STATE OF CALIFORNIA
THE RESOURCES AGENCY
SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD

RESOLUTION 69 - R30
A RESOLUTION PRESCRIBING REQUIREMENTS FOR THE DISCHARGE OF COOLING WATER INTO THE PACIFIC OCEAN FROM THE ENCINA POWER PLANT BY THE SAN DIEGO GAS AND ELECTRIC COMPANY

WHEREAS, on March 30, 1954, this Regional Board did adopt Resolution 54-R1, a resolution pertaining to requirements for the discharge of cooling water from the San Diego Gas and Electric Company Encina Station into the Pacific Ocean; and

WHEREAS, said Resolution stated that the Regional Board had no requirements to prescribe at that time; and

WHEREAS, on March 30, 1967, this Regional Board did adopt Resolution 67-7, a Resolution setting forth in detail revised water quality control policy for the Pacific Ocean within the San Diego Water Quality Control Region; and

WHEREAS, said Resolution 67-7 contains an implementation program, one aspect of which is the establishment of waste discharge requirements for all waste discharges into the Pacific Ocean; and

WHEREAS, in response to a request of staff of the Regional Board and in compliance with the provisions of Section 13054 of the Water Code of the State of California, Mr. Jack E. Thomas, Plant Engineering Supervisor, did, on July 16, 1969, submit in behalf of the San Diego Gas and Electric Company a Report on Waste Discharge wherein is described the existing discharge of cooling water from the Encina Power Plant by the San Diego Gas and Electric Company; and

WHEREAS this Regional Board has caused the following investigation with respect to the aforesaid proposal to be made:

1. Field inspections of the plant site and adjacent and downstream areas were made by members of the staff of this Board.

2. Comments and recommendations were requested from all known interested agencies and the following were received and reviewed:
(A) Memorandum from the State Department of Public Health, Bureau of Sanitary Engineering dated August 5, 1969;

(b) Memorandum from the State Department of Water Resources dated August 20, 1969;

(c) Letter from the San Diego County Department of Public Health dated October 7, 1969; and

(d) Memorandum from the State Department of Fish and Game dated October 17, 1969.

3. The following were reviewed by staff insofar as they pertained to the discharge:

(A) Resolution 67-7, a resolution setting forth in detail revised water quality control policy for the Pacific Ocean within the San Diego water quality control region.

(b) "Recommendations on Thermal Objectives for Water Quality Control Policies on the Interstate Waters of California, A Report to the State Water Resources Control Board," State Department of Fish and Game, August 1968.

(c) Water Quality Criteria, 2nd Edition, State Water Quality Control Board; and

WHEREAS, on October 24, 1969, tentative waste discharge requirements were submitted to the San Diego Gas and Electric Company and copies thereof were sent to all known interested agencies and persons requesting comments thereon, stating that objections thereto would be considered by the Board if submitted at or before the time of this meeting; and

WHEREAS, based upon the foregoing, the Board finds that:

1. The San Diego Gas and Electric Company's Encina Power Plant, the site of which includes all of Agua Hedionda Lagoon, is located adjacent to the Pacific Ocean in Carlsbad.

2. Cooling water is extracted from Agua Hedionda Lagoon and discharged to the Pacific Ocean. In 1968, the discharge averaged 181.5 million gallons per day (MGD). The plant is capable of utilizing up to 216.0 MGD with all units in operation.

3. The average temperature rise of the discharge compared to the intake water during 1968 was 15.1 degrees Fahrenheit (°F). During maximum load operation in 1968, the temperature rise was 23°F. Company officials expect a temperature rise of 24.2°F when the plant is operated at maximum capability and state that the reason for the difference in average and maximum values in 1968 was because the load on the Encina Plant averaged 51.8 percent of maximum capability.
4. The cooling water intakes are located on the southern edge of outer Agua Hedionda Lagoon between the Atchison, Topeka and Santa Fe Railroad tracks and Coast Highway. Two 535-foot channels convey the water to a pumping forebay which serves the individual pumps. All units discharge through a common rectangular tunnel into an open discharge pond located near the inlet structure for the cooling water intake. Water from the pond flows under the Coast Highway, across the beach between jetty's, and into the ocean.

5. During 1968, 64.6 pounds of sodium phosphate and 5171 pounds of ferrous sulphate were added to the water for conditioning purposes. Maximum concentration of these chemicals in the discharge are reported to be .003 and 1.2 mc/l respectively. The intake water is chlorinated but not to the extent that chlorine residuals are found in the water leaving the condensers.

6. Approximately one boiler is cleaned at the Encina Power Plant every year. All wastes from the acid cleaning are neutralized and deposited in an evaporation pond.

7. All domestic wastes are discharged into a septic tank and effluent is disposed of by a leaching system.

8. Current plans are to continue to operate the Encina Power Plant in much the same manner as in recent years. There are no plans for expansion at this time, although it is quite likely that the plant will be expanded in the future.

9. The discharge is made into the nearshore zone of the Pacific Ocean. As defined by Resolution 67-7, the nearshore zone in the vicinity of the discharge includes all waters along the shoreline and extends seaward for 1300 feet. The offshore zone includes all waters located between the nearshore zone and the seaward boundary of the Region.

10. Resolution 67-7 enunciates the following beneficial uses for protection in the nearshore zone: esthetic enjoyment; ocean water contact sports; military exercises involving body contact; propagation and sustenance of marine life, including kelp; scientific research and training; sport fishing; commercial fishing; pleasure boating; shipping; and industrial water supply. The offshore zone is protected for all of the nearshore beneficial uses except ocean water contact sports and military exercises involving body contact; now, therefore, be it

RESOLVED, that in order to protect the beneficial uses enunciated in Resolution 67-7 of this Regional Board and set forth in Finding No. 10 above and to prevent nuisances as defined in Section 13005 of the Water Code of the State of California, this Regional Water Quality Control Board, in accordance with the authority granted by Division 7 of said Code, hereby prescribes the following requirements with regard to the discharge of not more than 216 MGD of cooling water (including boiler blowdown) into the Pacific Ocean by the San Diego Gas and Electric Company from its Encina Power Plant:

1. The discharge shall not impair the beneficial uses of the Pacific Ocean as enunciated in Resolution 67-7.

2. All industrial wastes, other than cooling water and boiler blowdown, are to be excluded from the discharge.
3. The discharge of domestic wastes, either treated or untreated, into the Pacific Ocean is hereby prohibited.

4. The discharge shall not reduce the dissolved oxygen concentration of ocean waters below 7.0 mg/L.

5. The concentration of oil and grease in the discharge shall not exceed 0.01 mg/L increase over that of the incoming cooling water.

6. The pH of the discharge shall not be less than 7.5 nor more than 8.5.

7. Types and concentration of added chemicals in the discharge shall be limited to those now in use, specifically sodium phosphate and ferrous sulphate with a maximum concentration of 0.003 and 1.2 mg/L respectively.

8. Wastes from chemical cleaning of boilers shall be hauled to an approved industrial waste dumpsite for disposal.

9. There shall be no measurable increase in the suspended solids concentration in the discharge as compared to the incoming cooling water.

10. Temperature of the discharge shall not at any time exceed 24.2°F above that of the incoming cooling water, provided that if marine biota of the ocean waters and bottom are altered by temperature changes to the extent that beneficial uses associated therewith are adversely affected, or biota are stimulated so as to produce turbid, unsightly, or malodorous conditions, discharge temperature shall be reduced to levels commensurate with satisfactory conditions.

11. The discharger shall submit technical reports concerning the quantity and quality of the discharge in accordance with the following specification and schedule:

**SPECIFICATION**

Measurement, sample collection and analyses shall be in accordance with "Standard Methods for the Examination of Water and Wastewater," 12th Edition, or edition current at the time of testing, wherever applicable. Determinations, with the exception of the field analyses, shall be made in a laboratory certified for the purpose by the State Department of Public Health.

Cooling water and discharge samples shall be representative composite samples. Results of analyses shall be submitted to this Regional Board monthly.
SCHEDULE

The temperature of the cooling water and discharge shall be continuously measured and recorded and a copy of the log submitted to this Regional Board monthly.

The cooling water and discharge shall be analyzed monthly for the following constituents:

- Grease and Oil mg/L
- Total Phosphorus "
- Suspended solids, total and volatile "
- PH

A log shall be kept of all chemicals used for cooling and/or boiler water treatment which are discharged to the ocean and a copy shall be submitted to this Regional Board.

Dissolved oxygen concentration in the discharge and incoming cooling water shall be determined at least weekly.

A log of the amount and point of disposal of boiler cleaning wastes shall be submitted each time a boiler is cleaned.

Thermal distribution and ecological studies, developed jointly by staffs of the State Department of Fish and Game, San Diego Gas and Electric Company, and Regional Board, and subject to approval by the Regional Board, shall be performed to determine the extent and effects of the discharge; and be it further

RESOLVED, THAT THE DISCHARGER BE NOTIFIED THAT:

1. The above prescribed requirements may be revised from time to time as changes or conditions make necessary such revision.

2. Significant change in point of disposal or characteristics or volume of discharge shall be promptly reported to this Board.

3. The discharger shall grant admission to the premises of the facilities to members of the staff of this Regional Board at such times as may be necessary in the conduct of their duties in connection with the waste discharge requirements established herein.

4. Prior to increasing the discharge to more than 216 MGD, the San Diego Gas and Electric Company shall submit an amended report on waste discharge and obtain amended waste discharge requirements from the Regional Board.

5. Resolution 54-R1, a resolution pertaining to requirements for the discharge of cooling water from the San Diego Gas and Electric Company Encina Station into the Pacific Ocean is hereby rescinded.
6. Section 13001, Division 7 of the California Water Code states:

"No provision of this division or any ruling of the State Water Resources Control Board or a regional water quality control board is a limitation:

"(a) On the power of a city or county to adopt and enforce additional regulations not in conflict therewith imposing further conditions, restrictions, or limitations with respect to the disposal of sewage or other waste or any other activity which might result in the pollution of water.

"(b) On the power of any city or county to declare, prohibit, and abate nuisances.

"(c) On the power of a state agency in the enforcement or administration of any provision of law which it is specifically permitted or required to enforce or administer.

"(d) On the right of any person to maintain at any time any appropriate action for relief against any private nuisance as defined in the Civil Code or for relief against any contamination or pollution." And be it further

RESOLVED, That a certified copy of this resolution be forwarded by mail to the San Diego Gas and Electric Company and to all known interested agencies or persons who may have need therefore or who may request same.

UNANIMOUSLY adopted this 4th day of November, 1969.

/signed/

J. B. Askew, M.D.
CHAIRMAN


Dennis A. O'Leary
EXECUTIVE OFFICER
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

ADDENDUM NO. 1 TO RESOLUTION 69-R30

AN ADDENDUM REVISION RESOLUTION 69-R30 TO INCLUDE
THE DISCHARGE OF COOLING WATER FROM UNIT NO. 4
OF THE ENCINA POWER PLANT
OF THE SAN DIEGO GAS & ELECTRIC COMPANY

The California Regional Water Quality Control Board, San Diego Region, finds that:

1. On November 4, 1969, the Regional Board adopted Resolution 69-R30,
a resolution prescribing requirements for the discharge of cooling
water from the Encina Power Plant by the San Diego Gas & Electric
Company.

2. Mr. C. M. Laffoon, Vice President - Electric, submitted an amended
report of waste discharge wherein is described the proposed increase
in cooling water discharge from Unit No. 4 at the Encina Power Plant.

3. The San Diego Gas & Electric Company reports that the cooling water
intake and discharge locations would be those now existing for
Units 1 through 3.

4. Operation of Unit No. 4 would require a maximum increase of 334 million
gallons per day (MGD) in the cooling water flow. Maximum cooling
water flow for the existing three units is 216 MGD; maximum cooling
water flow for all four units would be 550 MGD.

5. Maximum temperature rise at maximum cooling water flow rates would be
22 to 24 degrees Fahrenheit with all four units operating at maximum
capability.

6. Demineralizer regeneration brines would be discharged with the
cooling water.

7. The State Water Resources Control Board has defined Unit No. 4 of the
Encina Power Plant as an existing discharge.

8. Resolution 69-R30 required the San Diego Gas & Electric Company to
conduct thermal distribution and ecological studies to determine
the extent and effects of the discharge. Preliminary work on such
studies has been initiated by the company. The need for these
studies still exists, and the State Water Resources Control Board in
its policy on thermal discharges, which was adopted on October 13, 1971,
required that such studies be completed prior to July 1973. Detailed
guidelines for such studies are now being developed by the staff of
the State Water Resources Control Board.
Addendum No. 1 to Resolution 69-R30

I, Dennis A. O'Leary, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an addendum adopted by the California Regional Water Quality Control Board, San Diego Region, on December 13, 1971.

Dennis A. O'Leary
Executive Officer
Addendum No. 1 to Resolution 69-R30

9. The Regional Board has notified the discharger and all known interested parties of its intent to prescribe waste discharge requirements for the proposed increased cooling water volume. Written and oral comments and recommendations pertaining to the discharge were solicited from all known interest parties.

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

It is hereby ordered, that the San Diego Gas & Electric Company shall comply with the waste discharge requirements of Resolution 69-R30, modified only as shown below:

1. Requirement No. 2 on page 3 of Resolution 69-R30 is modified to read as follows:

"2. All industrial wastes, other than cooling water, boiler blowdown, and demineralized regeneration brines, are to be excluded from the discharge."

2. Notification No. 4 on page 3 of Resolution 69-R30 is modified to read as follows:

"4. Prior to increasing the discharge to more than 550 MGD, the San Diego Gas & Electric Company shall submit an amended report of waste discharge and obtain waste discharge requirements from this Regional Board."

3. Requirement No. 1 on page 3 of Resolution 69-R30 is modified to read as follows:

"1. The discharge shall not impair the beneficial uses of the Pacific Ocean as enunciated in the Interim Water Quality Control Plan - San Diego Basin, adopted by this Regional Board on June 14, 1971."

The San Diego Gas & Electric Company is hereby notified that detailed guidelines for the thermal distribution and ecological studies will be furnished to the company not later than April 1, 1972, by the Executive Officer of this Regional Board, and the San Diego Gas & Electric Company is hereby ordered to complete these studies in conformance with timetables to be established by the Executive Officer, which will include a final submission date of not later than July 1, 1973.

The San Diego Gas & Electric Company is further notified that a copy of Addendum No. 1 to Resolution 69-R30 will be sent to the State Water Resources Control Board with a request that formulation of detailed guidelines for the thermal distribution and ecological studies be expedited, to provide the guidelines earlier than April 1, 1972 if possible.