**ATTACHMENT T**

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

# MONITORING AND REPORTING PROGRAM No. CI-3021
# FOR
# CITY OF SIMI VALLEY
# (Simi Valley Water Quality Control Plant)
# (NPDES NO. CA0055221)

The Discharger shall implement this monitoring and reporting program the first of the month following the month of the effective date of this Order.

I. SUBMITTAL OF MONITORING REPORTS

A. All monthly monitoring reports must be received by the fifteenth day of the second month following each monthly sampling period.

B. By April 15th of each year, the Discharger shall submit an annual summary report 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 first annual report under this Program shall be received at the Regional Board by April 15, 2004, and will cover the monitoring period of calendar year 2003. The Regional Board may request electronic submittal of data at any time.

C. Each monitoring report shall contain a separate section titled “Summary of Non-Compliance” which discusses the compliance record and the 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 discharge requirements, as well as all excursions of effluent limitations.

D. All monitoring and annual summary reports must be addressed to the Regional Board, Attention: Information Technology Unit. Reference the reports to Compliance File No. CI-3021 to facilitate routing to the appropriate staff and file.

E. Database Management System: The Regional Board and the State Water Resources Control Board (State Board) are developing a database compliance monitoring management system that may require the Discharger to submit the monitoring and annual summary reports electronically when it becomes fully operational.

March 13, 2003
Revised: May 6, 2003

## II. MONITORING REQUIREMENTS

A. All samples shall be representative of the waste discharge under conditions of peak load. Quarterly effluent analyses shall be performed during the months of February, May, August, and November. Semiannual analyses shall be performed during the months of February and August. Annual analyses shall be performed during the month of August. Should there be instances when monitoring could not be done during these specified months, the Discharger must notify the Regional Board, state the reason why monitoring could not be conducted, and obtain approval from the Executive Officer for an alternate schedule. Results of quarterly, semiannual, and annual analyses shall be reported in the monthly monitoring report following the analysis.

B. Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; or where no methods are specified for a given pollutant, by methods approved by the Regional Board or State Board. The laboratory conducting analyses shall be certified by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP) or approved by the Regional Board for that particular parameter. A copy of the laboratory certification shall be submitted with the annual summary report.

C. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR Part 136.3. All QA/QC analyses must be run on the same dates that samples are actually analyzed. The Discharger shall retain the QA/QC documentation in its files and make available for inspection and/or submit them when requested by the Regional Board. Proper chain of custody procedures must be followed and a copy of that documentation shall be submitted with the monthly report.

D. For all bacteriological analyses, sample dilutions should be performed so the range of values extends from 2 to 16,000. The detection methods used for each analysis shall be reported with the results of the analyses.

Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR Part 136 (revised May 14, 1999), unless alternate methods have been approved in advance by the United State Environmental Protection Agency (USEPA) pursuant to 40 CFR Part 136.

Detection methods used for enterococcus shall be those presented in the USEPA publication EPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water By Membrane Filter Procedure* or any improved method determined by the Regional Board to be appropriate.

III. REPORTING REQUIREMENTS

A. The monitoring report shall specify the USEPA analytical method used, the Method Detection Limit (MDL), the minimum level and the reported Minimum Level (RML) for each pollutant. The MLs are those published by the State Board in the *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California,* March 2, 2000, Appendix 4. The ML represents the lowest quantifiable concentration in a sample based on the proper application of all method-based analytical procedures and the absence of any matrix interference. MLs also represent the lowest standard concentration in the calibration curve for a specific analytical technique after the application of appropriate method-specific factors. When all specific analytical steps are followed and after appropriate application of method specific factors, the ML also represents the lowest standard in the calibration curve for that specific analytical technique. When there is deviation from the method analytical procedures, such as dilution or concentration of samples, other factors may be applied to the ML depending on the sample preparation. The resulting value is the reported minimum level.

B. The Discharger shall select the analytical method that provides a ML lower than the permit limit established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable, in accordance with procedures set forth in 40 CFR 136, and obtains approval for a higher ML from the Executive Officer, as provided for in III.E. of this section. If the effluent limitation is lower than all the MLs in Appendix 4, SIP, the Discharge must select the method with the lowest ML for compliance purposes. The Discharger shall include in the Annual Summary Report a list of the analytical methods employed for each test.

C. The Discharger shall instruct its laboratories to establish calibration standards so that the ML (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve. In accordance with section E, below, the Discharger's laboratory may employ a calibration standard lower than the ML in Appendix 4 of the SIP.

D. For the purpose of reporting compliance with numerical effluent limitations and receiving water limitations, analytical data shall be reported using the following reporting protocols:

i. Sample results greater than or equal to the RML must be reported "as measured" by the laboratory (i.e., the measured chemical concentration in the sample); or

ii. Sample results less than the RML, but greater than or equal to the laboratory's MDL, must be reported as "Detected, but Not Quantified", or DNQ. The laboratory must write the estimated chemical concentration of the sample next to DNQ as well as the words "Estimated Concentration" (may be shortened to Est. Conc.); or

iii. Sample results less than the laboratory's MDL must be reported as "Not-Detected", or ND.

E. In accordance with Section 2.4.3 of the SIP, the Regional Board Executive Officer, in consultation with the State Board's Quality Assurance Program Manager, may establish an ML that is not contained in Appendix 4 of the SIP to be included in the discharger's permit in any of the following situations:

1. When the pollutant under consideration is not included in Appendix 4, SIP;

2. When the discharger and the Regional Board agree to include in the permit a test method that is more sensitive than those specified in 40 CFR 136 (revised as of May 14, 1999);

3. When a discharger agrees to use an ML that is lower than those listed in Appendix 4;

4. When a discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Appendix 4 and proposes an appropriate ML for the matrix; or,

5. When the discharger uses a method which quantification practices are not consistent with the definition of the ML. Examples of such methods are 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 Water Resources Control Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.

If there is any conflict between foregoing provisions and the State Implementation Policy (SIP), the provisions stated in the SIP (Section 2.4) shall prevail.

F. If the Discharger samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) on any influent, effluent, or receiving water constituent more frequently than required by

this Program using approved analytical methods, the results of those analyses shall be included in the report. These results shall be reflected in the calculation of the average used in demonstrating compliance with average effluent, receiving water, etc., limitations.

G. The Discharger shall develop and maintain a record of all spills or bypasses of raw or partially treated sewage from its collection system or treatment plant. This record shall be made available to the Regional Board upon request and a spill summary shall be included in the annual summary report.

1. For spills/bypass of 500 gallons or more that flowed to receiving waters or entered a shallow ground water aquifer or has public exposure, the Discharger shall report such spills to the Regional Board and the local health agency by telephone or electronically as soon as possible but not later than 24 hours of knowledge of the incident. The following information shall be included in the report: location; date and time of spill; volume and nature of the spill; cause(s) of the spill; mitigation measures implemented; and corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences.

2. For spills that reach receiving waters, the Discharger shall obtain and analyze grab samples for total and fecal coliforms, and enterococcus, upstream and downstream of the point of entry of the spill. This monitoring shall be on a daily basis from time the spill is known until the results of two consecutive sets of bacteriological monitoring indicate the return to the normal level or cessation of monitoring is authorized by the County Department of Health Services.

3. Regional Board notification shall be followed by a written report five working days after verbal/electronic notification.

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

## IV. MONITORING REQUIREMENTS

A. Pursuant to the Code of Federal Regulations [40 CFR Section 122.41(j) and Section 122.48(b)], the monitoring program for a discharger receiving an NPDES permit must be designed to determine compliance with NPDES permit terms and conditions, and demonstrate that State water quality standards are met.

B. Since compliance monitoring focuses on the effects of a point source discharge, it is not designed to assess impacts from other sources of pollution (e.g., non-point

source run-off, aerial fallout) or to evaluate the current status of important ecological resources on a regional basis.

A watershed-wide Monitoring Program will be developed within one year from the effective date of this Order and permit for the Calleguas Creek Watershed, under the leadership of the Calleguas Creek Watershed Management Plan Committee, and in consultation with stakeholders. The goals of the watershed-wide monitoring program will include evaluating or assessing: compliance with receiving water objectives, trends in surface water quality, impacts to beneficial uses, the health of the biological community (bioassessment), and data needs for modeling contaminants of concern. The Discharger shall participate in the development and implementation of the watershed-wide monitoring program, and submit a copy of the proposed program to the Regional Board, within one year of the effective date of this Order.

C. Changes to the compliance monitoring program may be required to fulfill the goals of the watershed-wide monitoring program, while retaining the compliance monitoring component required to evaluate compliance with the NPDES permit. Revisions to the City of Simi Valley' (the City's) program will be made under the direction of the Regional Board, as necessary, to accomplish the goal, and may include a reduction or increase in the number of parameters to be monitored, the frequency of monitoring, and/or the number of samples collected.

D. Until such time when a watershed-wide monitoring program is developed, the City shall implement the monitoring program in the following sections.

## V. INFLUENT MONITORING REQUIREMENTS

(Footnotes are on pages T-29 and T-31)

A. Influent monitoring is required:

1. To determine compliance with the permit conditions for $BOD_5$ 20°C and suspended solids removal rates;

2. To assess treatment plant performance;

3. To assess the effectiveness of the pretreatment program; and,

4. As a requirement of the Pollution Minimization Program.

B. Sampling stations shall be established at each point of inflow to the sewage treatment plant and shall be located upstream of any in-plant return flows and/or where representative samples of the influent can be obtained. The date and time of sampling shall be reported with the analytical results.

C. Samples for influent $BOD_5$20°C and suspended solids analysis shall be obtained on the same day that the effluent $BOD_5$20°C and suspended solids samples are obtained to demonstrate percent removal. Similarly, sampling for other constituents shall also be coordinated with effluent sampling.

D. The following shall constitute the influent monitoring program:

| CTR # | Constituents | Units | Type of Sample | Minimum Frequency of Analysis |
|---|---|---|---|---|
| | Flow | mgd | recorder | continuous[1] |
| | pH | pH units | grab | semiannually |
| | Suspended solids | mg/L | 24-hour composite | weekly |
| | $BOD_5$ 20°C | mg/L | 24-hour composite | weekly |
| 10 | Selenium | µg/L | 24-hour composite | quarterly[2] |
| 14 | Cyanide | µg/L | 24-hour composite | quarterly[2] |
| 105 | Gamma-BHC (Lindane) | µg/L | 24-hour composite | quarterly[2] |
| 109 | 4,4-DDE | µg/L | 24-hour composite | quarterly[2] |
| | Remaining EPA priority pollutants excluding asbestos | µg/L | 24-hour composite/ grab for VOCs and Chromium VI | semiannually |

IV. EFFLUENT MONITORING REQUIREMENTS
(Footnotes are on pages T-29 and T-31)

A. Effluent monitoring is required to:

1. Determine compliance with NPDES permit conditions;

2. Identify operational problems and aid in improving plant performance;

3. Provide information on wastewater characteristics and flows for use in interpreting water quality and biological data; and,

4. Determine Reasonable Potential Analysis for toxic pollutants.

B. An effluent sampling station shall be established for each point of discharge and shall be located downstream of any in-plant return flows where representative samples of the effluent (after receiving all treatment) can be obtained. Effluent samples may be obtained at a single station provided that such station is representative of the effluent quality at all discharge points. Any changes in sampling station locations must be approved by the Executive Officer.

C. The following shall constitute the effluent monitoring program:

| CTR # | Constituent | Units | Type of Sample | Minimum Frequency of Analysis |
|---|---|---|---|---|
| | Total waste flow | mgd | recorder | continuous[1] |
| | Turbidity[1], [3] | NTU | recorder | continuous[1] |
| | Total residual chlorine | mg/L | digital analyzer | grab[1] |
| | Total coliform[3] | CFU/100 ml | grab | daily |
| | Fecal coliform[3] | CFU/100 ml | grab | daily |
| | Temperature | °F | grab | weekly |
| | pH | pH units | grab | weekly |
| | Settleable solids | ml/L | grab | weekly |
| | Suspended solids | mg/L | 24-hour comp. | weekly |
| | $BOD_5$ 20°C [4] | mg/L | 24-hour comp. | weekly |
| | Oil and grease | mg/L | grab | monthly |
| | Dissolved oxygen | mg/L | grab | monthly |
| | Total dissolved solids | mg/L | 24-hour comp. | monthly |
| | Chloride | mg/L | 24-hour comp. | monthly |
| | Sulfates | mg/L | 24-hour comp. | monthly |
| | Boron | mg/L | 24-hour comp. | monthly |
| | Fluoride | mg/L | 24-hour comp. | monthly |
| | Ammonia nitrogen [5] | mg/L | 24-hour comp. | monthly |
| | Nitrate nitrogen | mg/L | 24-hour comp. | monthly |
| | Nitrite nitrogen | mg/L | 24-hour comp. | monthly |
| | Organic nitrogen | mg/L | 24-hour comp. | monthly |
| | Total kjeldahl nitrogen (TKN) | mg/L | 24-hour comp. | monthly |
| | Total nitrogen ) [6] | mg/L | 24-hour comp. | monthly |
| | Total phosphorus | mg/L | 24-hour comp. | monthly |
| | Orthophosphate-P | mg/L | 24-hour comp. | monthly |
| | Algal biomass (Chlorophyll A) [7] | mg/L | 24-hour comp. | monthly |
| | Surfactants (MBAS) [8] | mg/L | 24-hour comp. | monthly |
| | Surfactants (CTAS) [8] | mg/L | 24-hour comp. | monthly |
| | Total hardness ($CaCO_3$) | mg/L | 24-hour comp. | monthly |
| | MTBE | µg/L | grab | semiannually |
| | Radioactivity [9] | PCi/L | 24-hour comp. | semiannually |
| | Chronic toxicity | TUc | 24-hour comp. | monthly |
| | Acute toxicity [10] | % Survival | grab | quarterly |
| 1 | Antimony | µg/L | 24-hour comp. | quarterly |
| 2 | Arsenic | µg/L | 24-hour comp. | quarterly |
| 3 | Beryllium | µg/L | 24-hour comp. | semiannually |
| 4 | Cadmium | µg/L | 24-hour comp. | quarterly |

| CTR # | Constituent | Units | Type of Sample | Minimum Frequency of Analysis |
|---|---|---|---|---|
| 5 | Chromium III | µg/L | 24-hour comp. | semiannually |
| 6a | Chromium VI | µg/L | grab | quarterly |
| 6b | Copper | µg/L | 24-hour comp. | quarterly |
| | Iron | µg/L | 24-hour comp. | quarterly |
| 7 | Lead | µg/L | 24-hour comp. | quarterly |
| 8 | Mercury | µg/L | 24-hour comp. | quarterly |
| 9 | Nickel | µg/L | 24-hour comp. | quarterly |
| 10 | Selenium | µg/L | 24-hour comp. | monthly |
| 11 | Silver | µg/L | 24-hour comp. | quarterly |
| 12 | Thallium | µg/L | 24-hour comp. | quarterly |
| 13 | Zinc | µg/L | 24-hour comp. | quarterly |
| 14 | Cyanide | µg/L | 24-hour comp. | monthly |
| 15 | Asbestos | µg/L | grab | annually |
| 16 | 2,3,7,8-TCDD (Dioxin) [11] | µg/L | 24-hour comp. | quarterly |
| 17 | Acrolein | µg/L | grab | semiannually |
| 18 | Acrylonitrile | µg/L | grab | semiannually |
| 19 | Benzene | µg/L | grab | semiannually |
| 20 | Bromoform | µg/L | grab | quarterly |
| 21 | Carbon tetrachloride | µg/L | grab | semiannually |
| 22 | Chlorobenzene | µg/L | grab | semiannually |
| 23 | Dibromochloromethane | µg/L | grab | quarterly |
| 24 | Chloroethane | µg/L | grab | semiannually |
| 25 | 2-Chloroethylvinyl Ether | µg/L | grab | semiannually |
| 26 | Chloroform | µg/L | grab | quarterly |
| 27 | Bromodichloromethane | µg/L | grab | quarterly |
| 28 | 1,1-Dichloroethane | µg/L | grab | semiannually |
| 29 | 1,2-Dichloroethane | µg/L | grab | semiannually |
| 30 | 1,1-Dichloroethylene | µg/L | grab | semiannually |
| 31 | 1,2-Dichloropropane | µg/L | grab | semiannually |
| 32 | 1,3-Dichloropropylene | µg/L | grab | semiannually |
| 33 | Ethylbenzene | µg/L | grab | semiannually |
| 34 | Methyl bromide (Bromomethane) | µg/L | grab | semiannually |
| 35 | Methyl chloride (Chloromethane) | µg/L | grab | semiannually |
| 36 | Methylene chloride | µg/L | grab | semiannually |
| 37 | 1,1,2,2-Tetrachloroethane | µg/L | grab | semiannually |
| 38 | Tetrachloroethylene | µg/L | grab | quarterly |
| 39 | Toluene | µg/L | grab | semiannually |
| 40 | 1,2-Tans-Dichloroethylene | µg/L | grab | semiannually |
| 41 | 1,1,1-Trichloroethane | µg/L | grab | semiannually |
| 42 | 1,1,2-Trichloroethane | µg/L | grab | semiannually |

| CTR # | Constituent | Units | Type of Sample | Minimum Frequency of Analysis |
|---|---|---|---|---|
| 43 | Trichloroethylene | µg/L | grab | semiannually |
| 44 | Vinyl chloride | µg/L | grab | semiannually |
| 45 | 2-Chlorophenol | µg/L | 24-hour comp. | semiannually |
| 46 | 2,4-Dichlorophenol | µg/L | 24-hour comp. | semiannually |
| 47 | 2,4-Dimethylphenol | µg/L | 24-hour comp. | semiannually |
| 48 | 2-Methyl-4,6-Dinitrophenol | µg/L | 24-hour comp. | semiannually |
| 49 | 2,4-Dinitrophenol | µg/L | 24-hour comp. | semiannually |
| 50 | 2-Nitrophenol | µg/L | 24-hour comp. | semiannually |
| 51 | 4-Nitrophenol | µg/L | 24-hour comp. | semiannually |
| 52 | 3-Methyl-4-Chlorophenol | µg/L | 24-hour comp. | semiannually |
| 53 | Pentachlorophenol | µg/L | 24-hour comp. | semiannually |
| 54 | Phenol | µg/L | 24-hour comp. | semiannually |
| 55 | 2,4,6-Trichlorophenol | µg/L | 24-hour comp. | semiannually |
| 56 | Acenaphthene | µg/L | 24-hour comp. | semiannually |
| 57 | Acenaphthylene | µg/L | 24-hour comp. | semiannually |
| 58 | Anthracene | µg/L | 24-hour comp. | semiannually |
| 59 | Benzidine | µg/L | 24-hour comp. | semiannually |
| 60 | Benzo(a)Anthracene | µg/L | 24-hour comp. | semiannually |
| 61 | Benzo(a)Pyrene | µg/L | 24-hour comp. | semiannually |
| 62 | Benzo(b)Fluoranthene | µg/L | 24-hour comp. | semiannually |
| 63 | Benzo(g,h,i)Perylene | µg/L | 24-hour comp. | semiannually |
| 64 | Benzo(k)Fluoranthene | µg/L | 24-hour comp. | semiannually |
| 65 | Bis(2-Chloroethoxy)Methane | µg/L | 24-hour comp. | semiannually |
| 66 | Bis(2-Chloroethyl)Ether | µg/L | 24-hour comp. | semiannually |
| 67 | Bis(2-Chloroisopropyl)Ether | µg/L | 24-hour comp. | semiannually |
| 68 | Bis(2-Ethylhexyl)Phthalate | µg/L | 24-hour comp. | semiannually |
| 69 | 4-Bromophenyl Phenyl Ether | µg/L | 24-hour comp. | semiannually |
| 70 | Butylbenzyl Phthalate | µg/L | 24-hour comp. | semiannually |
| 71 | 2-Chloronaphthalene | µg/L | 24-hour comp. | semiannually |
| 72 | 4-Chlorophenyl Phenyl Ether | µg/L | 24-hour comp. | semiannually |
| 73 | Chrysene | µg/L | 24-hour comp. | semiannually |
| 74 | Dibenzo(a,h)Anthracene | µg/L | 24-hour comp. | semiannually |
| 75 | 1,2-Dichlorobenzene | µg/L | 24-hour comp. | semiannually |
| 76 | 1,3-Dichlorobenzene | µg/L | 24-hour comp. | semiannually |
| 77 | 1,4-Dichlorobenzene | µg/L | 24-hour comp. | semiannually |
| 78 | 3,3'-Dichlorobenzidine | µg/L | 24-hour comp. | semiannually |
| 79 | Diethyl Phthalate | µg/L | 24-hour comp. | semiannually |
| 80 | Dimethyl Phthalate | µg/L | 24-hour comp. | semiannually |
| 81 | Di-n-Butyl Phthalate | µg/L | 24-hour comp. | semiannually |
| 82 | 2,4-Dinitrotoluene | µg/L | 24-hour comp. | semiannually |

| CTR # | Constituent | Units | Type of Sample | Minimum Frequency of Analysis |
|---|---|---|---|---|
| 83 | 2,6-Dinitrotoluene | µg/L | 24-hour comp. | semiannually |
| 84 | Di-n-Octyl Phthalate | µg/L | 24-hour comp. | semiannually |
| 85 | 1,2-Diphenylhydrazine | µg/L | 24-hour comp. | semiannually |
| 86 | Fluoranthene | µg/L | 24-hour comp. | semiannually |
| 87 | Fluorene | µg/L | 24-hour comp. | semiannually |
| 88 | Hexachlorobenzene | µg/L | 24-hour comp. | semiannually |
| 89 | Hexachlorobutadiene | µg/L | 24-hour comp. | semiannually |
| 90 | Hexachlorocyclopentadiene | µg/L | 24-hour comp. | semiannually |
| 91 | Hexachloroethane | µg/L | 24-hour comp. | semiannually |
| 92 | Indeno(1,2,3-cd)Pyrene | µg/L | 24-hour comp. | semiannually |
| 93 | Isophrone | µg/L | 24-hour comp. | semiannually |
| 94 | Naphthalene | µg/L | 24-hour comp. | semiannually |
| 95 | Nitrobenzene | µg/L | 24-hour comp. | semiannually |
| 96 | N-nitrosodimethylamine (NDMA) | µg/L | 24-hour comp. | semiannually |
| 97 | N-Nitrosodi-n-Propylamine | µg/L | 24-hour comp. | semiannually |
| 98 | N-Nitrosodiphenylamine | µg/L | 24-hour comp. | semiannually |
| 99 | Phenanthrene | µg/L | 24-hour comp. | semiannually |
| 100 | Pyrene | µg/L | 24-hour comp. | semiannually |
| 101 | 1,2,4-Trichlorobenzene | µg/L | 24-hour comp. | semiannually |
| 102 | Aldrin | µg/L | 24-hour comp. | semiannually |
| 103 | Alpha-BHC | µg/L | 24-hour comp. | semiannually |
| 104 | Beta-BHC | µg/L | 24-hour comp. | semiannually |
| 105 | Gamma-BHC (Lindane) | µg/L | 24-hour comp. | monthly |
| 106 | Delta-BHC | µg/L | 24-hour comp. | semiannually |
| 107 | Chlordane | µg/L | 24-hour comp. | semiannually |
| 108 | 4,4'-DDT [12] | µg/L | 24-hour comp. | semiannually |
| 109 | 4,4'-DDE [12] | µg/L | 24-hour comp. | monthly |
| 110 | 4,4- DDD [12] | µg/L | 24-hour comp. | semiannually |
| 111 | Dieldrin | µg/L | 24-hour comp. | semiannually |
| 112 | Alpha-Endosulfan | µg/L | 24-hour comp. | semiannually |
| 113 | Beta-Endosulfan | µg/L | 24-hour comp. | semiannually |
| 114 | Endosulfan sulfate | µg/L | 24-hour comp. | semiannually |
| 115 | Endrin | µg/L | 24-hour comp. | quarterly |
| 116 | Endrin aldehyde | µg/L | 24-hour comp. | semiannually |
| 117 | Heptachlor | µg/L | 24-hour comp. | semiannually |
| 118 | Heptachlor epoxide | µg/L | 24-hour comp. | semiannually |
| | Polychlorinated biphenyls (PCBs)[13] | | | |
| 119 | Aroclor 1016 | µg/L | 24-hour comp. | semiannually |
| 120 | Aroclor 1221 | µg/L | 24-hour comp. | semiannually |
| 121 | Aroclor 1232 | µg/L | 24-hour comp. | semiannually |

| CTR # | Constituent | Units | Type of Sample | Minimum Frequency of Analysis |
|---|---|---|---|---|
| 122 | Aroclor 1242 | µg/L | 24-hour comp. | semiannually |
| 123 | Aroclor 1248 | µg/L | 24-hour comp. | semiannually |
| 124 | Aroclor 1254 | µg/L | 24-hour comp. | semiannually |
| 125 | Aroclor 1260 | µg/L | 24-hour comp. | semiannually |
| 126 | Toxaphene | µg/L | 24-hour comp. | quarterly |
| | Methoxychlor | µg/L | 24-hour comp. | quarterly |
| | Barium | µg/L | 24-hour comp. | quarterly |
| | 2,4-D | µg/L | 24-hour comp. | quarterly |
| | 2,4,5-TP (Silvex) | µg/L | 24-hour comp. | quarterly |
| | Halomethanes [14] | µg/L | 24-hour comp. | quarterly |
| | Ammonium perchlorate | µg/L | grab | semiannually[15] |
| | 1,4-Dioxane | µg/L | grab | semiannually[15] |
| | 1,2,3-Trichloropropane | µg/L | grab | semiannually[15] |

D. Effluent Toxicity Testing

1. Acute Toxicity Testing

a. 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 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.

b. 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. However, if the salinity of the receiving water is between 1 to 32 parts per thousand (ppt), then Discharger may have the option of using the inland silverslide, *Menidia beryllina*, instead of the topsmelt. The method for topsmelt is found in USEPA's *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, Third Edition, October 2002, USEPA Office of Water, Washington D.C. (EPA/821-R-02-014).

c. 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.

d. If either of the effluent toxicity requirements in Section I.D.1.a.i. or I.D.1.a.ii. of this Order is not met, the Discharger shall conduct six additional tests over a six-week period. The Discharger shall ensure that results of a failing acute toxicity test are received by the Discharger within 24 hours of completion of the test and the additional tests shall begin within 3 business days of receipt of the result. If the additional tests indicate compliance with acute toxicity limitation, the Discharger may resume regular testing. However, if the results of any two of the six accelerated tests are less than 90% survival, then the Discharger shall begin a Toxicity Identification Evaluation (TIE). The TIE shall include all reasonable steps to identify the sources of toxicity. Once the sources are identified, the Discharger shall take all reasonable steps to reduce toxicity to meet the objective.

e. If the initial test and any of the additional six acute toxicity bioassay tests results are less than 70% survival, the Discharger shall immediately implement Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan. Once the sources are identified the Discharger shall take all reasonable steps to reduce toxicity to meet the requirements.

2. Chronic Toxicity Effluent/Receiving Water

a. The Discharger shall conduct critical life stage chronic toxicity tests on 24-hour composite 100 % 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*, Fourth Edition, October 2002 (EPA/821-R-02-013) or EPA's *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms*, Third Edition, October 2002, (EPA/821-R-02-014).

b. Effluent samples shall be collected after all treatment processes and before discharge to the receiving water. Receiving water samples shall be collected in accordance with the conditions specified in this MRP (CI-3021). Receiving water samples shall be collected at mid-depth.

c. Test Species, Methods and Units:

i Screening and Monitoring

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.

ii. Re-screening

Re-screening is required every 24 months. The Discharger shall re-screen with the three species listed above and continue to monitor with the most sensitive species. If the first suite of re-screening tests demonstrates that the same species is the most sensitive then 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.

iii. Toxicity Units

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*, Fourth Edition, October 2002 (EPA/821-R-02-013), expressed as:

$$TU_c = \frac{100}{NOEC}$$

The No Observed Effect Concentration (NOEC) is expressed as the maximum percent effluent concentration that causes no observable effect on test organisms, as determined by the results of a critical life stage toxicity test.

d. Accelerated Monitoring

If toxicity is detected as defined in Order No. R4-2002-XXX, Sections I.D.1.a, I.D.2.b., or I.D.3.a., 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 chronic toxicity test within 24 hours of the completion of the test and the additional tests shall begin within 3 business days of the receipt of the result.

i. If any three out of the initial test and the six additional tests results exceed 1.0 $TU_{c,}$ the Discharger shall immediately implement the Initial Investigation of the Toxicity Reduction Evaluation (TRE) Workplan.

ii. If implementation of the initial investigation TRE 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 Sections V.D and VI.C. of this MRP.

iii. If toxicity is in compliance with the limitations in all of the six additional tests required above, then the Discharger may return to the normal sampling frequency required in Sections V.D and VI.C. of this MRP.

iv. If a TRE/TIE is initiated prior to completion of the accelerated testing schedule required, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer.

3. Quality Assurance for Toxicity Testing

a. 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).

b. If either the reference toxicant test or effluent test or receiving water does not meet all test acceptability criteria (TAC) as specified in the test methods manuals, then the Discharger must re-sample and re-test within 14 days.

c. Control and dilution water for effluent should be receiving water or laboratory water, as appropriate, as described in the manuals. If the dilution water used is different from the culture water, a second control using culture water shall be used.

4. Steps in Toxicity Reduction Evaluation (TRE) and Toxicity Identification Evaluation (TIE)

a. 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 as guidance. The Discharger shall expeditiously develop a more detailed TRE Workplan for submittal to the Executive Officer within 15 days of the trigger, that will include but not limited to:

i. Further actions to investigate and identify the cause of toxicity;

i. Actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity;

iii. Standards the Discharger will apply to consider the TRE complete and for the return to normal sampling frequency; and,

iv. A schedule for these actions.

b. The following is a stepwise approach in conducting the TRE:

i. Step 1 includes basic data collection. Data collected as part of the accelerated monitoring required may be used to conduct the TRE.

ii. Step 2 evaluates optimization of the treatment system operation, facility housekeeping, and the selection and use of in-plant process chemicals.

iii. If Steps 1 and 2 are unsuccessful, Step 3 implements a Toxicity Identification Evaluation (TIE) employing 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.

iv. Assuming successful identification or characterization of the toxicant(s), Step 4 evaluates final effluent treatment options;

v. Step 5 evaluates within plant treatment options; and,

vi. 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, 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 (or six consecutive chronic toxicity results less than or equal to 1 TUc.

c. 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 as guidance.

d. If a TRE/TIE is initiated prior to completion of the accelerated testing schedule required, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer.

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

f. 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.

i If all the results of the six additional tests are in compliance with the chronic toxicity limitation, the Discharger may resume regular monthly testing.

ii If the results of any of the six accelerated tests exceeds the limitation, the Discharger shall continue to monitor weekly until six consecutive weekly tests are in compliance. At that time, the Discharger may resume regular monthly testing.

iii If the results of two of the six tests, or any two tests in a six-week period, exceed the limitation, the Discharger shall initiate a Toxicity Reduction Evaluation (TRE).

iv If implementation of the initial investigation TRE workplan (see item 3, below) indicates the source of toxicity (e.g., a temporary plant upset, etc.), then the Discharger shall return to the regular testing frequency.

5. Preparation of an Initial Investigation TRE Workplan

Within 90 days of the effective date of this Order and permit, the Discharger shall submit a copy of its initial investigation TRE workplan to the Executive Officer of the Regional Board for approval. The Discharger shall use the USEPA manual, *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants*, EPA/833B-99/002, as guidance. This workplan shall describe the steps the Discharger intends to follow if the toxicity limitation is exceeded, and should include, at a minimum, the following:

a. Description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency;

b. Description of the facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in operation of the facility; and,

c. If a Toxicity Identification Evaluation (TIE) is necessary, an indication of the person who will conduct the TIE (i.e., an in-house expert or an outside contractor).

6. Steps in Toxicity Reduction Evaluation (TRE) and Toxicity Identification Evaluation (TIE)

a. If the results of the implementation of the facility's initial investigation TRE workplan indicate the need to continue the TRE/TIE, the Discharger shall expeditiously develop a more detailed TRE workplan for submittal to the Executive Officer within 15 days of the completion of the initial investigation TRE. The

detailed workplan shall include, but not limited to:

i Further actions to investigate and identify the cause of toxicity;

ii Actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and,

iii A schedule for these actions.

b. The following is a stepwise approach in conducting the TRE:

i Step 1 includes basic data collection;

ii Step 2 evaluates optimization of the treatment system operation, facility housekeeping, and selection and use of in-plant process chemicals;

iii If Steps 1 and 2 are unsuccessful, Step 3 implements a Toxicity Identification Evaluation (TIE) and employment of all reasonable efforts using currently available TIE methodologies. The objective of the TIE shall be to identify the substance or combination of substances causing the observed toxicity.

iv Assuming successful identification or characterization of the toxicant(s), Step 4 evaluates final effluent treatment options.

v Step 5 evaluates in-plant treatment options, and

vi 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 compliance with those requirements may be sufficient to comply with the 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 violations.

c. 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 as guidance.

d. If a TRE/TIE is initiated prior to completion of the accelerated testing required in Part D.2.e. of this program, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer.

e. 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.

7. Ammonia Removal

a. Except with prior approval from the Executive Officer of the Regional Board ammonia shall not be removed from the bioassay samples. The Discharger must demonstrate the effluent toxicity is caused by ammonia because of increasing test pH when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide. The following may be steps to demonstrate the toxicity is caused by ammonia and not other toxicants before the Executive Officer of the Regional Board would allow for control of pH in the test.

i There is consistent toxicity in the effluent/receiving water and the maximum pH in the toxicity test is in the range to cause toxicity due to increased pH.

ii Chronic ammonia concentrations in the effluent/receiving water are greater than 4 mg/L total ammonia. The level of detection for total ammonia generally need not be below 0.5-1.0 mg/L, since concentrations < 1.0 mg/L of total ammonia have not been found to be toxic to fathead minnows and Ceriodaphnia dubia (Acute ammonia $LC_{50}$ values of 3 mg/L and 1 mg/L for Ceriodaphnia dubia and fathead minnows, respectively, at pH 8.0). Then,

iii Conduct the 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.

iv Treat the effluent with 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.

b. After it has been demonstrated that toxicity is due to ammonia, pH may be controlled using appropriate procedures which do not significantly alter the nature of the effluent after submitting a written request to the Regional Board, and receiving written permission expressing approval from the Executive Officer of the Regional Board.

8. Reporting

a. 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 (TUa or TUc) with the discharge monitoring reports (DMR) for the month in which the test is conducted.

b. If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, pursuant to Section D.2.e.iv, then those results also shall be submitted with the DMR for the period in which the Investigation occurred.

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

ii 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.

iii 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). TUc values $\left( TU_c = \frac{100}{NOEC} \right)$

(g). Mean percent mortality (+standard deviation) after 96 hours in 100% effluent (if applicable)

(h). NOEC and LOEC (Lowest Observable Effect Concentration) values for reference toxicant test(s)

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

iv The Discharger shall provide a compliance summary which includes a summary table of toxicity data from at least eleven of the most recent samples.

v 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.

## VII. WATERSHED-WIDE MONITORING PROGRAM

A. The goals of the Watershed-wide Monitoring Program for the Calleguas Creek Watershed are to:

1. Determine compliance with receiving water limits;

2. Monitor trends in surface water quality;

3. Ensure protection of beneficial uses;

4. Provide data for modeling contaminants of concern;

5. Characterize water quality including seasonal variation of surface waters within the watershed;

6. Assess the health of the biological community; and,

7. Determine mixing dynamics of effluent and receiving waters in the estuary.

B. The Discharger shall participate in the implementation of the Watershed-wide Monitoring Program. The City's responsibilities under the Watershed-wide Monitoring Program are described in the Receiving Water Monitoring Requirements section. To achieve the goals of the Watershed-wide Monitoring Program, revisions to the Receiving Water Monitoring Requirements will be made under the direction the Regional Board. The City shall participate with the Calleguas Creek Watershed Management Committee, and other stakeholders, in the development and implementation of a watershed-wide monitoring program. The watershed-wide monitoring program is expected to be developed within one year from the effective date of this Order.

## VIII. RECEIVING WATER MONITORING REQUIREMENTS

(Footnotes are on pages T-29 and T-31)

A. Receiving water stations shall be established at the following locations:

| Station Number | Description |
|---|---|
| W-12 | [Upstream of Discharge Serial No. 001] Arroyo Simi, upstream of its confluence with Brea Canyon (approximate coordinates: latitude 34° 16' 08'' North, Longitude 118° 48' 00'' West) |
| W-11 | [Downstream of Discharge Serial No. 001] Arroyo Simi, downstream of its confluence with Alamos Canyon (approximate coordinates: latitude 34° 17' 50'' North, Longitude 118° 49' 06'' West) |

B. The following analyses shall be conducted on samples obtained at stations W-11 and W-12:

| CTR # | Constituent | Units | Minimum Frequency of Analysis |
|---|---|---|---|
| | Total flow | cfs | weekly [1] |
| | pH | pH units | weekly [1] |
| | Temperature | °F | weekly [1] |
| | Dissolved oxygen | mg/L | weekly [1] |

| CTR # | Constituent | Units | Minimum Frequency of Analysis |
|---|---|---|---|
| | Total residual chlorine | mg/L | weekly [1] |
| | Total coliform | CFU/100 ml | monthly [3] |
| | Fecal coliform | CFU/100 ml | monthly [3] |
| | Turbidity | NTU | monthly [1], [3] |
| | $BOD_5$ 20°C | mg/L | monthly |
| | Total dissolved solids | mg/L | monthly |
| | Conductivity | µmhos/cm | monthly |
| | Chloride | mg/L | monthly |
| | Sulfates | mg/L | monthly |
| | Boron | mg/L | monthly |
| | Fluoride | mg/L | monthly |
| | Ammonia nitrogen [5] | mg/L | monthly |
| | Nitrate nitrogen | mg/L | monthly |
| | Nitrite nitrogen | mg/L | monthly |
| | Organic nitrogen | mg/L | monthly |
| | Total kjehdahl nitrogen (TKN) [6] | mg/L | monthly |
| | Total nitrogen [6] | mg/L | monthly |
| | Total phosphorus | mg/L | monthly |
| | Orthophosphate-P | mg/L | monthly |
| | Algal biomass [7] | mg/L | monthly |
| | Surfactants (MBAS) [8] | mg/L | monthly |
| | Surfactants (CTAS) [8] | mg/L | monthly |
| | Chemical oxygen demand (COD) | mg/L | monthly |
| | Oil and grease | mg/L | monthly |
| | Settleable solids | mg/L | monthly |
| | Suspended solids | mg/L | monthly |
| | Total hardness ($CaCO_3$) | mg/L | monthly [15] |
| | Chronic toxicity | $TU_c$ | quarterly |
| | Acute toxicity [10] | %survival | semiannually |
| | MTBE | µg/L | semiannually |
| 1 | Antimony | µg/L | monthly |
| 2 | Arsenic | µg/L | quarterly |
| 3 | Beryllium | µg/L | semiannually |
| 4 | Cadmium | µg/L | quarterly |
| 5 | Chromium III | µg/L | semiannually |
| 6A | Chromium VI | µg/L | quarterly |
| 6B | Copper | µg/L | quarterly |
| | Iron | µg/L | quarterly |
| 7 | Lead | µg/L | quarterly |
| 8 | Mercury | µg/L | quarterly |

| CTR # | Constituent | Units | Minimum Frequency of Analysis |
|---|---|---|---|
| 9 | Nickel | µg/L | quarterly |
| 10 | Selenium | µg/L | monthly |
| 11 | Silver | µg/L | quarterly |
| 12 | Thallium | µg/L | monthly |
| 13 | Zinc | µg/L | quarterly |
| 14 | Cyanide | µg/L | monthly |
| 15 | Asbestos | --- | --- |
| 16 | 2,3,7,8-TCDD (Dioxin) [11] | µg/L | quarterly |
| 17 | Acrolein | µg/L | semiannually |
| 18 | Acrylonitrile | µg/L | semiannually |
| 19 | Benzene | µg/L | semiannually |
| 20 | Bromoform | µg/L | quarterly |
| 21 | Carbon tetrachloride | µg/L | semiannually |
| 22 | Chlorobenzene | µg/L | semiannually |
| 23 | Dibromochloromethane | µg/L | quarterly |
| 24 | Chloroethane | µg/L | semiannually |
| 25 | 2-Chloroethylvinyl Ether | µg/L | semiannually |
| 26 | Chloroform | µg/L | quarterly |
| 27 | Bromodichloromethane | µg/L | quarterly |
| 28 | 1,1-Dichloroethane | µg/L | semiannually |
| 29 | 1,2-Dichloroethane | µg/L | semiannually |
| 30 | 1,1-Dichloroethylene | µg/L | semiannually |
| 31 | 1,2-Dichloropropane | µg/L | semiannually |
| 32 | 1,3-Dichloropropylene | µg/L | semiannually |
| 33 | Ethylbenzene | µg/L | semiannually |
| 34 | Methyl bromide | µg/L | semiannually |
| 35 | Methyl chloride | µg/L | semiannually |
| 36 | Methylene chloride | µg/L | semiannually |
| 37 | 1,1,2,2-Tetrachloroethane | µg/L | semiannually |
| 38 | Tetrachloroethylene | µg/L | quarterly |
| 39 | Toluene | µg/L | semiannually |
| 40 | 1,2-Trans-Dichloroethylene | µg/L | semiannually |
| 41 | 1,1,1-Trichloroethane | µg/L | semiannually |
| 42 | 1,1,2-Trichloroethane | µg/L | semiannually |
| 43 | Trichloroethylene | µg/L | semiannually |
| 44 | Vinyl chloride | µg/L | semiannually |
| 45 | 2-Chlorophenol | µg/L | semiannually |
| 46 | 2,4-Dimethylphenol | µg/L | semiannually |
| 47 | 2,4-Dimethylphenol | µg/L | semiannually |
| 48 | 2-Methyl-4,6-Dinitrophenol | µg/L | semiannually |

| CTR # | Constituent | Units | Minimum Frequency of Analysis |
|---|---|---|---|
| 49 | 2,4-Dinitrophenol | µg/L | semiannually |
| 50 | 2-Nitrophenol | µg/L | semiannually |
| 51 | 4-Nitrophenol | µg/L | semiannually |
| 52 | 3-Methyl-4-Chlorophenol | µg/L | semiannually |
| 53 | Pentachlorophenol | µg/L | semiannually |
| 54 | Phenol | µg/L | semiannually |
| 55 | 2,4,6-Trichlorophenol | µg/L | semiannually |
| 56 | Acenaphthene | µg/L | semiannually |
| 57 | Acenaphthylene | µg/L | semiannually |
| 58 | Anthracene | µg/L | semiannually |
| 59 | Benzidine | µg/L | semiannually |
| 60 | Benzo(a)Anthracene | µg/L | semiannually |
| 61 | Benzo(a)Pyrene | µg/L | semiannually |
| 62 | Benzo(b)Fluoranthene | µg/L | semiannually |
| 63 | Benzo(g,h,i)Perylene | µg/L | semiannually |
| 64 | Benzo(k)Fluoranthene | µg/L | semiannually |
| 65 | Bis(2-Chloroethoxy)Methane | µg/L | semiannually |
| 66 | Bis(2-Chloroethyl)Ether | µg/L | semiannually |
| 67 | Bis(2-Chloroisopropyl)Ether | µg/L | semiannually |
| 68 | Bis(2-Ethylhexyl)Phthalate | µg/L | quarterly |
| 69 | 4-Bromophenyl Phenyl Ether | µg/L | semiannually |
| 70 | Butylbenzyl Phthalate | µg/L | semiannually |
| 71 | 2-Chloronaphthalene | µg/L | semiannually |
| 72 | 4-Chlorophenyl Phenyl Ether | µg/L | semiannually |
| 73 | Chrysene | µg/L | semiannually |
| 74 | Dibenzo(a,h)Anthracene | µg/L | semiannually |
| 75 | 1,2-Dichlorobenzene | µg/L | semiannually |
| 76 | 1,3-Dichlorobenzene | µg/L | semiannually |
| 77 | 1,4-Dichlorobenzene | µg/L | quarterly |
| 78 | 3,3'-Dichlorobenzidine | µg/L | semiannually |
| 79 | Diethyl Phthalate | µg/L | semiannually |
| 80 | Dimethyl Phthalate | µg/L | semiannually |
| 81 | Di-n-Butyl Phthalate | µg/L | semiannually |
| 82 | 2,4-Dinitrotoluene | µg/L | semiannually |
| 83 | 2,6-Dinitrotoluene | µg/L | semiannually |
| 84 | Di-n-Octyl Phthalate | µg/L | semiannually |
| 85 | 1,2-Diphenylhydrazine | µg/L | semiannually |
| 86 | Fluoranthene | µg/L | semiannually |
| 87 | Fluorene | µg/L | semiannually |
| 88 | Hexachlorobenzene | µg/L | semiannually |

| CTR # | Constituent | Units | Minimum Frequency of Analysis |
|---|---|---|---|
| 89 | Hexachlorobutadiene | µg/L | semiannually |
| 90 | Hexachlorocyclopentadiene | µg/L | semiannually |
| 91 | Hexachloroethane | µg/L | semiannually |
| 92 | Indeno(1,2,3-cd)Pyrene | µg/L | semiannually |
| 93 | Isophrone | µg/L | semiannually |
| 94 | Naphthalene | µg/L | semiannually |
| 95 | Nitrobenzene | µg/L | semiannually |
| 96 | N-nitrosodimethylamine | µg/L | semiannually |
| 97 | N-Nitrosodi-n-Propylamine | µg/L | semiannually |
| 98 | N-Nitrosodiphenylamine | µg/L | semiannually |
| 99 | Phenanthrene | µg/L | semiannually |
| 100 | Pyrene | µg/L | semiannually |
| 101 | 1,2,4-Trichlorobenzene | µg/L | semiannually |
| 102 | Aldrin | µg/L | semiannually |
| 103 | Alpha-BHC | µg/L | semiannually |
| 104 | Beta-BHC | µg/L | semiannually |
| 105 | Gamma-BHC (Lindane) | µg/L | monthly |
| 106 | Delta-BHC | µg/L | semiannually |
| 107 | Chlordane | µg/L | semiannually |
| 108 | 4,4'-DDT [12] | µg/L | semiannually |
| 109 | 4,4'-DDE [12] | µg/L | monthly |
| 110 | 4,4- DDD [12] | µg/L | semiannually |
| 111 | Dieldrin | µg/L | semiannually |
| 112 | Alpha-Endosulfan | µg/L | semiannually |
| 113 | Beta-Endosulfan | µg/L | semiannually |
| 114 | Endosulfan sulfate | µg/L | semiannually |
| 115 | Endrin | µg/L | quarterly |
| 116 | Endrin aldehyde | µg/L | semiannually |
| 117 | Heptachlor | µg/L | semiannually |
| 118 | Heptachlor epoxide | µg/L | semiannually |
| | Polychlorinated biphenyls (PCBs) [13] | | |
| 119 | Aroclor 1016 | µg/L | semiannually |
| 120 | Aroclor 1221 | µg/L | semiannually |
| 121 | Aroclor 1232 | µg/L | semiannually |
| 122 | Aroclor 1242 | µg/L | semiannually |
| 123 | Aroclor 1248 | µg/L | semiannually |
| 124 | Aroclor 1254 | µg/L | semiannually |
| 125 | Aroclor 1260 | µg/L | semiannually |
| 126 | Toxaphene | µg/L | quarterly |
| | Barium | µg/L | quarterly |

| CTR # | Constituent | Units | Minimum Frequency of Analysis |
|---|---|---|---|
| | Methoxychlor | µg/L | quarterly |
| | 2,4-D | µg/L | quarterly |
| | 2,4,5-TP (Silvex) | µg/L | quarterly |
| | Halomethanes [14] | µg/L | quarterly |
| | Ammonium perchlorate | µg/L | quarterly [15] |
| | 1,4-Dioxane | µg/L | semiannually [15] |
| | 1,2,3-Trichloropropane | µg/L | semiannually [15] |

C. In the event of a spill or bypass of raw or partially treated sewage from the Simi Valley WQCP into Arroyo Simi, total and fecal coliform analyses shall be made on grab samples collected at all potentially affected downstream receiving water stations and at least one unaffected upstream receiving water station.

Coliform samples shall be collected at each station on the date of the spill or bypass, and daily on each of the following four days or until coliform levels in the receiving water are within normal range and the bypass or spill has ceased.

D. At the same time the receiving waters are sampled, observations shall be made in the reach bounded by the Stations, and a log shall be maintained thereof.

1. Attention shall be given to the presence and extent, or absence of:

   a. oil, grease, scum, or solids of waste origin;
   b. sludge deposits;
   c. discoloration of surface waters;
   d. algal blooms;
   e. odors;
   f. foam; and,
   g. other significant observations in immediate vicinity (i.e. storm drain flows, etc.).

2. The following shall also be noted in the log:

   a. date and time of observation;
   b. weather days conditions (including air temperature);
   c. flow measurement (estimate);
   d. exact sampling location;
   e. users of water in the river (i.e. people washing, swimming and playing in the river, etc.);
   f. non-contact users (i.e. bikers, joggers, etc.); and,
   g. wildlife (i.e. birds, mammals, reptiles, estimated amount of vegetation).

3. A summary of these observations noted in the log shall be submitted with the monitoring reports.

E. Receiving water samples shall not be taken during or within 48 hours following the flow of rainwater runoff into Arroyo Simi.

F. Sampling may be rescheduled at receiving water stations, if weather and flow conditions would endanger personnel collecting receiving water samples. The monthly monitoring report shall note such occasions.

## IX. FOOTNOTES

1 Where continuous monitoring of a constituent is required, the following shall be reported:

Total waste flow - Total daily flow and peak daily flow (24-hour basis);

Total residual chlorine - maximum daily value (24-hour basis);

Turbidity - Maximum daily value, total amount of time each day that turbidity exceeded five (5) turbidity units, the flow-proportioned average daily value.

2 During implementation of the PMP these constituents shall be monitored quarterly, according to SIP Section 2.4.5.1 item 2. However, if the City does not implement the PMP, then the frequency of monitoring will revert to semiannually.

3 Coliform and turbidity samples shall be obtained at some point in the treatment process at a time when wastewater flow and characteristics are most demanding on the treatment facilities, filtration, and disinfection procedures. Fecal coliform testing shall be conducted only if total coliform test result is positive.

4 If any result of a weekly BOD analysis yields a value greater than the 30-day average limit, the frequency of analysis shall be increased to daily within one week of knowledge of the test result for at least 30 days and until compliance with the 7-day and 30-day average BOD limits is demonstrated; after which the frequency shall revert to weekly.

5 Effluent and receiving water samples for ammonia nitrogen must be collected on the same day, and concurrently with temperature and pH.

6 Total nitrogen shall be defined as the sum of ammonia-nitrogen, nitrate-nitrogen, nitrite-nitrogen, and organic-nitrogen. Total nitrogen is not the same as total kjeldahl nitrogen (TKN). TKN is the sum of organic nitrogen and ammonia nitrogen.

7 Algal biomass as chlorophyll a.

8 MBAS is Methylene blue active substances and CTAS is cobalt thiocyanate active substances. Reaches of the Calleguas Creek and its tributaries are unlined in several reaches downstream of the points of wastewater discharge and are designated with the

beneficial use of groundwater recharge (GWR) in the Basin Plan. Monitoring is required to assess compliance with the Title 22-based limit prescribed to protect underlying groundwater quality with the MUN beneficial use.

9 Radioactivity determinations of gross and net beta activity, in picocuries per liter, shall be made within 48 hours following preparation of composite samples. The overall efficiency of the counting system, size of sample, and counting time shall be such that radioactivity can be determined to a sensitivity of ten picocuries per liter with a 95% confidence limit not to exceed 50 picocuries per liter.

If gross $\alpha$ activity exceeds 5 pCi/L in any sample, measurement of Total Radium shall be made. If gross $\beta$ activity exceeds 50 pCi/L in any sample, an analysis of the sample shall be performed to identify the major constituents present and compliance with CCRTitle 17, Section 30269 shall also be demonstrated.

10 In lieu of conducting the standard acute toxicity test with fathead minnow and the water flea, the Discharger may elect to report the results from the first 48 hours of the chronic toxicity test as acute toxicity results.

11 In accordance with the SIP, the Discharger shall conduct effluent monitoring for the following seventeen 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD or dioxin) congeners:

| Isomer Group | Toxicity Equivalence Factor (TEF) | Frequency of Monitoring (for at least 3 years) |
|---|---|---|
| 2,3,7,8-tetra CDD | 1.0 | Once per dry season and once per wet season |
| 1,2,3,7,8-pentaCDD | 1.0 | Once per dry season and once per wet season |
| 1,2,3,4,7,8-HexaCDD | 0.1 | Once per dry season and once per wet season |
| 1,2,3,6,7,8-HexaCDD | 0.1 | Once per dry season and once per wet season |
| 1,2,3,7,8,9-HexaCDD | 0.1 | Once per dry season and once per wet season |
| 1,2,3,4,6,7,8-HeptaCDD | 0.01 | Once per dry season and once per wet season |
| octaCDD | 0.0001 | Once per dry season and once per wet season |
| 2,3,7,8-Tetra CDF | 0.1 | Once per dry season and once per wet season |
| 1,2,3,7,8-PentaCDF | 0.05 | Once per dry season and once per wet season |
| 2,3,4,7,8-PentaCDF | 0.5 | Once per dry season and once per wet season |
| 1,2,3,4,7,8-HexaCDF | 0.1 | Once per dry season and once per wet season |
| 1,2,3,6,7,8-HexaCDF | 0.1 | Once per dry season and once per wet season |
| 1,2,3,7,8,9-HexaCDF | 0.1 | Once per dry season and once per wet season |
| 2,3,4,6,7,8-HexaCDF | 0.1 | Once per dry season and once per wet season |
| 1,2,3,4,6,7,8-HeptaCDF | 0.01 | Once per dry season and once per wet season |
| 1,2,3,4,7,8,9-HeptaCDF | 0.01 | Once per dry season and once per wet season |
| octaCDF | 0.0001 | Once per dry season and once per wet season |

Major dischargers are required to sample the effluent once during the dry season and once during the wet season for at least three years. The Discharger shall use the appropriate Toxicity Equivalence Factor (TEF) to determine Toxic Equivalence (TEQ). Where TEQ equals the product between each of the 17 individual congeners' (i) concentration analytical

result ($C_i$) and their corresponding Toxicity Equivalence Factor ($TEF_i$)., (i.e., $TEQ_i = C_i \times TEF_i$). Compliance with the Dioxin limitation shall be determined by the summation of the seventeen individual TEQs, or the following equation:

$$\text{Dioxin concentration in effluent} = \sum_{1}^{17} (TEQ_i) = \sum_{1}^{17} (C_i)(TEF_i)$$

12 This shall mean the sum of the p,p' and o,p'isomers.

13 PCBs (polychlorinated biphenyls) shall mean the sum of Aroclor 1016, Aroclor 1221, Aroclor 1232, Aroclor 1242, Aroclor 1248, Aroclor 1254, and Aroclor 1260.

14 Halomethanes shall mean the sum of bromoform, bromodichloromethane, chloroform, and dibromochloromethane.

15 These emergent chemicals shall be analyzed using USEPA approved or other California approved analytical methods (see table below). The laboratory analytical data shall include all applicable reporting limits, and quality assurance/quality control data.

| **Emergent Chemical** | **Acceptable Test method** | **Reporting Limit** |
|---|---|---|
| Ammonium perchlorate | USEPA Method 314 | 2 µg/L |
| 1,4-Dioxane | USEPA Method 8270C | 2 µg/L |
| 1,2,3-Trichloropropane | USEPA Method 524.2 | 0.005 µg/L |

## X. INSTREAM BIOASSESSMENT MONITORING REQUIREMENTS

A. The bioassessment program shall include an analysis of the community structure of the instream macroinvertebrate assemblages and physical habitat assessment at a minimum of three sites (W-11, W-12, and a reference site) within Arroyo Simi. All of the sites shall be sampled semiannually; once during the spring, and once during the fall. This program shall be implemented and staff appropriately trained within six months of adoption of this Order. Analysis of the results of the semi-annual bioassessment monitoring program shall be submitted in the following annual report.

B. The Discharger must provide a copy of their Standard Operation Procedures (SOPs) for the Bioassessment Monitoring Program to the Regional Board upon request. The document must contain step-by-step field, laboratory and data entry procedures, as well as, related QA/QC procedures. There must also be specific information about each bioassessment program including: assessment program description, its organization and the responsibilities of all its personnel; assessment project description and objectives; qualifications of all personnel; and the type of training each member has received.

C. Field sampling must conform to the SOP established for the California Stream Bioassessment Procedure (CSBP). Field crews shall be trained on aspects of the protocol and appropriate safety issues. All field data and sample Chain of Custody (COC) forms must be examined for completion and gross errors. Field inspections shall be planned with random visits and shall be performed by the Discharger or an independent auditor. These visits shall report on all aspects of the field procedure with corrective action occurring immediately.

D. Taxonomic identification laboratory process the biological samples that usually consist of subsampling organisms, enumerating and identifying taxonomic groups and entering the information into an electronic format. The Regional Board may require QA/QC documents from taxonomic laboratory and examine its records regularly. Intra-laboratory QA/QC for subsampling, taxonomic validation and corrective actions shall be conducted and documented. Biological laboratories shall also maintain reference collections, vouchered specimens (The Discharger may request the return of their sample voucher collections) and remnant collections. The laboratory should participate in an (external) laboratory taxonomic validation program at a recommended level of 10% or 20%. External QA/QC be arranged through the California Department of Fish and Game's Aquatic Bioassessment Laboratory in Rancho Cordova.

## XI. STORM WATER MONITORING AND REPORTING

The City shall implement the Storm Water Monitoring Program and Reporting Requirements of the State Water Resources Control Board's General NPDES Permit No. CAS000001 and Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities (Order No. 97-03-DWQ).

## XII. SOLIDS HANDLING MONITORING REQUIREMENTS

The monthly monitoring reports shall include the moisture content, weight, and volume of screenings, sludges, grit, and other solids removed from the wastewater, the location(s) from which these wastes were obtained and the disposal sites to which the waste solids were transported. The Discharger shall implement sludge monitoring required in Attachment (B).

## XIII. PRETREATMENT ANNUAL REPORT

The Discharger shall submit annually a report to the Regional Board, with a copy to USEPA (Region 9), describing the Discharger's pretreatment activities over the previous twelve months. In the event the Discharger is not in compliance with any pretreatment conditions or requirements in this permit, then the Discharger shall also include the reasons for non-compliance and state how and when the Discharger shall comply with such conditions and requirements. The annual report is due on April 15 of each year and shall contain, but not be limited to, the information required in the attached "Pretreatment

Reporting Requirements Annual Report." (Attachment P), or any approved revised version thereof.

XIV. COMPLIANCE WITH DAILY AVERAGE, INSTANTANEOUS MAXIMUM, AND MONYHLY AVERAGE LIMITS

A. For constituents where new monthly average limits are prescribed, but where the monitoring frequency is less than four times a month, the following procedure shall apply:

Initially, not later than the first week of the second month after the adoption of this Order, representative samples shall be obtained of each waste discharge at least once per week for at least four consecutive weeks and until compliance with the monthly average limit has been demonstrated. Once compliance has been demonstrated, sampling and analysis shall revert to the frequency specified in the Monitoring and Reporting Program.

B. For any constituent monitored monthly: if any result of a monthly analysis exceeds the monthly average limit, the frequency of analysis shall be increased to weekly within one week of knowledge of the test result. Weekly testing shall continue for at least 4 consecutive weeks and until compliance with the monthly average limit is demonstrated, after which the frequency shall revert to monthly.

C. For constituents where new 7-day average limits are prescribed, but where the monitoring frequency is weekly, the following procedure shall apply:

Initially, not later than the first week of the second month after the adoption of this Order, representative samples shall be obtained of each waste discharge daily for at least 7 consecutive days and until compliance with the 7-day average limit has been demonstrated. Once compliance has been demonstrated, sampling and analysis shall revert to weekly.

D. For any constituent monitored weekly: if any result of a weekly analysis exceeds the 7-day average limit (or the monthly average limit if no 7-day limit is prescribed), the frequency of analysis shall be increased to daily within one week of knowledge of the test results. Daily testing shall continue for at least 7 consecutive days and until compliance with the 7-day average limit is demonstrated, after which the frequency shall revert to weekly.

Ordered by:

Dennis A. Dickerson
Executive Officer
Date: June 5, 2003