

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of Review of Orders
Nos. 74-108 (NPDES Permit No. CA0037761)
and 74-109 (NPDES Permit No. CA0037508)
of the California Regional Water Quality
Control Board, San Francisco Bay Region,
for the City of Pittsburg; and the Review
of Order No. 74-568 (NPDES Permit
No. CA0079278) of the California Regional
Water Quality Control Board, Central
Valley Region, for the City of Antioch.

Order No. WQ 75-14

BY BOARD VICE CHAIRMAN MAUGHAN:

On April 17, 1975, the State Water Resources Control Board (State Board) in Resolution No. 75-29 determined to review on its own motion Orders Nos. 74-108 and 74-109 adopted by the California Regional Water Quality Control Board, San Francisco Bay Region (San Francisco Bay Regional Board) and Order No. 74-568 adopted by the California Regional Water Quality Control Board, Central Valley Region (Central Valley Regional Board). Orders Nos. 74-108 and 74-109 prescribe waste discharge requirements for the Camp Stoneman Sewage Treatment Plant and the Montezuma Sewage Treatment Plant of the City of Pittsburg, respectively. Order No. 74-568 prescribes waste discharge requirements for the City of Antioch Waste Treatment Plant (Cavallo Road Plant). In addition, on January 16, 1975, the Department of Fish and Game (petitioner) submitted a petition to the State Board requesting a review of certain provisions of Order No. 74-568.

On May 22, 1975, the State Board held a hearing for the purpose of receiving evidence relating to the appropriateness and propriety of Orders Nos. 74-108, 74-109, and 74-568.

I. BACKGROUND

The City of Pittsburg and the City of Antioch are neighboring communities in eastern Contra Costa County. The City of Pittsburg's two sewage treatment plants and the City of Antioch's treatment plant are designed for primary treatment and effluent disinfection. However, both cities have been involved in planning to improve their facilities. Pittsburg and Antioch had developed plans to upgrade their existing plants to provide for secondary treatment. These plans were abandoned in order to pursue a subregional solution for the disposal of wastewater in East Central Contra Costa County as recommended by the State Board. It is planned that Pittsburg and Antioch, in addition to other communities such as Oakely, Brentwood, Bethel Island, Discovery Bay and Byron, would be served by the proposed subregional wastewater facility. Presently, it is estimated that construction on the subregional wastewater facility will begin on approximately July 1, 1977. The estimated completion date for this facility is in the fall of 1979. However, both Antioch and Pittsburg fear that construction of the subregional wastewater facility will be delayed because of unforeseen circumstances or because of delays in the receipt of specialized equipment. They estimate that the final completion date of the

subregional wastewater facility could be as late as 1983. Until this planned facility is completed, the City of Pittsburg and the City of Antioch plan to use their existing facilities with some interim improvements for the treatment of their wastewater.

Both the Camp Stoneman Plant and the Montezuma Plant currently serve the City of Pittsburg. The Camp Stoneman Plant has design capacity of 5.0 million gallons per day (mgd). It presently discharges an annual average daily flow of 0.5 mgd into New York Slough approximately 40 feet offshore at a depth of about 10 feet. A water intake for the City of Antioch is located about 2.4 miles upstream and during flood tides, diluted waste from the outfall can reach the Antioch intake. The Montezuma Plant has design capacity of 2.5 mgd. It presently discharges an annual average daily flow of 2.0 mgd of domestic waste and 0.317 mgd of industrial waste into Suisun Bay near the mouth of New York Slough approximately 75 feet offshore at a depth of about 6 feet. A water intake for West Pittsburg at Mallard Slough is approximately 2 miles downstream, and diluted waste may affect the intake during slack water conditions. In addition, both facilities of the City of Pittsburg have been the subject of enforcement action by the San Francisco Bay Regional Board. Presently, cease and desist orders adopted by the San Francisco Bay Regional Board are in effect for the Montezuma Plant and the Camp Stoneman Plant. Both cease and desist orders originally included a prohibition on any additional connections, but subsequently the San Francisco Bay Regional Board allowed an

additional 228 connections to the Montezuma Plant when 228 unit connections were removed from the system and the prohibition was lifted altogether for the Camp Stoneman Plant.

On July 23, 1974, the San Francisco Bay Regional Board transmitted a copy of proposed waste discharge requirements to all interested persons for the Camp Stoneman Plant and on September 6, 1974, for the Montezuma Plant. Comments were invited. In letters dated August 27, 1974, and September 16, 1974, the California Department of Health expressed concern and made several recommendations regarding the discharge of the effluent at both plants. The Department of Health recommended that the effluent limitation for coliform organisms not exceed a maximum of 1,000 most probable number (MPN) per 100 ml and that the median total coliform organisms should not exceed 23 MPN per 100 ml. Pittsburg also responded by a letter dated August 26, 1974, in which it presented recommendations that form the substance of its contentions in this matter. Basically, the City of Pittsburg complained that the changes in the plants which would be necessary to meet the new waste discharge requirements were not cost effective. Pittsburg also complained that such interim improvements were not entitled to state and federal grant assistance. A representative of Pittsburg restated their concerns at the public hearing before the San Francisco Bay Regional Board on October 15, 1974. At that meeting the San Francisco Bay Regional Board adopted waste discharge requirements for the

Camp Stoneman Plant in Order No. 74-108 and for the Montezuma Plant in Order No. 74-109. These orders incorporated the recommendations of the Department of Health.

As a result of the waste discharge requirements imposed on its two wastewater treatment plants, Pittsburg made or is in the process of making numerous improvements at both plants. Among other improvements, Pittsburg installed complete dechlorination equipment at the Montezuma Plant. The installation of complete dechlorination equipment at the Camp Stoneman Plant is scheduled to be completed by the summer of 1975.

The Cavallo Road Plant is the only existing wastewater facility for the City of Antioch. It was designed for a capacity of 2.5 mgd, but subsequently its capacity has been reevaluated and revised to approximately 1.4 mgd. It presently discharges an annual average daily flow of 2.5 mgd into the middle of the San Joaquin River approximately 1,000 feet offshore at a depth of about 38 feet. The City proposes to discharge an average daily flow of 3.0 mgd and a maximum daily dry weather flow of 6.0 mgd. The City of Antioch is presently in the process of expanding the existing plant to 3.7 mgd capacity. This expansion will cost approximately \$640,000. This expansion is intended to satisfy the expected increase in flow to the year 1983.

On October 28, 1974, the Central Valley Regional Board transmitted a copy of the proposed waste discharge requirements for Cavallo Road Plant to all interested persons and invited comments. The Department of Fish and Game in a letter dated December 9, 1974, expressed concern as to whether the proposed waste discharge

requirements would adequately protect the fish and wildlife in the San Joaquin River. It specifically recommended that a toxicity limitation be included in the waste discharge requirements and that the effluent limitation for residual chlorine be reduced from a maximum 0.1 mg/l. A representative of the Department of Fish and Game appeared at the public hearing before the Central Valley Regional Board on December 20, 1974, and restated these recommendations.

Antioch, in a letter dated November 22, 1974, and in testimony presented to the Central Valley Regional Board at their meeting on December 20, 1974, concluded that the residual chlorine would be less than 0.05 mg/l at a distance 100 feet downstream of the discharge point assuming a peak dry weather discharge and a 1972 low river flow figure. Thus, Antioch alleged that any resulting harm to aquatic life would be negligible. In order to meet the residual chlorine limitation recommended by the Department of Fish and Game, Antioch estimated that the necessary dechlorination facilities would have a capital cost of about \$50,000 and a \$5,000 yearly operation and maintenance cost. The Central Valley Regional Board adopted Order No. 74-568 for the Cavallo Road Plant without incorporating the Department of Fish and Game recommendation regarding residual chlorine in the effluent and in fact increased the maximum residual chlorine limitation from 0.1 mg/l to 2.0 mg/l. However, the Central Valley Regional Board did incorporate Department of Fish and Game's recommendation regarding a toxicity limitation.

Subsequently, in a letter dated February 18, 1975, and at the hearing before the State Board on May 22, 1975, Antioch after a more thorough analysis acknowledged that a field of residual chlorine would be created by the waste plume.

The City of Antioch concluded that:

"...under worst conditions, dilution will result in the following chlorine residuals in the San Joaquin River:

1. Most of the time, the residual at low river flow will be 0.02 mg/l or less within 100 ft of the discharge. This value corresponds to a reported minimum flow velocity of 0.97 feet per second (fps)⁴ and decreases with higher river flows. Within 500 ft the residual will be below the minimum detection limit, 0.01 mg/l.
2. Occasionally, concentrations will be 0.02 mg/l or less within 1000 ft of the discharge, assumed to correspond to slack tide velocities of 0.03 fps in the river."

At other times, Antioch stated that the chlorine residual would be dissipated much faster. Furthermore, the cost of dechlorination facilities were reevaluated to an estimate of \$63,000 for capital expenditure, and the annual operating and maintenance costs for dechlorination were estimated to range from \$9,300 in 1976 to \$13,000 in 1983 (1975 dollars).

In February 1975 it came to the attention of the State Board that the waste discharge requirements for Antioch and Pittsburg were considerably different in many respects. Because the communities are adjacent to one another and the waste discharge requirements governing the City of Antioch had already been appealed

by the Department of Fish and Game, the State Board decided to review the entire matter on its own motion as provided for in Section 13320 of the Water Code.

Tables I and II, which are attached, compare the respective provisions of each of the waste discharge requirements.

II. CONTENTIONS AND FINDINGS

The contentions of petitioner and of the City of Antioch and the City of Pittsburg and our findings relative thereto are as follows:

1. Contention:

Petitioner contends that Effluent Limitation A.1 in Order No. 74-568 adopted by the Central Valley Regional Board which allows the discharge of wastes containing 2.0 mg/l residual chlorine from the Cavallo Road Plant is inadequate to protect the valuable fish and wildlife resources of the San Joaquin River and the Sacramento-San Joaquin Delta since an effluent chlorine residual of 2.0 mg/l is acutely toxic to fish and most aquatic organisms.

Finding: The Sacramento-San Joaquin Delta serves as habitat and migratory routes for some of the most valuable fish and wildlife resources on the Pacific Coast, including striped bass, king salmon, steelhead, sturgeon, and American Shad fisheries. The immense value of these fisheries, both economically and aesthetically, to the people of the State of California, cannot be questioned. Furthermore, the Interim Water Quality Control Plan

for the area in which the discharge occurs adopted in June of 1971 recognizes both freshwater habitat and fish migration as beneficial uses to be protected in the Sacramento-San Joaquin Delta.

Excessively chlorinated primary effluent is acutely toxic to fish and aquatic organisms. State Board Publication No. 51 entitled "Long-Term Effects of Toxicants and Biostimulants on the Waters of Central San Francisco Bay" dated January 17, 1974, clearly demonstrates this fact. Petitioner recommends that residual chlorine in the effluent of the Cavallo Road Plant be reduced to 0.00 mg/l by means of dechlorination facilities. Publication No. 51 also clearly shows that a substantial portion of the toxicity in a chlorinated, primary effluent can be attributed to the chlorine residual and that the installation of dechlorination facilities would remove that portion of the toxicity attributed to the chlorine. Nevertheless, primary effluent, even after dechlorination, remains acutely toxic to fish and aquatic organisms.

We disapprove of the use of the waters of the State for the discharge of a toxic effluent. In the past, we have generally held that the adoption of waste discharge requirements which allow the discharge of an effluent with a chlorine residual which may be harmful to fish and wildlife is improper. (See Water Quality Order Nos. 75-6 and 75-11.) However, in both prior cases regarding municipalities which we have considered

on this issue, the waste discharge requirements were for permanent wastewater facilities providing secondary treatment and for dischargers where little assimilative capacity was available.

In the present case, we are concerned with a waste discharge requirement for an interim facility where the effluent is discharged through an outfall into an area with considerable assimilative capacity. Because the effluent is rapidly dispersed at the point of discharge, we are convinced that the difference between the adverse impact of the toxic discharge of chlorinated effluent and the adverse impact of the toxic discharge of dechlorinated effluent is not sufficient reason to require Antioch to expend substantial funds for the short interim period before the planned subregional wastewater facility is completed. The only satisfactory answer to any problem associated with the Antioch discharge is to reach a final decision on how secondary treatment with dechlorination is to be provided and implement this decision as rapidly as possible, either by construction of a subregional system or construction of separate secondary treatment plants.

The installation of dechlorination facilities by Antioch as suggested by petitioner would serve only to delay Antioch's decisions. It is planned that the subregional wastewater facilities will be completed by the fall of 1979, if the decision is made to construct such a system by February 15, 1976. Strict compliance with intermediate deadlines will be required if secondary treatment is to be available by 1979. If any deadline is not met, we must then assume that the new secondary facilities will not be available in 1979 as presently contemplated.

In the event that it appears that Antioch will not have secondary treatment facilities with dechlorination by 1979, steps must be immediately taken to reduce the toxicity of the Cavallo Road Plant discharge.

2. Contention:

Petitioner contends that Effluent Limitation A.1 is also inadequate to protect the valuable fish and wildlife resources of the San Joaquin River and the Sacramento-San Joaquin Delta because the requirements of Antioch lack an appropriate toxicity limit.

Findings: In petitioner's letter of December 9, 1974, petitioner requested that Antioch's waste discharge requirements include the standard toxicity requirement applied throughout the State for dechlorinated secondary effluent. The standard requested was identical to the toxicity limitation contained in Effluent Limitation A.4 of Orders Nos. 74-108 and 74-109 adopted for the Camp Stoneman Plant and Montezuma Plant of Pittsburg. The standard involved reads as follows:

"Toxicity: The survival of an acceptable test organism in 96-hour bioassays of the effluent as discharged shall achieve a median of 90 percent survival for three consecutive samples and a 90 percentile value of not less than 70 percent survival for ten consecutive samples."

The Central Valley Regional Board complied with this request of the petitioner by adding a toxicity limitation in Effluent Limitation A.3 of Order No. 74-568 which is slightly sticter than the toxicity limitation recommended by petitioner. Effluent Limitation A.3, as adopted, provides:

"In accordance with the time schedule in Provision D.3, survival of test fishes in 96-hour bioassays of undiluted waste shall be not less than:

Minimum, any one bioassay ... 70 percent median,
any three or more consecutive bioassays ... 90 percent."

In addition, Effluent Limitation A.3 is tied to a compliance schedule by Provision D.3 which requires Antioch to actively pursue implementation of a subregional solution for the disposal of wastewater in East Central Contra Costa County.

Petitioner evidently reevaluated its previous recommendations made to the Central Valley Regional Board in the letter dated December 9, 1974, because petitioner now requests an appropriate interim toxicity limitation for typical dechlorinated primary effluent be added to Order No. 74-568. However, undiluted primary effluent, whether chlorinated or dechlorinated, is acutely toxic to fish and aquatic organisms as previously indicated. Antioch's waste discharge is predominantly domestic waste with little industrial input and as a result, the toxicity of the effluent does not vary greatly. Under the circumstances, the inclusion of the additional toxicity limitation on a primary effluent as requested by petitioner would serve no useful purpose.

3. Contention

The petitioner contends that Provision D.3 of Order No. 74-568 should contain a tentative compliance date by which the discharger must meet Effluent Limitation A.2.

Finding: The limits contained in Effluent Limitation A.2 dictate utilization of secondary treatment. As earlier

indicated, secondary treatment for Antioch is scheduled for completion in the fall of 1979. At that time, Antioch will be required to meet the secondary treatment standards of Effluent Limitation A.2. Since the waste discharge requirements for the Cavallo Road Plant adopted by the Central Valley Regional Board in Order No. 74-568 expire on June 30, 1977, time schedules contained in this order should not extend beyond that date.

4. Contention:

Antioch contends that a chlorine residual of 2.0 mg/l measured prior to discharge causes no measurable deterioration of water quality in the San Joaquin River and Sacramento-San Joaquin Delta. In addition, Antioch contends that the costs of dechlorination are unwarranted because of the rapid dilution of the waste plume and because of the lack of demonstrated harm to the fish and wildlife in the San Joaquin River and the Sacramento-San Joaquin Delta.

Finding: Antioch misconstrues its rights as a discharger of pollutants into the Sacramento-San Joaquin Delta and the San Joaquin River. Since the discharge of pollutants is a privilege and not a vested right, Antioch does not have a vested right to continue its present discharge.

Antioch introduced extensive evidence relating to the rapid dilution of the effluent, but Antioch apparently had

conducted no investigation as to the difference between the biota within the area of the waste plume and the biota within a similar area of the river not subject to the adverse effects of the waste plume. It is an established fact, as we have already indicated, that the discharge of primary effluent, whether that effluent is chlorinated, unchlorinated or dechlorinated, is toxic to fish and other aquatic organisms. Only the quantum of harm from the Antioch discharge is at present undefined.

5. Contention:

Antioch contends that a toxicity limitation in addition to the one contained in Effluent Limitation A.3 is inappropriate because it would result in additional expense with no increased benefit.

Finding: We agree that a toxicity limitation in addition to the one contained in Effluent Limitation A.3 of Order No. 74-568 would serve no purpose for the reasons stated in our finding to contention 2 above.

6. Contention:

Pittsburg contends that the requirement for 50 percent removal of BOD and suspended solids from their discharges is unreasonable and not cost effective.

Finding: The requirement for 50 percent removal of BOD is more stringent than would normally be expected of a well-operated primary treatment plant. However, the discharges from both Pittsburg

plants are into shallow water close to shore and the beaches near the discharge points are heavily used by both fishermen and bathers. Both discharges are also located near domestic water intakes. This condition has caused both the San Francisco Bay Regional Board and the Department of Health to be concerned about the continuing discharge of primary effluent in this area. Although 50 percent removal of BOD would result in a slightly higher quality of effluent, a better solution would be early implementation of secondary treatment. We feel that requiring Pittsburg to meet the more stringent limitation of 50 percent removal of BOD is not warranted if secondary treatment for the wastes involved is provided as rapidly as is presently contemplated. It is planned that secondary treatment facilities with dechlorination will be completed by 1979, as we have previously indicated. In the event that it appears that Pittsburg will not have secondary treatment facilities with dechlorination by 1979, steps must be immediately taken to improve the effluent quality above that of a well operated primary treatment plant by requiring both plants to meet a limitation of 50 percent removal of BOD.

7. Contention:

Pittsburg contends that the requirement to disinfect to a median of 23 MPN total coliform during the interim period is too stringent.

Finding: Pittsburg's discharges are near public beaches and domestic water supply intakes. The disinfection requirement in the permits is necessary to assure protection of general public. Studies by the Department of Health indicate that by reducing the

total coliform count to 23 MPN most, if not all, of the pathogenic organisms in the effluent will be eliminated. We find that the evidence presented justifies the disinfection requirements for the Pittsburg plants.

8. Contention:

Pittsburg contends that the chlorine residual requirement of 0.00 mg/l is too stringent.

Finding: Unlike Antioch's discharge, the discharges from both of Pittsburg's plants are in areas of reduced assimilative capacity of the receiving waters. While we recognize the fact that primary effluent, whether dechlorinated or not, is toxic, we also recognize that primary effluent with a chlorine residual is considerably more toxic than a dechlorinated primary effluent. Therefore, we find that the chlorine residual requirements on both the Montezuma and Camp Stoneman Plants should remain in effect.

9. Contention:

Pittsburg requested an extension of certain time schedules equivalent to the time that their requirements were under review by the State Board.

Finding: The granting of an extension of time schedules in waste discharge requirements for the period of time that such requirements are under review by the State Board is discretionary. We find no reason in this case to extend any of the time schedules in the waste discharge requirements for the Pittsburg plants for the reasons stated in the contention. However, we have delayed the

implementation of 50 percent removal of BOD in the hope of expediting the final decision and implementation of secondary treatment.

III. ADDITIONAL FINDINGS

A separate concern to the State Board is the present position of Antioch that it cannot meet the February 1, 1976, deadline to be in full compliance with Effluent Limitation A.1. (This limitation is shown as footnote 2 on page 3 of the attached Table I.)

In a letter dated April 15, 1975, Antioch advised the Central Valley Regional Board that due to delays in the receipt of specialized equipment, it could not be in full compliance until January 1, 1977. Presently, Antioch is in violation of its construction schedule (Provision D.2 of the permit) which requires it to begin construction on June 1, 1975. Since the State Board did not request any evidence on this issue and since the Central Valley Regional Board has not had an opportunity to consider what action is appropriate, the State Board deems it advisable that the Central Valley Regional Board have the first opportunity to consider this matter. In its consideration of this matter, the Central Valley Regional Board should also take cognizance of the fact that representatives of the City of Antioch stated during the State Board hearing on May 22, 1975, that the actual present capacity of the Cavallo Road Plant was 1.4 mgd even though it presently discharges a flow of 2.5 mgd. The Cavallo Road Plant

would appear to be overloaded which would generally result in a poor quality effluent to the detriment of the water quality of the receiving waters. The Central Valley Regional Board should seriously consider prohibiting future connections because of the ~~threatened~~ violation of Effluent Limitation A.1.

To assure that the upgraded Antioch Plant will produce an effluent equivalent to that of a well operated primary plant, we have modified the permit to include an appropriate BOD and suspended solids limitation.

IV. CONCLUSIONS

After review of the entire record and for the reasons heretofore expressed, we conclude that the action of the San Francisco Bay Regional Board in adopting Orders Nos. 74-108 and 74-109 and the action of the Central Valley Regional Board in adopting Order No. 74-568 was inappropriate for the following reasons only:

1. The State Board agrees with the San Francisco Bay Regional Board that discharges from both of Pittsburg's plants should be of a higher quality than that of a well operated primary plant. However, the San Francisco Bay Regional Board should have given more consideration to the short interim nature of these discharges assuming the planned facilities providing secondary treatment will be completed in 1979. [If Pittsburg fails to meet any of the intermediate deadlines necessary for implementation of secondary treatment with dechlorination, we conclude that the San Francisco Bay Regional Board's recommendation of 50 percent removal of BOD should be required.]

2. Fish and Game is correct in their contention that a chlorine residual of 2.0 mg/l in the discharger's primary effluent is more toxic than a dechlorinated primary effluent. The Central Valley Regional Board should have given this more consideration when establishing the chlorine residual requirements for the Antioch Plant. If Antioch fails to meet any of the intermediate deadlines necessary for implementation of secondary treatment with dechlorination, by 1979, we conclude that dechlorination of the discharger's effluent will be required to reduce the acute toxicity of the discharge.

California Regional Water Quality Control Board,
San Francisco Bay Region's Orders Nos. 74-108 and 74-109, and
Central Valley Region's Order No. 74-568 should be modified by
the State Board pursuant to Water Code Section 13320(c)(3).

V. ORDER

IT IS HEREBY ORDERED as follows:

1. Central Valley Regional Board Order No. 74-568, attached hereto, is modified as hereinafter set forth. As modified, Regional Board Order No. 74-568 is adopted.
2. San Francisco Bay Regional Board Orders Nos. 74-108 and 74-109, attached hereto, are modified as hereinafter set forth. As modified, Regional Board Orders Nos. 74-108 and 74-109 are adopted.
3. Central Valley Regional Board Order No. 74-568, as modified, is hereby remanded to the Central Valley Regional Board for all purposes including, but not limited to, such future

modification of requirements as may be deemed necessary, any appropriate additional or revised monitoring and reporting requirements, and all appropriate enforcement activities.

4. San Francisco Bay Regional Board Orders Nos. 74-108 and 74-109, as modified, are hereby remanded to the San Francisco Bay Regional Board for all purposes including, but not limited to, such future modification of requirements as may be deemed necessary, any appropriate additional or revised monitoring and reporting requirements, and all appropriate enforcement activities.

Dated: JUN 19 1975

We Concur:

/s/ W. Don Maughan
W. Don Maughan, Vice Chairman

/s/ W. W. Adams
W. W. Adams, Chairman

/s/ Roy E. Dodson
Roy E. Dodson, Member

/s/ Mrs. Carl H. Auer
Mrs. Carl H. (Jean) Auer, Member

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 74-108

NPDES NO. CA 0037761

WASTE DISCHARGE REQUIREMENTS FOR:

CITY OF PITTSBURG
CAMP STONEMAN PLANT
CONTRA COSTA COUNTY

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

1. City of Pittsburg - Camp Stoneman Plant, hereinafter called the discharger, submitted a report of waste discharge (NPDES Standard Form "A") and dated October 10, 1973.
2. The discharger presently discharges an annual average of 0.5 million gallons per day (mgd) of domestic waste (wastewater No. 001) containing pollutants into the New York Slough, a water of the United States, at a point approximately 600 feet easterly from the foot of Water Front Road, Pittsburg, California. The present treatment facilities consist of primary sedimentation and disinfection. The sludge is treated by digestion, followed by drying beds and final disposal on landfill. The design capacity of the plant is 5.0 mgd.
3. The Board, on June 14, 1971, adopted a Water Quality Control Plan (Interim) for San Francisco Bay Basin. The Interim Plan contains water quality objectives for New York Slough and San Francisco Bay. The Plan includes a prohibition against discharge of sewage bearing wastewater at any place within 200 feet offshore from the extreme low water line.
4. The beneficial uses of New York Slough and San Francisco Bay are:
 - a. Recreation
 - b. Fish migration and habitat
 - c. Habitat and resting for waterfowl and migratory birds
 - d. Industrial and agricultural water supply
 - e. Esthetic enjoyment
 - f. Navigation
5. Effluent limitation, and toxic and pretreatment 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.

6. 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.
7. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.
8. 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.

IT IS HEREBY ORDERED that the City of Pittsburg - Camp Stoneman 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 an effluent containing constituents in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>30-Day Average</u>	<u>7-Day Average</u>	<u>Maximum Daily</u>	<u>Instan- taneous Maximum</u>
a. B.O.D.	mg/l	30	45	60	
	lbs/day	4000		8010	
	kg/day	1816		3630	
b. Suspended Solids	mg/l	30	45	60	
	lbs/day	4000		8010	
	kg/day	1816		3630	
c. Oil and Grease	mg/l	10		20	
	lbs/day	1335		2670	
	kg/day	605		1210	
d. Chlorine Residual	mg/l				0.0
e. Settleable Matter	ml/l-hr	0.1			0.2

2. Prior to achievement of secondary treatment as required by the Federal Water Pollution Control Act the following interim effluent limitation shall apply:

a. Settleable matter:

The arithmetic mean of any six or more samples collected on any day	0.5 ml/l/hr, maximum
80% of all individual samples collected during maximum daily flow over any 30-day period	0.4 ml/l/hr, maximum
any sample	1.0 ml/l/hr, maximum

b. The arithmetic mean of values for BOD in effluent samples collected in a period of 30 consecutive days shall not exceed 50 percent of the arithmetic mean of respective values for influent samples collected at approximately the same times during the same period. (i.e., 50 percent removal).

c. The arithmetic mean of values for BOD and suspended solids in effluent samples collected in a period of 30 consecutive days shall not exceed 65 percent and 35 percent, respectively, of the arithmetic mean of respective values for influent samples collected at approximately the same times during the same period (i.e., 35 percent BOD removal and 65 percent suspended solids removal).

3. The discharge shall not have 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 limit of quality:

TOXICITY:

The survival of acceptable test organisms 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. Representative samples of the effluent shall not exceed the following limits more than the percentage of time indicated:⁽¹⁾

Constituent	Unit of Measurement	50% of time	10% of time
Arsenic	mg/l (kg/day)	0.01 (0.189)	0.02 (0.379)
Cadmium	mg/l (kg/day)	0.02 (0.379)	0.03 (0.568)
Total Chromium	mg/l (kg/day)	0.005 (0.0946)	0.01 (0.189)
Copper	mg/l (kg/day)	0.2 (3.79)	0.3 (5.68)
Lead	mg/l (kg/day)	0.1 (1.89)	0.2 (3.79)
Mercury	mg/l (kg/day)	0.001 (0.0189)	0.002 (0.0379)
Nickel	mg/l (kg/day)	0.1 (1.89)	0.2 (3.79)
Silver	mg/l (kg/day)	0.02 (0.379)	0.04 (0.757)
Zinc	mg/l (kg/day)	0.3 (5.68)	0.5 (9.46)
Cyanide	mg/l (kg/day)	0.1 (1.89)	0.2 (3.79)
Phenolic Compounds	mg/l (kg/day)	0.5 (9.46)	1.0 (18.9)

(1) These limits are intended to be achieved through secondary treatment, source control and application of pretreatment standards.

<u>Constituent</u>	<u>Unit of Measurement</u>	<u>50% of time</u>	<u>10% of time</u>
Total Identifiable Chlorinated Hydrocarbons	mg/l. (kg/day) ⁽²⁾	0.002 (0.0379)	0.004 (0.0757)

6. The arithmetic mean of values for BOD and Suspended Solids in effluent samples collected in a period of 30 consecutive days shall not exceed 15 percent of the arithmetic mean of respective values for influent samples collected at approximately the same times during the same period (i.e., 85 percent removal).
7. Total coliform bacteria for a median of 5 consecutive samples shall not exceed 23 MPN/100 ml. Any single sample shall not exceed 1,000 MPN/100 ml. when verified by a repeat sample taken within 48 hours.
8. The daily discharge rate is obtained from the following calculation for any calendar day:

$$\text{Daily discharge rate} = \frac{3.34}{N} \sum_{i=1}^N Q_i C_i$$

in which N is the number of samples analyzed in any calendar day. Q_i and C_i are the flow rate (MGD) and the constituent concentration (mg/l) respectively, which are associated with each of the N grab samples which may be taken in any calendar day. If a composite sample is taken, C_i is the concentration measured in the composite sample and Q_i is the average flow rate occurring during the period over which samples are composited.

9. The 30-day average discharge rate or concentration shall be the arithmetic average of all the daily values calculated using the results of analyses of all samples collected during any 30 consecutive calendar day period. If fewer than four samples are collected and analyzed during any 30 consecutive calendar day period, compliance with the 30-day average limitation shall not be determined.

(2) Total Identifiable Chlorinated Hydrocarbons shall be measured by summing the individual concentrations of DDT, DDD, DDE, aldrin, DBC, chlordane, endrin, heptachlor, lindane, dieldrin, polychlorinated biphenyls, and other identifiable chlorinated hydrocarbons.

10. Instantaneous maximum limitations shall be applied to the values of the measurements obtained for any single grab sample.
11. Geometric mean of "n" values is the nth root of the values represented by x.

$$G.M. = \sqrt[n]{x_1 \cdot x_2 \cdot x_3 \cdot \dots \cdot x_n}$$

B. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in water 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 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 - 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.

C. Discharge Prohibitions

1. Discharge within 200 feet offshore from the extreme low water line is prohibited.
2. There shall be no bypass or overflow of untreated wastewater to waters of the State, either at the treatment plant or from the Collection System.
3. The average dry weather flow shall not exceed 5.0 mgd. Average shall be determined over three consecutive months each year.

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 the following time schedule to assure compliance with the specifications of this Order:
 - a. Compliance with effluent limitations A.1.a, b, c, e, A.4, A.6, B.1, and C, and C.1:

<u>Task</u>	<u>Report of Compliance Due</u>
Develop a conceptual plan	February 1, 1975
Submit program and time schedule for compliance	July 1, 1975

- b. Compliance with effluent limitations A.1.d. and A.2.c.

<u>Task</u>	<u>Completion Date</u>	<u>Report of Compliance Due</u>
Commence Construction	February 1, 1975	February 15, 1975
Full Compliance	October 1, 1975	October 15, 1975

- c. Limitation A.2.b. will become effective six months after the failure of the discharger to meet one of the compliance dates in the following schedule:

<u>Task</u>	<u>Compliance Date</u>	<u>Report of Compliance Due</u>
Submit Final Project Report of a Regional Wastewater Treatment Project	2-15-76	3-1-76
Submit a Fully Executed Joint Powers Agreement if Required for the construction of an Approved Wastewater Treatment Project	5-15-76	6-1-76
Begin Preparation of Plans and Specifications for the Design of the Approved Wastewater Treatment Project	5-15-76	
Submit final Plans and Specifications for the Construction of the Approved Wastewater Treatment Project	4-1-77	4-15-77

Award Construction Contract for the
Construction of the Approved Wastewater
Treatment Project

6-30-77

7-14-77

d. Compliance with effluent limitation A.5:

<u>Task</u>	<u>Completion Date</u>	<u>Report of Compliance Due</u>
Development and begin im- plementation of program for source control and compliance with pretreatment standards	May 1, 1975	May 15, 1975

Implementation of program
for source control and program
for compliance with pretreatment
standards to include compliance
time schedules for all in-
dustries

May 1, 1976

May 15, 1976

Compliance with program for
source control and compliance
with pretreatment standards

May 1, 1977

November 15, 1976
May 15, 1977

Documentation of compliance
with effluent limitations

November 1, 1977

November 15, 1977

This Regional Board will consider amendment of the effluent limitation A.5 if the discharger demonstrates that compliance cannot be achieved through a program acceptable to the Board for source control and pretreatment standards.

e. The discharger shall comply with all other effluent and receiving water limitations, prohibitions and provisions of this Order immediately.

3. The discharger shall submit a report to the Board on or before each compliance report date, 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 estimate 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.
4. The Discharger shall submit to the Executive Officer a contingency plan for the continuous operation of facilities for the collection, treatment and disposal of waste pursuant to Regional Board Resolution No. 74-10 by February 1, 1975.
5. The requirements prescribed by this Order amend the requirements prescribed by Resolution No. 69-22 adopted by the Board on May 28, 1969, and are effective on the dates of compliance prescribed in the above time schedule; PROVIDED, HOWEVER, that the following requirements prescribed in Resolution No. 69-22 shall remain in effect until Cease and Desist Orders No. 72-44 and 73-5 are rescinded by this Board:

WASTE DISCHARGE REQUIREMENTS - Receiving Waters

2 and 3 with respect to apparent color,

and

WASTE DISCHARGE REQUIREMENTS - Waste Stream

3 and 4.

6. Pretreatment of Industrial Wastewaters: In addition to requirements in Item 3 of the attached "Standard Provisions" and Item 4 of the attached "Reporting Requirements" and in conjunction with the tasks listed under Provision 2. c above the discharger shall:
 - a. Require that all existing major contributing industries comply with pretreatment standards for prohibited wastes and incompatible pollutants within the shortest reasonable time but not later than three years from the date of their promulgation by the Environmental Protection Agency. New industrial sources shall comply upon initiation of discharge to the municipal facility.
 - b. Submit to this Board and the Regional Administrator of EPA by May 15, 1976, for each major contributing industry, either:
 - 1) Evidence of compliance with pretreatment standards promulgated pursuant to Section 307 (b) of the Federal Water Pollution Control Act, or;
 - 2) A report which shall set forth the effluent limits to be achieved and a time schedule for compliance with such limits. In every case such time schedules shall require initiation of any needed construction of pre-treatment facilities within 18 months of the date of promulgation of applicable pretreatment standards.
 - c. Monitor the compliance of all affected sources with the requirements of this provision and submit quarterly reports on the status of such compliance to the Board and the Regional Administrator of EPA commencing 18 months after the date of adoption of this permit. Quarterly reports shall include each instance of compliance or non-compliance by an affected source with the time schedule for compliance submitted as required in "b" above. For each affected source not covered by a current time schedule, the quarterly reports shall include the results of monitoring the wastewater flow by the discharger or at the direction of the discharger, by the source, or by both, in such a manner and frequency so as to produce information that will demonstrate to the satisfaction of the Board and the Regional Administrator compliance or non-compliance with the pretreatment standards applicable to that source. Such monitoring shall comply with Part A, sections B and E.1. of the dischargers' self-monitoring program.
7. This Order includes Items 1, 2, 4, and 5 of the attached "Reporting Requirements" dated August 8, 1973.
8. This Order includes all items of the attached "Standard Provisions", dated August 8, 1973.
9. This Order expires on July 1, 1977, 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.

10. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to this Board.

Bill B. Dendy, 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 October 15, 1974, as amended by the State Water Resources Control Board

JUN 19 1975

/s/ Bill B. Dendy

Bill B. Dendy
Executive Officer

Attachments:

Reporting Requirements 8/8/73
Standard Provisions 8/8/73
Self-Monitoring Program

File No. 2119.1033 A&B



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

CITY OF PITTSBURG

CAMP STONEMAN PLANT

CONTRA COSTA COUNTY

NPDES NO. CA 0037761

ORDER NO. 74-108

SMP CONSISTS OF

PART A

AND

PART B



PART A

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 monitoring program by a waste discharger, also referred to as self-monitoring program, 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. A depth-integrated sample is defined as a water or waste sample collected by allowing a sampling device to fill during a vertical traverse in the waste or receiving water body being sampled and shall be collected in such a manner that the collected sample will be representative of the waste or water body at that sampling point.

4. Bottom Sediment Samples and Sampling and Reporting Guidelines

a. Bottom sediment sample means: (1) a separate grab sample taken at each sampling station for the determination of selected physical-chemical parameters, and (2) four grab samples collected from different locations in the immediate vicinity of a sampling station while anchored and analyzed separately for macroinvertebrates.

(1) Physical-chemical sample analyses to include:

(a) pH

(b) TOC

(c) Grease analysis:

(1) Mg grease per kg sediment

(2) Percent fraction of hydrocarbon in grease

(d) Metals (depending on industrial input) mg/kg dry wt.

(e) Particle size distribution, i.e., % sand, % silt-clay

(f) Depth of water at sampling station in meters

(g) Water salinity and temperature in the water column within 30 centimeters of the bottom

(2) Macroinvertebrate sample and analyses to include:

(a) Number of invertebrates per square meter and per liter of sediment.

(b) Identification of polychaetes, amphipods, and molluscs to species and enumeration of each species.

(c) Record total oligochaetes per square meter and per liter of sediment.

(d) Record sediment characteristics for each grab sample, i.e., rock, % sand, % silt-clay, presence of organic detritus. etc.

- b. Bottom sediment sampling and reporting guidelines means those guidelines developed by the Regional Board staff to provide for standard bottom sampling, laboratory, and reporting procedures.

5. 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.
- (4) Evidence of beneficial water use: presence of water-associated wildlife, fishermen, and other recreational activities in the vicinity of the sampling stations.
- (5) Hydrographic condition:
 - (a) Time and height of high and low tides corrected to nearest location for the sampling date and time of sample and collection.
 - (b) Water and sampling depths.
- (6) Weather condition:
 - (a) Air temperatures.
 - (b) Wind - direction and estimated velocity.
 - (c) Precipitation - total precipitation during the previous five days and on the day of observation.

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. Beach and Shoreline

- (1) Material of waste origin: presence or absence, description of material, estimated size of affected area, and source.
- (2) Beneficial use: estimated number of people sunbathing, swimming, waterskiing, surfing, etc.

d. Land Retention or Disposal Area

This applies both to liquid and solid wastes confined or unconfined.

- (1) Determine height of the freeboard at lowest point of dikes confining liquid wastes.
- (2) Evidence of leaching liquid from area of confinement and estimated size of affected area. (Show affected area on a sketch.)
- (3) Odor: presence or absence, characterization, source, and distance of travel.
- (4) Estimated number of waterfowl and other water-associated birds in the disposal area and vicinity.

e. Periphery of Waste Treatment and/or Disposal Facilities

- (1) Odor: presence or absence, characterization, source, and distance of travel.
- (2) Weather condition: wind - direction and estimated velocity.

D. SCHEDULE OF SAMPLING, ANALYSES, AND OBSERVATIONS

The discharger is required to perform observations, sampling, and analyses according to the schedule in Part B with the following conditions:

1. Influent

- a. Composite samples of influent shall be collected on varying days selected at random.

2. Effluent

- a. Composite samples of effluent shall be collected on days coincident with influent composite sampling, or on varying days selected at random.
- b. Grab samples of effluent shall be collected during periods of maximum peak flows, unless otherwise stipulated.

3. Receiving Waters

- a. Receiving water sampling shall be done on days coincident with composite sampling of effluent.
- b. Receiving water samples shall be collected at each station on each sampling day during the period of lower slack water. Where sampling at lower slack water period is not practical, sampling shall be performed during higher slack water period.
- c. All samples shall be collected within one foot below the surface of the receiving water body, unless otherwise stipulated.

4. Observations

- a. Land disposal sites shall be inspected for evidence of leaching or surfacing waste, and all other applicable Standard Observations.
- b. Ponds shall be inspected, and available freeboard of each shall be measured and recorded; odors detected shall be noted.

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 following flow data for influent and effluent stations and disposal areas:
 - a. Total waste flow or volume for each day.
 - b. Maximum and minimum flow rates for each day and the times of their occurrences.
 - c. The average, maximum, and minimum daily flows for each month.
3. A tabulation relative to bypassing and accidental waste spills shall be maintained showing information items listed in Sections F-1 and F-2 for each occurrence.
4. A chronological log for each month shall be maintained of the effluent disinfection and bacterial analyses, showing the following:
 - a. Date and time each sample is collected and waste flow rate at time of collection.
 - b. Chlorine residual, contact time, and dosage (in kilograms per day and parts per million).
 - c. Coliform count for each sample.
 - d. Moving median coliform of the number of samples specified by waste discharge requirements.

F. REPORTS TO BE FILED WITH THE REGIONAL BOARD

1. Spill Reports

A report shall be made of any spill of oil or other hazardous material. Spills shall be reported to this Regional Board and the U. S. Coast Guard 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 spilling,
- 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 month (unless specified otherwise) by the fifteenth day of the following month. 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:

- (1) In the case of corporations, by a principal executive officer at the level of vice-president or his duly authorized representative if such representative is responsible for the overall operation of the facility from which the discharge originates, or
- (2) In the case of a partnership, by a general partner, or
- (3) In the case of a sole proprietorship, by the proprietor, or
- (4) In the case of a municipal, State, or other public facility, 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 Part B 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 for each constituent total number of analyses, maximum, minimum, and average values for each period. The report format will be the NPDES Discharge Monitoring Report, EPA Form 3320-1. The discharger shall fill out this form according to instructions thereon (APPENDIX C). Flow data shall be included. This form is available at the Regional Board office.

The original of EPA Form 3320-1 shall be mailed with the complete Self-Monitoring Report to:

Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
Attention: Surveillance Division
1111 Jackson Street
Oakland, CA 94607

A copy of EPA Form 3320-1, only, shall be mailed to:

Regional Administrator
U. S. Environmental Protection Agency
Attention: Enforcement Division
100 California Street
San Francisco, CA 94111

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).

g. Flow Data

- (1) The tabulation pursuant to Section E-2.
- (2) Listing of the dates and the magnitudes of the flows which exceed 75% of the design capacity of the treatment and/or disposal facilities.

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.

REVISED
7/2/74

TABLE 1 (5)

Requirement Compliance Summary - An Example

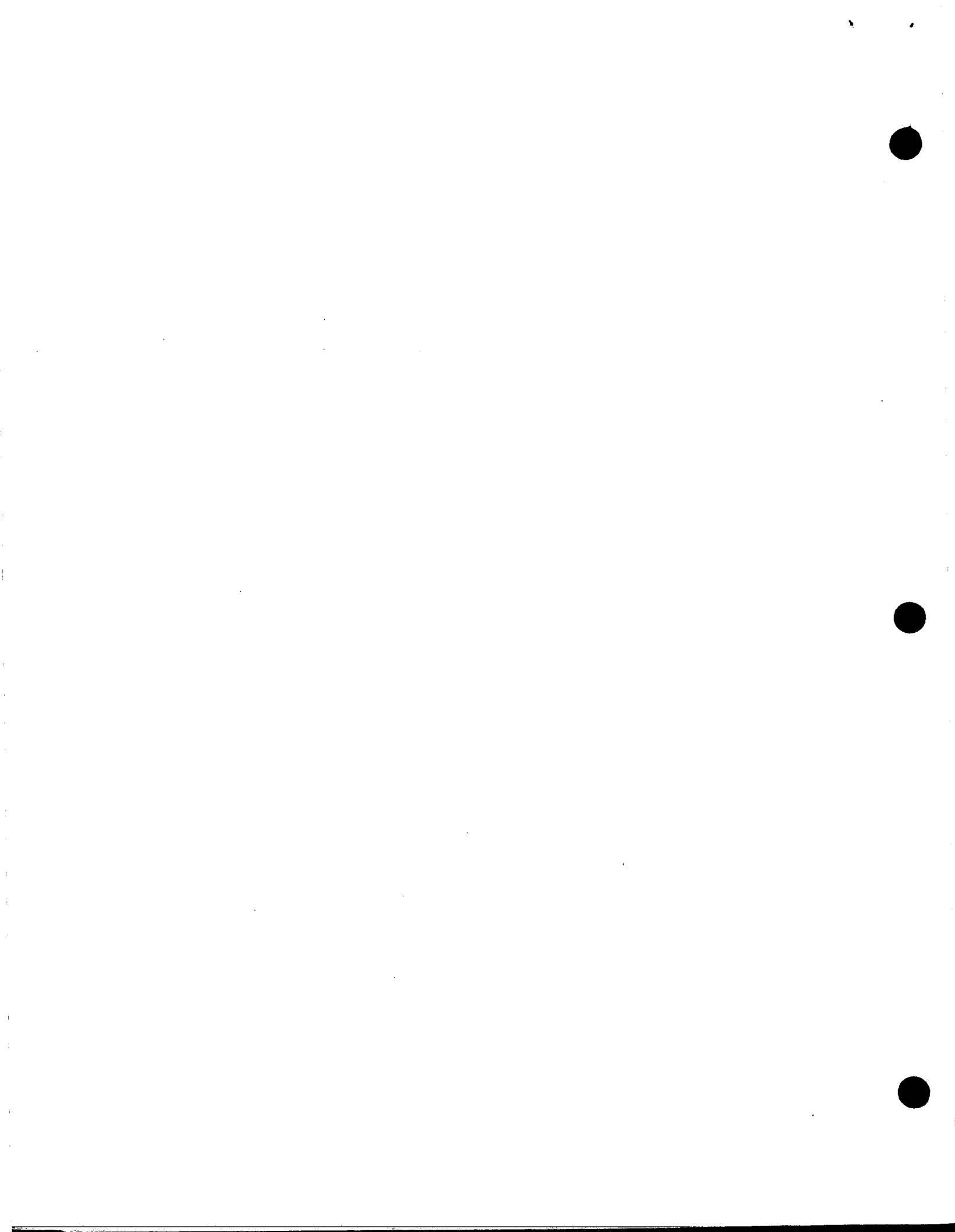
Dec.	Nov.	Oct.	Sep.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Limit	Parameter			
												Arithmetic mean - 30 consecutive days 30mg/L	BOD			
												Arithmetic mean - 7 consecutive days 45mg/L				
												Percent removal - 85% 30 consecutive days				
										3/1	0/1	Arithmetic mean - 30 consecutive days 30mg/L	SUSPENDED SOLIDS			
										4/1	0/4	Arithmetic mean - 7 consecutive days 45mg/L				
										4/4	0/4	Percent removal - 85% 30 consecutive days				
											0/1	Geometric Mean - 30 consecutive days - 200 per 100ml	FECAL COLIFORM BACTERIA			
											0/1	Geometric mean - 7 consecutive days - 400 per 100ml				
											4/30	7.0 - 8.5	pH			
											4/30	T _C - X ₁ maximum	TOXICITY			
												T _C - X ₂ mean				
												TER - X ₃ mgd				
												86° F maximum	TEMPERATURE			
												Δ20° F of R/W ambient				
												0.5 mg/L maximum	ZINC			
												4 kg/day mean 30 days				
												5 kg/day maximum				
												Number of occurrences	BYPASSES			
											2/2	Minimum of 5.0 mg/L	DISSOLVED OXYGEN	RECEIVING WATER		
										2/2	Minimum of 7.0 Maximum of 8.5	pH				
												Maximum of 0.1 mg/L	DISSOLVED SULFIDES			
												Not more than 20% of the samples from any station shall exceed MPN of 1000/100ml in any 30-day period	COLIFORM ORGANISMS			
												FLOATING SOLIDS OR FOAM	FLOATING OIL			
												TURBIDITY AND/OR DISCOLORATION	ATMOSPHERIC ODOR OF WASTE ORIGIN			

--See opposite side for Instructions--



FOOTNOTES:

- (1) 4/30 means that on 4 of 30 days sampled during the indicated month, the pH requirement was violated.
- (2) 0/1 means that the geometric mean for the 30 consecutive days in this month was less than 200/100ml Fecal Coliform.
- (3) 4/4 means that all of 4 weekly arithmetic means exceeded 45 mg/L Suspended Solids.
- (4) 2/2 means DO samples were collected on two days during each of the indicated months and on each sampling day at least one station was found in violation of requirement.
- (5) Each discharger shall prepare his compliance summary using constituents and requirement limits specified in his permit.



MONITORING REPORT
RECEIVING WATERS, PONDS, PLANT SURVEYS

Date:

Page of

STATION													
TIME													
STANDARD OBSERVATIONS:													
Floating Material	Type												
	Source												
	Extent												
Turbidity	Type												
	Source												
Color	Type												
	Source												
Bottom Deposits	Type												
	Extent												
Algae, Plants	Type												
	Source												
	Extent												
Odors	Type												
	Intensity												
	Source												
	Extent												
Weather													
Wind	Direction												
	Speed(mph)												
Cuurent	Direction												
	Speed(fps)												
Recreation	Type												
	Number												
Wildlife													
Depth (feet)	Water												
	Sample												
ANALYSES:													
Dissolved Oxygen	mg/L												
Temperature	°C												
Sulfides (mg/L)	Total												
	Dissolved												
pH	Units												
Secchi Disk (inches)													
Turbidity	JC Units												
Coliform	MPN/100ml												
Ammonia Nitrogen	mg/L												
Nitrate Nitrogen	mg/L												
Nitrite Nitrogen	mg/L												
Organic Nitrogen	mg/L												
Phosphate (Total)	mg/L												
Orthophosphate	mg/L												
Total Dissolved Solids	mg/L												
Chloride	mg/L												
Chlorophyll a	mg/L												
Electrical													
Conductivity	μohm/cm												
TIDES													
Elev.	Time												
Analysis by: _____													

FISH BIOASSAY REPORT

Description of Samples: _____ Date Received: _____

Source: _____ Collected by: _____

SUMMARY OF RESULTS

SAMPLE AS RECEIVED

TLM	pH _____	Residual Cl ₂ _____
24 Hours _____ %	Temp °C _____	(mg/l) _____
48 Hours _____ %	Dissolved _____	Remarks: _____
72 Hours _____ %	Oxygen (mg/l) _____	_____
96 Hours _____ %	_____	_____

ANALYTICAL DATA

Test Species: _____ Source of Fishes: _____

Size: _____ inches Source of Dilution Water: _____

Sample Dilution Portions (were) (were not) aerated.

_____ fishes per _____ liters of test solutions were tested.

Test started: _____ Test ended: _____

BIOASSAY RESULTS

Percent Sample	24 Hours		48 Hours		72 Hours		96 Hours		% Survival Final
	Deaths	Survivors	Deaths	Survivors	Deaths	Survivors	Deaths	Survivors	
Control									
Temp °C									

CHEMICAL ASSAY DATA

Percent Sample	0 Hour				24 Hours			48 Hours			72 Hours			96 Hours		
	pH	ALK	mg/l Diss. O ₂	Hardness (mg/l CaCO ₃)	pH	ALK mg/l CaCO ₃	DO	pH	ALK	DO	pH	ALK	DO	pH	ALK	DO
Control																

Tested by: _____

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
DISCHARGE MONITORING REPORT

Approved
OSM NO. 159-R0073

INSTRUCTIONS

1. Provide dates for period covered by this report in spaces marked "REPORTING PERIOD".
2. Enter reported minimum, average and maximum values under "QUANTITY" and "CONCENTRATION" in the units specified for each parameter as appropriate. Do not enter values in boxes containing asterisks. "AVERAGE" is average computed over actual time discharge is operating. "MAXIMUM" and "MINIMUM" are extreme values observed during the reporting period.
3. Specify the number of analyzed samples that exceed the maximum (and or minimum as appropriate) permit conditions in the columns labeled "No. Ex." If none, enter "0".
4. Specify frequency of analysis for each parameter as No. analyses/N. days. (e.g., "3/7" is equivalent to 3 analyses performed every 7 days.) If continuous enter "CONT."
5. Specify sample type ("grab" or "hr. composite") as applicable. If frequency was continuous, enter "NA".
6. Appropriate signature is required on bottom of this form.
7. Remove carbon and retain copy for your records.
8. Fold along dotted lines, staple and mail Original to office specified in permit.

(12-15) ST	(14-16) PERMIT NUMBER	(17-19) C/S	SIC	LATITUDE	LONGITUDE
REPORTING PERIOD FROM			TO		
YEAR MO DAY			YEAR MO DAY		

PARAMETER		(3 card only)				UNITS	NO. EX	(4 card only)				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		MINIMUM	AVERAGE	MAXIMUM	QUANTITY			MINIMUM	AVERAGE	MAXIMUM	CONCENTRATION			
	REPORTED													
	PERMIT CONDITION													
	REPORTED													
	PERMIT CONDITION													
	REPORTED													
	PERMIT CONDITION													
	REPORTED													
	PERMIT CONDITION													
	REPORTED													
	PERMIT CONDITION													
	REPORTED													
	PERMIT CONDITION													
	REPORTED													
	PERMIT CONDITION													

NAME OF PRINCIPAL EXECUTIVE OFFICER			TITLE OF THE OFFICER			DATE			I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief such information is true, complete, and accurate.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
LAST	FIRST	MI	TITLE	YEAR	MO	DAY				



TABLE 2 - An Example
ANNUAL AVERAGE WASTE CHARACTERISTICS AND LOADING SUMMARY
 (Unless otherwise noted, figures in the table are average values)

PARAMETER MONTH	FLOW			BOD		SUSPENDED SOLIDS		OIL & GREASE		FISH TOXICITY 95-HR BIOASSAY		NH ₃ -N		NO ₃ -N	
	Ave. Daily (mgd)	Max. Daily (mgd)	Min. Daily (mgd)	mg/l	kg/day	mg/l	kg/day	mg/l	kg/day	TI-50	% Survival in Effluent	mg/l	kg/day	mg/l	kg/day
JANUARY															
FEBRUARY															
MARCH															
APRIL															
MAY															
JUNE															
JULY															
AUGUST															
SEPT.															
OCTOBER															
NOVEMBER															
DECEMBER															
ANNUAL AVERAGE															

FOOTNOTE: (1) Heavy metal concentrations and loadings should be given for each individual metal and should include at least Cadmium, Chromium, Copper, Lead, Mercury, and Zinc.

TABLE 3
ANNUAL RECEIVING WATER DATA
SUMMARY
-- AN EXAMPLE --

PARAMETER MONTH	DISSOLVED OXYGEN - MG/L						
	C-R			C-1			NUMBER OF SAMPLES
	Maximum	Minimum	Average	Maximum	Minimum	Average	
JANUARY							
FEBRUARY							
MARCH							
APRIL							
MAY							
JUNE							
JULY							
AUGUST							
SEPTEMBER							
OCTOBER							
NOVEMBER							
DECEMBER							
ANNUAL MAXIMUM							TOTAL NUMBER OF SAMPLES
ANNUAL MINIMUM							
ANNUAL AVERAGE							

FOOTNOTE: C-R = Reference Station.

C-1 = Receiving Water Station closest to the discharge point.

TABLE 4

ANNUAL WASTE CHARACTERISTIC AND LOADING
SUMMARY

-- AN EXAMPLE --

PARAMETER MONTH	B O D						
	CONCENTRATION (mg/l)			LOADING (lbs/day)			NUMBER OF SAMPLES
	Maximum	Minimum	Average	Maximum	Minimum	Average	
JANUARY							
FEBRUARY							
MARCH							
APRIL							
MAY							
JUNE							
JULY							
AUGUST							
SEPTEMBER							
OCTOBER							
NOVEMBER							
DECEMBER							
ANNUAL MAXIMUM							TOTAL NUMBER OF SAMPLES
ANNUAL MINIMUM							
ANNUAL AVERAGE							

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.

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.

Federal regulations were published (Table I, 40 CFR136, October 16, 1973) governing the methods that are to be used in analyzing wastes for pollutants. Dischargers are required to use Standard Methods for all parameters for which EPA and State Department of Health approves Standard Methods. Table II lists those constituents for which a test in Standard Methods was not deemed acceptable and lists the method and reference that is considered acceptable.

If a discharger wishes to use an alternate method to Standard Methods which is approved by EPA, this request may be approved by the Executive Officer.

Under certain circumstances other methods will be approved by EPA on a case-by-case basis and upon request by the discharger.

Such a request may be made by letter until printed application forms are made available. The letter or application should contain the following information:

1. The name and address of the responsible person or firm making the discharge (if not the applicant), the permit number, the issuing agency, and the discharge serial number;
2. Identify the pollutant or parameter for which approval of an alternate testing procedure is being requested;
3. Justification for using testing procedures other than those specified;
4. A detailed description of the proposed alternate test procedure, together with references to published studies of the applicability of the alternate test procedure to the effluents in question.

The regional board executive officer should forward the application letter to the State Board. The application will then be transmitted to the Department of Health with a request for comments and recommendations.

The State Board will consider the comments and recommendations received from the regional board, the Department of Health, and other agencies if appropriate, to formulate its recommendations to the Regional Administrator.

Within 30 days of receipt of an application, the State Board will forward such application, together with its recommendations, to the Regional Administrator, EPA. Within 90 days of receipt by the Regional Administrator of an application for an alternate test procedure, the Regional Administrator shall notify the applicant and regional board of approval or rejection, or shall specify the additional information which would be required to determine whether to approve the proposed test procedure.

terminated by one of the standard analytical methods cited and described in Table I, or under certain circumstances by other methods that may be more advantageous to use when such other methods have been previously approved by the Regional Administrator of the Region in which the discharge will occur, and providing that the Director of the State in which such discharge will occur does not object to the use of such alternate test procedures.

Under certain circumstances the Re-

gional Administrator or the Director in the Region or State where the discharge will occur may determine for a particular discharge that additional parameters or pollutants must be reported. Under such circumstances, additional test procedures for analysis of pollutants may be specified by the Regional Administrator or Director upon the recommendation of the Director of the Methods Development and Quality Assurance Research Laboratory.

TABLE I—LIST OF APPROVED TEST PROCEDURES

Parameter and units	Method	References		
		Standard methods	ASTM	EPA methods
General analytical methods:				
1. Alkalinity as CaCO ₃ mg CaCO ₃ /liter.	Titration: electrometric, manual or automated method—methyl orange.	p. 370	p. 143	p. 6, p. 8.
2. B.O.D. five day mg/liter.	Modified winkler or probe method.	p. 489		
3. Chemical oxygen demand (C.O.D.) mg/liter.	Dichromate reflux.	p. 495	p. 219.	p. 17.
4. Total solids mg/liter.	Gravimetric 103-105° C.	p. 535		p. 250.
5. Total dissolved (filterable) solids mg/liter.	Glass fiber filtration 180° C.			p. 275.
6. Total suspended (non-filterable) solids mg/liter.	Glass fiber filtration 103-105° C.	p. 537		p. 278.
7. Total volatile solids mg/liter.	Gravimetric 550° C.	p. 536		p. 282.
8. Ammonia (as N) mg/liter.	Distillation—nesslerization or titration automated phenolate.			p. 134, p. 141.
9. Kjeldahl nitrogen (as N) mg/liter.	Digestion + distillation—nesslerization or titration automated digestion phenolate.	p. 469		p. 149, p. 157.
10. Nitrate (as N) mg/liter.	Cadmium reduction; brucine sulfate; automated cadmium or hydrazine reduction.	p. 458, p. 461	p. 124.	p. 170, p. 175, p. 186.
11. Total phosphorus (as P) mg/liter.	Persulfate digestion and single reagent (ascorbic acid), or manual digestion, and automated single reagent or stannous chloride.	p. 620, p. 632	p. 42.	p. 235, p. 246, p. 259.
12. Acidity mg CaCO ₃ /liter.	Electrometric end point or phenolphthalein end point.		p. 148.	
13. Total organic carbon (TOC) mg/liter.	Combustion—Infrared method.	p. 257	p. 702.	p. 221.
14. Hardness—total mg CaCO ₃ /liter.	EDTA titration; automated colorimetric atomic absorption.	p. 179	p. 170.	p. 76, p. 78.
15. Nitrite (as N) mg/liter.	Manual or automated colorimetric diazotization.			p. 185, p. 195.
Analytical methods for trace metals:				
16. Aluminum—total mg/liter.	Atomic absorption.	p. 210		p. 98.
17. Antimony—total mg/liter.	Atomic absorption.			
18. Arsenic—total mg/liter.	Digestion plus silver diethyldithiocarbamate; atomic absorption.	p. 65, p. 62		p. 13.
19. Barium—total mg/liter.	Atomic absorption.	p. 210		
20. Beryllium—total mg/liter.	Aluminum; atomic absorption.	p. 67, p. 210		
21. Boron—total mg/liter.	Cureumin.	p. 69		
22. Cadmium—total mg/liter.	Atomic absorption; colorimetric.	p. 210, p. 422	p. 692.	p. 101.
23. Calcium—total mg/liter.	EDTA titration; atomic absorption.	p. 64	p. 692.	p. 102.
24. Chromium VI mg/liter.	Extraction and atomic absorption; colorimetric.	p. 429		p. 94.

Parameter and units	Method	References		
		Standard methods	ASTM	EPA methods
25. Chromium—total mg/liter.	Atomic absorption; colorimetric.	p. 210, p. 429	p. 692.	p. 104.
26. Cobalt—total mg/liter.	Atomic absorption.	p. 210	p. 692.	
27. Copper—total mg/liter.	Atomic absorption; colorimetric.	p. 539, p. 210	p. 410, p. 692.	p. 99.
28. Iron—total mg/liter.	do.	p. 433, p. 210	p. 152, p. 692.	
29. Lead—total mg/liter.	do.	p. 433, p. 436	p. 692.	p. 114.
30. Magnesium—total mg/liter.	Atomic absorption; Gravimetric.	p. 210, p. 416	p. 692.	p. 112.
31. Manganese—total mg/liter.	Atomic absorption.	p. 210	p. 692.	p. 114.
32. Mercury—total mg/liter.	Flameless atomic absorption.			
33. Molybdenum—total mg/liter.	Atomic absorption.			
34. Nickel—total mg/liter.	Atomic absorption; colorimetric.	p. 417	p. 692.	
35. Potassium—total mg/liter.	Atomic absorption; colorimetric; flame photometric.	p. 258, p. 255	p. 329.	p. 115.
36. Selenium—total mg/liter.	Atomic absorption.			
37. Silver—total mg/liter.	Atomic absorption.	p. 210		
38. Sodium—total mg/liter.	Flame photometric; atomic absorption.	p. 317	p. 328.	p. 118.
39. Thallium—total mg/liter.	Atomic absorption.			
40. Tin—total mg/liter.	do.			
41. Titanium—total mg/liter.	do.			
42. Vanadium—total mg/liter.	Atomic Absorption; Colorimetric.	p. 157		
43. Zinc—total mg/liter.	Atomic Absorption; Colorimetric.	p. 210, p. 444	p. 692.	p. 120.
Analytical methods for nutrients, anions, and organics:				
44. Organic nitrogen (as N) mg/liter.	Kjeldahl nitrogen minus ammonia nitrogen.	p. 458		p. 140.
45. Ortho-phosphate (as P) mg/liter.	Direct single reagent; automated single reagent or stannous chloride.	p. 532	p. 42.	p. 235, p. 246, p. 259.
46. Sulfate (as SO ₄) mg/liter.	Gravimetric; turbidimetric; automated colorimetric—barium chloranilate.	p. 331, p. 331	p. 51, p. 52.	p. 254, p. 255, p. 261.
47. Sulfide (as S) mg/liter.	Titrimetric—iodine.	p. 551		p. 261.
48. Sulfite (as SO ₃) mg/liter.	Titrimetric; iodide-iodate.	p. 357	p. 261.	
49. Bromide mg/liter.	do.			p. 216.
50. Chloride mg/liter.	Silver nitrate; mercuric nitrate; automated colorimetric—ferrixyanide.	p. 96, p. 97	p. 23, p. 31.	p. 29, p. 31.
51. Cyanide—total mg/liter.	Distillation—silver nitrate titration or pyridine pyrazolone colorimetric.	p. 397	p. 536.	p. 11.
52. Fluoride mg/liter.	Distillation—SPADNS.	p. 171, p. 174	p. 191.	p. 64.
53. Chlorine—total residual mg/liter.	Colorimetric; amperometric titration.	p. 382	p. 223.	
54. Oil and grease mg/liter.	Liquid-Liquid extraction with trichlorotrifluoroethane.	p. 254		
55. Phenols mg/liter.	Colorimetric, 4 A.A.P.	p. 502	p. 415.	p. 272.
56. Sulfactants mg/liter.	Methylene blue colorimetric.	p. 339	p. 619.	p. 121.
57. Algalides mg/liter.	Gas chromatography.			
58. Benzidine mg/liter.	Diazotization—colorimetric.			
59. Chlorinated organic compounds (except pesticides) mg/liter.	Gas chromatography.			
60. Pesticides mg/liter.	Gas chromatography.			
Analytical methods for physical and biological parameters:				
61. Color platinum-cobalt units or dominant wave-length, hue, luminance, purity.	Colorimetric; spectrophotometric.	p. 160, p. 392		p. 38.
62. Specific conductance mhos/cm at 25° C.	Wheatstone bridge.	p. 323	p. 163.	p. 24.
63. Turbidity Jackson units.	Turbidimeter.	p. 350	p. 487.	p. 208.

See Note at end of Table I

RULES AND REGULATIONS

20000

Parameter and units	Method	References		
		Standard methods	ASTM	EPA methods
64. Fecal streptococci—bacteria number/100 ml.	MPN; membrane filter; plate count	p. 689		
65. Coliform bacteria (total) number/100 ml.	MPN; Membrane filter	p. 690		
66. Coliform bacteria (total) number/100 ml.	do	p. 691		
Radiological parameters:				
67. Alpha—total pCi/liter	Proportional counter; scintillation counter	p. 692	p. 509	
68. Alpha—counting error pCi/liter	do	p. 693	p. 512	
69. Beta—total pCi/liter	Proportional counter	p. 698	p. 478	
70. Beta—counting error pCi/liter	do	p. 699	p. 478	
71. Radium—total pCi/liter	Proportional counter; scintillation counter	p. 611	p. 674	
		p. 617		

¹ A number of such systems manufactured by various companies are considered to be comparable in their performance. In addition, another technique, based on Combustion-Methane Detection, is also acceptable.

² For the determination of total metals the sample is not filtered before processing. Choose a volume of sample appropriate for the expected level of metals. If much suspended material is present, as little as 50-100 ml of well-mixed sample may probably be sufficient. (The sample volume required may also vary proportionally with the number of metals to be determined.)

Transfer a representative aliquot of the well-mixed sample to a Griffin beaker and add 3 ml of concentrated distilled HNO₃. Place the beaker on a hotplate and evaporate to dryness making certain that the sample does not boil. Cool the beaker and add another 3 ml portion of distilled concentrated HNO₃. Cover the beaker with a watch glass and return to the hotplate. Increase the temperature of the hotplate so that a gentle reflux action occurs. Continue heating, adding additional acid as necessary until the digestion is complete, generally indicated by a light colored residue. Add (1:1 with distilled water) distilled concentrated HCl in an amount sufficient to dissolve the residue upon warming. Wash down the beaker walls and the watch glass with distilled water and filter the sample to remove silicates and other insoluble material that could clog the atomizer. Adjust the volume to some predetermined value based on the expected metal concentrations. The sample is now ready for analysis. Concentrations so determined shall be reported as "total".

³ See D. C. Manning, "Technical Notes", Atomic Absorption Newsletter, Vol. 10, No. 6 p. 123, 1971. Available from Perkin-Elmer Corporation, Main Avenue, Norwalk, Connecticut 06852.

⁴ Atomic absorption method available from Methods Development and Quality Assurance Research Laboratory, National Environmental Research Center, USEPA, Cincinnati, Ohio 45268.

⁵ For updated method, see: Journal of the American Water Works Association 64, No. 1, pp. 20-25 (Jan. 1972) or ASTM Method D 3223-73, American Society for Testing and Materials Headquarters, 1918 Race St., Philadelphia, Pa. 19103.

⁶ Interim procedures for algicides, chlorinated organic compounds, and pesticides can be obtained from the Methods Development and Quality Assurance Research Laboratory, National Environmental Research Center, USEPA, Cincinnati, Ohio 45268.

⁷ Benzidine may be estimated by the method of M.A. El-Dib, "Colorimetric Determination of Aniline Derivatives in Natural Waters", El-Dib, M.A., Journal of the Association of Official Analytical Chemists, Vol. 51, No. 6, Nov., 1971, pp. 1388-1387.

⁸ As a prescreening measurement.

§ 136.4 Application for alternate test procedures.

(a) Any person may apply to the Regional Administrator in the Region where the discharge occurs for approval of an alternative test procedure.

(b) When the discharge for which an alternative test procedure is proposed occurs within a State having a permit program approved pursuant to section 402 of the Act, the applicant shall submit his application to the Regional Administrator through the Director of the State agency having responsibility for issuance of NPDES permits within such State.

(c) Unless and until printed application forms are made available, an appli-

cation for an alternate test procedure may be made by letter in triplicate. Any application for an alternate test procedure under this subchapter shall:

(1) Provide the name and address of the responsible person or firm making the discharge (if not the applicant) and the applicable ID number of the existing or pending permit, issuing agency, and type of permit for which the alternate test procedure is requested, and the discharge serial number.

(2) Identify the pollutant or parameter for which approval of an alternate testing procedure is being requested.

(3) Provide justification for using testing procedures other than those specified in Table I.

(4) Provide a detailed description of the proposed alternate test procedure, together with references to published studies of the applicability of the alternate test procedure to the effluent in question.

§ 136.5 Approval of alternate test procedures.

(a) The Regional Administrator of the region in which the discharge will occur has final responsibility for approval of any alternate test procedure.

(b) Within thirty days of receipt of an application, the Director will forward such application, together with his recommendations, to the Regional Administrator. Where the Director recommends rejection of the application for scientific and technical reasons which he provides, the Regional Administrator shall deny the application, and shall forward a copy of the rejected application and his decision to the Director of the State Permit Program and to the Director of the Methods Development and Quality Assurance Research Laboratory.

(c) Before approving any application for an alternate test procedure, the Regional Administrator shall forward a copy of the application to the Director of the Methods Development and Quality Assurance Research Laboratory for review and recommendation.

(d) Within ninety days of receipt by the Regional Administrator of an application for an alternate test procedure, the Regional Administrator shall notify the applicant and the appropriate State agency of approval or rejection, or shall specify the additional information which is required to determine whether to approve the proposed test procedure. Prior to the expiration of such ninety day period, a recommendation providing the scientific and other technical basis for acceptance or rejection will be forwarded to the Regional Administrator by the Director of the Methods Development and Quality Assurance Research Laboratory. A copy of all approval and rejection notifications will be forwarded to the Director, Methods Development and Quality Assurance Research Laboratory, for the purposes of national coordination.

[FR Doc.73-21466 Filed 10-15-73; 8:45 am]

TABLE II
METHODS TO USE IN PREFERENCE TO
"STANDARD METHODS"

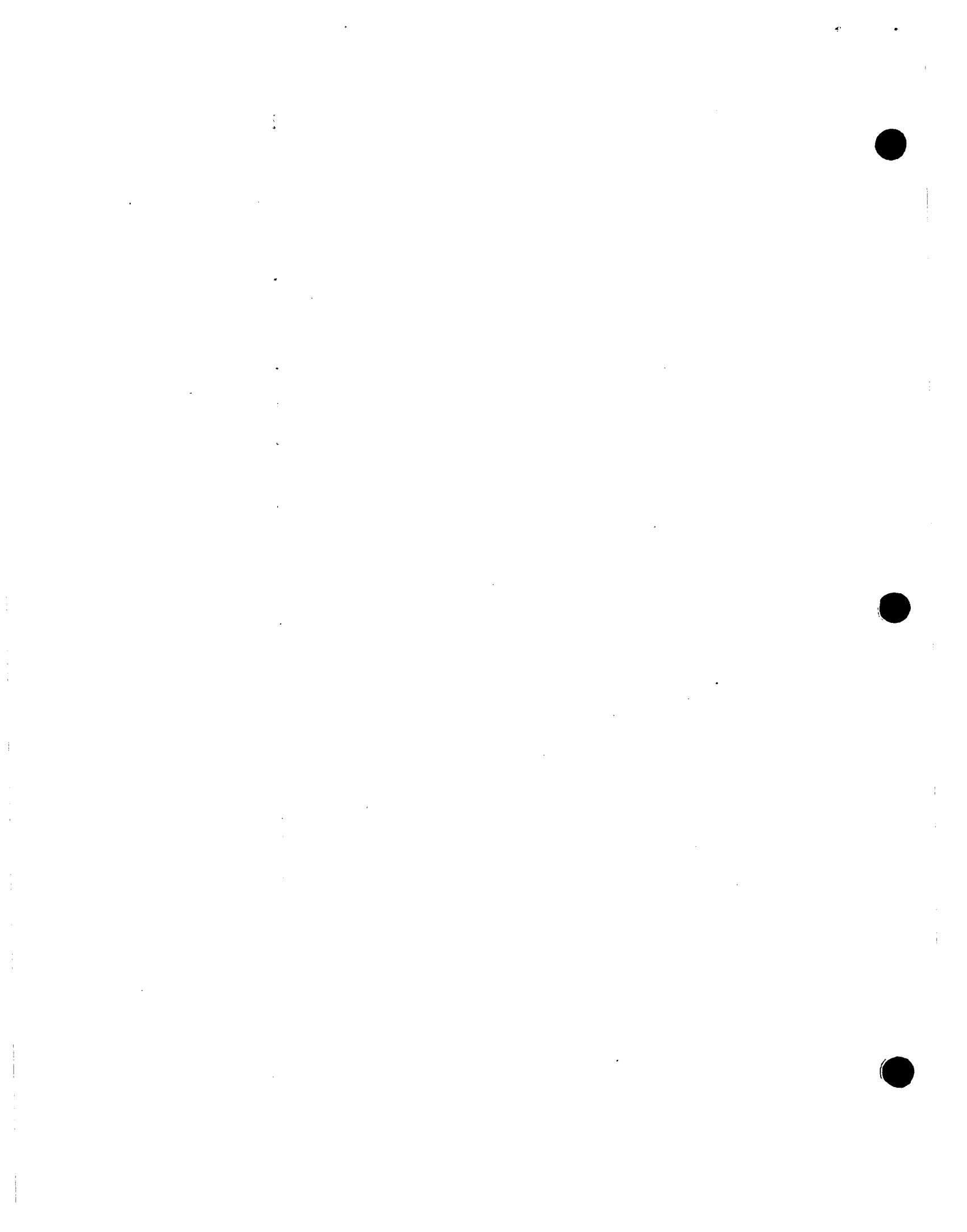
<u>Constituent</u>	<u>Units</u>	<u>Method</u>	<u>Reference</u>
Total dissolved solids (filterable)	mg/l	Glass fiber filtration- 180°C	EPA Methods ^{1/} - p. 275
Ammonia	mg N/l	Distillation-nesslerization or titration automated phenolate	EPA Methods - p. 134
Acidity	mg CaCO ₃ /l	Electrometric endpoint or phenolphthalein end point	ASTM ^{2/} - p. 148
Nitrite	mg N/l	Manual or automated color- imetric diazotization	EPA Methods - p. 185 p. 195
Antimony - total ^{6/}	mg/l	Atomic absorption	<u>3/</u>
Cobalt - total	mg/l	" "	ASTM - p. 692
Molybdenum - total	mg/l	" "	<u>3/</u>
Selenium - total	mg/l	" "	<u>3/</u>
Thallium - total	mg/l	" "	<u>3/</u>
Tin	mg/l	" "	<u>3/</u>
Titanium	mg/l	" "	<u>3/</u>

<u>Constituent</u>	<u>Units</u>	<u>Method</u>	<u>Reference</u>
Mercury	mg/l	Flameless Atomic Absorption	<u>3/</u>
Bromide	"	Titrimetric; Iodide-Iodate	ASTM - p. 216
Algicides	"	Gas Chromatography	<u>4/</u>
Benzidine	"	Diazotization-Colorimetric	<u>5/</u>
Chlorinated Organic Compounds (except pesticides)	"	Gas Chromatography	<u>4/</u>
Pesticides	"	" "	<u>4/</u>

- 1/ "EPA Methods" means Methods for Chemical Analysis of Water and Wastes, 1971, Environmental Protection Agency, Analytical Quality Control Laboratory, Cincinnati, Ohio. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 Stock #5501-0067
- 2/ "ASTM" means Annual Book of Standards, Part 23, Water, Atmospheric Analysis, 1972. This publication is available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pa. 19103.
- 3/ See D. C. Manning "Technical Notes", Atomic Absorption Newsletter, Vol. 10, No. 6, p. 123, 1971. Available from Perkins-Elmer Corporation, Main Avenue, Norwalk, Conn. 06852.
- 4/ Interim procedures for algicides, chlorinated organic compounds and pesticides can be obtained from the Methods Development and Quality Assurance Research Laboratory, National Environmental Research Center, U. S. EPA, Cincinnati, Ohio 45268
- 5/ Benzidine may be estimated by the method of M. A. El-Dib, "Colorimetric Determination of Aniline Derivatives in Natural Waters", El-Dib, M. A., Journal of the Association of Official Analytical Chemists, Vol. 54, No. 6, Nov. 1971, pp. 1383-1387.
- 6/ For the determination of total metals the sample is not filtered before processing. Choose a volume of sample appropriate for the expected level of metals. If much suspended material is present, as little as 50-100 ml of well-mixed sample will most probably be sufficient. (The sample volume required may also vary proportionally with the number of metals to be determined.) Transfer a representative aliquot of the well-mixed sample to a Griffin beaker and add 3 ml of concentrated distilled HNO₃. Place the beaker on a hotplate and evaporate to dryness.

ALLENDALE 5 (PAGE 0 OF 1)

certain that the sample does not boil. Cool the beaker and add another 3 ml portion of distilled concentrated HNO_3 . Cover the beaker with a watch glass and return to the hotplate. Increase the temperature of the hotplate so that a gentle reflux action occurs. Continue heating, adding additional acid as necessary until the digestion is complete generally indicated by a light colored residue. Add (1:1 with distilled water) distilled concentrated HCl in an amount sufficient to dissolve the residue upon warming. Wash down the beaker walls and the watch glass with distilled water and filter the sample to remove silicates and other insoluble material that could clog the atomizer. Adjust the volume to some predetermined value based on the expected metal concentrations. The sample is now ready for analysis. Concentrations so determined shall be reported as "total".



PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT AND INTAKE

<u>Station</u>	<u>Description</u>
A-001	At any point in the 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>
E-001	At any point in the outfall from the treatment facilities between the point of discharge and the point at which all waste tributary to that outfall is present. (May be the same as E-001-D).
E-001-D	At any point in the disinfection facilities for Waste E-001 at which point adequate contact with the disinfectant is assured.

C. RECEIVING WATERS

<u>Station</u>	<u>Description</u>
C-1	At a point in New York Slough, located within 30 feet offshore and 50 feet westerly from the point of discharge.
C-2	At a point in New York Slough, located within 30 feet offshore and 50 feet easterly from the point of discharge.
C-3	At a point in New York Slough, located about 30 feet northerly from the point of discharge.
C-4	At a point in New York Slough, located within 50 feet offshore and 100 feet easterly from the point of discharge.
C-5	At a point in New York Slough, located within 50 feet offshore and 100 feet westerly from the point of discharge.
C-R	At a point in New York Slough, located 1000 feet upstream from the point of discharge.

D. PERIMETER OBSERVATIONS

<u>Station</u>	<u>Description</u>
P-1 through p-'n'	Located at the corners and midpoints of the perimeter fence line surrounding the treatment facilities. (A sketch showing the locations of these stations will accompany each report.)

E. OVERFLOWS AND BYPASSES

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

Note: Initial SMP report to include map and description of each known bypass or overflow location.
Reporting - To be submitted monthly and include date, time and period of each bypass or overflow.

II. 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. 74-108.
2. Does not include the following paragraphs of Part A:
C-3
C-4
3. Has been ordered by the Executive Officer on October 15, 1974, and becomes effective immediately.
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

TYPE OF SAMPLE	A		1-G D-D		C O F		
	G-24		G	G-24 Cont.	G	G	O
Flow Rate (m ³ /d)	D						
BOD, 5-day, 20° C, or COD (mg/l & kg/day)	W		V				
Sulfone Residual & Dosage (mg/l & kg/day)			(2) 2H	or Cont.			
Settleable Matter (ml/l - hr. & cu. ft./day)			D				
Total Suspended Matter (mg/l & kg/day)	W			W			
Oil & Grease (mg/l & kg/day)	2W			2W			
Coliform (Total or Fecal) (MPN/100 ml) per req't			3/W		H(1)		
Fish Toxicity, 96-hr. TL ₅₀ % Survival in undiluted waste				H			
Ammonia Nitrogen (mg/l & kg/day)				3M			
Nitrate Nitrogen (mg/l & kg/day)				3M			
Nitrite Nitrogen (mg/l & kg/day)				3M			
Total Organic Nitrogen (mg/l & kg/day)				3M			
Total Phosphate (mg/l & kg/day)				3M			
Turbidity (Jackson Turbidity Units)				H	H		
pH (units)			D		H		
Dissolved Oxygen (mg/l and % Saturation)			(3) D		H		
Temperature (°C)			D		H		
Apparent Color (color units)					H		
Secchi Disc (inches)					H		
Sulfides (H ₂ S) < 5.0 mg/l Total & Dissolved (mg/l)			W		H		
Arsenic (mg/l & kg/day)				Y			
Cadmium (mg/l & kg/day)				Y			
Chromium, Total (mg/l & kg/day)				Y			
Copper (mg/l & kg/day)				Y			
Cyanide (mg/l & kg/day)				Y			
Mercury (mg/l & kg/day)				Y			
Lead (mg/l & kg/day)				Y			

(1) Total Coliform only

(2) From 8 am to 4 pm

(3) mg/l only

Sampling Station	A	E-001-D			All C	All O	All P						
TYPE OF SAMPLE	C-24	G	C-24	Cont	G	O	O						
Mercury (mg/l & kg/day)			Y										
Fecal (mg/l & kg/day)			Y										
Zinc (mg/l & kg/day)			Y										
Phenolic Compounds (mg/l & kg/day)			Y										
All Applications Standard Observations		D			M	E	2/W						
Bottom Sediment Analyses and Observations													
Total Identifiable Calculated Hydrocarbons (mg/l & kg/day)			Y										

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
- PS = 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

FREQUENCY OF SAMPLING

- | | | |
|---------------------|--|---------------------|
| E = each occurrence | 2/H = twice per hour | 2H = every 2 hours |
| H = once each hour | 2/W = 2 days per week | 2D = every 2 days |
| D = once each day | 5/W = 5 days per week | 2W = every 2 weeks |
| W = once each week | 2/M = 2 days per month | 3M = every 3 months |
| M = once each month | 2/Y = once in April and
once in September | Cont = continuous |
| Y = once each year | | |

* During any day when bypassing occurs from any treatment unit(s) in the plant, the monitoring program for the effluent shall include the following in addition to the above schedule for sampling, measurement and analyses:

1. Composite sample for BOD, Total suspended solids, oil and grease (influent and effluent)
2. Grab sample for Coliform (Total and Fecal), Settleable matter, and chlorine residual (continuous or every two hours)
3. Continuous monitoring of flow

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

AUGUST 8, 1973

REPORTING REQUIREMENTS

1. The discharger shall file with the Board technical reports on self-monitoring work performed according to the detailed specifications contained in any Monitoring and Reporting Program as directed by the Executive Officer.
- *2. The discharger shall file a written report with the Board within 90 days after the average dry-weather waste flow for any month equals or exceeds 75 percent of the design capacity of his waste treatment and/or disposal facilities. The discharger's senior administrative officer shall sign a letter which transmits that report and certifies that the policy-making body is adequately informed about it. The report shall include:

Average daily flow for the month, the date on which the instantaneous peak flow occurred, the rate of that peak flow, and the total flow for that day.

The discharger's best estimate of when the average daily dry-weather flow rate will equal or exceed the design capacity of his facilities.

The discharger's intended schedule for studies, design, and other steps needed to provide additional capacity for his waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units. (Reference: Sections 13260, 13267(b), and 13268, California Water Code)

- **3. The discharger shall notify the Board not later than 180 days in advance of implementation of any plans to alter production capacity of the product line of the manufacturing, producing or processing facility by more than ten percent. Such notification shall include estimates of proposed production rate, the type of process, and projected effects on effluent quality. Notification shall include submittal of a new report of waste discharge and appropriate filing fee.
- *4. The discharger shall notify the Board of (a) new introduction into such works of pollutants from a source which would be a new source as defined in Section 306 of the Federal Water Pollution Control Act, or amendments thereto, if such source were discharging pollutants to the water of the United States, (b) new introductions of pollutants into such works from a source which would be subject to Section 301 of the Federal Water Pollution Control Act, or amendments thereto, if it were discharging such pollutants to the waters of the United States, (c) a substantial change in the volume or character of pollutants being introduced into such works by a source introducing pollutants into such works at the time the waste discharge requirements were adopted. Notice shall include a description of the quantity and quality of pollutants and the impact of such change on the quantity and quality of effluent from such publicly owned treatment works. A substantial change in volume is considered an increase of

ten percent in the mean dry-weather flow rate. Copies of such notice shall be sent to the Regional Board and to the following:

Regional Administrator
U.S. Environmental Protection Agency
100 California Street
San Francisco, CA 94111

5. The discharger shall file with the Board a report on waste discharge at least 120 days before making any material change or proposed change in the character, location, or volume of the discharge.
- **6. This Board requires the discharger to file with the Board, within 90 days after the effective date of this Order, a technical report on his preventive (fail-safe) and contingency (cleanup) plans for controlling accidental discharges and for minimizing the effect of such events. The technical report should:

Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks, and pipes should be considered.

Evaluate the effectiveness of present facilities and procedures and state when they became operational.

Describe facilities and procedures needed for effective preventive and contingency plans.

Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational.
(Reference: Sections 13267(b) and 13268, California Water Code)

This Board, after review of the technical report, may establish conditions which it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions may be incorporated as part of this Order, upon notice to the discharger.

- **7. The discharger shall submit to the Board, by January 30 of each year, an annual summary of the quantities of all chemicals, listed by both trade and chemical names, which are used for cooling and/or boiling water treatment and which are discharged.

*Publicly owned facilities only.
**For nonpublic facilities only.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

AUGUST 8, 1973

STANDARD PROVISIONS

1. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from his liabilities under federal, state, or local laws, nor guarantee the discharger a capacity right in the receiving waters.
2. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.
- *3. The discharger shall require any industrial user of the treatment works to comply with applicable service charges and toxic and pretreatment standards promulgated in accordance with Sections 204(b), 307, and 308 of the Federal Water Pollution Control Act or amendments thereto. The discharger shall require each individual user to submit periodic notice (over intervals not to exceed nine months) of progress toward compliance with applicable toxic and pretreatment standards developed pursuant to the Federal Water Pollution Control Act or amendments thereto. The discharger shall forward a copy of such notice to the Board and to the following:

Regional Administrator
U.S. Environmental Protection Agency
100 California Street
San Francisco, CA 94111

4. The discharger shall permit the Regional Board:
 - (a) Entry upon premises in which an effluent source is located or in which any required records are kept,
 - (b) Access to copy any records required to be kept under terms and conditions of this Order,
 - (c) Inspection of monitoring equipment or records, and
 - (d) Sampling of any discharge.
5. All discharges authorized by this Order shall be consistent with the terms and conditions of this Order. The discharge of any pollutant more frequently than or at a level in excess of that identified and authorized by this Order shall constitute a violation of the terms and conditions of this Order.
6. The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed by the discharger to achieve compliance with the waste discharge requirements.

7. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of at a legal point of disposal, and in accordance with the provisions of Division 7.5 of the California Water Code. For the purpose of this requirement, a legal point of disposal is defined as one for which waste discharge requirements have been prescribed by a regional water quality control Board and which is in full compliance therewith.
8. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
 - (a) Violation of any term or condition contained in this Order;
 - (b) Obtaining this Order by misrepresentation, or failure to disclose fully all relevant facts;
 - (c) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
9. If a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Federal Water Pollution Control Act, or amendments thereto, for a toxic pollutant which is present in the discharge authorized herein and such standard or prohibition is more stringent than any limitation upon such pollutant in this Order, the Board will revise or modify this Order in accordance with such toxic effluent standard or prohibition and so notify the discharger.
10. There shall be no discharge of harmful quantities of oil or hazardous substances, as specified by regulation adopted pursuant to Section 311 of the Federal Water Pollution Control Act, or amendments thereto.
11. In the event the discharger is unable to comply with any of the conditions of this Order due to:
 - (a) Breakdown of waste treatment equipment;
 - (b) Accidents caused by human error or negligence; or
 - (c) Other causes such as acts of nature,

the discharger shall notify the Executive Officer 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 notification shall include pertinent information explaining reasons for the non-compliance and shall indicate what steps were taken to correct the problem and the dates thereof, and what steps are being taken to prevent the problem from recurring.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 74-109

NPDES NO. CA0037508

WASTE DISCHARGE REQUIREMENTS FOR:

CITY OF PITTSBURG-MONTEZUMA PLANT

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

1. The City of Pittsburg - Montezuma Plant, hereinafter called the discharger, submitted a report of waste discharge (NPDES Standard Form A) dated October 10, 1973.
2. The discharger presently discharges waste No. 001 consisting of an annual average of 2.0 million gallons per day (mgd) of domestic and 0.317 mgd of industrial wastes containing pollutants into the Sacramento River, a water of the United States, at a point approximately 200 feet westerly from the foot of Montezuma Street, Pittsburg, California. The present treatment facilities consist of primary sedimentation and disinfection. The sludge, waste 002 is treated by digestion with final disposal on land, L-1. Existing treatment facilities have a design capacity of 2.5 mgd.
3. The Board, on June 14, 1971, adopted a Water Quality Control Plan (Interim) for San Francisco Bay Basin. The Interim Plan contains water quality objectives for Sacramento River and Basin waters of San Francisco Bay. The Plan includes a prohibition against discharge of sewage bearing wastewater at any place within 200 feet offshore from the extreme low waterline.
4. The beneficial uses of the Sacramento River and San Francisco Bay are:
 - a. Recreation
 - b. Fish migration and habitat
 - c. Habitat and resting for waterfowl and migratory birds
 - d. Industrial and agricultural water supply
 - e. Esthetic enjoyment
 - f. Navigation
5. Effluent limitation, and toxic and pretreatment 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.
6. 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.
7. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

8. 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.

IT IS HEREBY ORDERED that City of Pittsburg - Montezuma 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 an effluent containing constituents in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>30-Day Average</u>	<u>7-Day Average</u>	<u>Maximum Daily</u>	<u>Instantaneous Maximum</u>
a. BOD	mg/l	30	45	60	
	lbs/day	844		1,689	
	kg/day	383		766	
b. Suspended Solids	mg/l	30	45	60	
	lbs/day	844		1,689	
	kg/day	383		766	
c. Oil and Grease	mg/l	10		20	
	lbs/day	280		560	
	kg/day	127		254	
d. Chlorine Residual	mg/l				0.0
e. Settleable Matter	ml/L-hr	0.1			0.2

2. Prior to achievement of secondary treatment as required by the Federal Water Pollution Control Act, the following interim effluent limitations shall apply:

a. Settleable matter

The arithmetic mean of any six or more samples collected on any day. 0.5 ml/L-hr, maximum

80% of all individual samples collected during maximum daily flow over any 30-day period 0.4 ml/L-hr, maximum

Any sample 1.0 ml/L-hr, maximum

- b. The arithmetic mean of values for BOD in effluent samples collected in a period of 30 consecutive days shall not exceed 50 percent of the arithmetic mean of respective values for influent samples collected at approximately the same times during the same period, (i.e., 50 percent removal).

c. The arithmetic mean of values for BOD and suspended solids in effluent samples collected in a period of 30 consecutive days shall not exceed 65 percent and 35 percent, respectively, of the arithmetic mean of respective values for influent samples collected at approximately the same times during the same period (i.e., 35 percent BOD removal and 65 percent suspended solids removal).

3. The discharge shall not have 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 limit of quality:

TOXICITY:

The survival of acceptable test organisms 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. Representative samples of the effluent shall not exceed the following limits more than the percentage of time indicated: ⁽¹⁾

<u>Constituent</u>	<u>Unit of Measurement</u>	<u>50% of time</u>	<u>10% of time</u>
Arsenic	mg/l (kg/day)	0.01 (0.0946)	0.02 (0.189)
Cadmium	mg/l (kg/day)	0.02 (0.189)	0.03 (0.284)
Total Chromium	mg/l (kg/day)	0.005 (0.0473)	0.01 (0.0946)
Copper	mg/l (kg/day)	0.2 (1.892)	0.3 (2.84)
Lead	mg/l (kg/day)	0.1 (0.946)	0.2 (1.89)
Mercury	mg/l (kg/day)	0.001 (0.0095)	0.002 (0.0189)
Nickel	mg/l (kg/day)	0.1 (0.946)	0.2 (1.89)
Silver	mg/l (kg/day)	0.02 (0.189)	0.04 (0.378)
Zinc	mg/l (kg/day)	0.3 (2.84)	0.5 (4.73)
Cyanide	mg/l (kg/day)	0.1 (0.946)	0.2 (1.89)
Phenolic Compounds	mg/l (kg/day)	0.5 (4.72)	1.0 (9.46)
Total Identifiable Chlorinated Hydrocarbons	mg/l (kg/day) ⁽²⁾	0.002 (0.0189)	0.004 (0.0378)

(1) These limits are intended to be achieved through secondary treatment, source control, and application of pretreatment standards.

(2) Total Identifiable Chlorinated Hydrocarbons shall be measured by summing the individual concentrations of DDT, DDD, DDE, aldrin, BHC, chlordane, endrin, heptachlor, lindane, dieldrin, polychlorinated biphenyls, and other identifiable chlorinated hydrocarbons.

6. The arithmetic mean of values for BOD and Suspended Solids in effluent samples collected in a period of 30 consecutive days shall not exceed 15 percent of the arithmetic mean of respective values for influent samples collected at approximately the same times during the same period (i.e., 85 percent removal).

7. Total coliform bacteria for a median of 5 consecutive samples shall not exceed 23 MPN/100 ml. Any single sample shall not exceed a most probable number (MPN) of 1,000 total coliform bacteria per 100 ml when verified by a repeat sample taken within 48 hours.

8. The daily discharge rate is obtained from the following calculation for any calendar day:

$$\text{Daily discharge rate} = \frac{8.34}{N} \sum_{i=1}^N Q_i C_i$$

in which N is the number of samples analyzed in any calendar day. Q_i and C_i are the flow rate (MGD) and the constituent concentration (mg/l) respectively, which are associated with each of the N grab samples which may be taken in any calendar day. If a composite sample is taken, C_i is the concentration measured in the composite sample and Q_i is the average flow rate occurring during the period over which samples are composited.

9. The 30-day average discharge rate or concentration shall be the arithmetic average of all the daily values calculated using the results of analyses of all samples collected during any 30 consecutive calendar day period. If fewer than four samples are collected and analyzed during any 30 consecutive calendar day period, compliance with the 30-day average limitation shall not be determined.
10. The 7-day average values for discharge rate or concentration shall be the arithmetic average of all the daily values calculated using the results of analyses of all the samples collected during any 7-day period. If fewer than three samples are collected and analyzed during any 7 consecutive calendar day period, compliance with the 7-day average specifications shall not be determined.
11. Instantaneous maximum limitations shall be applied to the values of the measurements obtained for any single grab sample.
12. Geometric Mean of "n" is the n^{th} root of the product of the values represented by X:

$$GM = \sqrt[n]{X_1 \times X_2 \times X_3 \dots X_n}$$

B. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in water of the State at any place.
- Floating, suspended, or deposited macroscopic particulate matter or foam;
 - Bottom deposits or aquatic growths;
 - Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
 - Visible, floating, suspended, or deposited oil or other products of petroleum origin;
 - 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.

a. Compliance with Effluent Limitation A.1.d.:

<u>Task</u>	<u>Completion Date</u>	<u>Report of Compliance Due</u>
Full compliance	November 1, 1974	November 15, 1974

b. Compliance with Effluent Limitation A.2.c.:

<u>Task</u>	<u>Completion Date</u>	<u>Report of Compliance Due</u>
Status Report	May 1, 1975	May 1, 1975
Full compliance	October 1, 1975	October 15, 1975

c. Limitation A.2.b. will become effective 6 months after the failure of the discharger to meet one of the compliance dates in the following schedule:

<u>Task</u>	<u>Compliance Date</u>	<u>Report of Compliance Due</u>
Submit Final Project Report on a Regional Wastewater Treatment Project	2-15-76	3-1-76
Submit a Fully Executed Joint Powers Agreement if required for the construction of an Approved Wastewater Treatment Project	5-15-76	6-1-76
Begin Preparation of Plans and Specifications for the Design of the Approved Wastewater Treatment Project	5-15-76	
Submit final Plans and Specifications for the Construction of the Approved Wastewater Treatment Project	4-1-77	4-15-77
Award Construction Contract for the Construction of the Approved Wastewater Treatment Project	6-30-77	7-14-77

d. Compliance with Effluent Limitations A.1.a., b., c., e., A.4., A.6., Receiving Water Limitations B.1.a. and e., and Prohibitions D.1. and D.2.:

<u>Task</u>	<u>Completion Date</u>	<u>Report of Compliance Due</u>
Develop conceptual plan.	February 1, 1975	February 15, 1975
Submit program and time schedule for compliance.	July 1, 1975	July 15, 1975

e. Compliance with Effluent Limitation A.5.:

<u>Task</u>	<u>Completion Date</u>	<u>Report of Compliance Due</u>
Development and begin implementation of program for source control and compliance with pretreatment standards.	May 1, 1975	May 15, 1975



<u>Task</u>	<u>Completion Date</u>	<u>Report of Compliance Due</u>
Implementation of program for source control and program for compliance with pretreatment standards to include compliance time schedules for all industries.	May 1, 1976	May 15, 1976
Compliance with program for source control and compliance with pretreatment standards	May 1, 1977	December 15, 1976 May 15, 1977
Documentation of Compliance with effluent limitations.	December 1, 1977	December 15, 1977

This Regional Board will consider amendment of the Effluent Limitation A.5., if the discharger demonstrates that compliance cannot be achieved through a program acceptable to the Board for source control and pretreatment standards.

- f. The discharger shall comply with all other effluent and receiving water limitations, prohibitions, and provisions of this Order immediately.

The discharger shall submit a report to the Board on or before each compliance report date, 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 estimate 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 Discharger shall submit to the Executive Officer a contingency plan for the continuous operation of facilities for the collection, treatment and disposal of waste pursuant to Regional Board Resolution No. 74-10 by February 15, 1974.
4. Pretreatment of Industrial Wastewaters: In addition to requirements in Item 3 of the attached "Standard Provisions" and Item 4 of the attached "Reporting Requirements" and in conjunction with the tasks listed under Provision 2.d above the discharger shall:
 - a. Require that all existing major contributing industries comply with pretreatment standards for prohibited wastes and incompatible pollutants within the shortest reasonable time but not later than three years from the date of their promulgation by the Environmental Protection Agency. New industrial sources shall comply upon initiation of discharge to the municipal facility.
 - b. Submit to this Board and the Regional Administrator of EPA by May 15, 1976, for each major contributing industry, either:
 - 1) Evidence of compliance with pretreatment standards promulgated pursuant to Section 307(b) of the Federal Water Pollution Control Act, or;

2) A report which shall set forth the effluent limits to be achieved and a time schedule for compliance with such limits. In every case such time schedules shall require initiation of any needed construction of pretreatment facilities within 18 months of the date of promulgation of applicable pretreatment standards.

c. Monitor the compliance of all affected sources with the requirements of this provision and submit quarterly reports on the status of such compliance to the Board and the Regional Administrator of EPA commencing 18 months after the date of adoption of this permit. Quarterly reports shall include each instance of compliance or non-compliance by an affected source with the time schedule for compliance submitted as required in "b" above. For each affected source not covered by a current time schedule, the quarterly reports shall include the results of monitoring the wastewater flow by the discharger or at the direction of the discharger, by the source, or by both, in such a manner and frequency so as to produce information that will demonstrate to the satisfaction of the Board and the Regional Administrator compliance or non-compliance with the pretreatment standards applicable to that source. such monitoring shall comply with Part A, sections B and E.1. of the dischargers' self-monitoring program.

5. The requirements prescribed by this Order amend the requirements prescribed by Resolution No. 69-22, adopted by the Board on May 28, 1969, and are effective on the dates of compliance prescribed in the above time schedule, PROVIDED HOWEVER, that the following requirements prescribed in Resolution No. 69-22 shall remain in effect until Cease and Desist Orders Nos. 71-17, 72-60, and 73-39 are rescinded by this Board:

WASTE DISCHARGE REQUIREMENTS - RECEIVING WATERS

2 and 3 with respect to apparent color, and;

WASTE DISCHARGE REQUIREMENTS - WASTE STREAM

3 and 4.

6. This Order includes Items 1, 2, 4, and 5 of the attached "Reporting Requirement", dated August 8, 1973.
7. This Order includes all items of the attached "Standard Provisions", dated August 8, 1973.
8. This Order expires on July 1, 1977, 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.
9. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by a letter, a copy of which shall be forwarded to this Board.

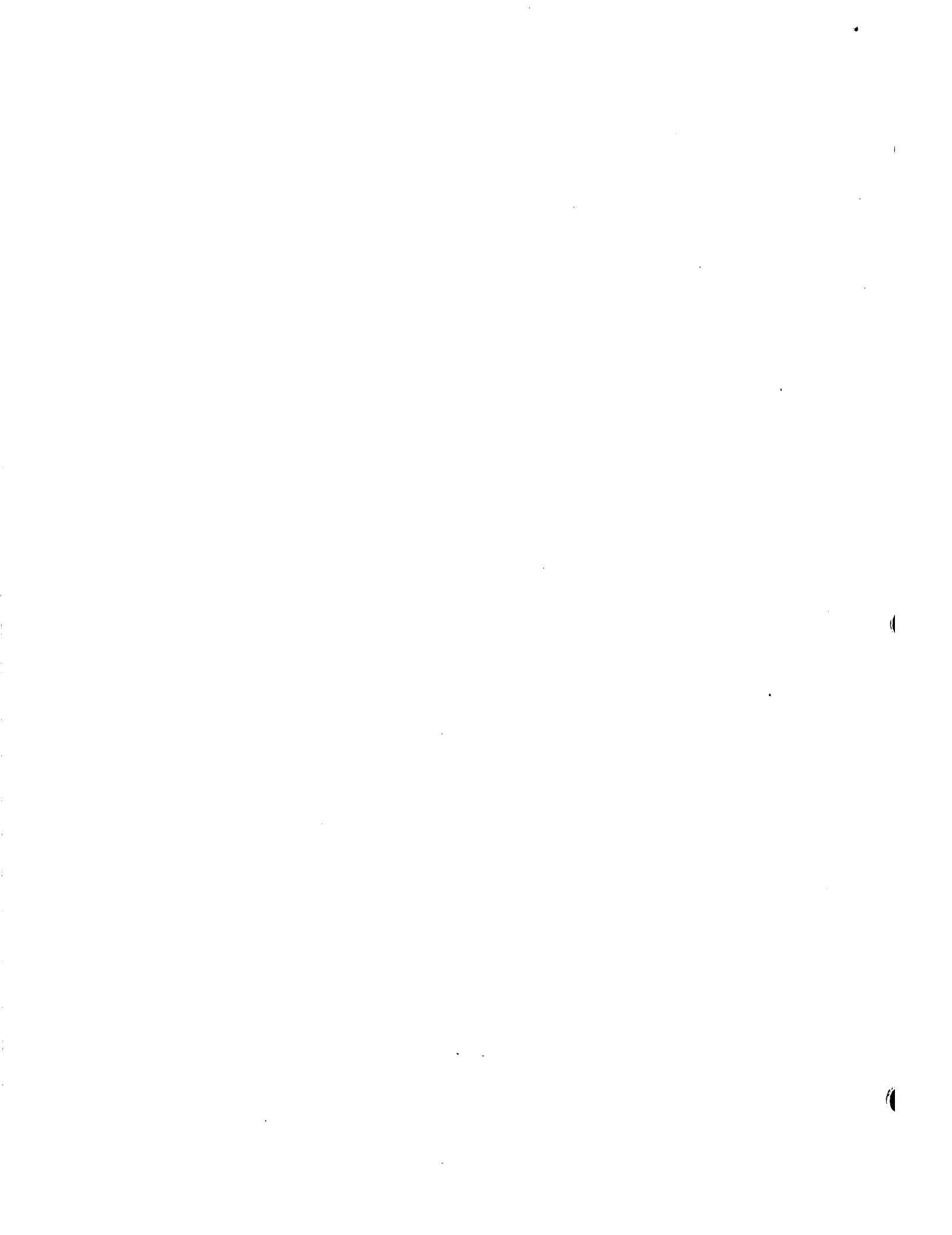
I, Bill B. Dendy, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on October 15, 1974, as amended by the State Water Resources Control Board

JUN 19 1975

/s/ Bill B. Dendy
Bill B. Dendy
Executive Officer

Attachments:

Reporting Requirement 8/8/73
Standard Provisions 8/8/73
Self-Monitoring Program



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

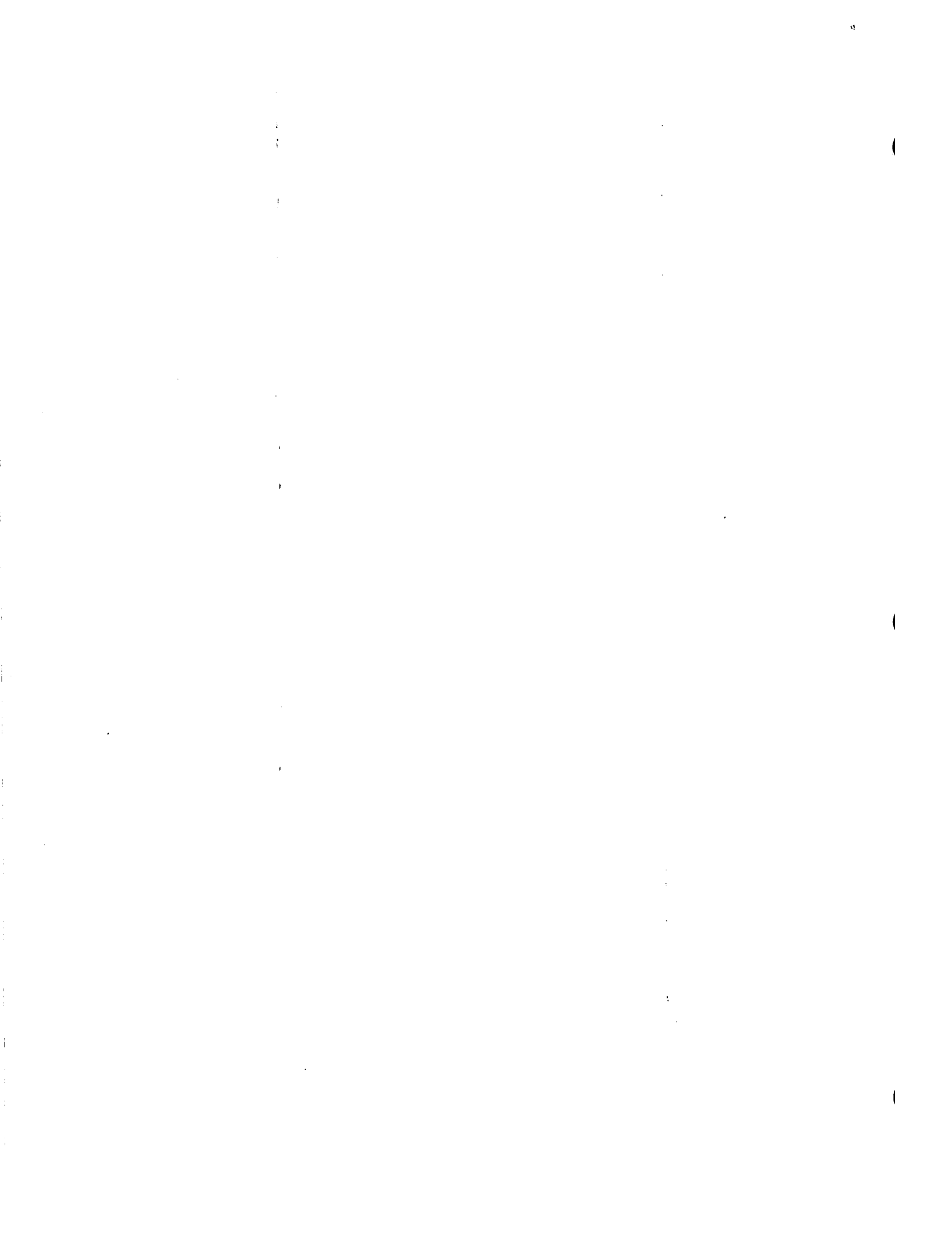
ORDER NO. 74-109

NPDES NO. CA0037508

SELF-MONITORING PROGRAM FOR:

CITY OF PITTSBURG - MONTEZUMA PLANT
CONTRA COSTA COUNTY

CONSISTS OF PART A AND PART B



PART A

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 monitoring program by a waste discharger, also referred to as self-monitoring program, 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. A depth-integrated sample is defined as a water or waste sample collected by allowing a sampling device to fill during a vertical traverse in the waste or receiving water body being sampled and shall be collected in such a manner that the collected sample will be representative of the waste or water body at that sampling point.

4. Bottom Sediment Samples and Sampling and Reporting Guidelines

a. Bottom sediment sample means: (1) a separate grab sample taken at each sampling station for the determination of selected physical-chemical parameters, and (2) four grab samples collected from different locations in the immediate vicinity of a sampling station while anchored and analyzed separately for macroinvertebrates.

(1) Physical-chemical sample analyses to include:

(a) pH

(b) TOC

(c) Grease analysis:

(1) Mg grease per kg sediment

(2) Percent fraction of hydrocarbon in grease

(d) Metals (depending on industrial input) mg/kg dry wt.

(e) Particle size distribution, i.e., % sand, % silt-clay

(f) Depth of water at sampling station in meters

(g) Water salinity and temperature in the water column within 30 centimeters of the bottom

(2) Macroinvertebrate sample and analyses to include:

(a) Number of invertebrates per square meter and per liter of sediment.

(b) Identification of polychaetes, amphipods, and molluscs to species and enumeration of each species.

(c) Record total oligochaetes per square meter and per liter of sediment.

(d) Record sediment characteristics for each grab sample, i.e., rock, % sand, % silt-clay, presence of organic detritus, etc.

- b. Bottom sediment sampling and reporting guidelines means those guidelines developed by the Regional Board staff to provide for standard bottom sampling, laboratory, and reporting procedures.

5. 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.
- (4) Evidence of beneficial water use: presence of water-associated wildlife, fishermen, and other recreational activities in the vicinity of the sampling stations.
- (5) Hydrographic condition:
 - (a) Time and height of high and low tides corrected to nearest location for the sampling date and time of sample and collection.
 - (b) Water and sampling depths.
- (6) Weather condition:
 - (a) Air temperatures.
 - (b) Wind - direction and estimated velocity.
 - (c) Precipitation - total precipitation during the previous five days and on the day of observation.

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. Beach and Shoreline

- (1) Material of waste origin: presence or absence, description of material, estimated size of affected area, and source.
- (2) Beneficial use: estimated number of people sunbathing, swimming, waterskiing, surfing, etc.

d. Land Retention or Disposal Area

This applies both to liquid and solid wastes confined or unconfined.

- (1) Determine height of the freeboard at lowest point of dikes confining liquid wastes.
- (2) Evidence of leaching liquid from area of confinement and estimated size of affected area. (Show affected area on a sketch.)
- (3) Odor: presence or absence, characterization, source, and distance of travel.
- (4) Estimated number of waterfowl and other water-associated birds in the disposal area and vicinity.

e. Periphery of Waste Treatment and/or Disposal Facilities

- (1) Odor: presence or absence, characterization, source, and distance of travel.
- (2) Weather condition: wind - direction and estimated velocity.

D. SCHEDULE OF SAMPLING, ANALYSES, AND OBSERVATIONS

The discharger is required to perform observations, sampling, and analyses according to the schedule in Part B with the following conditions:

1. Influent

- a. Composite samples of influent shall be collected on varying days selected at random.

2. Effluent

- a. Composite samples of effluent shall be collected on days coincident with influent composite sampling, or on varying days selected at random.
- b. Grab samples of effluent shall be collected during periods of maximum peak flows, unless otherwise stipulated.

3. Receiving Waters

- a. Receiving water sampling shall be done on days coincident with composite sampling of effluent.
- b. Receiving water samples shall be collected at each station on each sampling day during the period of lower slack water. Where sampling at lower slack water period is not practical, sampling shall be performed during higher slack water period.
- c. All samples shall be collected within one foot below the surface of the receiving water body, unless otherwise stipulated.

4. Observations

- a. Land disposal sites shall be inspected for evidence of leaching or surfacing waste, and all other applicable Standard Observations.
- b. Ponds shall be inspected, and available freeboard of each shall be measured and recorded; odors detected shall be noted.

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 following flow data for influent and effluent stations and disposal areas:
 - a. Total waste flow or volume for each day.
 - b. Maximum and minimum flow rates for each day and the times of their occurrences.
 - c. The average, maximum, and minimum daily flows for each month.
3. A tabulation relative to bypassing and accidental waste spills shall be maintained showing information items listed in Sections F-1 and F-2 for each occurrence.
4. A chronological log for each month shall be maintained of the effluent disinfection and bacterial analyses, showing the following:
 - a. Date and time each sample is collected and waste flow rate at time of collection.
 - b. Chlorine residual, contact time, and dosage (in kilograms per day and parts per million).
 - c. Coliform count for each sample.
 - d. Moving median coliform of the number of samples specified by waste discharge requirements.

F. REPORTS TO BE FILED WITH THE REGIONAL BOARD

1. Spill Reports

A report shall be made of any spill of oil or other hazardous material. Spills shall be reported to this Regional Board and the U. S. Coast Guard 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 spilling,
- 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 month (unless specified otherwise) by the fifteenth day of the following month. 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:

- (1) In the case of corporations, by a principal executive officer at the level of vice-president or his duly authorized representative if such representative is responsible for the overall operation of the facility from which the discharge originates, or
- (2) In the case of a partnership, by a general partner, or
- (3) In the case of a sole proprietorship, by the proprietor, or
- (4) In the case of a municipal, State, or other public facility, 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 Part B 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 for each constituent total number of analyses, maximum, minimum, and average values for each period. The report format will be the NPDES Discharge Monitoring Report, EPA Form 3320-1. The discharger shall fill out this form according to instructions thereon (APPENDIX C). Flow data shall be included. This form is available at the Regional Board office.

The original of EPA Form 3320-1 shall be mailed with the complete Self-Monitoring Report to:

Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
Attention: Surveillance Division
1111 Jackson Street
Oakland, CA 94607

A copy of EPA Form 3320-1, only, shall be mailed to:

Regional Administrator
U. S. Environmental Protection Agency
Attention: Enforcement Division
100 California Street
San Francisco, CA 94111

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).

g. Flow Data

- (1) The tabulation pursuant to Section E-2.
- (2) Listing of the dates and the magnitudes of the flows which exceed 75% of the design capacity of the treatment and/or disposal facilities.

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.

REVISED
7/2/74

Requirement Compliance Summary - An Example

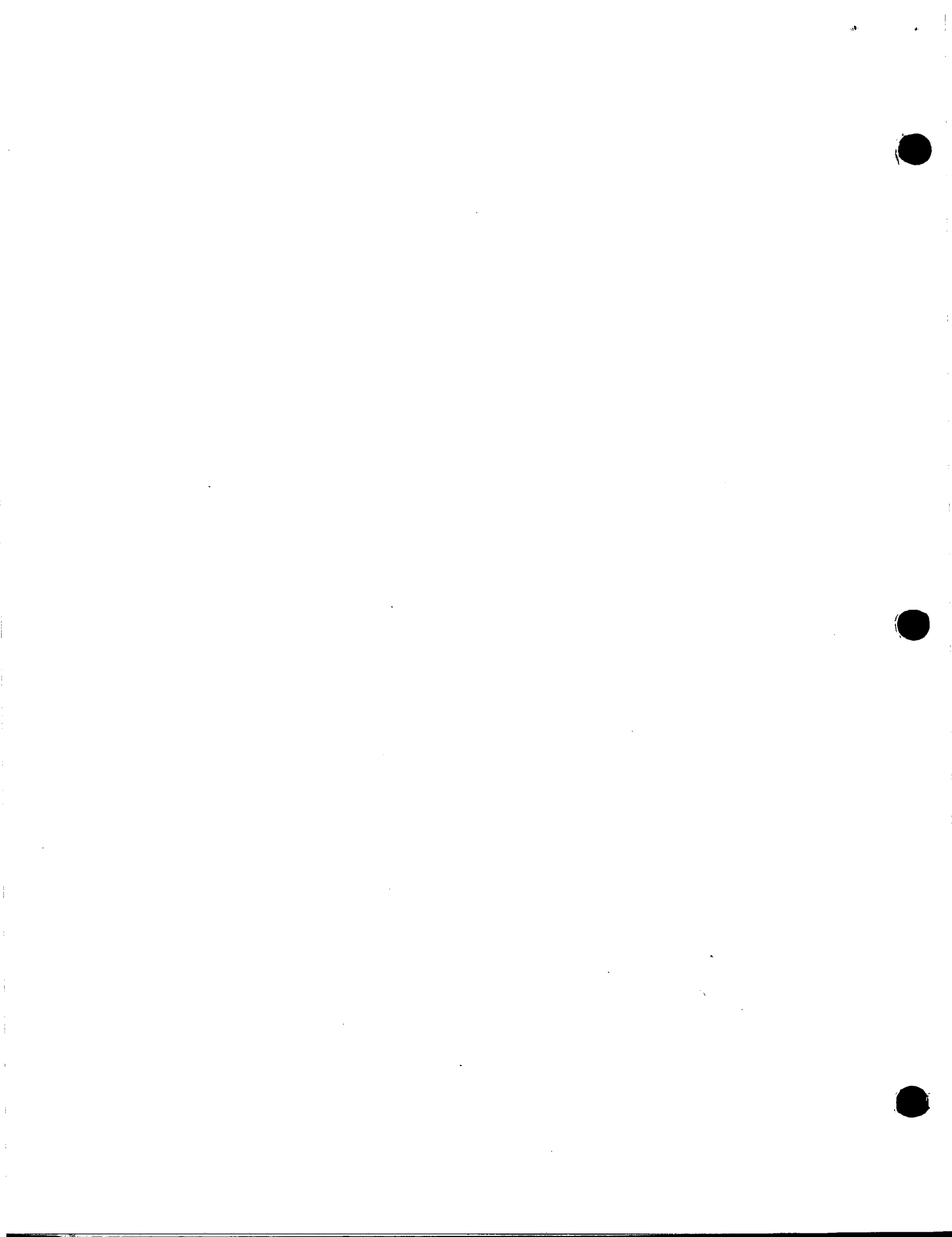
TABLE 1 (5)

		Limit	Parameter	
		Arithmetic mean - 30 consecutive days 30mg/L	BOD	
		Arithmetic mean - 7 consecutive days 45mg/L		
		Percent removal - 85% 30 consecutive days		
		Arithmetic mean - 30 consecutive days 30mg/L	SUSPENDED SOLIDS	
		Arithmetic mean - 7 consecutive days 45mg/L		
		Percent removal - 85% 30 consecutive days		
		Geometric Mean - 30 consecutive days - 200 per 100ml	FECAL COLIFORM BACTERIA	
		Geometric mean - 7 consecutive days - 400 per 100ml		
		7.0 - 8.5	pH	
		T _c - X ₁ maximum	TOXICITY	
		T _c - X ₂ mean		
		TER - X ₃ mgd		
		86° F maximum	TEMPERATURE	
		Δ20° F of R/W ambient		
		0.5 mg/L maximum	ZINC	
		4 kg/day mean 30 days		
		5 kg/day maximum		
		Number of occurrences	BYPASSES	
		Minimum of 5.0 mg/L	DISSOLVED OXYGEN	
		Minimum of 7.0 Maximum of 8.5	pH	
		Maximum of 0.1 mg/L	DISSOLVED SULFIDES	
		Not more than 20% of the samples from any station shall exceed MPN of 1000/100ml in any 30-day period	COLIFORM ORGANISMS	
			FLOATING SOLIDS OR FOAM	
			FLOATING OIL	
			TURBIDITY AND/OR DISCOLORATION	
			ATMOSPHERIC ODOR OF WASTE ORIGIN	
Jan.		0/1		
Feb.		1/1		
Mar.		1/1		
Apr.		0/1		
May				
June				
July				
Aug.				
Sep.				
Oct.				
Nov.				
Dec.				

WASTE EFFLUENT

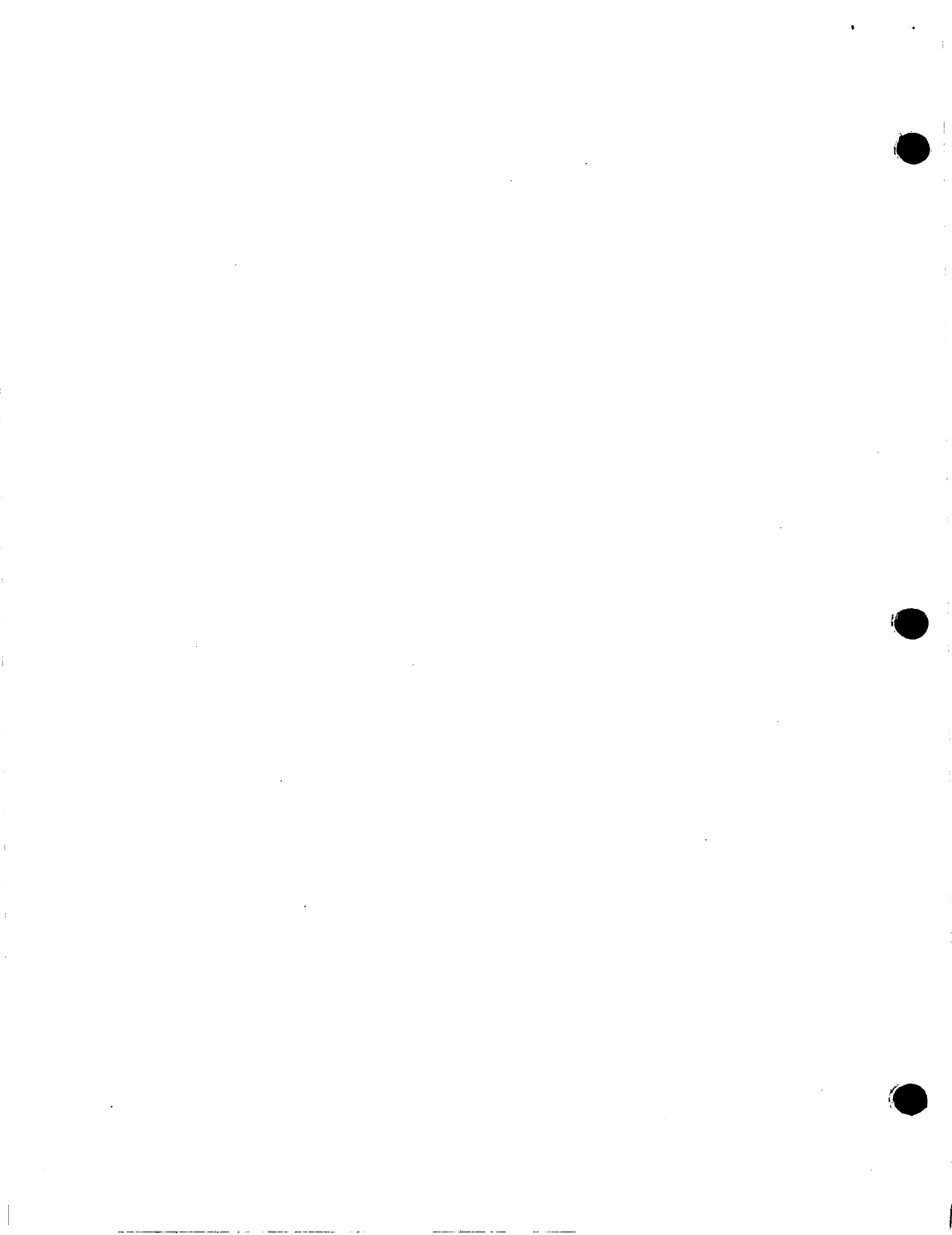
RECEIVING WATER

--See Reverse Side Instructions--



FOOTNOTES:

- (1) 4/30 means that on 4 of 30 days sampled during the indicated month, the pH requirement was violated.
- (2) 0/1 means that the geometric mean for the 30 consecutive days in this month was less than 200/100ml Fecal Coliform.
- (3) 4/4 means that all of 4 weekly arithmetic means exceeded 45 mg/L Suspended Solids.
- (4) 2/2 means DO samples were collected on two days during each of the indicated months and on each sampling day at least one station was found in violation of requirement.
- (5) Each discharger shall prepare his compliance summary using constituents and requirement limits specified in his permit.



MONITORING REPORT
RECEIVING WATERS, PONDS, PLANT SURVEYS

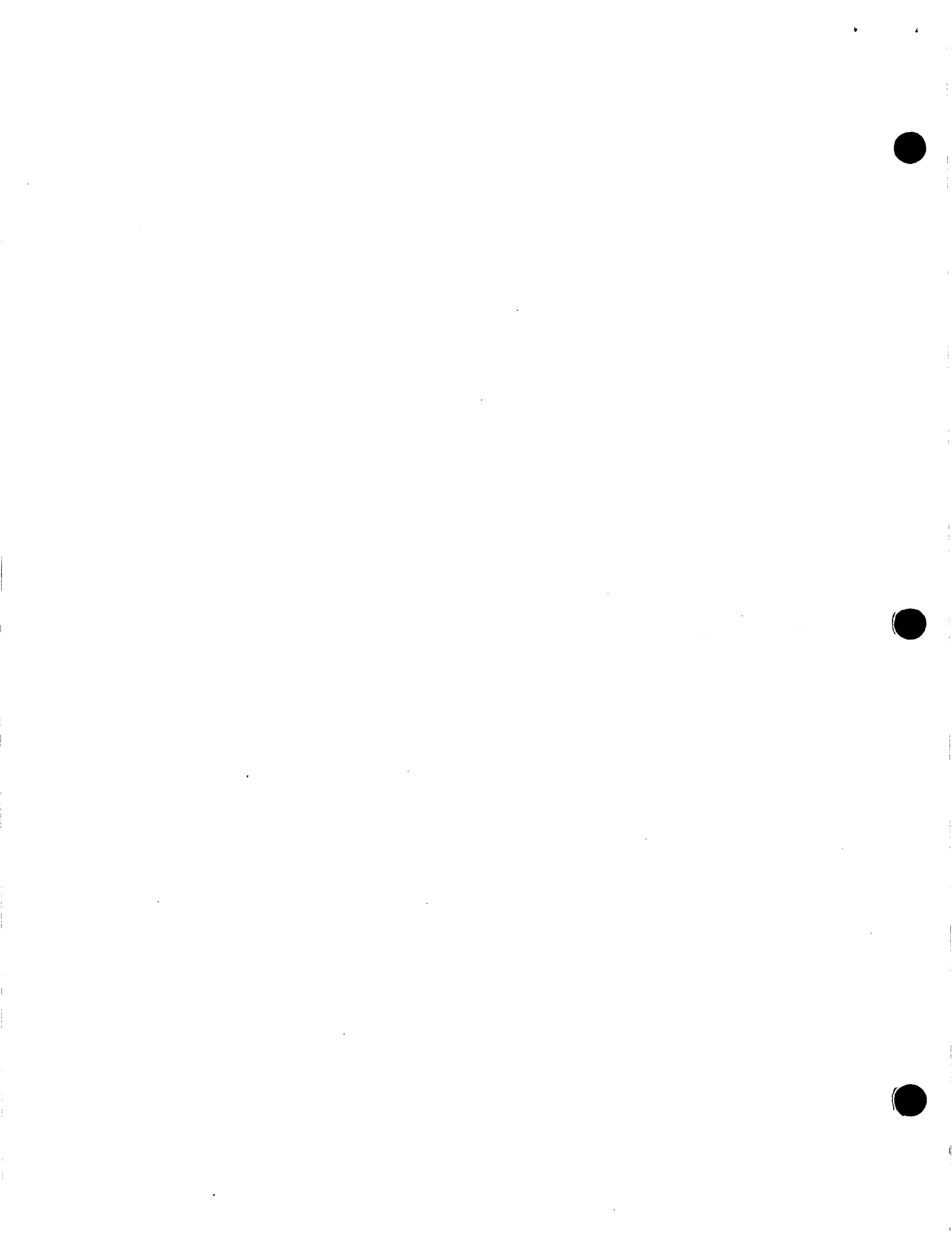
Date: _____

Page _____ of _____

STATION													
TIME													
STANDARD OBSERVATIONS:													
Floating Material	Type												
	Source												
	Extent												
Turbidity	Type												
	Source												
Color	Type												
	Source												
Bottom Deposits	Type												
	Extent												
Algae, Plants	Type												
	Source												
	Extent												
Odors	Type												
	Intensity												
	Source												
	Extent												
Weather													
Wind	Direction												
	Speed(mph)												
Current	Direction												
	Speed(fps)												
Recreation	Type												
	Number												
Wildlife													
Depth (feet)	Water												
	Sample												
ANALYSES:													
Dissolved Oxygen	mg/L												
Temperature	°C												
Sulfides (mg/L)	Total												
	Dissolved												
pH	Units												
Secchi Disk (inches)													
Turbidity	JC Units												
Coliform	MPN/100ml												
Ammonia Nitrogen	mg/L												
Nitrate Nitrogen	mg/L												
Nitrite Nitrogen	mg/L												
Organic Nitrogen	mg/L												
Phosphate (Total)	mg/L												
Orthophosphate	mg/L												
Total Dissolved Solids	mg/L												
Chloride	mg/L												
Chlorophyll a	mg/L												
Electrical													
Conductivity	µohm/cm												

TIDES	
Elev.	Time
_____	_____
_____	_____
_____	_____

Analysis by: _____



FISH BIOASSAY REPORT

Description of Samples: _____ Date Received: _____

Source: _____ Collected by: _____

SUMMARY OF RESULTS

SAMPLE AS RECEIVED

TLM	pH _____	Residual Cl ₂ _____
24 Hours _____ %	Temp °C _____	(mg/l)
48 Hours _____ %	Dissolved _____	Remarks: _____
72 Hours _____ %	Oxygen (mg/l) _____	_____
96 Hours _____ %	_____	_____

ANALYTICAL DATA

Test Species: _____ Source of Fishes: _____

Size: _____ inches Source of Dilution Water: _____

Sample Dilution Portions (were) (were not) aerated.

_____ fishes per _____ liters of test solutions were tested.

Test started: _____ Test ended: _____

BIOASSAY RESULTS

Percent Sample	24 Hours		48 Hours		72 Hours		96 Hours		% Survival Final
	Deaths	Survivors	Deaths	Survivors	Deaths	Survivors	Deaths	Survivors	
Control									
Temp °C									

CHEMICAL ASSAY DATA

Percent Sample	0 Hour				24 Hours			48 Hours			72 Hours			96 Hours		
	pH	ALK	mg/l Diss. O ₂	Hardness (mg/l CaCO ₃)	pH	ALK mg/l CaCO ₃	DO	pH	ALK	DO	pH	ALK	DO	pH	ALK	DO
Control																

Tested by: _____

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
DISCHARGE MONITORING REPORT

Form Approved
OMB NO. 159-R0073

INSTRUCTIONS

1. Provide dates for period covered by this report in spaces marked "REPORTING PERIOD".
2. Enter reported minimum, average and maximum values under "QUANTITY" and "CONCENTRATION" in the units specified for each parameter as appropriate. Do not enter values in boxes containing asterisks. "AVERAGE" is average computed over actual time discharge is operating. "MAXIMUM" and "MINIMUM" are extreme values observed during the reporting period.
3. Specify the number of analyzed samples that exceed the maximum (and/or minimum as appropriate) permit conditions in the columns labeled "No. Ex." If none, enter "0".
4. Specify frequency of analysis for each parameter as No. analyses/No. days. (e.g., "3/7" is equivalent to 3 analyses performed every 7 days.) If continuous enter "CONT."
5. Specify sample type ("grab" or "in composite") as applicable. If frequency was continuous, enter "NA".
6. Appropriate signature is required on bottom of this form.
7. Remove carbon and retain copy for your records.
8. Fold along dotted lines, staple and mail Original to office specified in permit.

(2-5) ST	(4-16) PERMIT NUMBER	(17-19) DIS	(20-21) SIC	(22-23) LATITUDE	(24-25) LONGITUDE
REPORTING PERIOD: FROM			TO		
(26-27) YEAR	(28-29) MO	(30-31) DAY	(26-27) YEAR	(28-29) MO	(30-31) DAY

PARAMETER	REPORTED	QUANTITY				CONCENTRATION				FREQUENCY OF ANALYSIS	SAMPLE TYPE
		MINIMUM	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS		
	PERMIT CONDITION										
	REPORTED										
	PERMIT CONDITION										
	REPORTED										
	PERMIT CONDITION										
	REPORTED										
	PERMIT CONDITION										
	REPORTED										
	PERMIT CONDITION										
	REPORTED										
	PERMIT CONDITION										
	REPORTED										
	PERMIT CONDITION										

NAME OF PRINCIPAL EXECUTIVE OFFICER			TITLE OF THE OFFICER			DATE			I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief such information is true, complete, and accurate.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
LAST	FIRST	MI	TITLE	YEAR	MO	DAY				

TABLE 2 - An Example
 ANNUAL AVERAGE WASTE CHARACTERISTICS AND LOADING SUMMARY
 (Unless otherwise noted, figures in the table are average values.)

PARAMETER	FLOOR		BOD	SUSPENDED SOLIDS		OIL & GREASE 96-HR BIOMASSAY		FISH TOXICITY		NH ₃ -N	NO ₃ -N	ORGANIC-N		PHOSPHATE	HEAVY METALS (1)
	Ave. Daily (mgd)	Max. Daily (mgd)		Ave. Daily (mg/l)	Max. Daily (mg/l)	Ave. Daily (mg/l)	Max. Daily (mg/l)	Ave. Daily (mg/l)	Max. Daily (mg/l)			Ave. Daily (mg/l)	Max. Daily (mg/l)		
MONTH	Daily (mgd)		mg/l		mg/l		mg/l		mg/l		mg/l		mg/l		mg/d
JANUARY															
FEBRUARY															
MARCH															
APRIL															
MAY															
JUNE															
JULY															
AUGUST															
SEPT.															
OCTOBER															
NOVEMBER															
DECEMBER															
ANNUAL AVERAGE															

FOOTNOTE: (1) Heavy metal concentrations and loadings should be given for each individual metal and should include at least Cadmium, Chromium, Copper, Lead, Mercury, and Zinc.

TABLE 3
ANNUAL RECEIVING WATER DATA
SUMMARY
-- AN EXAMPLE --

PARAMETER MONTH	DISSOLVED OXYGEN - MG/L						
	C-R			C-1			NUMBER OF SAMPLES
	Maximum	Minimum	Average	Maximum	Minimum	Average	
JANUARY							
FEBRUARY							
MARCH							
APRIL							
MAY							
JUNE							
JULY							
AUGUST							
SEPTEMBER							
OCTOBER							
NOVEMBER							
DECEMBER							
ANNUAL MAXIMUM							TOTAL NUMBER OF SAMPLES
ANNUAL MINIMUM							
ANNUAL AVERAGE							

FOOTNOTE: C-R = Reference Station.
C-1 = Receiving Water Station closest to the discharge point.

TABLE 4

ANNUAL WASTE CHARACTERISTIC AND LOADING
SUMMARY

-- AN EXAMPLE --

PARAMETER MONTH	B O D						
	CONCENTRATION (mg/l)			LOADING (lbs/day)			NUMBER OF SAMPLES
	Maximum	Minimum	Average	Maximum	Minimum	Average	
JANUARY							
FEBRUARY							
MARCH							
APRIL							
MAY							
JUNE							
JULY							
AUGUST							
SEPTEMBER							
OCTOBER							
NOVEMBER							
DECEMBER							
ANNUAL MAXIMUM							TOTAL NUMBER OF SAMPLES
ANNUAL MINIMUM							
ANNUAL AVERAGE							

The State Board will consider the comments and recommendations received from the regional board, the Department of Health, and other agencies if appropriate, to formulate its recommendations to the Regional Administrator.

Within 30 days of receipt of an application, the State Board will forward such application, together with its recommendations, to the Regional Administrator, EPA. Within 90 days of receipt by the Regional Administrator of an application for an alternate test procedure, the Regional Administrator shall notify the applicant and regional board of approval or rejection, or shall specify the additional information which would be required to determine whether to approve the proposed test procedure.

terminated by one of the standard analytical methods cited and described in Table I, or under certain circumstances by other methods that may be more advantageous to use when such other methods have been previously approved by the Regional Administrator of the Region in which the discharge will occur, and providing that the Director of the State in which such discharge will occur does not object to the use of such alternate test procedures.

Under certain circumstances the Re-

gional Administrator or the Director in the Region or State where the discharge will occur may determine for a particular discharge that additional parameters or pollutants must be reported. Under such circumstances, additional test procedures for analysis of pollutants may be specified by the Regional Administrator or Director upon the recommendation of the Director of the Methods Development and Quality Assurance Research Laboratory.

TABLE I—LIST OF APPROVED TEST PROCEDURES

Parameter and units	Method	References		
		Standard methods	ASTM	EPA methods
General analytical methods:				
1. Alkalinity as CaCO ₃ mg/CaCO ₃ /liter.	Titration: electrometric, manual or automated method—methyl orange.	p. 370	p. 143	p. 8 p. 8
2. B.O.D. five day mg/liter.	Modified winkler or probe method.	p. 489		
3. Chemical oxygen demand (C.O.D.) mg/liter.	Dichromate reflux.	p. 495	p. 219	p. 17
4. Total solids mg/liter.	Gravimetric 103-105° C.	p. 535		p. 280
5. Total dissolved (filterable) solids mg/liter.	Glass fiber filtration 180° C.			p. 276
6. Total suspended (non-filterable) solids mg/liter.	Glass fiber filtration 103-105° C.	p. 537		p. 278
7. Total volatile solids mg/liter.	Gravimetric 550° C.	p. 536		p. 282
8. Ammonia (as N) mg/liter.	Distillation—nesslerization or titration automated phenolate.			p. 194 p. 141
9. Kjeldahl nitrogen (as N) mg/liter.	Digestion + distillation—nesslerization or titration automated digestion phenolate.	p. 489		p. 149 p. 187
10. Nitrate (as N) mg/liter.	Cadmium reduction; brucine sulfate; automated cadmium or hydrazine reduction.	p. 458 p. 451	p. 124	p. 178 p. 175 p. 185
11. Total phosphorus (as P) mg/liter.	Persulfate digestion and single reagent (ascorbic acid), or manual digestion, and automated single reagent or stannous chloride.	p. 526 p. 532	p. 42	p. 235 p. 284 p. 283
12. Acidity mg CaCO ₃ /liter.	Electrometric end point or phenolphthalein end point.		p. 148	
13. Total organic carbon (TOC) mg/liter.	Combustion—Infrared method.	p. 257	p. 702	p. 231
14. Hardness—total mg CaCO ₃ /liter.	EDTA titration; automated colorimetric atomic absorption.	p. 179	p. 170	p. 78 p. 78
15. Nitrite (as N) mg/liter.	Manual or automated colorimetric diazotization.			p. 185 p. 186
Analytical methods for trace metals:				
16. Aluminum—total mg/liter.	Atomic absorption.	p. 210		p. 98
17. Antimony—total mg/liter.	Atomic absorption.			
18. Arsenic—total mg/liter.	Digestion plus silver diethyldithiocarbamate; atomic absorption.	p. 65 p. 62		p. 18
19. Barium—total mg/liter.	Atomic absorption.	p. 210		
20. Beryllium—total mg/liter.	Aluminum, atomic absorption.	p. 67 p. 210		
21. Boron—total mg/liter.	Curexamin.	p. 60		
22. Cadmium—total mg/liter.	Atomic absorption; colorimetric.	p. 210 p. 423	p. 692	p. 101
23. Calcium—total mg/liter.	EDTA titration; atomic absorption.	p. 84	p. 692	p. 102
24. Chromium VI mg/liter.	Extraction and atomic absorption; colorimetric.	p. 423		p. 94

Parameter and units	Method	References		
		Standard methods	ASTM	EPA methods
25. Chromium—total mg/liter.	Atomic absorption; colorimetric.	p. 210 p. 426		p. 62 p. 101 p. 104
26. Cobalt—total mg/liter.	Atomic absorption.			p. 62
27. Copper—total mg/liter.	Atomic absorption; colorimetric.	p. 210 p. 130 p. 210		p. 62 p. 110 p. 104
28. Iron—total mg/liter.	do.	p. 210 p. 484		p. 62 p. 102
29. Lead—total mg/liter.	do.	p. 210 p. 433		p. 108 p. 110
30. Magnesium—total mg/liter.	Atomic absorption; Gravimetric.	p. 210 p. 116 p. 291		p. 62 p. 112
31. Manganese—total mg/liter.	Atomic absorption.	p. 210		p. 62 p. 114
32. Mercury—total mg/liter.	Flameless atomic absorption.			
33. Molybdenum—total mg/liter.	Atomic absorption.			
34. Nickel—total mg/liter.	Atomic absorption; colorimetric.	p. 113		p. 62
35. Potassium—total mg/liter.	Atomic absorption; colorimetric; flame photometric.	p. 282 p. 285		p. 36 p. 115
36. Selenium—total mg/liter.	Atomic absorption.			
37. Silver—total mg/liter.	Atomic absorption.	p. 210		
38. Sodium—total mg/liter.	Flame photometric; atomic absorption.	p. 317		p. 36 p. 115
39. Thallium—total mg/liter.	Atomic absorption.			
40. Tin—total mg/liter.	do.			
41. Titanium—total mg/liter.	do.			
42. Vanadium—total mg/liter.	Atomic Absorption; Colorimetric.	p. 157		
43. Zinc—total mg/liter.	Atomic Absorption; Colorimetric.	p. 210 p. 444		p. 62 p. 120
Analytical methods for nutrients, anions, and organics:				
44. Organic nitrogen (as N) mg/liter.	Kjeldahl nitrogen minus ammonia nitrogen.	p. 482		p. 110
45. Ortho-phosphate (as P) mg/liter.	Direct single reagent; automated single reagent or stannous chloride.	p. 332	p. 42	p. 235 p. 216 p. 284
46. Sulfate (as SO ₄) mg/liter.	Gravimetric; turbidimetric; automated colorimetric—barium chloranilate.	p. 331 p. 334	p. 51 p. 52	p. 26 p. 28
47. Sulfide (as S) mg/liter.	Titrimetric—iodine.	p. 351		p. 28
48. Sulfite (as SO ₃) mg/liter.	Titrimetric; iodido-iodate.	p. 357		p. 28
49. Bromide mg/liter.	do.			p. 216
50. Chloride mg/liter.	Silver nitrate; mercuric nitrate; automated colorimetric—mercuric cyanide.	p. 36 p. 97	p. 23 p. 21	p. 28 p. 31
51. Cyanide—total mg/liter.	Distillation—silver nitrate titration or pyridine pyrazolone colorimetric.	p. 347	p. 57	p. 41
52. Fluoride mg/liter.	Distillation—SPA DNS.	p. 171 p. 174		p. 61
53. Chlorine—total residual mg/liter.	Colorimetric; amperometric titration.	p. 382		p. 23
54. Oil and grease mg/liter.	Liquid-Liquid extraction with trichlorotrifluoroethane.	p. 254		
55. Phenols mg/liter.	Colorimetric, 4 AAP.	p. 502		p. 415 p. 232
56. Sulfonamides mg/liter.	Methylene blue colorimetric.	p. 339		p. 63 p. 139
57. Aldehydes mg/liter.	Gas chromatography.			
58. Benzidine mg/liter.	Diazotization—colorimetric.			
59. Chlorinated organic compounds (except pesticides) mg/liter.	Gas chromatography.			
60. Pesticides mg/liter.	Gas chromatography.			
Analytical methods for physical and biological parameters:				
61. Color platinum-cobalt units or dominant wave-length, hue, luminance, purity.	Colorimetric; spectrophotometric.	p. 160 p. 392		p. 8
62. Specific conductance mhos/cm at 25° C.	Wheatstone bridge.	p. 323		p. 163 p. 284
63. Turbidity jackson units.	Turbidimeter.	p. 359		p. 407 p. 284

See Note at end of Table I

RULES AND REGULATIONS

Parameter and units	Method	References		
		Standard methods	ASTM	EPA methods
64. Fecal streptococci bacteria number/100 ml.	MPN; membrane filter; plate count.	p. 690		
65. Coliform bacteria (fecal) number/100 ml.	MPN; Membrane filter.	p. 691		
66. Coliform bacteria (total) number/100 ml.	do.	p. 694		
Radiological parameters:				
67. Alpha—total pCi/liter.	Proportional counter; scintillation counter.	p. 578	p. 599	
68. Alpha—counting error pCi/liter.	do.	p. 579	p. 512	
69. Beta—total pCi/liter.	Proportional counter.	p. 598	p. 478	
70. Beta—counting error pCi/liter.	do.	p. 599	p. 478	
71. Radium—total pCi/liter.	Proportional counter; scintillation counter.	p. 611	p. 674	
		p. 617		

¹ A number of such systems manufactured by various companies are considered to be comparable in their performance. In addition, another technique, based on Combustion-Methane Detection, is also acceptable.

² For the determination of total metals the sample is not filtered before processing. Choose a volume of sample appropriate for the expected level of metals. If much suspended material is present, as little as 50-100 ml of well-mixed sample will usually probably be sufficient. The sample volume required may also vary proportionally with the number of metals to be determined.

Transfer a representative aliquot of the well-mixed sample to a Griffin beaker and add 3 ml of concentrated distilled HNO₃. Place the beaker on a hotplate and evaporate to dryness making certain that the sample does not boil. Cool the beaker and add another 3 ml portion of distilled concentrated HNO₃. Cover the beaker with a watch glass and return to the hotplate. Increase the temperature of the hotplate so that a gentle reflux action occurs. Continue heating, adding additional acid as necessary until the digestion is complete, generally indicated by a light colored residue. Add (1:1 with distilled water) distilled concentrated HCl in an amount sufficient to dissolve the residue upon warming. Wash down the beaker walls and the watch glass with distilled water and filter the sample to remove silicates and other insoluble material that could clog the atomizer. Adjust the volume to some predetermined value based on the expected metal concentrations. The sample is now ready for analysis. Concentrations so determined shall be reported as "total".

³ See D. C. Manning, "Technical Notes", Atomic Absorption Newsletter, Vol. 10, No. 6 p. 123, 1971. Available from Perkin-Elmer Corporation, Main Avenue, Norwalk, Connecticut 06852.

⁴ Atomic absorption method available from Methods Development and Quality Assurance Research Laboratory, National Environmental Research Center, USEPA, Cincinnati, Ohio 45268.

⁵ For updated method, see: Journal of the American Water Works Association 64, No. 1, pp. 20-23 (Jan. 1972) or ASTM Method D 3223-73, American Society for Testing and Materials Headquarters, 1916 Race St., Philadelphia, Pa. 19103.

⁶ Interim procedures for algicides, chlorinated organic compounds, and pesticides can be obtained from the Methods Development and Quality Assurance Research Laboratory, National Environmental Research Center, USEPA, Cincinnati, Ohio 45268.

⁷ Benzidine may be estimated by the method of M.A. El-Dib, "Colorimetric Determination of Aniline Derivatives in Natural Waters", El-Dib, M.A., Journal of the Association of Official Analytical Chemists, Vol. 54, No. 6, Nov., 1971, pp. 1383-1387.

⁸ As a prescreening measurement.

§ 136.4 Application for alternate test procedures.

(a) Any person may apply to the Regional Administrator in the Region where the discharge occurs for approval of an alternative test procedure.

(b) When the discharge for which an alternative test procedure is proposed occurs within a State having a permit program approved pursuant to section 402 of the Act, the applicant shall submit his application to the Regional Administrator through the Director of the State agency having responsibility for issuance of NPDES permits within such State.

(c) Unless and until printed application forms are made available, an appli-

cation for an alternate test procedure may be made by letter in triplicate. Any application for an alternate test procedure under this subchapter shall:

(1) Provide the name and address of the responsible person or firm making the discharge (if not the applicant) and the applicable ID number of the existing or pending permit, issuing agency, and type of permit for which the alternate test procedure is requested, and the discharge serial number.

(2) Identify the pollutant or parameter for which approval of an alternate testing procedure is being requested.

(3) Provide justification for using testing procedures other than those specified in Table I.

(4) Provide a detailed description of the proposed alternate test procedure, together with references to published studies of the applicability of the alternate test procedure to the effluent in question.

§ 136.5 Approval of alternate test procedures.

(a) The Regional Administrator of the region in which the discharge will occur has final responsibility for approval of any alternate test procedure.

(b) Within thirty days of receipt of an application, the Director will forward such application, together with his recommendations, to the Regional Administrator. Where the Director recommends rejection of the application for scientific and technical reasons which he provides, the Regional Administrator shall deny the application, and shall forward a copy of the rejected application and his decision to the Director of the State Permit Program and to the Director of the Methods Development and Quality Assurance Research Laboratory.

(c) Before approving any application for an alternate test procedure, the Regional Administrator shall forward a copy of the application to the Director of the Methods Development and Quality Assurance Laboratory for review and recommendation.

(d) Within ninety days of receipt by the Regional Administrator of an application for an alternate test procedure, the Regional Administrator shall notify the applicant and the appropriate State agency of approval or rejection, or shall specify the additional information which is required to determine whether to approve the proposed test procedure. Prior to the expiration of such ninety day period, a recommendation providing the scientific and other technical basis for acceptance or rejection will be forwarded to the Regional Administrator by the Director of the Methods Development and Quality Assurance Research Laboratory. A copy of all approval and rejection notifications will be forwarded to the Director, Methods Development and Quality Assurance Research Laboratory, for the purposes of national coordination.

[FR Doc.73-21466 Filed 10-15-73;8:45 am]

TABLE II
METHODS TO USE IN PREFERENCE TO
"STANDARD METHODS"

<u>Constituent</u>	<u>Units</u>	<u>Method</u>	<u>Reference</u>
Total dissolved solids (filterable)	mg/l	Glass fiber filtration- 180°C	EPA Methods ^{1/} - p. 275
Ammonia	mg N/l	Distillation-nesslerization or titration automated phenolate	EPA Methods - p. 134
Acidity	mg CaCO ₃ /l	Electrometric endpoint or phenolphthalein end point	ASTM ^{2/} - p. 148
Nitrite	mg N/l	Manual or automated color- imetric diazotization	EPA Methods - p. 185 p. 195
Antimony - total ^{6/}	mg/l	Atomic absorption	<u>3/</u>
Cobalt - total	mg/l	" "	ASTM - p. 692
Molybdenum - total	mg/l	" "	<u>3/</u>
Selenium - total	mg/l	" "	<u>3/</u>
Thallium - total	mg/l	" "	<u>3/</u>
Tin	mg/l	" "	<u>3/</u>
Titanium	mg/l	" "	<u>3/</u>



<u>Constituent</u>	<u>Units</u>	<u>Method</u>	<u>Reference</u>
Mercury	mg/l	Flameless Atomic Absorption	<u>3/</u>
Bromide	"	Titrimetric; Iodide-Iodate	ASTM - p. 216
Algicides	"	Gas Chromatography	<u>4/</u>
Benzidine	"	Diazotization-Colorimetric	<u>5/</u>
Chlorinated Organic Compounds (except pesticides)	"	Gas Chromatography	<u>4/</u>
Pesticides	"	" "	<u>4/</u>

- 1/ "EPA Methods" means Methods for Chemical Analysis of Water and Wastes, 1971, Environmental Protection Agency, Analytical Quality Control Laboratory, Cincinnati, Ohio. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 Stock #5501-0067
- 2/ "ASTM" means Annual Book of Standards, Part 23, Water, Atmospheric Analysis, 1972. This publication is available from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pa. 19103.
- 3/ See D. C. Manning "Technical Notes", Atomic Absorption Newsletter, Vol. 10, No. 6, p. 123, 1971. Available from Perkins-Elmer Corporation, Main Avenue, Norwalk, Conn. 06852.
- 4/ Interim procedures for algicides, chlorinated organic compounds and pesticides can be obtained from the Methods Development and Quality Assurance Research Laboratory, National Environmental Research Center, U. S. EPA, Cincinnati, Ohio 45268
- 5/ Benzidine may be estimated by the method of M. A. El-Dib, "Colorimetric Determination of Aniline Derivatives in Natural Waters", El-Dib, M. A., Journal of the Association of Official Analytical Chemists, Vol. 54, No. 6, Nov. 1971, pp. 1383-1387.
- 6/ For the determination of total metals the sample is not filtered before processing. Choose a volume of sample appropriate for the expected level of metals. If much suspended material is present, as little as 50-100 ml of well-mixed sample will most probably be sufficient. (The sample volume required may also vary proportionally with the number of metals to be determined.) Transfer a representative aliquot of the well-mixed sample to a Griffin beaker and add 3 ml of concentrated distilled HNO₃. Place the beaker on a hotplate and evaporate to dryness using

certain that the sample does not boil. Cool the beaker and add another 3 ml portion of distilled concentrated HNO_3 . Cover the beaker with a watch glass and return to the hotplate. Increase the temperature of the hotplate so that a gentle reflux action occurs. Continue heating, adding additional acid as necessary until the digestion is complete generally indicated by a light colored residue. Add (1:1 with distilled water) distilled concentrated HCl in an amount sufficient to dissolve the residue upon warming. Wash down the beaker walls and the watch glass with distilled water and filter the sample to remove silicates and other insoluble material that could clog the atomizer. Adjust the volume to some predetermined value based on the expected metal concentrations. The sample is now ready for analysis. Concentrations so determined shall be reported as "total".

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT AND INTAKE

<u>Station</u>	<u>Description</u>
A-001	At any point in the 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>
E-001	At any point in the outfall from the treatment facilities between the point of discharge and the point at which all waste tributary to that outfall is present. (May be the same as E-001-D)
E-001-D	At any point in the disinfection facilities for Waste E-001, at which point adequate contact with the disinfectant is assured.

C. RECEIVING WATERS

<u>Station</u>	<u>Description</u>
C-1	At a point in the Sacramento River, located within 25 feet from the point of discharge in the waste field.
C-2	At the shore of the Sacramento River located about 50 feet westerly from the offshore end of the outfall, in the water at least one-foot deep.
C-3	At a point in the Sacramento River, located about 50 feet northerly from the offshore end of the outfall.
C-4	At the shore of the Sacramento River, located 50 feet east from the offshore end of the outfall, in the water at least one-foot deep.
C-5	At a point in Kirker Creek, located at the confluence of waste flow from the Campstone main outfall and Kirker Creek.
C-R	At a point in the Sacramento River, located 1,000 feet upstream from the outfall.

D. LAND OBSERVATION

<u>Station</u>	<u>Description</u>
P-1 through p-'n'	Located at the corners and midpoints of the perimeter fence line surrounding the treatment facilities. (A sketch showing the locations of these stations will accompany each report.)
L-1 through L-'n'	Located along the perimeter levee at equidistant intervals not to exceed 50 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 through O-'n'	Bypass or overflows from manholes, pump stations, or collection system.

NOTE: Initial SMP report to include map and description of each known bypass or overflow location.

II. SCHEDULE OF SAMPLING, MEASUREMENT, 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. 74-109.
2. Does not include the following paragraphs of Part A:
C-3 and C-4.
3. Has been ordered by the Executive Officer on October 15, 1974, and becomes effectively immediately.
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
2119.1033 A&B

Sampling Station	A-1		E-001-D		C	P&L	O						
TYPE OF SAMPLE	C-24		G	C-24	Cont.	G		O	O				
Flow Rate (mgd)	D				D								
BOD, 5-day, 20° C, or COD (mg/l & kg/day)	W			W									
Chlorine Residual & Dosage (mg/l & kg/day)			2H		Cont.								
Settleable Matter (ml/1-hr. & cu. ft./day)			D										
Total Suspended Matter (mg/l & kg/day)	W			W									
Oil & Grease (mg/l & kg/day)	W			W									
Coliform (Total or Fecal) (MPN/100 ml) per req't			3/W			M(1)							
Fish Toxicity, 96-hr. TL ₅₀ % Survival in undiluted waste				M									
Ammonia Nitrogen (mg/l & kg/day)				M		2/Y							
Nitrate Nitrogen (mg/l & kg/day)				M		2/Y							
Nitrite Nitrogen (mg/l & kg/day)				M		2/Y							
Total Organic Nitrogen (mg/l & kg/day)				M		2/Y							
Total Phosphate (mg/l & kg/day)				M		2/Y							
Turbidity (Jackson Turbidity Units)				2W		M							
pH (units)			D			M							
Dissolved Oxygen (mg/l and % Saturation)			D			M							
Temperature (°C)			D			M							
Apparent Color (color units)						M							
Secchi Disc (inches)						M							
Sulfides (if DO < 5.0 mg/l) Total & Dissolved (mg/l)			W			M							
Arsenic (mg/l & kg/day)				3M									
Cadmium (mg/l & kg/day)				3M									
Chromium, Total (mg/l & kg/day)				3M									
Copper (mg/l & kg/day)				3M									
Cyanide (mg/l & kg/day)				3M									
Silver (mg/l & kg/day)				3H									
Lead (mg/l & kg/day)				3M									

(1) Total Coliform Only

TABLE 1 (Continued)
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A-1	E-001-D			C		P&L	O						
TYPE OF SAMPLE	C-24		G	C-24	Cont	G		000000						
Mercury (mg/l & kg/day)				3M										
Nickel (mg/l & kg/day)				3M										
Zinc (mg/l & kg/day)				3M										
Phenolic Compounds (mg/l & kg/day)				3M										
All Applicable Standard Observations			D			M		2/W	E					
Bottom Sediment Analyses and Observations														
Total Identifiable Chlorinated Hydrocarbons (mg/l & kg/day)				3M										

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
- D = overflow and bypass

FREQUENCY OF SAMPLING

- | | | |
|---------------------|--|---------------------|
| E = each occurrence | 2/H = twice per hour | 2H = every 2 hours |
| H = once each hour | 2/W = 2 days per week | 2D = every 2 days |
| D = once each day | 5/W = 5 days per week | 2W = every 2 weeks |
| W = once each week | 2/M = 2 days per month | 3M = every 3 months |
| M = once each month | 2/Y = once in April and
once in September | Cont = continuous |
| Y = once each year | | |

*During any day when bypassing occurs from any treatment unit(s) in the plant, the monitoring program for the effluent shall include the following in addition to the above schedule for sampling, measurement, and analyses:

1. Composite sample for BOD, total suspended solids, and oil and grease (influent and effluent).
2. Grab sample for coliform (total and fecal), settleable matter, and chlorine residual (continuous or every two hours).
3. Continuous monitoring of flow.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

AUGUST 8, 1973

REPORTING REQUIREMENTS

1. The discharger shall file with the Board technical reports on self-monitor work performed according to the detailed specifications contained in any Monitoring and Reporting Program as directed by the Executive Officer.
- *2. The discharger shall file a written report with the Board within 90 days a the average dry-weather waste flow for any month equals or exceeds 75 perc of the design capacity of his waste treatment and/or disposal facilities. discharger's senior administrative officer shall sign a letter which trans that report and certifies that the policy-making body is adequately inform about it. The report shall include:

Average daily flow for the month, the date on which the instantaneous peak flow occurred, the rate of that peak flow, and the total flow for that day.

The discharger's best estimate of when the average daily dry-weather flow rate will equal or exceed the design capacity of his facilities.

The discharger's intended schedule for studies, design, and other steps needed to provide additional capacity for his waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units. (Reference: Sections 13260, 13267(b), and 13268, California Water Code)

- **3. The discharger shall notify the Board not later than 180 days in advance o implementation of any plans to alter production capacity of the product li of the manufacturing, producing or processing facility by more than ten pe cent. Such notification shall include estimates of proposed production ra the type of process, and projected effects on effluent quality. Notificat shall include submittal of a new report of waste discharge and appropriate filing fee.
- *4. The discharger shall notify the Board of (a) new introduction into such wo of pollutants from a source which would be a new source as defined in Sect 306 of the Federal Water Pollution Control Act, or amendments thereto, if source were discharging pollutants to the water of the United States, (b) introductions of pollutants into such works from a source which would be s ject to Section 301 of the Federal Water Pollution Control Act, or amendme thereto, if it were discharging such pollutants to the wäters of the Unite States, (c) a substantial change in the volume or character of pollutants being introduced into such works by a source introducing pollutants into s works at the time the waste discharge requirements were adopted. Notice s include a description of the quantity and quality of pollutants and the in of such change on the quantity and quality of effluent from such publicly treatment works. A substantial change in volume is considered an increase

ten percent in the mean dry-weather flow rate. Copies of such notice shall be sent to the Regional Board and to the following:

Regional Administrator
U.S. Environmental Protection Agency
100 California Street
San Francisco, CA 94111

5. The discharger shall file with the Board a report on waste discharge at least 120 days before making any material change or proposed change in the character, location, or volume of the discharge.
- **6. This Board requires the discharger to file with the Board, within 90 days after the effective date of this Order, a technical report on his preventive (fail-safe) and contingency (cleanup) plans for controlling accidental discharges and for minimizing the effect of such events. The technical report should:

Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks, and pipes should be considered.

Evaluate the effectiveness of present facilities and procedures and state when they became operational.

Describe facilities and procedures needed for effective preventive and contingency plans.

Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational.
(Reference: Sections 13267(b) and 13268, California Water Code)

This Board, after review of the technical report, may establish conditions which it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions may be incorporated as part of this Order, upon notice to the discharger.

- **7. The discharger shall submit to the Board, by January 30 of each year, an annual summary of the quantities of all chemicals, listed by both trade and chemical names, which are used for cooling and/or boiling water treatment and which are discharged.

*Publicly owned facilities only.

**For nonpublic facilities only.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

AUGUST 8, 1973

STANDARD PROVISIONS

1. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from his liabilities under federal, state, or local laws, nor guarantee the discharger a capacity right in the receiving waters.
2. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.
3. The discharger shall require any industrial user of the treatment works to comply with applicable service charges and toxic and pretreatment standards promulgated in accordance with Sections 204(b), 307, and 308 of the Federal Water Pollution Control Act or amendments thereto. The discharger shall require each individual user to submit periodic notice (over intervals not to exceed nine months) of progress toward compliance with applicable toxic and pretreatment standards developed pursuant to the Federal Water Pollution Control Act or amendments thereto. The discharger shall forward a copy of such notice to the Board and to the following:

Regional Administrator
U.S. Environmental Protection Agency
100 California Street
San Francisco, CA 94111

4. The discharger shall permit the Regional Board:
 - (a) Entry upon premises in which an effluent source is located or in which any required records are kept,
 - (b) Access to copy any records required to be kept under terms and conditions of this Order,
 - (c) Inspection of monitoring equipment or records, and
 - (d) Sampling of any discharge.
5. All discharges authorized by this Order shall be consistent with the terms and conditions of this Order. The discharge of any pollutant more frequently than or at a level in excess of that identified and authorized by this Order shall constitute a violation of the terms and conditions of this Order.
6. The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed by the discharger to achieve compliance with the waste discharge requirements.

7. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of at a legal point of disposal, and in accordance with the provisions of Division 7.5 of the California Water Code. For the purpose of this requirement, a legal point of disposal is defined as one for which waste discharge requirements have been prescribed by a regional water quality control Board and which is in full compliance therewith.
8. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
 - (a) Violation of any term or condition contained in this Order;
 - (b) Obtaining this Order by misrepresentation, or failure to disclose fully all relevant facts;
 - (c) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
9. If a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Federal Water Pollution Control Act, or amendments thereto, for a toxic pollutant which is present in the discharge authorized herein and such standard or prohibition is more stringent than any limitation upon such pollutant in this Order, the Board will revise or modify this Order in accordance with such toxic effluent standard or prohibition and so notify the discharger.
10. There shall be no discharge of harmful quantities of oil or hazardous substances, as specified by regulation adopted pursuant to Section 311 of the Federal Water Pollution Control Act, or amendments thereto.
11. In the event the discharger is unable to comply with any of the conditions of this Order due to:
 - (a) Breakdown of waste treatment equipment;
 - (b) Accidents caused by human error or negligence; or
 - (c) Other causes such as acts of nature,

the discharger shall notify the Executive Officer 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 notification shall include pertinent information explaining reasons for the non-compliance and shall indicate what steps were taken to correct the problem and the dates thereof, and what steps are being taken to prevent the problem from recurring.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. 74-568

NPDES NO. CA0079278

WASTE DISCHARGE REQUIREMENTS
FOR
CITY OF ANTIOCH WASTE TREATMENT PLANT
CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Board), finds that:

1. The City of Antioch Waste Treatment Plant submitted a report of waste discharge NPDES No. CA0079278 dated 13 December 1973.
2. The City of Antioch Waste Treatment Plant discharges an average of 2.5 mgd and proposes to discharge an average of 3.0 mgd and a maximum daily dry weather flow of 6.0 mgd of treated domestic waste from primary treatment facilities into the San Joaquin River, a water of the United States, at a point 1000 feet off-shore of the south bank, at the foot of Cavallo Road, in the northeast 1/4 of the southwest 1/4 of Section 18, T2N, R2E, MDB&M.
3. The City of Antioch and other local agencies in Contra Costa County are currently involved in planning efforts for a proposed subregional wastewater management system in eastern Contra Costa County.
4. The Board on 15 June 1971 adopted an Interim Water Quality Control Plan for the Sacramento-San Joaquin Delta. The Interim Basin Plan contains water quality objectives for the San Joaquin River.
5. The beneficial uses of the San Joaquin River are: municipal, agricultural, and industrial supply; recreation; esthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources.
6. Effluent limitation, and toxic and pretreatment effluent standards established pursuant to Sections 208b, 301, 302, 303 (d), 304, and 307 of the Federal Water Pollution Control Act and amendments thereto are applicable to the discharge.
7. The discharge from the City of Antioch Waste Treatment Plant is presently governed by waste discharge requirements adopted by the Board on 29 August 1953 in Resolution No. 53-38.
8. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this 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.

CITY OF ANTIOCH WASTE TREATMENT PLANT
 CONTRA COSTA COUNTY

10. 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 ten days from the date of hearing provided the Regional Administrator has no objections.

IT IS HEREBY ORDERED, the City of Antioch Waste Treatment 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. a. Effective 1 February 1976, the discharge of an effluent in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>30-Day Average</u>	<u>90th Percentile</u>	<u>Daily Maximum</u>
Settleable Matter	ml/l	0.8	1.0	--
Chlorine Residual	mg/l	--	--	2.0
Total Coliform Organisms	MPN/100 ml	(1) 200	--	(1) 2,300

(1)

The 30-day average for total coliform organisms is the geometric mean of samples collected in a 30-day period.

- b. The discharge of a chlorine residual in excess of a daily maximum of 0.1 mg/l is prohibited. However, such limitation will only become effective 90 days after the discharger fails to meet one of the compliance dates contained within Provision D.2.b. of this Order.
- c. Effective 1 February 1976, the discharge of an effluent in excess of the following limits is prohibited:

The arithmetic mean of values for BOD and suspended solids in effluent samples collected in a period of 30 consecutive days shall not exceed 65 percent and 35 percent, respectively, of the arithmetic mean of respective values for influent samples collected at approximately the same times during the same period (i.e., 35 percent BOD removal and 65 percent suspended solids removal).

2. In accordance with the time schedule in Provision D.3, the discharge of an effluent in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>30-day Average</u>	<u>7-day Average</u>	<u>30-day Median</u>	<u>Daily Maximum</u>
BOD (1)	mg/l	30	45	--	90
	lbs/day	750	1,125	--	1,500
Total Suspended Solids	mg/l	30	45	--	90
	lbs/day	750	1,125	--	1,500
Settleable Matter	ml/l	0.1	0.2	--	0.3
Chlorine Residual	mg/l	--	--	--	0.1
Total Coliform Organisms	MPN/100 ml	--	--	23	500

(1) 5-Day, 20°C Biochemical Oxygen Demand

3. In accordance with the time schedule in Provision D.3, survival of test fishes in 96-hour bioassays of undiluted waste shall be no less than:

Minimum, any one bioassay- - - - - 70%
Median, any three or more consecutive bioassays - - - - - 90%

- 4. In accordance with the time schedule in Provision D.3, the arithmetic mean biochemical oxygen demand (5-day) and suspended solids in effluent samples collected in a period of 30 consecutive days shall not exceed 15 percent of the arithmetic mean of the values for influent samples collected at approximately the same time during the same period (85 percent removal).
- 5. The discharge shall not have a pH less than 6.5 nor greater than 8.5.
- 6. The average daily dry weather discharge shall not exceed 3.0 million gallons.
- 7. Bypass or overflow of untreated or partially treated waste is prohibited.
- 8. The discharger shall use the best practicable cost effective control technique currently available to limit mineralization to no more than a reasonable increment.

B. Receiving Water Limitations:

- 1. The discharge shall not cause the dissolved oxygen concentration in the San Joaquin River to fall below 5.0 mg/l.
- 2. The discharge shall not cause visible oil, grease, scum, or foam in the receiving waters or watercourses.
- 3. The discharge shall not cause concentrations of any materials in the receiving waters which are deleterious to human, animal, aquatic, or plant life.
- 4. The discharge shall not cause esthetically undesirable discoloration of the receiving waters.
- 5. The discharge shall not cause fungus, slimes, or other objectionable growths in the receiving waters.
- 6. The discharge shall not cause bottom deposits in the receiving waters.
- 7. The discharge shall not cause floating or suspended materials in the receiving waters.
- 8. The discharge shall not increase the turbidity of the receiving waters by more than 10% over background levels.
- 9. 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 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.

CITY OF ANTIOCH WASTE TREATMENT PLANT
 CONTRA COSTA COUNTY

C. Special Provision:

The City of Antioch Waste Treatment Plant shall connect to the proposed subregional wastewater management system in eastern Contra Costa County when service is available.

D. Provisions

1. Neither the discharge nor its treatment shall create a nuisance as defined in the California Water Code.
2. a. The City of Antioch Waste Treatment Plant shall comply with the following time schedule to assure compliance with Effluent Limitation A.l.a. and A.l.c. of this Order:

<u>Task</u>	<u>Completion Date</u>	<u>Report of Compliance Due</u>
Develop Conceptual Plan	2-1-75	2-15-75
Complete Final Construction Plans	4-1-75	4-15-75
Begin Construction	6-1-75	6-15-75
Complete Construction	12-1-75	12-15-75
Full Compliance	2-1-76	2-15-76

The City of Antioch Waste Treatment Plant 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 estimate 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.

- b. The City of Antioch Waste Treatment Plant shall comply with the following time schedule in preparing for construction of secondary treatment facilities:

<u>Task</u>	<u>Compliance Date</u>	<u>Report of Compliance Due</u>
Submit Final Project Report on a Regional Wastewater Treatment Project	2-15-76	3-1-76
Submit a Fully Executed Joint Powers Agreement if required for the construction of an Approved Wastewater Treatment Project	5-15-76	6-1-76
Begin Preparation of Plans and Specifications for the Design of the Approved Wastewater Treatment Project	5-15-76	
Submit final Plans and Specifications for the Construction of the Approved Wastewater Treatment Project	4-1-77	4-15-77

CITY OF ANTIOCH WASTE TREATMENT PLANT
CONTRA COSTA COUNTY

Award Construction Contract for the
Construction of the Approved
Wastewater Treatment Project

6-30-77

7-14-77

3. The City of Antioch Waste Treatment Plant shall comply with the following time schedule to assure compliance with Limitations A.2, A.3, A.4, and B.3 of this Order:

<u>Task</u>	<u>Completion Date</u>	<u>Report of Compliance Due</u>
Develop work plan	2-1-75	2-15-75
Develop conceptual plan	10-1-75	10-15-75
Progress Report	8-1-76	8-15-76
Complete Final Construction Plans	4-1-77	4-15-77

The City of Antioch Waste Treatment Plant 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 estimate 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

4. The requirements prescribed by this Order amend the requirements prescribed by Resolution No. 53-38 adopted by the Board on 29 August 1953, which shall remain in full force and effect until rescinded.
5. This Order includes items 1, 2, 4, and 5 of the attached "Reporting Requirements".
6. This Order includes the attached "Industrial Wastewater Pretreatment Requirements".
7. This Order includes items 1 through 11 inclusive of the attached "Standard Provisions".
8. The discharger shall comply with the Monitoring and Reporting Program No. 74-568 and the General Provisions for Monitoring and Reporting as specified by the Executive Officer.
9. This Order expires on 30 June 1977 and the City of Antioch Waste Treatment Plant 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.
10. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to this office.

CITY OF ANTIOCH WASTE TREATMENT PLANT
CONTRA COSTA COUNTY

11. The daily discharge rate is obtained from the following calculation for any calendar day:

$$\text{Daily discharge rate} = \frac{8.34}{N} \sum_{i=1}^N Q_i C_i$$

in which N is the number of samples analyzed in any calendar day. Q_i and C_i are the flow rate (MGD) and the constituent concentration (mg/l) respectively, which are associated with each of the N grab samples which may be taken in any calendar day. If a composite sample is taken, C_i is the concentration measured in the composite sample, and Q_i is the average flow rate occurring during the period over which samples are composited.

The 7-day and 30-day average discharge rates shall be the arithmetic average of all the values of daily discharge rate calculated using the results of analyses of all samples collected during any 7 and 30 consecutive calendar day period respectively. If fewer than four samples are collected and analyzed during any 30 consecutive calendar day period, compliance with the 30-day average discharge rate limitation shall not be determined. If fewer than three samples are collected and analyzed during any 7 consecutive calendar day period, compliance with the 7-day average rate limitation shall not be determined.

The daily maximum concentration shall be determined from the analytical results of any sample, whether discrete or composite.

12. The discharger shall ensure compliance with any existing or future pretreatment standard promulgated by the Environmental Protection Agency under Section 307 of the Federal Water Pollution Control Act or amendments thereto, for any discharge to the municipal system.

I, BILL B. DENDY, 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, Central Valley Region, on December 20, 1974, as amended by the State Water Resources Control Board on

JUN 19 1975

/s/ Bill B. Dendy
Bill B. Dendy
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. 74-568

FOR

CITY OF ANTIOCH WASTE TREATMENT PLANT
CONTRA COSTA COUNTY

EFFLUENT MONITORING

Effluent samples shall be collected downstream from the last connection through which wastes can be admitted into the outfall. Samples collected from the outlet structure of ponds will be considered adequately composited. The following shall constitute the effluent monitoring program:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
20°C BOD ₅	mg/l, lbs/day	8 hr. Composite	Weekly
Total Suspended Solids	mg/l, lbs/day	8 hr. Composite	Weekly
Settleable Matter	ml/l	Grab	Daily
Total Dissolved Solids	mg/l	Grab	Monthly
Specific conductivity	Micromhos/cm @ 25°C	Grab	Monthly
Standard Minerals	mg/l	Grab	Yearly
pH	Number	Grab	Daily
Total Coliform Organisms	MPN/100 ml	Grab	Weekly*
Chlorine Residual(1)	mg/l	Grab	Daily
Flow	MGD	Continuous	Daily

*Sampling frequency will be reduced when correlation with chlorine residual is established. Chlorine residual should be determined before dechlorination as well as indicated above.

(1)Monitoring shall commence no later than December 1975

RECEIVING WATER MONITORING

All receiving water samples shall be grab samples. Receiving water samples shall be taken from the following:

CITY OF ANTIOCH WASTE TREATMENT PLANT
 CONTRA COSTA COUNTY

<u>Station</u>	<u>Description</u>
R-1	500 feet upstream from the point of discharge
R-2	500 feet downstream from the point of discharge

<u>Constituents</u>	<u>Units</u>	<u>Station</u>	<u>Sampling Frequency</u>
Dissolved Oxygen	mg/l	R-1, R-2	Weekly
pH	Number	R-1, R-2	Weekly
Turbidity	Turbidity Units	R-1, R-2	Weekly
Temperature	°C	R-1, R-2	Weekly

In conducting the receiving water sampling, a log should be kept of the receiving water conditions throughout the reach bounded by Stations R-1 and R-2. Attention should be given to the presence or absence of:

- a. Floating or suspended matter
- b. Discoloration
- c. Bottom deposits
- d. Aquatic Life

Notes on receiving water conditions shall be summarized in the monitoring report. Receiving water monitoring shall commence no later than February 1975.

WATER SUPPLY MONITORING

A sampling station shall be established where a representative sample of the municipal water supply can be obtained. The following shall constitute the water supply monitoring program:

<u>Constituent</u>	<u>Units</u>	<u>Sampling Frequency</u>
Standard Minerals	mg/l	Yearly at same time as effluent samples
Specific Conductivity	Micromhos/cm @ 25°C	Monthly
Total Dissolved Solids	mg/l	Monthly

REPORTING

In reporting the monitoring data, the discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly the compliance with waste discharge requirements. Monitoring shall commence no later than January 1975 unless otherwise specified.

Monthly monitoring reports shall be submitted to the Regional Board by the 15th day of the following month.

If the discharger monitors any pollutant at the locations designated herein more frequently than is required by this order, he shall include the results of such monitoring in the calculation and reporting of the values required in the Discharge Monitoring Report Form. Such increased frequency shall be indicated on the Discharge Monitoring Report Form.

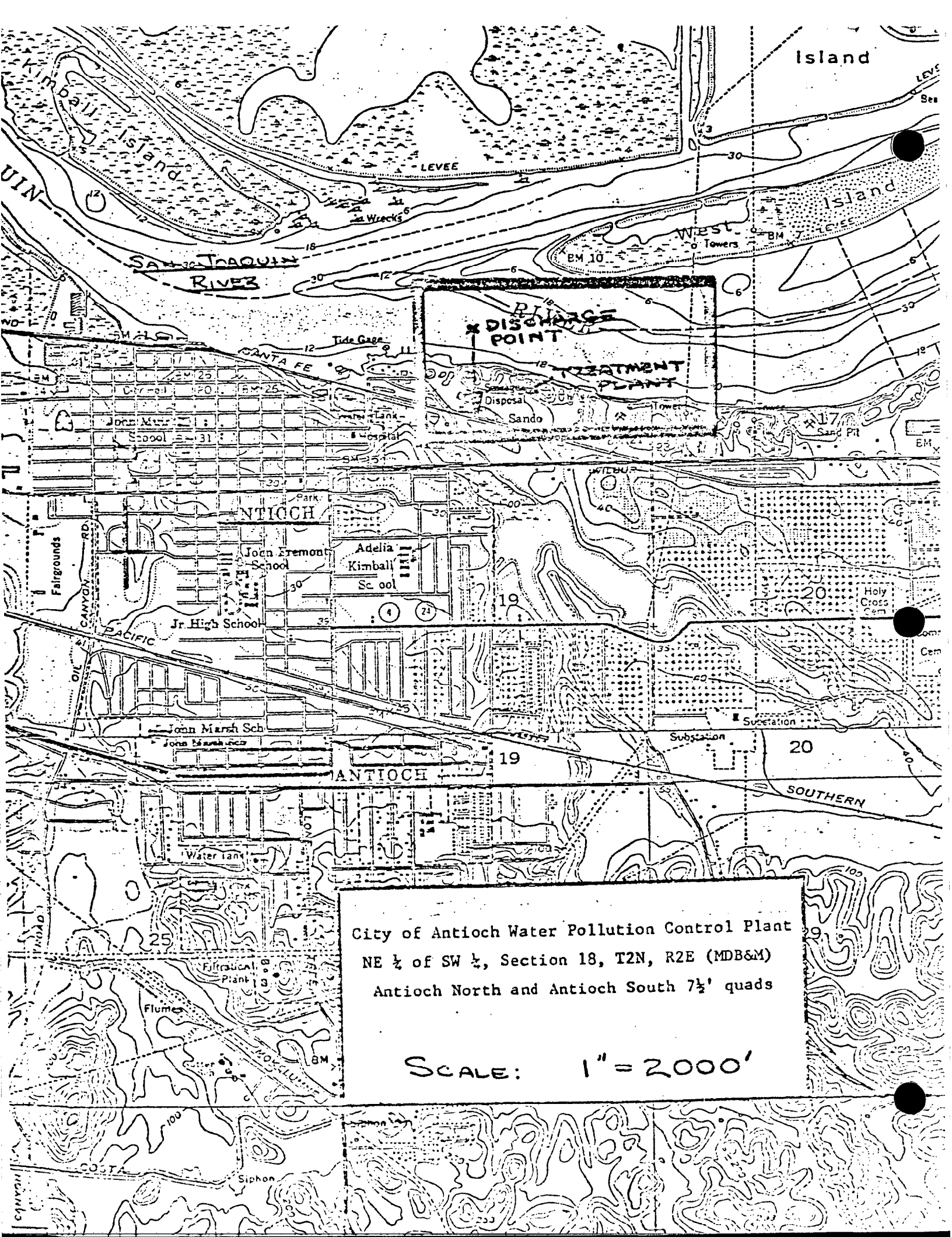
Original signed by
James A. Robertson

Ordered by

JAMES A. ROBERTSON, Executive Officer

20 December 1974

(Date)



City of Antioch Water Pollution Control Plant
NE 1/4 of SW 1/4, Section 18, T2N, R2E (MDB&M)
Antioch North and Antioch South 7 1/2' quads

SCALE: 1" = 2000'

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

REPORTING REQUIREMENTS FOR
DISCHARGES TO SURFACE WATERS

1. The discharger shall file with the Board technical reports on self-monitoring work performed according to the detailed specifications contained in any Monitoring and Reporting Program as directed by the Executive Officer.

- *2. The discharger shall file a written report with the Board within 90 days after the average dry-weather waste flow for any month equals or exceeds 75 percent of the design capacity of his waste treatment and/or disposal facilities. The discharger's senior administrative officer shall sign a letter which transmits that report and certifies that the policy-making body is adequately informed about it. The report shall include:

Average daily flow for the month, the date on which the instantaneous peak flow occurred, the rate of that peak flow, and the total flow for that day.

The discharger's best estimate of when the average daily dry-weather flow rate will equal or exceed the design capacity of his facilities.

The discharger's intended schedule for studies, design, and other steps needed to provide additional capacity for his waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units. (Reference: Sections 13260, 13267(b), and 13268, California Water Code.)

- **3. The discharger shall notify the Board not later than 180 days in advance of implementation of any plans to alter production capacity of the product line of the manufacturing, producing or processing facility by more than ten percent. Such notification shall include estimates of proposed production rate, the type of process, and projected effects on effluent quality. Notification shall include submittal of a new report of waste discharge and appropriate filing fee.

- *4. The discharger shall notify the Board of (a) new introduction into such works of pollutants from a source which would be a new source as defined in Section 306 of the Federal Water Pollution Control Act, or amendments thereto, if such source were discharging pollutants to the waters of the United States, (b) new introductions of pollutants into such works from a source which would be subject to Section 301 of the Federal Water Pollution Control Act, or amendments thereto, if it were discharging such pollutants to the waters of the United States, (c) a substantial change in the volume or character of pollutants being introduced into such works by a source introducing pollutants into such works at the time the waste discharge requirements were adopted. Notice shall include a description of the quantity and quality of pollutants and the impact of such change on the

* Publicly owned facilities only

** For nonpublic facilities only

quantity and quality of effluent from such publicly owned treatment works. A substantial change in volume is considered an increase of ten percent in the mean dry-weather flow rate. The discharger shall forward a copy of such notice directly to the Regional Administrator.

5. The discharger shall file with the Board a report on waste discharge at least 120 days before making any material change or proposed change in the character, location or volume of the discharge.
- **6. This Board requires the discharger to file with the Board, within 90 days after the effective date of this Order, a technical report on his preventive (fail-safe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The technical report should:
 - (a) Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.
 - (b) Evaluate the effectiveness of present facilities and procedures and state when they became operational.
 - (c) Describe facilities and procedures needed for effective preventive and contingency plans.
 - (d) Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational. (Reference: Sections 13267(b) and 13268, California Water Code.)

This Board, after review of the technical report, may establish conditions which it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions may be incorporated as part of this Order, upon notice to the discharger.

- **7. The discharger shall submit to the Board, by January 30 of each year, an annual summary of the quantities of all chemicals, listed by both trade and chemical names, which are used for cooling and/or boiling water treatment and which are discharged.

** For nonpublic facilities only

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

STANDARD PROVISIONS FOR
DISCHARGES TO SURFACE WATERS

1. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from his liabilities under federal, state, or local laws, nor guarantee the discharger a capacity right in the receiving waters.
2. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.
- *3. The discharger shall require any industrial user of the treatment works to comply with applicable service charges and toxic and pretreatment standards promulgated in accordance with Sections 204(b), 307, and 308 of the Federal Water Pollution Control Act or amendments thereto. The discharger shall require each individual user to submit periodic notice (over intervals not to exceed nine months) of progress toward compliance with applicable toxic and pretreatment standards developed pursuant to the Federal Water Pollution Control Act or amendments thereto. The discharger shall forward a copy of such notice to the Board and the Regional Administrator.
4. The discharger shall permit the Regional Board:
 - (a) Entry upon premises in which an effluent source is located or in which any required records are kept;
 - (b) Access to copy any records required to be kept under terms and conditions of this Order;
 - (c) Inspection of monitoring equipment or records, and
 - (d) Sampling of any discharge.
5. All discharges authorized by this Order shall be consistent with the terms and conditions of this Order. The discharge of any pollutant more frequently than or at a level in excess of that identified and authorized by this Order shall constitute a violation of the terms and conditions of this Order.
6. The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed by the discharger to achieve compliance with the waste discharge requirements.
7. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of at a legal point of disposal, and in accordance with the provisions of Division 7.5 of the California Water Code. For the purpose of this requirement, a legal point of disposal is defined as one for which waste discharge requirements have been prescribed by a regional water quality control board and which is in full compliance therewith.

* Publicly owned facilities only

8. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
 - (a) Violation of any term or condition contained in this Order;
 - (b) Obtaining this Order by misrepresentation, or failure to disclose fully all relevant facts;
 - (c) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
9. If a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Federal Water Pollution Control Act, or amendments thereto, for a toxic pollutant which is present in the discharge authorized herein and such standard or prohibition is more stringent than any limitation upon such pollutant in this order, the Board will revise or modify this Order in accordance with such toxic effluent standard or prohibition and so notify the discharger.
10. There shall be no discharge of harmful quantities of oil or hazardous substances, as specified by regulation adopted pursuant to Section 311 of the Federal Water Pollution Control Act, or amendments thereto.
11. In the event the discharger is unable to comply with any of the conditions of this Order due to:
 - (a) breakdown of waste treatment equipment;
 - (b) accidents caused by human error or negligence; or
 - (c) other causes such as acts of nature,

the discharger shall notify the Executive Officer 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 notification shall include pertinent information explaining reasons for the non-compliance and shall indicate what steps were taken to correct the problem and the dates thereof, and what steps are being taken to prevent the problem from recurring.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

GENERAL MONITORING AND REPORTING PROVISIONS

GENERAL PROVISIONS FOR SAMPLING AND ANALYSIS

Unless otherwise noted, all sampling, sample preservation, and analyses shall be conducted in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" or as approved by the Executive Officer.

All analyses shall be performed in a laboratory certified to perform such analyses by the California State Department of Public Health or a laboratory approved by the Executive Officer.

Effluent samples shall be taken downstream of any addition to the treatment works and prior to mixing with the receiving waters.

The discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to insure accuracy of measurements, or shall insure that both activities will be conducted.

A grab sample is defined as an individual sample collected in fewer than 15 minutes.

A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period. The volume of each individual sample is proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

GENERAL PROVISIONS FOR REPORTING

For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

By January 30 of each year, the discharger shall submit an annual report to the Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the discharger shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the waste discharge requirements.

The discharger shall maintain all sampling and analytical results, including strip charts; date, exact place, and time of sampling; date analyses were performed; analyst's name; analytical techniques used; and results of all analyses. Such records 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 Board. Monitoring results shall be submitted on forms provided by the Board.

Monitoring reports shall be signed by:

- a. In the case of corporations, by a principal executive officer at least of the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates.
- b. In the case of a partnership, by a general partner;
- c. In the case of a sole proprietorship, by the proprietor;
- d. In the case of a municipal, state, or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

The discharger shall mail a copy of each monitoring report on the appropriate form to be supplied by the Board to:

Regional Administrator
Environmental Protection Agency
Region IX
100 California Street
San Francisco, California 94111

INDUSTRIAL WASTEWATER PRETREATMENT REQUIREMENTS

1. Submittal of Information

The discharger shall submit to the Board:

- (a) Not later than one year from the effective date of this permit, the information described in Section IV of EPA Form 7550-22 for each major contributing industry;
- (b) At least 120 days prior to its initiation, notification of any new introduction of pollutants from sources which, if they were to discharge to the waters of the United States, including the territorial seas, would be a new source as defined in Section 306 of the Federal Water Pollution Control Act, or a major contributing industry subject to Section 301 of the Act. Such notification shall include the information described in Section IV of EPA Form 7550-22;
- (c) Notification of any substantial change in volume or character of pollutants discharged by an existing source. Such notice shall include the information described in Section IV of EPA Form 7550-22 and the anticipated impact, if any, on the quality or quantity of effluent discharged from the discharger's facilities.

After receipt and review of such information, the Board may revise or modify the terms of this order, including any necessary effluent limitations for pollutants not identified and limited herein.

2. Control of Industrial Pollutants

- (a) The discharger shall require all industrial users of its treatment works to comply with the requirements of Section 307 of the Federal Water Pollution Control Act and regulations adopted thereunder.
All existing nondomestic users shall be required to comply with pretreatment standards for prohibited wastes, and all existing major contributing industries shall be required to comply with pretreatment standards established for incompatible pollutants. Compliance with such standards shall be achieved within the shortest reasonable time but not later than three years from the date of their promulgation.
All new industrial sources shall be required to comply with pretreatment standards established pursuant to Section 307(c) of the Federal Water Pollution Control Act upon initiation of a discharge into the treatment works.
- (b) The discharger shall within 12 months of the effective date of this permit submit to the Board for each major contributing industry either evidence of compliance with pretreatment standards promulgated pursuant to Section 307(b) of the Act, or a report, on a form to be furnished by the Board which shall set forth the effluent limit to be achieved and an implementation schedule for the achievement of compliance by the required date. Such implementation schedules shall in every case provide for the initiation of any needed construction of pretreatment facilities within 18 months of the date of promulgation of applicable pretreatment standards.

3. Compliance Monitoring

- (a) The discharger shall monitor the compliance of all affected sources with the provisions of this order and shall submit quarterly reports on the status of such compliance to the Board. These quarterly compliance reports shall begin one year after the effective date of this permit.
- (b) The discharger shall report quarterly to the Board each instance of compliance or noncompliance by an affected source with the provisions of implementation schedules submitted as required by paragraph 2(b) above.
- (c) The wastewater flow of each affected source that is not covered by a current implementation schedule shall be monitored by the discharger or at the direction of the discharger, by the source, or by both, in such a manner and frequency so as to

produce information that will demonstrate to the satisfaction of the Board compliance or noncompliance with the pretreatment standards applicable to such source. Results of such monitoring shall be reported by the discharger on the Discharge Monitoring Report Form and shall be included in the quarterly compliance report described in (a) above.

4. Definitions

(a) An "industry" is any facility identified in the Standard Industrial Classification Manual, 1972, Office of Management and Budget, as amended and supplemented, under the following divisions:

- (1) Division A - Agriculture, Forestry, and Fishing;
- (2) Division B - Mining;
- (3) Division D - Manufacturing;
- (4) Division E - Transportation, Communications, Electric, Gas & Sanitary Services;
- (5) Division I - Services.

A facility in the Divisions listed may be excluded if it is determined by the Board that it introduces primarily domestic wastes or wastes from sanitary conveniences.

(b) A "major contributing industry" is one that:

- (1) has a flow of 50,000 gallons or more per average work day; (2) has a flow greater than five percent of the flow carried by the municipal system receiving the waste; (3) has in its waste a toxic pollutant in toxic amounts as defined in standard issued under Section 307(a) of the Act; or (4) is found by the Board to have significant impact, either singly or in combination with other contributing industries, on the treatment works or the quality of its effluent.

(c) A "treatment works" is any facility, method or system for the storage, treatment, recycling, or reclamation of municipal sewage or industrial wastes of a liquid nature including waste in combined storm water and sanitary sewer systems.

(d) "Prohibited wastes" are any of the following wastes, which shall not be introduced into the treatment works:

- (1) Wastes which create a fire or explosion hazard in the treatment works;
- (2) Wastes which will cause corrosive structural damage to treatment works, but in no case wastes with a pH lower than 5.0 unless the works is designed to accommodate such wastes;
- (3) Solid or viscous wastes in amounts which would cause obstruction to the flow in sewers, or other interference with the proper operation of the treatment works; or
- (4) Wastes at a flow rate and/or pollutant discharge rate which is excessive over relatively short time periods so that there is a treatment process upset and subsequent loss of treatment efficiency.

(e) An "incompatible pollutant" is any pollutant which is not a compatible pollutant.

(f) A "compatible pollutant" means biochemical oxygen demand, suspended solids, pH and fecal coliform bacteria, plus additional pollutants identified as compatible in this permit if the treatment works was designed to treat such pollutants, and in fact does remove such pollutants to a substantial degree.