

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 83-9

NPDES NO. CA0005002

WASTE DISCHARGE REQUIREMENTS FOR:

UNITED STATES STEEL CORPORATION
PITTSBURG PLANT
PITTSBURG, CONTRA COSTA COUNTY

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

1. United States Steel Corporation (hereinafter called the discharger) by application dated December 30, 1980, has applied for renewal of waste discharge requirements and a permit to discharge wastes under the National Pollutant Discharge Elimination System (NPDES) from its Pittsburg Plant facilities. The application was amended by submittals dated June 19, 1981, and November 5, 1982.
2. The Board originally issued an NPDES Permit on December 17, 1974, as Order No. 74-191. That permit was later modified and reissued by Order No. 79-170 adopted on December 18, 1979. The permit expiration date was extended by Order Nos. 80-50 and 81-6 adopted on October 6, 1980 and January 21, 1981 respectively. The discharge is presently governed by Waste Discharge Requirements prescribed by these orders, which allow discharge into New York Slough.
3. The discharger operates a steel finishing plant. The final products include galvanized sheets and wire, tin plate, and wire rope. Processes used in the finishing are electro-tinning, hot coat galvanizing, pickling with hydrochloric and sulfuric acids, cold rolling, and alkaline cleaning, and annealing.
4. The discharger currently discharges the following wastes containing pollutants:
 - a. Waste 001 is an average of 18.9 million gallons per day (mgd) of combined process wastes, non-contact cooling water, water softener brines, and during periods of wet weather, stormwater runoff. This waste is discharged via an open channel to New York Slough, a water of the United States. The point of discharge is approximately one thousand feet easterly of the westerly end of the discharger's shipdock.

- b. Wastes 002 and 003 consist of combined stormwater runoff and process wastes, which are given primary treatment and pH adjustment during periods of wet weather overflow. A portion of these wastes are discharged to New York Slough if the intercepting pump station capacities are exceeded during peak storm activity. Waste 002 is discharged about 1100 feet west of the discharger's shipdock, and waste 003 is discharged near the western end of the discharger's shipdock.
5. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on July 21, 1982. The Basin Plan contains water quality objectives for Suisun Bay.
6. The beneficial uses of Suisun Bay and contiguous water bodies including New York Slough, are:
 - a. Recreation
 - b. Fish migration, spawning, and habitat
 - c. Habitat and resting for waterfowl, and migratory birds
 - d. Industrial and municipal water supply
 - e. Esthetic enjoyment
 - f. Navigation
 - g. Commercial fishery
 - h. Habitat for wildlife including some rare and endangered species
7. The Regional Board adopted Resolution No. 76-16 on November 16, 1976 granting the discharger exemptions to the "Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California" (Thermal Plan). The State Water Resources Control Board adopted Resolution No. 79-108 on December 20, 1979 concurring with the Regional Board Resolution No. 76-16, and finding that a maximum discharge temperature of 93°F would not compromise the protection and propagation of a balanced indigenous population of shellfish fish and wildlife.
8. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21000) of Division 13 of the Public Resources Code in accordance with Water Code Section 13389.
9. Effluent limitations established pursuant to Section 301, 304 and 307 of the Clean Water Act and amendments thereto are applicable to the discharge.
10. The Board has notified the discharger and interested agencies and persons of its intent to reissue 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.

11. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that United States Steel Corporatin, Pittsburg 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. Effluent Limitations

1. The discharge of Wastes 001, 002, and 003 to New York Slough in quantities such that the combined sum of constituents of the wastes in excess of the following limits is prohibited:

<u>Constituents</u>	<u>Units</u>	<u>30-Day Average</u>	<u>Daily Maximum</u>
a. Total Suspended Solids	lbs/day	2000	4470
b. Settleable Matter	ml/l-hr	0.1	0.2
c. Oil and Grease	lbs/day mg/l	609 10	1750 15
d. Aluminum (dissolved)	lbs/day	37.0	74.0
e. Chromium (total)	lbs/day	26.1	86.5
f. Iron (dissolved)	lbs/day	13.1	39.3
g. Lead	lbs/day	5.94	16.9
h. Nickel	lbs/day	3.90	11.7
i. Zinc	lbs/day	11.7	34.7
j. Naphthalene	lbs/day		1.30
k. Tetrachloroethylene	lbs/day		1.95
l. Phenols	lbs/day	18.0	37.0

2. The maximum temperature of the waste as discharged shall not exceed 93°F.
3. The waste as discharged shall not have a pH of less than 6.5 nor greater than 8.5.
4. In any representative set of samples, the waste as discharged shall meet the following limits of quality:

TOXICITY: The survival of test fishes 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% for 10 consecutive samples.

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. Increase of 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 concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State at any place within one foot of the water surface:
 - a. Dissolved oxygen 7.0 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.
 - d. Un-ionized ammonia 0.025 mg/l annual median
as in 0.4 mg/l maximum

3. The waste as discharged shall not create a zone, defined by water temperatures, of more than 1°F above natural receiving water temperature, which exceeds 25 percent of the cross-sectional area of New York Slough at any point.
4. 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.

C. Provisions

1. The discharger shall review and update annually its contingency plan as required by Regional 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.
2. This Order supersedes Order Nos. 74-191, 79-170 and 81-6, and these orders are hereby rescinded.
3. The discharger shall comply with all sections of this Order immediately upon adoption except for Effluent Limitation A.1.e (chromium). Compliance with Effluent Limitation A.1.e shall be achieved accordingly:

<u>Task</u>	<u>Completion Date</u>	<u>Report of Compliance Due</u>
Submit Progress Report	December 1, 1983	
Full Compliance	July 1, 1984	July 15, 1984

4. This Order includes all items of the attached "Standard Provisions, Reporting Requirements, and Definitions," dated April 1977 except A.5, B.2, and B.5.
5. The discharger shall comply with the Self-Monitoring Reporting Program as ordered by the Executive Officer.

6. This Order expires on March 16, 1988 and the discharger must file a Report of Waste Discharge in accordance with Title 23, California Administrative Code, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.
7. 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, 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 March 16, 1983.

FRED H. DIERKER
Executive Officer

Attachments:

Standard Provisions, Reporting
Requirements, and Definitions, April 1977

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

United States Steel Corporation

Pittsburg Plant

Pittsburg, Contra Costa County

NPDES NO. CA 0005002

ORDER NO. 83-9

CONSISTS OF

PART A, dated 1/78

AND

PART B

PART B

UNITED STATES STEEL CORPORATION

I. DESCRIPTION OF SAMPLING STATIONS

A. EFFLUENT

<u>Station</u>	<u>Description</u>
E-001	At any point in the outfall from the treatment facilities of waste 001 between the point of discharge and the point at which all waste tributary to that outfall is present.
E-002	At a point in outfall of waste 002 between the intermediate treatment facility and the point of discharge, located 1100 feet westerly of the ship dock.
E-003	At a point in outfall of waste 003 between the intermediate treatment facility and the point of discharge, located near the western end of the ship dock.

B. RECEIVING WATER

<u>Station</u>	<u>Description</u>
C-105W	At a point in New York Slough, located within twenty feet of shore, one hundred and five feet westerly of outfall E-001.
C-105N	At a point in New York Slough, located one hundred and five feet northerly from outfall E-001.
C-300N	At a point in New York Slough, located three hundred feet northerly from outfall E-001.
C-105E	At a point in New York Slough, located within twenty feet of shore, one hundred and five feet easterly from outfall E-001.
C-0	At a point in New York Slough, located at the point of discharge near the intersection of the property line and the center of the discharge channel of waste 001.

CR-1 At a point in New York Slough, located within one hundred feet of shore and at midpoint between outfall E-002 and the Pittsburg Marina.

CR-2 At a point in New York Slough, located at the Standard Oil Wharf, approximately one thousand and three hundred yards easterly of outfall E-001.

II. SCHEDULE OF SAMPLING AND ANALYSIS

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

III. MODIFICATION OF PART A

Delete: C.3, C.4, D.1, D.3, E.4, and F.3.g(2).

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 Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 83-9.
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. DIERKER
Executive Officer

Attachments:

Table I

Notes for Table I

Effective Date _____

TABLE I
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	E-001			E-001, E-002 & E-003(1)			C	P						
TYPE OF SAMPLE	G	C-24	Cont	G	C-X	Cont	G	O						
Flow Rate (mgd)			Cont		(8) E									
BOD, 5-day, 20° C, or COD (mg/l & kg/day)														
Chlorine Residual & Dosage (mg/l & kg/day)														
Settleable Matter (ml/1-hr. & cu. ft./day)	W			E										
Total Suspended Matter (mg/l & kg/day)		W			E									
Oil & Grease (mg/l & kg/day)	W(2)			E(2)										
Coliform (Total) (MPN/100 ml) per req't														
Fish Toxicity, % Survival in undiluted waste		M			E									
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 (Nephelometric Turbidity Units)														
pH (units)			(3) Cont		E		M							
Dissolved Oxygen (mg/l and % Saturation)	M													
Temperature (°C)			Cont	E			M							
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 & Hexavalent (mg/l & kg/day)		W			E		(9) M							
Copper (mg/l & kg/day)		Q			E									
Cyanide (mg/l & kg/day)														
Silver (mg/l & kg/day)														
Lead (mg/l & kg/day)		M			E									

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

Sampling Station	E-001			E-001, E-002 & E-003 (1)			C	P						
	G	C-24	Cont	G	C-X	Cont	G	O						
Mercury (mg/l & kg/day)														
Nickel Dissolved (mg/l & kg/day)		M			E									
Zinc (mg/l & kg/day)		W			E		M ⁽⁹⁾							
PHENGLIC COMPOUNDS (mg/l & kg/day)		W			E									
All Applicable Standard Observations	D			E			(5)	W	W					
(mg/l & Naphthlene kg/d)		2/M												
Total Identifiable Chlorinated Hydrocarbon (mg/l & kg/day)														
Iron, Dissolved and Total (mg/l & kg/d)		(10) W/M			E									
Tin (mg/l & kg/day)		M			E									
Aluminum, dissolved (mg/l & kg/day)		2/M			E									
(mg/l & kg/day) Tetrachloroethylene		2/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
- BS = bottom sediment sample
- O = observation

FREQUENCY OF SAMPLING

- E = each occurrence
- D = once each day
- W = once each week
- M = once each month

TYPES OF STATIONS

- I = intake and/or water supply stations
- E = waste effluent stations
- C = receiving water stations
- P = treatment facilities perimeter stations
- B = bottom sediment stations

2/Y = once in March and once in September

Cont = continuous

NOTES FOR TABLE I

- (1) These samples are to be taken on the first daylight occasion in each calendar month when runoff is present in the discharge and when the waste is not receiving full treatment. Grab samples shall be taken during the first hour of such discharge. Composite samples shall be composed of at least two (preferably more) aliquots; the first taken during the first hour that runoff is being discharged, and the others at equal intervals not exceeding two hours. Report the time period represented by each such composite sample as the elapsed time between collecting the first and last aliquots.
- (2) Oil and grease shall be determined on three grab samples. They may be separately analyzed and the average concentration reported as the average or, at the discharger's option, the samples may be combined before analysis provided that the sample containers are rinsed and otherwise handled in accord with procedures specified in Standard Methods.
- (3) In addition to the maximum, minimum, and average effluent pH values, report the following information about effluent pH violations for each month (report separately this information for over- and under-the pH limitations):
 - a. Percent of time effluent pH was outside the limitations.
 - b. Number of events when pH was outside the limitations.
 - c. Total (cumulative) hours and minutes that pH was outside the limitations.
 - d. Duration of the longest continuous period of such violation.

Note that strip charts of the effluent pH record must be retained with other laboratory records, and made available for inspection by the Regional Board and EPA staffs.
- (4) Report heavy metals concentration in bottom sediments as mg/kg dry weight.
- (5) Standard Observations at the reference stations (CR-1 & CR-2) are required only on the days that samples are collected there.
- (6) Section D-2-b of Part A is modified such that effluent grab samples shall be collected when the flow rate at E-001 is not less than the average for the day collected.
- (7) Section D-4-b of Part A is modified such that the freeboard of ponds used only to provide settling, and not confinement, of liquid wastes need not be measured, recorded, nor reported.
- (8) Flows at E-003 shall be reported for each discharge occurrence as follows:

- a. Time of limitation of discharge
- b. Duration of discharge
- c. Total volume of discharge
- d. Peak flow for each discharge event

Time of initiation and termination of overflows at E-002 shall be reported for each occurrence.

- (9) Total chromium and zinc shall be reported at stations C 105W, C 300N, C 105E, CR 1.
- (10) Total iron shall be reported monthly and dissolved iron weekly.