

C.M.C.

STATE OF CALIFORNIA  
STATE WATER RESOURCES CONTROL BOARD

ORDER NO. 71-21

WASTE DISCHARGE REQUIREMENTS  
FOR  
AMERICAN CRYSTAL SUGAR COMPANY, CLARKSBURG PLANT

The State Water Resources Control Board finds:

1. American Crystal Sugar Company discharges the following kinds and amounts of wastewater into the Sacramento River north of Clarksburg:
  - a. For approximately 20 weeks annually the plant processes sugar beets; the process wastewater is bled off at the end of the processing period at a rate of 0.1 to 0.2 mgd for about a 20-day period
  - b. 7 mgd of condenser cooling water are discharged during the processing season
  - c. Approximately 20,000 gallons per day of cooling water from a liquid sugar operation is discharged throughout the year
  - d. Approximately 2,500 gallons per day of domestic wastewater is discharged during the processing period and 1,000 gallons per day during the off season
2. The discharges are subject to waste discharge requirements adopted by the California Regional Water Quality Control Board, Central Valley Region, in Resolution Nos. 63-125 and 58-552.
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. Aesthetic enjoyment
  - g. Preservation and enhancement of fish and wildlife

71-21

5. The existing degree of treatment will not permit compliance with the discharge specifications contained in this order.
6. The State Board has notified the discharger and interested persons of its intent to revise the waste discharge requirements and has given them the opportunity to comment on the proposed order.
7. The State Board in a public meeting heard and considered comments pertaining to the discharge.

IT IS HEREBY ORDERED, American Crystal Sugar Company shall comply with the following:

A. Discharge Specifications - Cooling Water

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> |
|---------------------|--------------|---------------|----------------|
| 5-day 20° C BOD     | mg/l         | 30            | 60             |
| Settleable solids   | ml/l         | 0.5           | 1.0            |
| Suspended solids    | mg/l         | 30            | 60             |

2. The mean daily flow shall not exceed 7.5 mgd in the latest 30-day period.
3. The pH shall not be less than 6.5 nor greater than 8.5.
4. The maximum temperature of the discharge shall not exceed 86°F.
5. The maximum temperature of the discharge shall not exceed the ambient temperature of the Sacramento 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 Sacramento River at any time.
7. The discharge shall not cause a pollution nor cause the receiving waters to fall below the objectives of the water quality control plan for the region.
8. Neither the treatment nor the discharge shall cause a nuisance.



2. The discharge shall not cause a pollution nor cause the receiving waters to fall below the objectives of the water quality control plan for the region.
3. Neither the treatment nor the discharge shall cause a nuisance.

E. Provisions

1. American Crystal Sugar 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 September 15, 1971, a report delineating the immediate measures that have been or will be taken.
2. In addition to observing the provisions of Paragraph 1, American Crystal Sugar Company shall comply with the following time schedule and reporting program to assure compliance with the discharge specifications A1 through A6, and D1 of this order:

| <u>Task</u>  | <u>Completion Date</u> | <u>Report of Compliance Due</u> |
|--|------------------------|---------------------------------|
| Develop a work plan to meet discharge requirements | 9/1/71                 | 9/15/71                         |
| Complete conceptual plans                          | 4/1/72                 | 4/15/72                         |
| Complete final plans                               | 9/1/72                 | 9/15/72                         |
| Start construction                                 | 12/1/72                | 12/15/72                        |
| Comply with requirements                           | 11/1/73                | 11/15/73                        |

Compliance with discharge specifications A7, A8, B8, B9, C1, C2, D2, and D3 shall be forthwith.

3. In addition to observing the provisions of Paragraphs 1 and 2, American Crystal Sugar Company shall comply with discharge specifications B1 through B7 of this order by April 1, 1972, and shall report on compliance by April 15, 1972.
4. Reports of compliance with the time schedule shall be submitted to the regional board.
5. Compliance with median values will be established by analysis of representative sampling results over the most recent 30-day period.
6. Resolutions No. 63-125 and 58-552 of the regional board are rescinded.

7. The discharger shall comply with the Monitoring and Reporting Program No. 71-21 as specified by the Executive Officer of the State Board, and hereafter administered by the Executive Officer of the regional board.
8. The discharger shall notify the regional board of any reclamation of wastewater and shall obtain reclamation requirements.

Adopted as the order of the State Water Resources Control Board at a meeting duly called and held at Sacramento, California.

Dated: August 5, 1971

KERRY W. MULLIGAN  
Kerry W. Mulligan, Chairman

E. F. DIBBLE  
E. F. Dibble, Vice Chairman

NORMAN B. HUME  
Norman B. Hume, Member

RONALD B. ROBIE  
Ronald B. Robie, Member

ABSENT  
W. W. Adams, Member

STATE WATER RESOURCES CONTROL BOARD  
 MONITORING AND REPORTING PROGRAM NO. 71-21  
 FOR  
 AMERICAN CRYSTAL SUGAR COMPANY, CLARKSBURG PLANT

EFFLUENT MONITORING

Process and domestic wastewater shall be sampled prior to the addition of cooling water or other diluting waters. Samples for temperature shall be taken from the effluent outfall. Flows of process and cooling wastewaters shall be measured and reported independently. Composite samples may be taken by a proportional sampling device approved by the executive officer or by grab samples, the sampling interval shall not exceed one hour. The following shall constitute the effluent monitoring program:

COOLING WATER

| <u>Constituents</u> | <u>Units</u> | <u>Type of Sample</u> | <u>Sampling Frequency</u> |
|---------------------|--------------|-----------------------|---------------------------|
| 5-day 20°C BOD      | mg/l         | Grab                  | Weekly                    |
| Settleable matter   | ml/l         | Grab                  | Daily                     |
| Suspended matter    | mg/l         | Grab                  | Daily                     |
| pH                  | pH Units     | Grab                  | Daily                     |
| Temperature         | °F           | Grab                  | Daily                     |
| Maximum flow        | mgd          | --                    | Daily                     |
| Mean flow           | mgd          | --                    | Daily                     |

PROCESS WASTEWATER - DISCHARGE TO SURFACE WATER

| <u>Constituents</u> | <u>Units</u> | <u>Type of Sample</u> | <u>Sampling Frequency</u> |
|---------------------|--------------|-----------------------|---------------------------|
| 5-day 20°C BOD      | mg/l         | Grab                  | Weekly                    |
| Settleable matter   | ml/l         | Grab                  | Daily                     |
| Suspended matter    | mg/l         | Grab                  | Daily                     |
| pH                  | pH Units     | Grab                  | Daily                     |
| Toxicity            | % Survival   | 24-hour composite     | Weekly                    |
| Temperature         | °F           | Grab                  | Daily                     |
| Maximum flow        | mgd          | --                    | Daily                     |
| Mean flow           | mgd          | --                    | Daily                     |

PROCESS WASTEWATER - DISCHARGE TO LAND

| <u>Constituents</u>                | <u>Units</u> | <u>Type of Sample</u> | <u>Sampling Frequency</u> |
|------------------------------------|--------------|-----------------------|---------------------------|
| Daily flow from holding facilities | mgd          | --                    | Daily                     |

RECEIVING WATER MONITORING

All receiving water samples shall be grab samples. Receiving water samples shall be taken from the following stations when discharging to surface water:

| <u>Station</u> | <u>Description</u>                     |
|----------------|--|
| R-1            | 100 yards upstream<br>from discharge   |
| R-2            | 200 yards downstream<br>from discharge |

| <u>Constituents</u> | <u>Units</u> | <u>Station</u> | <u>Sampling<br/>Frequency</u> |
|---------------------|--------------|----------------|-------------------------------|
| Temperature         | °F           | R-1            | Daily                         |
| Temperature         | °F           | R-2            | Daily                         |

## 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

August 5, 1971

\_\_\_\_\_  
(Date)