

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 88-056

NPDES NO. CA0028649

AMENDING WASTE DISCHARGE REQUIREMENTS (ORDER 86-61) FOR:

INTEL CORPORATION
JULIETTE LANE FACILITY
SANTA CLARA
SANTA CLARA COUNTY

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

1. Intel Corporation, hereinafter called the discharger, by application dated June 16, 1987, has applied for amendment of its permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES).
2. The discharger owns and operates a semiconductor and integrated circuit research and manufacturing facility located at 3601 Juliette Lane in the City of Santa Clara, Santa Clara County, approximately 1/4 mile north by northeast of the intersection of Route 101 and Montague Expressway.
3. The discharger presently discharges approximately up to 230 gpd of filter backwash water for a fire pond (Waste 002). Discharge is to the storm drain tributary to San Tomas Aquino Creek, the Guadalupe Slough, and South San Francisco Bay.
4. During the removal of an underground fuel tank following a diesel spill in January 1985, diesel fuel and chlorinated solvents, including trichloroethane, trichloroethylene, dichloroethane, and dichlorethylene, were detected in groundwaters beneath the facility.
5. The underground tank and surrounding contaminated soils were excavated. An extraction well and treatment system has been installed to cleanup and prevent the further migration of groundwater pollutants.
6. Waste 001 consists of less than 10,000 gallons per day (gpd) of groundwater which will be treated by a carbon adsorption system to remove petroleum hydrocarbons and volatile organics prior to discharge to the storm sewer system that discharges to San Tomas Aquino Creek and then to South San Francisco Bay.

7. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives for South San Francisco Bay, and contiguous surface and groundwater.
8. The beneficial uses of South San Francisco Bay include:
 - Contact and non-contact water recreation
 - Wildlife habitat
 - Preservation of rare and endangered species
 - Estuarine habitat
 - Fish spawning and migration
 - Industrial service supply
 - Shellfishing
 - Navigation
 - Ocean commercial and sport fishing
9. The Basin Plan prohibits discharge of wastewater which has "particular characteristics of concern to beneficial uses" (a) "at any point in San Francisco Bay south of the Dumbarton Bridge" and (b) "at any point where the wastewater does not receive a minimum initial dilution of at least 10:1 or into any nontidal water, deadend slough, similar confined water, or any immediate tributary thereof."
10. The Basin Plan allows for exceptions to the prohibitions referred to in Finding 9 above when it can be demonstrated that a net environmental benefit can be derived as a result of the discharge.
11. Exceptions to the prohibitions referred to in Finding 9 are warranted because the discharge is an integral part of a program to clean up contaminated groundwater and thereby produce an environmental benefit, and because receiving water concentrations are expected to be below levels that would effect beneficial uses. Should studies indicate chronic effects, not currently anticipated, the Board will review the requirements of this Order based upon section B.1.e.
11. The basin Plan prohibits discharge of "all conservative toxic and deleterious substances, above those levels which can be achieved by a program acceptable to the Board, to waters of the Basin." The discharger's groundwater extraction and treatment system and associated operation, maintenance, and monitoring plan constitutes an acceptable control program for minimizing the discharge of toxicants to waters of the State.
12. Effluent limitations of this Order are based on the Basin Plan, State plans and policies, U.S. Environmental Protection Agency guidance and best engineering judgment as to best available technology economically achievable.
13. The issuance of waste discharge requirements for this

discharge 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.

14. The Board has notified the discharger and interested agencies and persons of its intent to issue 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.
15. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that Order No.86-61 is amended as follows:

1. Effluent limitation A.1 is added to read as follows:

"1. Waste 001 shall not contain constituents in excess of the following:

Constituent	Units	Instantaneous Maximum
Trichloroethylene	mg/L	0.005
1,1,1-trichloroethane	mg/L	0.005
1,1-dichloroethane	mg/L	0.005
1,1-dichloroethylene	mg/L	0.005
Total Petroleum Hydrocarbons	mg/L	0.050

2. Effluent limitation A.3 to revised to read as follows:

"4. The pH of Waste 001 and 002 shall not exceed 8.5 nor be less than 6.5."

3. Effluent limitation A.4 is revised to read as follows:

"5. In any representative set of samples, the discharge of Waste 001 and 002 shall meet the following limit of quality:

TOXICITY: The survival of rainbow trout fishes in 96 hour bioassays of the effluent as discharged shall be a median of 90% survival and a 90 percentile value of not less than 70% survival.

4. Effluent limitation A.5 is deleted.

5. Provision C.6 is revised to read as follows:

"6. The discharger shall comply with all the items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated December 1986, except items A.10, B.2, B.3, C.8, and C.11."

6. Provision C.11 is added to read as follows:

"11. The discharger shall also notify the Regional Board if any activity has occurred or will occur which would result in the discharge, on a frequent or routine basis, of any toxic pollutant which is not limited by this Order."

I, Roger B. James, 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 April 20, 1988.


ROGER B. JAMES
EXECUTIVE OFFICER

Attachments:

Standard Provisions & Reporting Requirements, dated December
1986
Revised Self-Monitoring Program
Site map

GREAT AMERICA
AMUSEMENT PARK

Parking
Area

Agnew
(BM 22)

Parking
Area
BM

MONTAGUE EXPRESSWAY

HIGHWAY 101

SITE

SANTA CLARA

FREEWAY

NORTH

0 2000
SCALE

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SITE LOCATION MAP
INTEL CORPORATION
SANTA CLARA, SANTA CLARA CO.

DRAWN BY: DATE: DRWG NO.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

R E V I S E D T E N T A T I V E

SELF-MONITORING PROGRAM

FOR

INTEL CORPORATION

JULIETTE LANE FACILITY

SANTA CLARA, SANTA CLARA COUNTY

NPDES NO. CA00228649

ORDER NO. 88-056

CONSISTS OF

PART A, dated December 1986 and modified January 1987,
including Appendices A through E

PART B, Adopted: April 20, 1988

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT

Stations

Description

I-001 At a point in the groundwater extraction/
treatment system immediately prior to
treatment.

B. EFFLUENT

Stations

E-001 At a point in the groundwater/extraction
treatment system immediately following
treatment.

E-002 At any point in the outfall between the
point of discharge of 002 and the point
at which all waste tributary to that
outfall is present.

C. RECEIVING WATERS

C-1 At a point in San Tomas Aquino Creek at
least 100 feet but no more than 200 feet
down-stream from the storm sewer
discharge point.

II. SCHEDULE OF SAMPLING AND ANALYSIS

A. The schedule of sampling and analysis shall be that given in
Table I.

III. MODIFICATION TO PART A

A. Deletions:

Sections D.2.e, D.2.g, D.3.b, E.1.e, E.1.f, E.3., and
E.4.

G.4.e.1 Influent and Effluent Data Summary Reports shall be
submitted only to the Regional Board Executive Officer,
not to the EPA.

B. Modifications:

G.4 Written reports under G.4 shall be filed each calender

quarter, once in January, April, July, and October.

- G.4.b The report format shall be prepared in a format acceptable to the Executive Officer. The example in Appendix A is provided as guidance.
- G.4.e The report format will be prepared in a format acceptable to the Executive Officer. NPDES Discharge Monitoring Report, EPA Form 3320-1, is provided as guidance.
- G.5 By January 30 of each year, the discharger shall submit, in place of the quarterly report, an annual report to the Regional Board covering the previous year.

I, Roger B. James, 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. 86-61 and as amended by Order No. 88-056.
2. Was adopted by the Board on April 20, 1988.
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 or Regional Board.


ROGER B. JAMES
EXECUTIVE OFFICER

Attachment: Table I (2 pages)

TABLE 1
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	E-002	I-001	E-001	C-1
TYPE OF SAMPLE	G		G	G
Flow rate (mgd)	M	D	D	
BOD, 5-day, 20°C or COD (mg/l & kg/day)				
Chlorine Residual (mg/l)	W			
Settleable Matter (ml/l-hr. & cu. ft./day)	M			
Total Suspended Matter (mg/l)	M			
Oil and Grease (mg/l & kg/day)				
Coliform (Total or Fecal) (MPN/100 ml) per req't				
Fish Toxicity 96-hr. TL Surv'l in undiluted waste	Y			
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 Unit)				
pH (units)	M		M	2/Y
Dissolved Oxygen (mg/l and % Saturation)				2/Y
Temperature (°C)	M			2/Y
Apparent Color (color units)				
Becchi 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)				
Volatile Chlorinated (1) Hydrocarbons (mg/L)		M	M	2/Y
Aromatics (mg/L)				
Total Petroleum Hydrocarbons (3) (mg/L)		M	M	2/Y

TABLE 1 (continued)

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	E-001	E-002									
TYPE OF SAMPLE		G									
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											
Bottom Sediment Analyses and Observations											
Tot. Ident. Chlori. Hydro- carbons (mg/l & kg/day)											
Total Dissolved Solids (mg/l & kg/day)		M									

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-intergrated 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

(1) Defined as trichloroethylene, 1,1,1-trichloroethane, 1,1-dichloroethylene and 1,1-dichloroethane.

(3) Analysis should be for the high boiling point hydrocarbons to include the range of diesel motor fuels.