

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 79-151

NPDES PERMIT NO. CA0038245

WASTE DISCHARGE REQUIREMENTS FOR:

EAST BAY MUNICIPAL UTILITY DISTRICT
LAFAYETTE FILTER PLANT
LAFAYETTE, CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. On December 6, 1974, the Board adopted Order No. 74-173 prescribing waste discharge requirements for East Bay Municipal Utility District, Lafayette Filter Plant, hereinafter called the discharger.
2. The discharger submitted an NPDES Permit application dated June 29, 1979, for reissuance of NPDES Permit No. CA0038245.
3. Discharger treats about 16 million gallons per day (mgd) of domestic water by coagulation, filtration and chlorination. Resulting from this process is filter backwash water which is settled in a basin and the supernatant is pumped to the raw water aqueduct which supplies the Orinda Filter Plant. The basin sludge is periodically hauled to the discharger's Pinole Valley land disposal site. There is no discharge to surface water from this plant unless the basin supernatant does not meet raw water quality standards and may be detrimental to treatment at the Orinda Filter Plant. At such times, the supernatant is discharged at an average rate of 3.0 mgd and a maximum rate of 4.3 mgd to Lafayette Creek, a water of the United States, at a point approximately 3500 feet east-northeast of the Lafayette Reservoir intake tower.
4. A Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) was adopted by the Board on April 8, 1975. This Basin Plan contains water quality objectives for Lafayette Creek.
5. The beneficial uses of Lafayette Creek and contiguous waters are:
 - a. Recreation (contact and non-contact)
 - b. Fish migration and spawning
 - c. Habitat for wildlife and aquatic organisms
 - d. Esthetic enjoyment
6. Effluent limitations and toxic effluent standards, established pursuant to Sections 208(b), 301, 304, and 307 of the Federal Water Pollution Control Act and amendments thereto are applicable to the discharge.

7. This project involves the continued operation of a publicly-owned facility with negligible or no expansion of use beyond that previously existing. Consequently, this project will not have a significant effect on the environment based upon the exemption provided in Section 15101, Title 14, California Water Code.
8. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
9. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that East Bay Municipal Utility District, Lafayette Filter Plant, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Water Pollution Control Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. No sludge shall be discharged into watercourses or waters of the State.
2. There shall be no bypass of untreated wastewater to waters of the State.

B. Effluent Limitations

1. The discharge of an effluent containing constituents in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>30-Day Average</u>	<u>Maximum Daily</u>	<u>Instan- taneous Maximum</u>
Total suspended solids	lbs/day	750	1610	-
	kg/day	340	732	-
	mg/l	30	45	-
Settleable matter	ml/l/hr	0.1	0.2	
Aluminum, dissolved	lbs/day	25.0	53.8	-
	kg/day	11.3	24.4	-
	mg/l	1.0	1.5	-
Chlorine residual	mg/l	-	-	0.0

2. The waste shall not have a pH of less than 6.5 nor greater than 8.5, unless the raw influent water being filtered has a pH greater than 8.5, in which case the waste shall not have a pH greater than that of the influent water.
3. In any representative set of samples the waste as discharged shall meet the following limit of quality:

TOXICITY:

The survival of a test organism acceptable to this Regional Board in 96-hour bioassays of the effluent as discharged shall achieve a median of 90% survival for three consecutive samples and a 90 percentile value of not less than 70% survival for 10 consecutive samples.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any point.

- a. Floating, suspended, or deposited macroscopic particulate matter or foam;
- b. Bottom deposits or aquatic growths;
- c. Alteration of temperature or apparent color beyond present natural background levels;
- d. Increased turbidity above background levels by more than the following:

<u>Receiving Water Background</u>	<u>Incremental Increase</u>
<50 units (NTU)	5 units, maximum
50-100 units	10 units, maximum
>100 units	10% of background, maximum

- e. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
 - f. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

- a. Dissolved oxygen 5.0 mg/l minimum. Annual median not less than 80% saturation. When natural factors cause lesser concentration(s) the discharge shall not cause further reduction.
- b. Dissolved sulfide 0.1 mg/l maximum.
- c. pH Variation from natural ambient pH by more than 0.5 pH units.

D. Provisions

1. Neither the treatment nor the discharge of pollutants shall create a nuisance as defined in the California Water Code.
2. This permit may be modified, or, alternatively, revoked and reissued, to comply with any applicable effluent limitation issued pursuant to the order the United States District Court for the District of Columbia issued on June 8, 1976, in Natural Resources Defense Council, Inc. et. al. v. Russell E. Train, 8 ERC 2120 (D.D.C. 1976), if the effluent limitation so issued:
 - (a) is different in conditions or more stringent than any effluent limitation in the permit; or
 - (b) controls any pollutant not limited in the permit.
3. This Board's Order No. 74-173 is hereby rescinded.
4. The discharger shall comply with all terms of this Order.
5. The discharger shall comply with the attached Self-Monitoring and Reporting Program as ordered by the Executive Officer.
6. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements, and Definitions" dated April 1977, except A.5, A.12, A.16, B.2, B.3 and B.5.
7. The discharger shall review and update annually its contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.
8. This Order expires on November 20, 1984. The discharger must file a Report of Waste Discharge in accordance with Title 23, Chapter 3, Subchapter 9, of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

9. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act or amendments thereto, and shall become effective ten (10) days after date of its adoption provided the Regional Administrator, Environmental Protection Agency has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on November 20, 1979.

FRED H. DIERKER
Executive Officer

Attachments:

Standard Provisions, Reporting
Requirements & Definitions - April 1977
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

EAST BAY MUNICIPAL UTILITY DISTRICT

LAFAYETTE FILTER PLANT

LAFAYETTE, CONTRA COSTA COUNTY

NPDES NO. CA 0038245

ORDER NO. 79-151

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

A. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16.

The principal purposes of a self-monitoring program by a waste discharger, are: (1) to document compliance with waste discharge requirements and prohibitions established by this Regional Board, (2) to facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of effluent or other limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards, and (4) to prepare water and wastewater quality inventories.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the latest edition of Standard Methods for the Examination of Water and Wastewater prepared and published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, or other methods approved and specified by the Executive Officer of this Regional Board. (See APPENDIX E.)

Water and waste analyses shall be performed by a laboratory approved for these analyses by the State Department of Health or a laboratory approved by the Executive Officer. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his laboratory and shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. A composite sample is defined as a sample composed of individual grab samples mixed in proportions varying not more than plus or minus five percent from the instantaneous rate of waste flow corresponding to each grab sample collected at regular intervals not greater than one hour, or collected by the use of continuous automatic sampling devices capable of attaining the proportional accuracy stipulated above throughout the period of discharge of 24 consecutive hours, whichever is shorter.
2. A grab sample is defined as an individual sample collected in fewer than 15 minutes.

3. Standard Observations

a. Receiving Water

- (1) Floating and suspended materials of waste origin (to include oil, grease, algae, and other macroscopic particulate matter): presence or absence, source, and size of affected area.
- (2) Discoloration and turbidity: description of color, source, and size of affected area.
- (3) Odor: presence or absence, characterization, source, and distance of travel.

b. Waste Effluent

- (1) Floating and suspended material of waste origin (to include oil, grease, algae, and other macroscopic particulate matter): presence or absence.
- (2) Odor: presence or absence, characterization, source, distance of travel.

c. Periphery of Waste Treatment and/or Disposal Facilities

- (1) Odor: presence or absence, characterization, source, and distance of travel.

D. SCHEDULE OF SAMPLING, ANALYSES, AND OBSERVATIONS

The discharger is required to perform observations, sampling, and analyses according to the schedule in Table I.

E. RECORDS TO BE MAINTAINED

1. Written reports, strip charts, calibration and maintenance records, and other records shall be maintained at the waste treatment plant and shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board or Regional Administrator of the U. S. Environmental Protection Agency, Region IX. Such records shall show the following for each sample:
 - a. Identity of sampling and observation stations by number.
 - b. Date and time of sampling and/or observations.
 - c. Date and time that analyses are started and completed, and name of personnel performing the analyses.
 - d. Complete procedure used, including method of preserving sample and identity and volumes of reagents used. A reference to specific section of Standard Methods is satisfactory.
 - e. Calculations of results.
 - f. Results of analyses and/or observations.

2. A tabulation shall be maintained showing the total waste flow or volume for each day.

F. REPORTS TO BE FILED WITH THE REGIONAL BOARD

1. Spill Reports

A report shall be made of any spill of toxic or hazardous material. Spills shall be reported to this Regional Board and the Department of Fish and Game by telephone immediately after occurrence. A written report shall be filed with the Regional Board within five (5) days and shall contain information relative to:

- a. nature of waste or pollutant,
- b. quantity involved,
- c. cause of spill,
- d. estimated size of affected area,
- e. nature of effects (i.e., fishkill, discoloration of receiving water, etc.),
- f. corrective measures that have been taken, or planned, and a schedule of these activities, and
- g. persons notified.

2. Bypass Reports

Bypass reporting shall be an integral part of regular monitoring program reporting, and a report on bypassing of untreated waste or bypassing of any treatment unit(s) shall be made which will include cause, time, and date, duration and estimated volume of waste bypassed, method used in estimating volume, and persons notified, for planned and/or unplanned bypass.

The discharger shall file a written technical report at least 15 days prior to advertising for bid on any construction project which would cause or aggravate the discharge of waste in violation of requirements; said report shall describe the nature, costs, and scheduling of all action necessary to preclude such discharge. In no case should any discharge of sewage-bearing wastes be permitted without at least primary treatment and chlorination.

In the event the discharger is unable to comply with the conditions of the waste discharge requirements and prohibitions due to:

- (a) maintenance work, power failures, or breakdown of waste treatment equipment, or
- (b) accidents caused by human error or negligence, or
- (c) other causes such as acts of nature,

the discharger shall notify the Regional Board Office by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written report shall include pertinent information explaining reasons for the noncompliance and shall indicate what steps were taken to prevent the problem from recurring.

In addition, if the noncompliance caused by items (a), (b), or (c) above is with respect to any of the effluent limits, the waste discharger shall promptly accelerate his monitoring program to analyze the discharge at least once every day for those constituents which have been violated. Such daily analyses shall continue until such time as the effluent limits have been attained, or until such time as the Executive Officer determines to be appropriate. The results of such monitoring shall be included in the regular Self-Monitoring Report.

3. Self-Monitoring Reports

Written reports shall be filed regularly for each calendar quarter (unless specified otherwise) by the fifteenth day of the month following the quarter. The reports shall be comprised of the following:

a. Letter of Transmittal:

A letter transmitting self-monitoring reports should accompany each report. Such a letter shall include a discussion of requirement violations found during the past month and actions taken or planned for correcting violations, such as plant operation modifications and/or plant facilities expansion. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. Monitoring reports and the letter transmitting reports shall be signed by either a principal executive officer, ranking elected official, or other duly authorized employee.

The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true and correct.

b. Compliance Evaluation Summary

Each report shall be accompanied by a compliance evaluation summary sheet prepared by the discharger. The report format will be prepared using the example shown in APPENDIX A. The discharger will prepare the format using those parameters and requirement limits for receiving water and effluent constituents specified in his permit.

c. Map or Aerial Photograph

A map or aerial photograph shall accompany the report showing sampling and observation station locations.

d. Results of Analyses and Observations

Tabulations of the results from each required analysis specified in Section G by date, time, type of sample, and station, signed by the laboratory director. The report format will be prepared using the examples shown in APPENDIX B.

e. Effluent Data Summary

Summary tabulations of the data to include flow, and for each constituent, total number of analyses, maximum, minimum, and average values for each period.

f. List of Approved Analyses

- (1) Listing of analyses for which the discharger is approved by the State Department of Health.
- (2) List of analyses performed for the discharger by another approved laboratory (and copies of reports signed by the laboratory director of that laboratory shall also be submitted as part of the report).

4. Annual Reporting

By January 30 of each year, the discharger shall submit an annual report to the Regional Board covering the previous calendar year. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the report shall contain a comprehensive discussion of the compliance record and the corrective actions taken or planned which may be needed to bring the discharger into full compliance with the waste discharge requirements. The report format will be prepared by the discharger using the examples shown in APPENDIX D and should be maintained and submitted with each regular self-monitoring report.

G. MONITORING SPECIFICATIONS

1. Description of Sampling Stations

a. Intake

Station

Description

I-1

At any point in the raw water supply prior to any treatment.

b. Effluent

Station

Description

E-001

At any point in the outfall pipe between the point of discharge into Lafayette Creek and the point at which all waste tributary to that outfall is present.

c. Receiving Waters

Station

Description

C-1

At a point in Lafayette Creek, located approximately 25 feet upstream from the point of discharge.

C-2

At a point in Lafayette Creek, located approximately 25 feet downstream from the point of discharge.

2. Schedule of Sampling and Analysis

- a. The schedule of sampling and analysis shall be that given as Table I.

I, Fred H. Dierker, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 79-151.
2. Is effective on the date shown below.
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

FRED H. DIENKBER
Executive Officer

Attachment:
Table I

Effective Date _____

TABLE I
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSES

NPDES NO. CA0038245

ORDER NO. 79-151

SAMPLING STATIONS	E-001		C-1 - C-2		I				
	C-24	G	G	O	G				
Flow Rate (mgd)		D (1)							
Settleable Matter (ml/l-hr)		D/2W							
Total Suspended Solids (mg/l & lbs/day)		D/2W							
Chlorine Residual (mg/l)		D/2W							
pH (units)		D/2W	D/2W (2)		D/2W				
Fish Toxicity, 96-hour % Survival in undiluted waste		Y							
Turbidity (NTU)			D/2W (2)						
All Applicable Standard Observations		D/2W		D/2W					
Aluminum, Dissolved (mg/l & lbs/day)		Y							

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample - 24-hour
O = observation

TYPES OF STATIONS

I = intake and/or water supply stations
E = waste effluent stations
C = receiving water stations

FREQUENCY OF SAMPLING

D = Daily
Y = Yearly, during the first calendar quarter
D/2W = daily for first two days of discharge occurrence and biweekly thereafter, not to exceed 3 times per month (if non-compliance shown, daily sampling should be continued)

- (1) An estimate is acceptable. Basis of calculation shall be stated.
- (2) Consideration shall be given to elimination of receiving water monitoring following review of analysis from six discharge occurrences.