfan	µg/L	grab	quarterly <sup>1</sup>
Endosulfan sulfate	µg/L	grab	quarterly <sup>1</sup>
Endrin aldehyde	µg/L	grab	quarterly <sup>1</sup>
Delta-BHC	µg/L	grab	quarterly <sup>1</sup>
Benzidine	µg/L	grab	quarterly <sup>1</sup>
1,2,4-trichlorobenzene	µg/L	grab	quarterly <sup>1</sup>
Hexachlorobenzene	µg/L	grab	quarterly <sup>1</sup>
1,4-dichlorobenzene	µg/L	grab	quarterly <sup>1</sup>
3,3'-dichlorobenzidine	µg/L	grab	quarterly <sup>1</sup>
2,4-dinitrotoluene	µg/L	grab	quarterly <sup>1</sup>
2,6-dinitrotoluene	µg/L	grab	quarterly <sup>1</sup>
1,2-diphenylhydrazine	µg/L	grab	quarterly <sup>1</sup>
4-chlorophenyl phenyl ether	µg/L	grab	quarterly <sup>1</sup>
4-bromophenyl phenyl ether	µg/L	grab	quarterly <sup>1</sup>
Bis(2-chloroisopropyl) ether	µg/L	grab	quarterly <sup>1</sup>
Bis(2-chloroethoxy) methane	µg/L	grab	quarterly <sup>1</sup>
<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>

Hexachlorobutadiene	µg/L	grab	quarterly <sup>1</sup>
Hexachlorocyclopentadiene	µg/L	grab	quarterly <sup>1</sup>
Isophorone	µg/L	grab	quarterly <sup>1</sup>
Naphthalene	µg/L	grab	quarterly <sup>1</sup>
Nitrobenzene	µg/L	grab	quarterly <sup>1</sup>
N-nitrosodimethylamine	µg/L	grab	quarterly <sup>1</sup>
N-nitrosodi-n-propylamine	µg/L	grab	quarterly <sup>1</sup>
N-nitrosodiphenylamine	µg/L	grab	quarterly <sup>1</sup>
Bis (2-ethylhexyl) phthalate	µg/L	grab	quarterly <sup>1</sup>
Butyl benzyl phthalate	µg/L	grab	quarterly <sup>1</sup>
Di-n-butyl phthalate	µg/L	grab	quarterly <sup>1</sup>
Di-n-octyl phthalate	µg/L	grab	quarterly <sup>1</sup>
Diethyl phthalate	µg/L	grab	quarterly <sup>1</sup>
Dimethyl phthalate	µg/L	grab	quarterly <sup>1</sup>
Acenaphthylene	µg/L	grab	quarterly <sup>1</sup>
Phenanthrene	µg/L	grab	quarterly <sup>1</sup>
1,2,5,6-dibenzanthracene	µg/L	grab	quarterly <sup>1</sup>
Indeno (1,2,3-cd) pyrene	µg/L	grab	quarterly <sup>1</sup>
Benzo(g,h,i)perylene	µg/L	grab	quarterly <sup>1</sup>
Dibenz(a,h)anthracene	µg/L	grab	quarterly <sup>1</sup>
2,4,6-trichlorophenol	µg/L	grab	quarterly <sup>1</sup>
P-chloro-m-cresol	µg/L	grab	quarterly <sup>1</sup>
2-chlorophenol	µg/L	grab	quarterly <sup>1</sup>
2,4-dichlorophenol	µg/L	grab	quarterly <sup>1</sup>
2,4-dimethylphenol	µg/L	grab	quarterly <sup>1</sup>
2-nitrophenol	µg/L	grab	quarterly <sup>1</sup>
4-nitrophenol	µg/L	grab	quarterly <sup>1</sup>
2,4-dinitrophenol	µg/L	grab	quarterly <sup>1</sup>
4,6-dinitro-o-cresol	µg/L	grab	quarterly <sup>1</sup>
Pentachlorophenol	µg/L	grab	quarterly <sup>1</sup>
Phenol	µg/L	grab	quarterly <sup>1</sup>
Acrolein	µg/L	grab	quarterly <sup>1</sup>
Acrylonitrile	µg/L	grab	quarterly <sup>1</sup>
Benzene	µg/L	grab	quarterly <sup>1</sup>
Carbon tetrachloride	µg/L	grab	quarterly <sup>1</sup>
Chlorobenzene	µg/L	grab	quarterly <sup>1</sup>
1,2-dichloroethane	µg/L	grab	quarterly <sup>1</sup>
1,1,1-trichloroethane	µg/L	grab	quarterly <sup>1</sup>
1,1-dichloroethane	µg/L	grab	quarterly <sup>1</sup>
<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
1,1,2-trichloroethane	µg/L	grab	quarterly <sup>1</sup>
1,1,2,2-tetrachloroethane	µg/L	grab	quarterly <sup>1</sup>

Chloroethane	µg/L	grab	quarterly <sup>1</sup>
Chloroform	µg/L	grab	quarterly <sup>1</sup>
1,1-dichloroethylene	µg/L	grab	quarterly <sup>1</sup>
1,2-trans-dichloroethylene	µg/L	grab	quarterly <sup>1</sup>
1,2-dichloropropane	µg/L	grab	quarterly <sup>1</sup>
1,2-dichloropropylene	µg/L	grab	quarterly <sup>1</sup>
Ethylbenzene	µg/L	grab	quarterly <sup>1</sup>
Methylene chloride	µg/L	grab	quarterly <sup>1</sup>
Methyl chloride	µg/L	grab	quarterly <sup>1</sup>
Methyl bromide	µg/L	grab	quarterly <sup>1</sup>
Bromoform	µg/L	grab	quarterly <sup>1</sup>
Bromodichloromethane	µg/L	grab	quarterly <sup>1</sup>
Dibromochloromethane	µg/L	grab	quarterly <sup>1</sup>
Tetrachloroethylene	µg/L	grab	quarterly <sup>1</sup>
Toluene	µg/L	grab	quarterly <sup>1</sup>
Trichloroethylene	µg/L	grab	quarterly <sup>1</sup>
Vinyl chloride	µg/L	grab	quarterly <sup>1</sup>
Fluorene	µg/L	grab	quarterly <sup>1</sup>
2-chloroethyl vinyl ether	µg/L	grab	quarterly <sup>1</sup>
Xylenes	µg/L	grab	quarterly <sup>1</sup>
1,3-Dichloropropylene	µg/L	grab	quarterly <sup>1</sup>
2-Methyl-4,6-Dinitrophenol	µg/L	grab	quarterly <sup>1</sup>
3-Methyl-4-chlorophenol	µg/L	grab	quarterly <sup>1</sup>

<sup>1</sup> If the results of the sampling are nondetected for four consecutive sampling events, the frequency of analysis may be decreased to semiannually. However, if a result then exceeds the effluent limit, the frequency for that constituent will revert to quarterly.

## B. Receiving Water

The monitoring stations shall be located 50 feet upstream and downstream of the point of discharge to Dominguez Channel (see Figure 1).

1. The following general observations or measurements at the receiving water

sampling locations shall be reported:

- a. Tidal stage, time, and date of monitoring
- b. General water conditions
- c. Color of the water
- d. Appearance of oil films or greases, 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 marine life
- i. Presence of the California Least Tern and California Brown Pelican.

2. Receiving water sampling shall include analysis for each of the following constituents:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Hardness as Calcium carbonate (CaCO <sub>3</sub> )	mg/L	----	quarterly
Temperature	°F	grab	quarterly
pH	pH Units	grab	quarterly
Acute toxicity <sup>3</sup>	% survival	grab	semiannually <sup>2</sup>
Chronic toxicity <sup>4</sup>	TUc <sup>5</sup>	grab	semiannually <sup>2</sup>
Oil and grease	mg/L	grab	semiannually <sup>2</sup>
Turbidity	NTU	grab	semiannually <sup>2</sup>
Total suspended solids	mg/L	grab	semiannually <sup>2</sup>
Settleable solids	ml/L	grab	semiannually <sup>2</sup>
Fecal coliform	MPN/100ml	grab	semiannually <sup>2</sup>
Ammonia	mg/L	grab	semiannually <sup>2</sup>
BOD <sub>5</sub> (20°C)	mg/L	grab	semiannually <sup>2</sup>
Arsenic	µg/L	grab	semiannually <sup>2</sup>
Beryllium	µg/L	grab	semiannually <sup>2</sup>
Cadmium	µg/L	grab	semiannually <sup>2</sup>
Nickel	µg/L	grab	semiannually <sup>2</sup>
Selenium	µg/L	grab	semiannually <sup>2</sup>
Silver	µg/L	grab	semiannually <sup>2</sup>
			Minimum
<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Frequency of Analysis</u>
Chromium	µg/L	grab	semiannually <sup>2</sup>
Copper	µg/L	grab	semiannually <sup>2</sup>
Lead	µg/L	grab	semiannually <sup>2</sup>
Zinc	µg/L	grab	semiannually <sup>2</sup>

Chlordane	µg/L	grab	semiannually <sup>2</sup>
Aldrin	µg/L	grab	semiannually <sup>2</sup>
Acenaphthene	µg/L	grab	semiannually <sup>2</sup>
Anthracene	µg/L	grab	semiannually <sup>2</sup>
Benzo(a)anthracene	µg/L	grab	semiannually <sup>2</sup>
Benzo(a)pyrene	µg/L	grab	semiannually <sup>2</sup>
Benzo(b)fluoranthene	µg/L	grab	semiannually <sup>2</sup>
Benzo(k)fluoranthene	µg/L	grab	semiannually <sup>2</sup>
Chrysene	µg/L	grab	semiannually <sup>2</sup>
Dibenz(a,h)anthracene	µg/L	grab	semiannually <sup>2</sup>
Dieldrin	µg/L	grab	semiannually <sup>2</sup>
DDT	µg/L	grab	semiannually <sup>2</sup>
Endrin	µg/L	grab	semiannually <sup>2</sup>
Endosulfan	µg/L	grab	semiannually <sup>2</sup>
Fluoranthene	µg/L	grab	semiannually <sup>2</sup>
Fluorene	µg/L	grab	semiannually <sup>2</sup>
Heptachlor	µg/L	grab	semiannually <sup>2</sup>
Heptachlor epoxide	µg/L	grab	semiannually <sup>2</sup>
alpha HCH	µg/L	grab	semiannually <sup>2</sup>
beta HCH	µg/L	grab	semiannually <sup>2</sup>
gamma HCH (lindane)	µg/L	grab	semiannually <sup>2</sup>
Indeno(1,2,3-cd)pyrene	µg/L	grab	semiannually <sup>2</sup>
PCBs	µg/L	grab	semiannually <sup>2</sup>
Pyrene	µg/L	grab	semiannually <sup>2</sup>
Toxaphene	µg/L	grab	semiannually <sup>2</sup>

<sup>2</sup> Semiannual sampling - once during wet weather season (November 1 through April 30) and once during the dry weather season (May 1 through October 31).

<sup>3</sup> By the method specified in "Methods for Measuring the Acute Toxicity of Effluent to Freshwater and Marine Organisms" – September 1991, EPA/600/4-90/027. Submission of bioassay results should include the information noted on pages 70-73 of the "Methods". The fathead minnow (*Pimephales promelas*) shall be used as the test species.

<sup>4</sup> Initial screening shall be conducted using a minimum of three test species with approved test protocols to determine the most sensitive test organism for chronic toxicity testing. The initial screening process shall be conducted for a minimum of three discharge events to account for potential variability of the effluent. If possible the test species used during the screening process should include a vertebrate, an invertebrate, and an aquatic plant. After the initial screening period, chronic toxicity testing may be limited to the most sensitive test species.

Dilution and control waters should be obtained from an unaffected area of the receiving waters. Standard dilution waters may be used if the above source exhibits toxicity greater than 1.0 TUc. The sensitivity of the test organisms to a reference toxicant shall be determined concurrently with each bioassay and reported with the test results.

<sup>5</sup> TUc = 100/NOEL, where NOEL (No Observed Effect Level) is expressed as the maximum percent effluent that causes no observable effect on an organism.

**C. 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 conducted by collecting a grab sample with a minimum frequency of once during dry weather season (May 1 through October 31) and once during wet weather season (November 1 through April 30). The Discharger shall calculate a 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 compared to the human health water quality limit for 2,3,7,8-TCDD, consumption of organisms only as defined in 40 CFR Part 131 (0.000000014 µg/L).

<u>Congeners</u>	<u>Toxicity Equivalence Factors</u>
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	0.01
Octa CDF	0.0001

**VI. STORM WATER MONITORING AND REPORTING**

The Discharger is covered under NPDES General Permit No. CAS000001 - *Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities* (WDID No. 4B19S002428). The Discharger shall comply with the requirements as stipulated in the aforementioned permit.

Hitco Carbon Composites, Inc.  
Monitoring and Reporting Program No. CI-6520

CA0059048  
Order No. 01-041

Ordered by: \_\_\_\_\_  
Dennis A. Dickerson  
Executive Officer

Date: March 29, 2001

/CDO