

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

MONITORING AND REPORTING PROGRAM NO. CI - 1759
FOR
CITY OF SANTA PAULA AND VENTURA REGIONAL SANITATION DISTRICT
(Santa Paula Water Reclamation Facility)
(NPDES NO. CA0054224)

I. REPORTING REQUIREMENTS

The Discharger shall implement this monitoring program on the effective date of this Order. All monthly monitoring reports shall be submitted by the first day of the second month following each monthly sampling period, addressed to the Regional Board, Attention: Technical Support Unit. The first monitoring report under this Program is due by June 1, 1997, and will cover the monitoring period of April 1997. Weekly effluent analyses shall be performed on different weekdays during each month. Quarterly monitoring shall be performed during the months of February, May, August, and November. Semiannual monitoring shall be performed during the months of February and August. Annual monitoring shall be performed during the month of August.

The analysis shall specify the USEPA analytical method used and its Method Detection Limit (MDL). For the purpose of reporting compliance with effluent limitations, performance goals, receiving water limitations, analytical data shall be reported with an actual numerical value or "nondetected (ND)" with the MDL indicated for the analytical method used. The maximum allowed MDLs are those published by the USEPA (MDLs for priority pollutants are listed in Attachment 1). The Discharger shall not use a MDL higher than that published by the USEPA unless the Discharger can demonstrate that a practical detection limit is not attainable and obtains approval for a higher MDL from the Executive Officer.

The Discharger shall submit an annual 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. This annual report is due by March 1st of the year following data collection.

The Discharger shall submit by August 17, 1997, for Executive approval, a workplan and time schedule for the turbidity study described in the effluent limitation A(6). The final report of the study shall be due by May 1, 1999.

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

II. INFLUENT MONITORING
(Footnotes on pages T- 8 to T-9)

Influent monitoring is required to:

- determine compliance with NPDES permit conditions and water quality standards.
- assess treatment plant performance.
- assess the effectiveness of the pretreatment program.

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 where representative samples of the influent can be obtained. The date and time of sampling shall be reported with the analytical values determined.

Samples for influent BOD₅ 20°C and suspended solids shall be obtained on the same day that effluent BOD₅ 20°C and suspended solids samples are obtained in order to demonstrate percent removal.

The following shall constitute the influent monitoring program:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Flow	mgd	recorder/totalizer*	continuous ^[1]
pH	pH units	grab	daily
Suspended solids	mg/L	24-hour composite	weekly
BOD ₅ (20°C)	mg/L	24-hour composite	weekly

* Influent flows estimated from effluent readings are acceptable.

Additionally, all monitoring under the approved pretreatment program, as previously submitted to this Regional Board, shall remain in force.

III. EFFLUENT MONITORING
(Footnotes on pages T-8 to T-9)

Effluent monitoring is required to:

- determine compliance with NPDES permit conditions.
- identify operational problems and improve plant performance.
- assess the effectiveness of the pretreatment program.
- provide information on wastewater characteristics and flows for use in interpreting water quality and biological data.

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) may be obtained. Effluent samples may be obtained at a single station provided that station is representative of the effluent quality at all discharge points. Any changes in sampling station locations shall be approved by the Executive Officer.

The following shall constitute the effluent monitoring program:

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Total waste flow	mgd	recorder	continuous ^[1]
Turbidity ^[1]	NTU	recorder	continuous ^[1]
Total residual chlorine	mg/L	recorder	continuous ^[1]
Temperature	°F	grab	daily
pH	pH units	grab	daily
Total coliform ^[2]	MPN/100 mL	grab	daily
Suspended solids	mg/L	24-hour composite	weekly
Settleable solids	mL/L	grab	weekly
BOD ₅ (20°C)	mg/L	24-hour composite	weekly
Total dissolved solids	mg/L	24-hour composite	monthly
Sulfate	mg/L	24-hour composite	monthly
Chloride	mg/L	24-hour composite	monthly
Ammonia Nitrogen	mg/L	24-hour composite	monthly
Nitrate Nitrogen	mg/L	24-hour composite	monthly
Nitrite Nitrogen	mg/L	24-hour composite	monthly
Organic Nitrogen	mg/L	24-hour composite	monthly
Total Nitrogen	mg/L	24-hour composite	monthly
Total phosphate	mg/L	24-hour composite	monthly
Detergents (as MBAS) ^[3]	mg/l	24-hour composite	monthly
Oil and grease	mg/L	grab	monthly
Boron	mg/L	24-hour composite	quarterly
Fluoride	mg/L	24-hour composite	quarterly
Chronic toxicity ^[4]	TU _c	24-hour composite	quarterly
Acute Toxicity ^[5]	% Survival	24-hour composite	annually
Arsenic	µg/L	24-hour composite	semiannually
Antimony	µg/L	24-hour composite	semiannually
Barium	mg/L	24-hour composite	semiannually
Cadmium	µg/L	24-hour composite	semiannually
Chromium	µg/L	24-hour composite	semiannually
Copper	µg/L	24-hour composite	semiannually
Iron	µg/L	24-hour composite	semiannually
Lead	µg/L	24-hour composite	semiannually
Mercury	µg/L	24-hour composite	semiannually

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Selenium	µg/L	24-hour composite	semiannually
Silver	µg/L	24-hour composite	semiannually
Zinc	mg/L	24-hour composite	semiannually
Nickel	µg/L	24-hour composite	semiannually
Endrin ^[6]	µg/L	24-hour composite	semiannually
Lindane	µg/L	24-hour composite	semiannually
Chlordane	µg/L	24-hour composite	semiannually
Methoxychlor	µg/L	24-hour composite	semiannually
Toxaphene	µg/L	24-hour composite	semiannually
2,4-D	µg/L	24-hour composite	semiannually
2,4,5-TP (Silvex)	µg/L	24-hour composite	semiannually
Tetrachloroethylene	µg/L	24-hour composite	semiannually
Carbon tetrachloride	µg/L	24-hour composite	semiannually
Vinyl chloride	µg/L	24-hour composite	semiannually
PCBs ^[7]	µg/L	24-hour composite	semiannually
Remaining EPA priority pollutants (excluding asbestos, Attachment T-1)	µg/L	24-hour composite	annually

IV. RECEIVING WATER MONITORING REQUIREMENTS

(Footnotes on pages T-8 through T-9)

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

<u>Station No.</u>	<u>Description</u>
R-1	Peck drain at Converse Road bridge. (This point is located at edge of river bed about half a mile above confluence with low flow river stream).
R-2	Santa Clara river, about 300 feet upstream from confluence with Peck drain flow.
R-3	Santa Clara River, about 300 feet downstream from confluence with Peck drain flow.

To obtain representative samples, at each station, samples may be collected within 50 feet upstream or downstream from the designated point.

B. The following analyses, which constitute the receiving water monitoring program, shall be conducted on grab samples obtained at Stations R-1, R-2, and R-3.

<u>Constituent</u>	<u>Units</u>	<u>Minimum Frequency of Analysis</u>
Flow	cfs	monthly
Temperature	°F	monthly
pH	pH units	monthly
BOD ₅ (20°C)	mg/L	monthly
Dissolved oxygen	mg/L	monthly
Chloride	mg/L	monthly
Turbidity	NTU	monthly
Residual chlorine	mg/L	monthly
Total coliform	MPN/100 mL	monthly
Settleable solids	mL/L	quarterly
Nitrate nitrogen ^[8]	mg/L	quarterly
Nitrite nitrogen ^[8]	mg/L	quarterly
Ammonia nitrogen ^[8]	mg/L	quarterly
Organic nitrogen ^[8]	mg/L	quarterly
Total nitrogen ^[8]	mg/L	quarterly
Detergents (as MBAS) ^[3]	mg/L	quarterly
Total phosphate	mg/L	quarterly
Suspended solids	mg/L	quarterly
Total dissolved solids	mg/L	quarterly
Oil and Grease	mg/L	quarterly
Sulfate	mg/L	quarterly
Chronic toxicity ^[4]	TU _c	annually
Arsenic	mg/L	semi-annually
Cadmium	mg/L	semi-annually
Chromium	mg/L	semi-annually
Copper	mg/L	semi-annually
Nickel	mg/L	semi-annually
Lead	mg/L	semi-annually
Zinc	mg/L	semi-annually
Chlorinated Pesticides	mg/L	semi-annually
N and P Pesticides	mg/L	semi-annually
BNA	mg/L	semi-annually

- C. In the event of a spill or bypass of raw or partially treated sewage into Santa Clara River total and fecal coliform analyses shall be made on grab samples collected at all potentially affected downstream receiving water area and at least one unaffected upstream receiving water area. Coliform samples shall be collected on the date of the spill or bypass, if possible, and daily on each of the following four days. In addition to Regional Board notification of the spill or bypass, the Discharger shall notify United Water Conservation District.

- D. At the time of sampling, the following observations shall be made at all the stations and the times of the observations shall be noted:
- a) Measurement of flow
 - b) Odor of water
 - c) Color of Water
 - d) Occurrence of significant storm runoff (flowing into the river)
 - e) Presence of floating solids (Type)
 - f) Presence of any sludge banks or deposits, grease, oil, foam, or visible solids of waste origin
 - g) Wind conditions
 - h) Presence of any aquatic plant growth, sessile or floating
 - i) Any unusual occurrence
- E. The time, date, and weather conditions (including air temperature) at the time of sampling shall be reported.
- F. The color of the effluent shall be contrasted with that of the receiving water and reported descriptively.
- G. The results of receiving water monitoring and observations shall be submitted with the effluent monitoring reports. A standardized receiving water observation form should be used.

V. STORM WATER MONITORING AND REPORTING

Upon adoption of this Monitoring and Reporting Program, the Discharger shall file a notice of termination (NOT) with State Board, for the General Storm Water NPDES permit associated with industrial activity, since such requirements have been incorporated into this Order. The Discharger shall implement the attached Storm Water Monitoring and Reporting Program (Attachment T-2).

VI. COMPLIANCE WITH DAILY AVERAGE, INSTANTANEOUS MAXIMUM, AND 30-DAY AVERAGE LIMITS

- A. If the result of any analysis exceeds the 30-day 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 30-day average limit is demonstrated, after which the frequency shall revert to as previously designated.

- B. If the result of any analysis exceeds the daily average limit, the frequency of analysis shall be increased to daily within one week of knowledge of the test result. Daily testing shall continue for at least 4 consecutive days and until compliance with the daily average or instantaneous maximum limit is demonstrated, after which the frequency shall revert to as previously designated.

VI. HAULING REPORTS

In the event that other wastes (besides sludge) associated with wastewater treatment are transported offsite during the reporting period, the following shall be reported:

- 1) Type(s) of waste and quantity of each type;
- 2) Name and either the address or the State registration number for each hauler of wastes used (or the method of transport, if other than hauling); and,
- 3) Address or specific location of the final point(s) of disposal for each type of waste.

If no wastes are transported offsite during the reporting period, a statement to that effect shall be submitted.

VII. FOOTNOTES TO INFLUENT, EFFLUENT AND RECEIVING WATER MONITORING REQUIREMENTS

- [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 chlorine residual - 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] 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.

- [3] Methylene blue active substances

- [4] 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 months, but not to exceed five months, to account for potential variability of the effluent/ receiving water. If possible, the test species used during the screening process should include a fish, an invertebrate, and an aquatic plant.

Upon approval of the Executive Officer, and after the initial screening period, chronic toxicity testing may be limited to the most sensitive test species. However, the initial screening process shall be repeated annually, with a minimum of three test species with approved test protocols, to ensure use of the most sensitive species for chronic toxicity testing.

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

Chronic Toxicity shall be expressed and reported as toxic units, where:

$$TU_c = 100/NOEC$$

The No Observable Effect Concentration (NOEC) is expressed as the maximum percent effluent/receiving water that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test.

Except with prior approval from the Regional Board Executive Officer, ammonia shall not be removed from bioassay samples. The wastewater used for the toxicity test shall be analyzed for ammonia, and the result, along with an interpretation, shall be submitted with the toxicity data. If the test result is greater than the permit limitation, parallel tests or 100% effluent without ammonia removal and 100% effluent with ammonia removed shall be conducted.

- [5] By methods specified in "Methods for Measuring the Acute Toxicity of Effluent to Freshwater and Marine Organisms" (March 1985, EPA/600/4-85/013). Submission of bioassay results should include the information noted on pages 45 through 49 of the "Methods" where appropriate. The fathead minnow (Pimephales promelas) shall be used as the test species.

Except with prior approval from the Regional Board Executive Officer, ammonia shall not be removed from bioassay samples. The wastewater used for the toxicity test shall be analyzed for ammonia, and the result, along with an interpretation, shall be submitted with the toxicity data. If the test result is greater than the permit limitation, parallel tests or 100% effluent without ammonia removal and 100% effluent with ammonia removed shall be conducted.

- [6] Endrin shall mean the sum of endrin and endrin aldehyde
- [7] PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.
- [8] Samples for the receiving water nitrogen series (nitrite, nitrate, ammonia-N, and organic nitrogen) shall be obtained at the same time that temperature and pH are recorded in order to calculate unionized ammonia.

Ordered by: 
LAWRENCE P. KOLB
Acting Executive Officer

Date: April 7, 1997

PRIORITY POLLUTANTS**Metals**

Antimony
 Arsenic
 Beryllium
 Cadmium
 Chromium
 Copper
 Lead
 Mercury
 Nickel
 Selenium
 Silver
 Thallium
 Zinc

Miscellaneous

Cyanide
 Asbestos (only if
 specifically
 required)

Pesticides & PCBs

Aldrin
 Chlordane
 Dieldrin
 4,4'-DDT
 4,4'-DDE
 4,4'-DDD
 Alpha-endosulfan
 Beta-endosulfan
 Endosulfan sulfate
 Endrin
 Endrin aldehyde
 Heptachlor
 Heptachlor epoxide
 Alpha-BHC
 Beta-BHC
 Gamma-BHC
 Delta-BHC
 Toxaphene
 PCB 1016
 PCB 1221
 PCB 1232
 PCB 1242
 PCB 1248
 PCB 1254
 PCB 1260

Base/Neutral Extractibles

Acenaphthene
 Benzidine
 1,2,4-trichlorobenzene
 Hexachlorobenzene
 Hexachloroethane
 Bis(2-chloroethyl) ether
 2-chloronaphthalene
 1,2-dichlorobenzene
 1,3-dichlorobenzene
 1,4-dichlorobenzene
 3,3'-dichlorobenzidine
 2,4-dinitrotoluene
 2,6-dinitrotoluene
 1,2-diphenylhydrazine
 Fluoranthene
 4-chlorophenyl phenyl ether
 4-bromophenyl phenyl ether
 Bis(2-chloroisopropyl) ether
 Bis(2-chloroethoxy) methane
 Hexachlorobutadiene
 Hexachlorocyclopentadiene
 Isophorone
 Naphthalene
 Nitrobenzene
 N-nitrosodimethylamine
 N-nitrosodi-n-propylamine
 N-nitrosodiphenylamine
 Bis (2-ethylhexyl) phthalate
 Butyl benzyl phthalate
 Di-n-butyl phthalate
 Di-n-octyl phthalate
 Diethyl phthalate
 Dimethyl phthalate
 Benzo(a) anthracene
 Benzo(a) pyrene
 Benzo(b) fluoranthene
 Benzo(k) fluoranthene
 Chrysene
 Acenaphthylene
 Anthracene
 1,12-benzoperylene
 Fluorene
 Phenanthrene
 1,2,5,6-dibenzanthracene
 Indeno (1,2,3-cd) pyrene
 Pyrene
 TCDD

Acid Extractibles

2,4,6-trichlorophenol
 P-chloro-m-cresol
 2-chlorophenol
 2,4-dichlorophenol
 2,4-dimethylphenol
 2-nitrophenol
 4-nitrophenol
 2,4-dinitrophenol
 4,6-dinitro-o-cresol
 Pentachlorophenol
 Phenol

Volatile Organics

Acrolein
 Acrylonitrile
 Benzene
 Carbon tetrachloride
 Chlorobenzene
 1,2-dichloroethane
 1,1,1-trichloroethane
 1,1-dichloroethane
 1,1,2-trichloroethane
 1,1,2,2-tetrachloroethane
 Chloroethane
 Chloroform
 1,1-dichloroethylene
 1,2-trans-dichloroethylene
 1,2-dichloropropane
 1,3-dichloropropylene
 Ethylbenzene
 Methylene chloride
 Methyl chloride
 Methyl bromide
 Bromoform
 Bromodichloromethane
 Dibromochloromethane
 Tetrachloroethylene
 Toluene
 Trichloroethylene
 Vinyl chloride
 2-chloroethyl vinyl ether



Cal/EPA

**Los Angeles
Regional Water
Quality Control
Board**

101 Centre Plaza Drive
Monterey Park, CA
91754-2156
(213) 266-7500
FAX (213) 266-7600

April 21, 1997

Frederick Gientke
United Water Conservation District
106 N. 8th Street
Santa Paula, CA 93060



Pete Wilson
Governor

MONITORING AND REPORTING PROGRAM NO. CI - 1759 FOR CITY OF SANTA PAULA AND VENTURA REGIONAL SANITATION DISTRICT (Santa Paula Water Reclamation Facility)

We have received your letter of April 14, 1997, commenting on the monitoring program for the above referenced facility. Since the letter seemed to show confusion regarding the monitoring locations, we were glad to have the opportunity to meet with your staff, as well as staff from VRSD, on April 18, 1997. By walking the discharge and viewing the downstream stations, we believe we were able to clarify any perceived short-falls in the adopted monitoring program. The monitoring locations of CI-1759 are:

<u>Station No.</u>	<u>Description</u>
R-1	Approximately 300 feet downstream of the effluent confluence with low flow river;
R-2	Santa Clara River at the 12th Street Bridge; and,
R-3	Santa Clara River at the Freeman Diversion.

These stations were selected to provide information on; the quality of the river before meeting the effluent, immediate impacts to the quality of the river when mixed with the effluent, and river quality following a reaction period with the effluent.

We hope that this clarifies the monitoring program for the Santa Paula Treatment Plant. Again, thank you for your participation in the April 18 meeting and your support in the use of the Freeman Diversion as the downstream sampling point for this discharge.

If you have any further questions or concerns, please call me at (213) 266-7515 or Mark Pumford at (213) 266-7596.

Catherine Tyrrell
Assistant Executive Officer

cc: Chuck Rogers, Ventura Regional Sanitation District