

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

ORDER NO. 71-13

WASTE DISCHARGE REQUIREMENTS
FOR
E. I. DU PONT DE NEMOURS AND COMPANY, ANTIOCH WORKS

The State Water Resources Control Board finds:

1. E. I. Du Pont De Nemours and Company discharges approximately 1.5 mgd of mixed process and domestic wastewaters from their Antioch plant into the San Joaquin River, 1,200 feet upstream from the Antioch Bridge.
2. The discharge is subject to waste discharge requirements adopted by the California Regional Water Quality Control Board, Central Valley Region in Resolution No. 65/66-12.
3. The State Board adopted a Water Quality Control Policy for the Sacramento-San Joaquin Delta on June 14, 1967.
4. The beneficial uses of the Sacramento-San Joaquin Delta are:
 - a. Agricultural water supply
 - b. Industrial water supply
 - c. Domestic water supply
 - d. Navigation
 - e. Recreation
 - f. Esthetic enjoyment
 - g. Preservation and enhancement of fish and wildlife
5. Concentrations of toxicants, biostimulants, and other deleterious substances exceed levels essential for the protection and enhancement of the beneficial uses of Bay-Delta waters as specified in No. 4, and must be significantly reduced. Existing waste discharge requirements are not adequate for this purpose.
6. There is an urgent need for either one or more of the following:

21-12

- a. The interception and transport of treated municipal and industrial wastewaters from the extremities of the estuary to the central bay.
 - b. The interception, treatment, and transport of reclaimed waters to extremities of the estuary for augmentation of freshwater flows or to areas of water reuse.
 - c. Closed cycle industrial water use systems with adequate residual control.
 - d. Removal of toxic and biostimulatory substances from all discharges to the estuary.
7. By July 1, 1971, following public hearing, the State Board intends to adopt an Interim Water Quality Management Plan for the San Francisco Bay Basin. It is intended that this plan will specifically implement the concepts outlined in 6 above.
 8. The existing degree of treatment will not permit compliance with the discharge specifications contained in this order.
 9. The State Board has notified the discharger and interested persons of its intent to revise the waste discharge requirements and has given the opportunity for comment on the proposed order.
 10. The State Board in a public meeting heard and considered comments pertaining to the discharge.

IT IS HEREBY ORDERED, E. I. Du Pont De Nemours and Company shall comply with the following:

A. Discharge Specifications, Process Wastewater

1. The undiluted discharge shall not contain constituents in excess of the following limits:

<u>Constituents</u>	<u>Units</u>	<u>Median</u>	<u>Maximum</u>
Settleable Matter	ml/l	0.5	1.0
Suspended Matter	mg/l	50	75
Grease	mg/l	---	10
Coliform Organisms	MPN/100 ml	230	980
Fluoride	mg/l	---	3.0
Total Chromium	mg/l	---	1.0
Lead	mg/l	---	1.0
Phenol	mg/l	---	0.01

2. The mean daily flow shall not exceed 2 mgd for the latest 30-day period.

3. The discharge shall not have a pH less than 6.5 nor greater than 8.5.
4. Survival of test fishes in 96 hour bioassays of the undiluted discharge:

Any determination:	70% minimum
Median of any three or more determinations:	90% minimum
5. The maximum temperature of the discharge shall not exceed the ambient temperature of the San Joaquin River by more than 20°F.
6. The discharge shall not cause a surface water temperature rise greater than 4°F above the ambient temperature of the San Joaquin River at any time.
7. The discharge shall not cause floating materials in the San Joaquin River.
8. The discharge shall not cause discoloration at any point in the San Joaquin River.
9. The discharge shall not cause a pollution.
10. Neither the treatment nor the discharge shall cause a nuisance.

B. Discharge Prohibition

If after June 1, 1976, this wastewater discharge contains toxic or biostimulatory substances, it shall be prohibited.

C. Provisions

1. E. I. Du Pont De Nemours and Company shall immediately take all possible measures to achieve compliance with the discharge specifications in this order and shall submit to the California Regional Water Quality Control Board, Central Valley Region, by May 20, 1971, a report delineating the immediate measures that have been or will be taken.
2. In addition to observing the provisions of paragraph 1, E. I. Du Pont De Nemours and Company shall comply with the following time schedule and reporting program to assure compliance with discharge specifications 1 through 8 of this order:

2 -- continued

<u>Task</u>	<u>Completion Date</u>	<u>Report of Compliance Due</u>
Develop a Work Plan to Meet Discharge Specifications	6/1/71	6/15/71
Complete Conceptual Plan	12/1/71	12/15/71
Complete Final Plans	4/1/72	4/15/72
Begin Construction	6/1/72	6/15/72
Compliance with Requirements	3/1/73	3/15/73

Compliance with discharge specifications 9 and 10 shall be forthwith.

3. Resolution No. 65/66-12 of the regional board is rescinded.
4. E. I. Du Pont De Nemours and Company shall furnish to the regional board by January 1, 1973, a technical report delineating the actions that will be taken to comply with the discharge prohibition or alternative.
5. Reports of compliance with the time schedules shall be submitted to the regional board.
6. The discharger shall comply with Monitoring and Reporting Program No. 71-13 as specified by the executive officer of the State Board and hereafter administered by the executive officer of the regional board.
7. Compliance with median values will be established by analysis of representative sampling results over the most recent 30-day period.

I, Jerome B. Gilbert, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an order adopted by the State Water Resources Control Board on April 20, 1971.



Executive Officer

STATE WATER RESOURCES CONTROL BOARD
 MONITORING AND REPORTING PROGRAM NO. 71-13
 FOR
 E. I. DU PONT DE NEMOURS, ANTIOCH PLANT

EFFLUENT MONITORING

Effluent samples shall be collected downstream from the last connection through which wastes can be admitted into the outfall. Composite samples may be taken by proportional sampling device approved by the executive officer or by grab samples composited in proportion to the flow. In compositing grab samples, the sampling interval shall not exceed one hour. The following shall constitute the effluent monitoring program:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Fluoride	mg/l	24-hour composite	Weekly
Lead	mg/l	Grab	Daily
pH	pH Units	Grab	Daily
Maximum flow	mgd	--	Daily
Mean flow	mgd	--	Daily
Settleable matter	ml/l	Grab	Weekly
Suspended matter	mg/l	Grab	Weekly
Temperature	°F	Grab	Daily
Chromium	mg/l	24-hour composite	Weekly
Coliform organisms	MPN/100 ml	Grab	Weekly
Fluoride	mg/l	24-hour composite	Weekly
Grease	mg/l	24-hour composite	Weekly
Lead	mg/l	24-hour composite	Weekly
MBAS	mg/l	24-hour composite	Weekly
Phenol	mg/l	24-hour composite	Weekly
Toxicity	% Survival	24-hour composite	Weekly

RECEIVING WATER MONITORING

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

<u>Station</u>	<u>Description</u>
R-1	1,000 yards upstream from discharge

<u>Constituent</u>	<u>Units</u>	<u>Station</u>	<u>Frequency</u>
Temperature	°F	R-1	Weekly

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 approved by the executive officer of the regional board.

Bioassays shall be conducted in accordance with the provisions of "Standard Methods." Percent survival in undiluted effluent shall be determined using *Gasterosteus* (sticklebacks) as the test organism.

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 of the regional board.

All samples shall be representative of the waste discharge under the conditions of peak load.

PROVISIONS FOR REPORTING

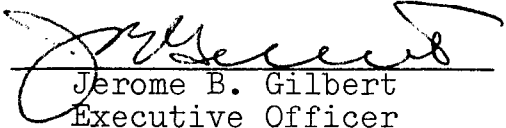
Monthly monitoring reports shall be submitted to the regional board by the 15th day of the following month.

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.

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 regional 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.

Ordered by


Jerome B. Gilbert
Executive Officer

APR 20 1971

(Date)