

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 81-48

NPDES NO. CA0028657

WASTE DISCHARGE REQUIREMENTS FOR:

SIGNETICS CORPORATION
EVELYN AVENUE, SUNNYVALE
SANTA CLARA COUNTY

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

1. Signetics Corporation (hereinafter called the discharger), a manufacturer of printed circuits, located at 730 Evelyn Avenue, Sunnyvale, submitted an application dated April 27, 1981 applying for waste discharge requirements and a permit to discharge wastes under the National Pollutant Discharge Elimination System.
2. The discharge consists of 100,000 gallons per day of reject water from a reverse osmosis water purification system. This waste will be discharged to a storm drain tributary to East Channel and San Francisco Bay. East Channel is a floodway under the control of Santa Clara Valley Water District. The point of discharge is located at the intersection of Evelyn Avenue and East Channel.
3. Santa Clara Valley Water District (SCVWD) and California Department of Fish and Game have concurred with the findings and effluent limitations contained in this Order.
4. The discharger must obtain SCVWD permit for Right-of-Way encroachment if the discharger decides to discharge directly to East Channel.
5. The Board, in April 1975, adopted a Water Quality Control Plan for the San Francisco Bay Basin. The Plan contains water quality objectives for San Francisco Bay.
6. The beneficial uses of East Channel and South San Francisco Bay are:
 - a. Recreation
 - b. Fish migration and habitat
 - c. Habitat for wildlife
 - d. Esthetic enjoyment
 - e. Industrial water supply
 - f. Navigation

7. Effluent Limitation 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.
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. This project is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.
10. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that Signetics Corporation 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. Effluent Limitations

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

	<u>Units</u>	<u>Daily Maximum</u>
a. Total Dissolved Solids	mg/l	1,400
b. Flow	gallons per day	100,000

2. The effluent shall not have a pH of less than 6.5 nor greater than 8.5. If the influent water exceeds these limits, the discharger will not cause any further variance.
3. The effluent shall not have a chlorine residual greater than 0.0. mg/l.
4. In any representative set of samples the waste as discharged shall meet the following limit of quality:

TOXICITY:

The survival of Rainbow Trout test fish in 96 hour bioassays of the effluent 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.

5. The discharge shall be limited to wastewater of the quantity and type described in finding 2 of this Order.

B. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:
 - a. Floating, suspended, or deposited macroscopic particulate matter or foam;
 - b. Bottom deposits or aquatic growths;
 - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
 - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
 - e. 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 concentrations.
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 ~ 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
 - b. Dissolved sulfide 0.1 mg/l maximum
 - c. pH Variation from natural ambient pH by more than 0.2 pH units.
3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. Provisions

1. Neither the treatment nor the discharge of pollutants shall create a nuisance as defined in the California Water Code.
2. The discharger shall comply with all Sections of this Order immediately upon discharge.
3. The discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements" dated April 1977 except A.5, A.12, A.13, A.16 and B.5.
4. This Order expires September 16, 1986. The discharger must file a Report of Waste Discharge not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.
5. 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 take effect at the end of ten days from date of hearing provided the Regional Administrator of the U. S. Environmental Protection Agency has no objections.

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 September 16, 1981.

FRED H. DIERKER
Executive Officer

Attachments:

Standard Provisions & Reporting
Requirements dated April 1977
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

Signetics Corporation

730 Evelyn Avenue

Sunnyvale, Santa Clara County

NPDES NO. CA 0028657

ORDER NO. 81-48

CONSISTS OF

PART A

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. Effluent

<u>Station</u>	<u>Description</u>
E-001	At any point in the outfall between the point of discharge and the point at which all waste tributary to that outfall is present.

II. SCHEDULE OF SAMPLING AND ANALYSIS

- A. The schedule of sampling and analysis shall be that given as Table I.
- B. Reports shall be submitted on April 15, July 15, October 15 and January 15.

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. 81-48
2. Does not include the following paragraphs of Part A:

D.1, D.2.a, D.3, D.4, E.2.b, E.2.c, E.3, E.4, F.2, F.3.b, F.3.c, F.3.d, F.3.e, F.3.f, and F.3.g.
3. Is effective on the date shown below.
4. 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. DIERKER
Executive Officer

Attachment:
Table I (2 pages)

Effective Date _____

TABLE I
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	E-001												
TYPE OF SAMPLE	G												
Flow Rate (mgd)	D												
BOD, 5-day, 20° C, or COD (mg/l & kg/day)													
Chlorine Residual (mg/l)	D												
Settleable Matter (ml/1-hr. & cu. ft./day)													
Total Dissolved Solids (mg/l)	D												
Oil & Grease (mg/l & kg/day)													
Coliform (Total or Fecal) (MPN/100 ml) per req't													
Fish Toxicity, 96-hr. TL ₅₀ % Survival in undiluted waste	Q												
Ammonia Nitrogen (mg/l & kg/day)													
Nitrate Nitrogen (mg/l & kg/day)													
Nitrite Nitrogen (mg/l & kg/day)													
Total Organic Nitrogen (mg/l & kg/day)													
Total Phosphate (mg/l & kg/day)													
Turbidity (Jackson Turbidity Units)													
pH (units)	D												
Dissolved Oxygen (mg/l and % Saturation)													
Temperature (°C)	D												
Apparent Color (color units)													
Secchi Disc (inches)													
Sulfides (if DO ≤ 5.0 mg/l) Total & Dissolved (mg/l)													
Arsenic (mg/l & kg/day)													
Cadmium (mg/l & kg/day)													
Chromium, Total (mg/l & kg/day)													
Copper (mg/l & kg/day)													
Cyanide (mg/l & kg/day)													
Silver (mg/l & kg/day)													
Lead (mg/l & kg/day)													

TABLE I (continued)
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	E-001											
TYPE OF SAMPLE	G	O										
Mercury (mg/l & kg/day)												
Nickel (mg/l & kg/day)												
Zinc (mg/l & kg/day)												
PHENOLIC COMPOUNDS (mg/l & kg/day)												
All Applicable Standard Observations		W										
Bottom Sediment Analyses and Observations												
Total Identifiable Chlorinated Hydrocarbons (mg/l & kg/day)												

LEGEND FOR TABLE

TYPES OF SAMPLES

- G = grab sample
- C-24 = composite sample - 24-hour
- C-X = composite sample - X hours
(used when discharge does not
continue for 24-hour period)
- Cont = continuous sampling
- DI = depth-integrated sample
- BS = bottom sediment sample
- O = observation

TYPES OF STATIONS

- I = intake and/or water supply stations
- A = treatment facility influent stations
- E = waste effluent stations
- C = receiving water stations
- P = treatment facilities perimeter stations
- L = basin and/or pond levee stations
- B = bottom sediment stations
- G = groundwater stations

FREQUENCY OF SAMPLING

- E = each occurrence
- H = once each hour
- D = once each day
- W = once each week
- M = once each month
- Y = once each year
- 2/H = twice per hour
- 2/W = 2 days per week
- 5/W = 5 days per week
- 2/M = 2 days per month
- 2/Y = once in March and
once in September
- Q = quarterly, once in
March, June, Sept.
and December
- 2H = every 2 hours
- 2D = every 2 days
- 2W = every 2 weeks
- 3M = every 3 months
- Cont = continuous