

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 85-32

NPDES NO. CA0037958

WASTE DISCHARGE REQUIREMENTS FOR:

NOVATO SANITARY DISTRICT
NOVATO, AND IGNACIO PLANTS
MARIN COUNTY

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

1. Novato Sanitary District, (hereinafter called the Discharger), submitted a report of waste discharge dated 10/8/84 for reissuance of NPDES Permit No. CA0037958.
2. The discharger presently discharges an average dry weather flow of 4.4 million gallons per day from the Novato and Ignacio plants into San Pablo Bay, a water of the State and United States. The treated wastewater is discharged through an outfall about 950 feet offshore at Latitude 122 deg. 29 min. 00 sec. and Longitude 39 deg. 04 min. 00 sec.
3. The Novato and Ignacio plants are presently under construction to upgrade the existing facilities. The upgraded facilities will consist of:

Novato Treatment Plant - Primary clarification, activated sludge, secondary clarification, nitrification, gravity filtration and disinfection.

All flows up to 9 mgd will receive complete treatment. Flows between 9 mgd and 16 mgd will only have primary treatment plus gravity filtration and disinfection. All flows above 16 mgd will only receive gravity filtration and disinfection. Dry weather design flow is 4.53 mgd

Ignacio Treatment Plant - Primary clarification, biofiltration, secondary clarification, nitrification, gravity filtration and disinfection. All flows up to 4.04 mgd will receive full treatment. When flows exceed 4.04 mgd the secondary clarifier will receive primary influent in parallel with the primary clarifier and then on to the nitrification tower, gravity filters and chlorine flash mixer for disinfection. Dry Weather design flow is 2.02 mgd

The facilities are designed to produce an effluent with an average of 15 mg/l BOD and 10 mg/l suspended solids for dry weather flows. At higher flows, the effluent may have an average of up to 30 mg/l for BOD and suspended solids.

The flows from both plants join a combined outfall where the effluent is dechlorinated prior to discharge during the month of September through May. From June 1 through August 31 the combined effluents are discharged to storage ponds for sprinkler irrigation of District controlled pasture lands.

Both plants have primary and secondary anaerobic digesters for sludge digestion followed by storage ponds for thickening prior to application on a 14.4 acre dedicated land disposal site at the reclamation area.

4. The discharge is presently governed by Waste Discharge Requirements, Order No. 80-14 adopted on April 15, 1980, which allows discharge into San Pablo bay.
5. The board adopted a revised Water Quality Control Plan, San Francisco Bay Basin (Basin Plan) on July 21, 1982. The Basin Plan contains water quality objectives for San Pablo Bay and discharge prohibitions.
6. The beneficial uses of San Pablo Bay are:
 - . Non-contact water recreation
 - . Wildlife habitat
 - . Preservation of rare and endangered species
 - . Estuarine habitat
 - . Warm fresh water and cold fresh water habitat
 - . Fish spawning and migration
 - . Industrial service supply
 - . Shellfishing
 - . Navigation
 - . Open commercial and sport fishing
7. The Basin Plan prohibits discharge of wastewater which has "particular characteristics of concern to beneficial uses" (a) "at any point where the wastewater does not receive a minimum initial dilution of a least 10:1 or into any nontidal water, deadened slough, simliar confined water, or any immediate tributary thereof."

8. The Basin Plan allows for exceptions to the prohibitions referred to in Finding 7 above when it can be demonstrated that:
 - a) an inordinate burden would be placed on the discharger relative to beneficial uses protected and an equivalent level of environmental protection can be achieved by alternate means, such as an alternative discharge site, a higher level of treatment, and/or improved treatment reliability; or
 - b) a discharge is approved as part of a reclamation project.
9. Exceptions to the prohibitions referred to in Finding 7 are warranted because (1) the discharge is approved as part of a reclamation project and (2) an equivalent level of environmental protection for 10:1 dilution can be provided because the new facilities currently under construction will provide a tertiary effluent and an improved treatment reliability during the discharge period when the receiving water does not provide 10:1 dilution.
10. The Board has adopted waste discharge requirements covering the dry weather reclamation in Order No. 80-17.
11. Novato Sanitary District, as lead agency for the Eastern Marin and Southern Sonoma Wastewater Agencies requested an NPDES Permit time extension for construction of required facilities. This request was pursuant to Section 301(i)(1) of the Federal Water Pollution Control Act (FWPCA), as amended. The Board finds the request warranted and grants the time extension for compliance with Section 301(b) pursuant to Section 301(i) of the Act.
12. Novato Sanitary District as lead agency for the Eastern Marin and Southern Sonoma Wastewater Agencies certified a final Environmental Impact Report (EIR) on September 17, 1979 for their wastewater management projects in accordance with the California Environmental Quality Act (Public Resources Code, Section 2100 et seq.). The members of this Regional Board have received and reviewed a summary of these documents.
13. The EIR specifies that this project could have the following adverse impacts on the environment:

Possible odors from the wastewater treatment plants may affect nearby residents.

14. Compliance with Standard Provision A.1. of this Order will mitigate adverse impacts of Finding 13. To maintain compliance, the discharger will construct improvements for covering, venting and scrubbing exhaust gases on the following units:
 - ° Novato Treatment Plant - Headworks, primary clarifier, aeration tanks, sludge thickener, degritting facilities, and digester off-gass equipment.
 - ° Ignacio Treatment Plant - Primary clarifiers.
 - ° Bahia Pump Station - Pumping station wet well. In addition, facilities to inject odor control chemicals in force main and control odors from air release valves in pipeline will be included.
15. An Operations and Maintenance Manual is maintained by the Discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, facilities, and ended operating strategies, process control monitoring, and maintenance activities. In order to remain a usefull and relevant document, this manual should be kept updated to reflect significant changes in plant facilities or activities.
16. This Order serves as an NPDES permit, adoption of which 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.
17. The Discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the existing discharge and have been provided with the opportunity for a public hearing and the opportunity to submit their written views and recommendations.
18. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that the Discharger in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean

Water Act as amended and regulations and guidelines adopted thereunder shall comply with the following:

A. Discharge Prohibitions

1. Bypass or overflow of untreated or partially treated wastewater to waters of the State either at the treatment plant or from any of the collection system and pump stations tributary to the treatment plant is prohibited.
2. The average dry weather flow shall not exceed 4.53 mgd for the Novato Plant, and 2.02 mgd for the Ignacio plant. Averages shall be determined over three consecutive dry weather months each year.
3. The discharge of wastewater to waters of the State from June 1 through August 31 is prohibited (Executive Officer may grant requested date extension when yearly rainfall is abnormally high).

B. Interim Effluent Limitations

Prior to the compliance deadline for Effluent Limitations C.1. and C.2., as specified in Provision E.2., discharge of an effluent from the following treatment plants containing constituents in excess of the following limits is prohibited:

1. Novato and Ignacio Plants

Effluent limitations shall be met in the combined effluent from both plants except for Settleable Matter and Coliform which shall be met in the effluent from each plant. Influent and effluent concentrations for the combined flow shall be obtained from the weighted average of the individual flows and concentrations.

<u>Constituent</u>	<u>Units</u>	<u>30-day Average</u>	<u>7-day Average</u>	<u>Maximum Daily</u>
a. BOD or	mg/l	30	45	60
Carbonaceous	mg/l	25	40	50
BOD				

b. Suspended Solids	mg/l	30	45	60
c. Grease & Oil	mg/l	20	-	20
d. Chlorine Residual	mg/l	-	-	0.0
e. Total Coliform:				

At some point in the treatment process, the total coliform bacterial for a median of 5 consecutive samples of waste shall not exceed 240 MPN/100 ml. Any single sample shall not exceed 10,000 MPN/100 ml when verified by a repeat sample taken within 48 hours.

C. Final Effluent Limitations

1. The waste as discharged to waters of the State shall meet the following limitations:

<u>Constituents</u>	<u>Units</u>	<u>30-day Average</u>	<u>Maximum Daily</u>	<u>Annual (1) Average</u>
a. BOD or (2)	mg/l	15	30	
Carbonaceous BOD	mg/l	10	20	
b. Suspended (2) Solids	mg/l	10	20	
c. Grease & Oil	mg/l	5	15	
d. Total Ammonia as N	mg/l	6.0		4.0
e. Settleable Solids (2)	ml/l-hr	0.1		

(1) Annual average shall be calculated as the average of 30-day averages for the months during which discharge is made to waters of State.

(2) Effluent limitations shall be met in the combined effluent from both plants, except for Settleable

Solids, Coliform, and pH which shall be met in the effluent from each plant. Influent and effluent concentrations for BOD, Suspended Solids, Grease and Oil, and Ammonia in the combined flow shall be obtained from the weighted average of the individual flow and concentrations.

f. Total Coliform:

At some point in the treatment process the waste shall not exceed a median most probable number (MPN) of coliform organisms of 23 per 100 milliliters as determined from the results of the previous consecutive 7 days for which analyses have been completed. Any single sample shall not exceed 1000 MPN/100 ml when verified by a repeat sample taken within 48 hours.

g. Chlorine residual shall have an instantaneous maximum of 0.0 mg/l. This limitation shall apply prior to discharge of waste to the wildlife pond.

h. pH shall not exceed 8.5 nor be less than 6.5.

i. TOXICITY:

The survival of test organisms acceptable to this Board 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.

j. The arithmetic mean of the biochemical oxygen demand (5 day, 20°C) and suspended solids values, by weight, for effluent samples collected in a period of 30 consecutive calendar days shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected at approximately the same times during the same period (85 percent removal).

2. During wet weather months of November 1, through April 15, the final effluent Limitation C.1. for the combined flow from both the Novato and Ignacio plants will be revised as follows:

<u>Constituents</u>	<u>Units</u>	<u>30-day Average</u>	<u>Maximum Daily</u>
a. BOD or Carbonaceous BOD	mg/l mg/l	30 25	60 50
b. Suspended Solids	mg/l	30	60
c. Grease & Oil	mg/l	10	20
d. Total Coliform (1)			

At some point in the treatment process, the total coliform bacteria for a median of 5 consecutive samples of waste shall not exceed 240 MPN/100 ml. Any single sample shall not exceed 10,000 MPN/100 ml when verified by a repeat sample taken within 48 hours.

(1) During wet weather for days when flows exceed twice the current Dry weather average flows the effluent limit c.l.f will be revised as described. The median coliform value shall be calculated on the basis of samples taken during high wet weather flows for that particular reporting month. Wet weather days are those when the instantaneous flows exceed twice the current dry weather average daily flows for more than 8 hours.

3. Representative samples of the effluent shall not exceed the following limits:(1)

<u>Constituent</u>	<u>Unit of Measurement</u>	<u>6 month median</u>	<u>Daily maximum</u>
Arsenic	mg/l	0.01	0.02
Cadmium	mg/l	0.02	0.03
Total Chromium	mg/l	0.005	0.01
Copper	mg/l	0.2	0.3
Lead	mg/l	0.1	0.2
Mercury	mg/l	0.001	0.002
Nickel	mg/l	0.1	0.2
Silver	mg/l	0.02	0.04
Zinc	mg/l	0.3	0.5
Cyanide	mg/l	0.1	0.2
Phenolic Compounds	mg/l	0.5	1.0

a. Dissolved Oxygen 5.0, mg/l minimum. Median of any three consecutive months shall not be less than 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration oxygen.

b. Dissolved Sulfide 0.1 mg/l maximum

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 Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 or the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

E. Provisions

1. The discharger shall comply with all sections of this Order immediately upon adoption except as stipulated in Provision 2 below.
2. The discharger shall comply with the following time schedule to achieve compliance with Discharge Prohibitions A.2, A.3., C.1.a-d, C.1.f, C.1.i, C.1.j, C.2 and C.3 and Receiving Water Limitations D.1.a, D.1.c, D.1.e and D.2:

<u>Task</u>	<u>Full Compliance</u>	<u>Compliance Report to Board</u>
a. <u>Ignacio Plant</u>		
Status of Construction	-	April 30, 1985
Complete Construction	July 1, 1985	July 15, 1985
Full Compliance	December 15, 1985	January 1, 1986

<u>Task</u>	<u>Full Compliance</u>	<u>Compliance Report to Board</u>
b. <u>Novato Plant</u>		
Status of Construction	-	April 30, 1985
Complete Construction	October 15, 1985	November 1, 1985
Full Compliance	December 15, 1985	January 1, 1986

The discharger shall submit to the Board, on or before each compliance report date, a report detailing his compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus an estimated of the date when the discharger will be in compliance. The discharger shall notify the Board by letter when he has returned to compliance with the time schedule.

3. The waste shall meet all Effluent Limitations of this Order, except Effluent Limitations C.1.g. and C.1.i, without or prior to dilution with Novato Creek water. Only Novato Creek water of such quality as to enhance compliance with the requirements of this Order shall be added to the waste effluent.
4. This Order supersedes the requirements prescribed in Order No. 80-14. Order No. 80-14 is hereby rescinded.
5. Where concentration limitations in mg/l are contained in this permit, the following mass emission limitations shall also apply as follows:

Mass Emission Limit in lbs/day, kg/d = Concentration limit in mg/l x 8.34, 3.79 x Actual Flow in mgd averaged over the time interval to which the limit applies.

6. The Discharger shall review and update his Operations and Maintenance Manual annually. or in the event of significant facility or process changes, shortly after such changes have occurred. Annual revisions, or letters stating that no changes are needed shall be submitted to the Regional Board by April 15 of each year. A time schedule for completion of the initial revision shall be submitted by May 15, 1985. Documentation of operator input and review shall accompany each annual update.
7. The Discharger shall review and update by January 15 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. The Discharger shall implement its approved industrial Pretreatment Program in accordance with legal authorities, policies, and procedures described in its pretreatment document and in accordance with the Federal Clean Water Act, Section 402(b)(8) and (9) and Federal pretreatment regulations in 40 CFR 403.
 - (a) The permittee shall maintain an adequate revenue program and enforce prohibitions of any applicable National Pretreatment Standards established by the U.S. Environmental Protection Agency (EPA).
 - (b) The discharger shall comply with the requirements titled "Pretreatment of Industrial Wastewater" (Attached) and "Requirements for Pretreatment Annual Report" (Attached) and shall be subject to enforcement actions, penalties, fines and other remedies as provided for therein and by California law. The sampling and monitoring requirements may be modified upon request of the discharger and written approval of the Executive Officer.
9. The Discharger shall comply with the self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.

10. Waste discharged to the wildlife pond from September 1 through May 31 shall meet all requirements prescribed in this Order if there is to be any discharge from the wildlife pond to San Pablo Bay during this period. At other times, waste discharged to the wildlife pond may meet the reclamation requirements prescribed in a separate order. No discharge to the wildlife ponds shall be made when flows to the treatment plants exceed twice the average dry weather flows.
11. Waste in storage ponds may be discharged through the outfall from September 1 through May 31 only when the discharger receives written approval of the Executive Officer after demonstrating to his satisfaction that such discharge:
 - ° is necessary for prudent operation and maintenance of the storage and irrigation facilities.
 - ° will be made in a way that has the least adverse effect on the environment; and
 - ° has received the treatment required in the reclamation requirements.
12. The discharger shall promote and encourage increased reclamation to reduce the amount of discharge to San Pablo bay during the period from September 1 through May 31.
13. In reviewing compliance with the limits of Effluent Limitations C.1.j and C.2.d. of this Order, the Board will take special note of the difficulties encountered in achieving compliance during periods of high wet weather flow.
14. The Discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated April 1977, except A.12 and B.3. Item C.2 of the Standard Provisions shall read as follows: The "30-day, or 7-day, average" consecutive calendar day periods, respectively, divided by the number of days in the period that the facility was discharging. Where less than daily sampling is required by this permit, the 30-day, or 7-day, average discharge shall be determined

by the summation of all the measured discharges by weight divided by the number of days during the 30- or 7- consecutive calendar day period when the measurements were made. For other than 7-day or 30-day periods- compliance shall be based on the average of all measurements made during the specified period.

15. This Order expires April 20, 1990. 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.

16. This Order shall serve as a National Pollutant Discharge Elimination System pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 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, 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 30, 1985.

ROGER B. JAMES
Executive Officer

Attachments:

Standard Provisions &
Reporting Requirements, April 1977
Self-Monitoring Program
Resolution 74-10
Pretreatment of Industrial Wastewater
Requirements for pretreatment Annual Report

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

T E N T A T I V E
SELF-MONITORING PROGRAM
FOR

NOVATO SANITARY DISTRICT

IGNACIO AND NOVATO PLANTS

MARIN COUNTY

NPDES NO. CA0037958

ORDER NO. 85-32

CONSISTS OF

PART A

AND

PART B

PART B

NOVATO SANITARY DISTRICT

1. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT

<u>Station</u>	<u>Description</u>
A-001	At any point in the Ignacio treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment
A-002	At any point in the Novato treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment.

B. EFFLUENT

<u>Station</u>	<u>Description</u>
<u>1. Ignacio Plant</u>	
E-001	At any point in the outfall between the point of discharge and the point at which all waste tributary to the outfall is present and at which all treatment has been completed.
E-001-D	At any point in the disinfection facilities for Waste 001 at which point adequate contact with the disinfectant assured. (May be coincident with E-001)
<u>2. Novato Plant</u>	
E-002	At any point in the outfall between the end point of discharge and the point at which all waste tributary to the outfall is present and at which all treatment has been completed.
E00-2-D	At any point in the disinfection facilities for Waste 002 at which point adequate contact with the disinfectant is assured. (May be coincident with E-002)

3. Combined Effluent

E-003-S

At any point in the outfall containing the effluents from the Ignacio and the Novato sewage treatment facilities, (prior to or without injection of dilution water at which all tributaries to this outfall are present).

C. Receiving Waters

<u>Station</u>	<u>Description</u>
C-1	At a point in San Pablo Bay, located on line with the outfall and as close to shore as possible.
C-2	At a point in San Pablo Bay, located over geometric center of the diffuser.
C-3	At a point in San Pablo Bay, located on line with the outfall and approximately 300 feet southeasterly of C-2.
C-R	At a point in San Pablo Bay located approximately 4,000 feet northerly of the outfall and as close to shore as possible.

D. LAND OBSERVATIONS

<u>Station</u>	<u>Description</u>
P-1 thru P-3	Located along the downwind portion of the perimeter fence line surrounding each of the treatment facilities. (A sketch showing the locations of these stations will accompany each report.)
L-1	Located along the perimeter levee of sludge lagoons or disposal beds at equidistant intervals not to exceed 200 feet. (A sketch showing the locations of these stations will accompany each report.)

E. OVERFLOWS AND BYPASSES

<u>Station</u>	<u>Description</u>
O-1 thru O-'n'	Bypass or overflows from manholes, pump stations or collection system.

Note: Bypass shall be reported to this Regional Board by telephone immediately after occurrence.

A written report shall be filed with the Board within 5 working days which shall contain information such as quantity involved, location, course of bypass, nature of affects, and corrective measures taken.

F. STORAGE PONDS

<u>Station</u>	<u>Description</u>
L-1 thru	At the corners and midpoints of levees enclosing each storage or retention pond intended to contain wastewater for flow, re-treatment, or other purpose.

II. SCHEDULE OF SAMPLING MEASUREMENTS AND ANALYSIS

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

III. MODIFICATIONS TO "PART A"

A. This monitoring program does not include the following sections of Part A. dated January 1978: C.3, C.4.

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. 85-32.
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.

ROGER B. JAMES
Executive Officer

EFFECTIVE DATE _____

Attachments
Table I
Form A

TABLE 1
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A001 & A002	E-001 & E-002	E-001-D & E-002-D	E-003-S	All 'C' Sta.	All 'L' Sta	All 'O' Sta.
TYPE OF SAMPLE	C-24	G	C-24	G	C-24	Cont	G
Flow Rate (mgd)	Cont				Cont		
BOD, 5-day, 20°C, or COD (mg/l & kg/day)	W	3/W					
Chlorine Residual & Dos- age (mg/l)					(2) Cont		
Settleable Matter (ml/1-hr. & cu. ft./day)		5/W					
Total Suspended Matter (mg/l & kg/day)	W	3/W					
Oil and Grease (mg/l & kg/day)	(1) 2M	(1) M					
Coliform (Total) (MPN/100 ml) per req't			3/W				
Fish Tox'y 96-hr. TL % Surv'l in undiluted waste				(3) Q			
Ammonia Nitrogen (mg/l & kg/day)		(4) 3/W			Q		
Nitrate Nitrogen (mg/l & kg/day)		W			Q		
Nitrite Nitrogen (mg/l & kg/day)					Q		
Total Organic Nitrogen (mg/l & kg/day)							
Total Phosphate (mg/l & kg/day)							
Turbidity (Jackson Turbidity Units)		M			Q		
pH (units)		5/W			Q		
Dissolved Oxygen (mg/l and % Saturation)		5/W			Q		
Temperature (°C)		5/W			Q		
Apparent Color (color units) or Visual		5/W			Q		
Secchi Disc (inches)					Q		
Sulfides (if DO < 2.0 mg/l) Total & Dissolved (mg/l)							
Arsenic (mg/l & kg/day)				Q			
Calcium (mg/l & kg/day)				Q			
Chromium, Total (mg/l & kg/day)				Q			
Copper (mg/l & kg/day)				Q			
Cyanide (mg/l & kg/day)				Q			
Silver (mg/l & kg/day)				Q			
Lead (mg/l & kg/day)				Q			

TABLE 1 (continued)

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A001 & A002	E-001 & E-002	E-001-D E-002-D		E-003-S E-003-S		All 'C' Sta.		All 'L' Sta.	All 'O' Sta.		
	C-24	G	C-24	G	C-24	C-24	Cont	G				
Mercury (mg/l & kg/day)							Q					
Nickel (mg/l & kg/day)							Q					
Zinc (mg/l & kg/day)							Q					
Phenolic Compounds (mg/l & kg/day)							2/Y					
All Applicable Standard Observations										W	E	
Bottom Sediment Analyses and Observations												
Total Ident. Chlor. Hydro- carbons (mg/l & kg/day)							2/Y					
Unionized Ammonia mg/l								Q				

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 = groundwaters 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

FOOTNOTES FOR TABLE I

- (1) Oil and Grease sampling consist of 3 grab samples taken at equal intervals during the sampling day, with each grab being collected in a glass container. A composite shall be made using equal volumes of each grab. Each glass container used for sample collection or mixing shall be thoroughly rinsed with solvent as soon as possible after use, and the solvent rinsings shall be added to the composite wastewater sample for extraction and analysis.
- (2) Chlorine residual following dechlorination shall be reported using the attached form A or equivalent.
- (3) Fish Toxicity frequency shall change into monthly upon completion of the upgrading of the existing facilities. No fish toxicity shall be tested during reclamation period.
- (4) Ammonia Nitrogen shall be calculated as weighted average.