

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION

ORDER NO. 76-43

WASTE DISCHARGE REQUIREMENTS  
FOR  
TEMPORARY WATER TREATMENT DEMONSTRATION FACILITY  
SAN DIEGO GAS AND ELECTRIC COMPANY  
Palo Verde - Imperial County

The California Regional Water Quality Control Board, Colorado River Basin Region, finds that:

1. San Diego Gas and Electric Company (hereinafter also referred to as the discharger), P. O. Box 1831, San Diego, CA 92112, submitted a Report of Waste Discharge dated July 6, 1976, the proposals of which are summarized in Findings No. 2, 3, 4, 5, and 6, below.
2. The discharger plans to build and operate a temporary water treatment demonstration facility to simulate the cooling water treatment system which has been designed for the Sundesert Nuclear Plant. The facility will be operated for a period of 12 to 18 months beginning in 1977.
3. The above temporary test facility will be built to one-tenth of one percent of full scale and will withdraw 11 gpm of irrigation wastewater from Palo Verde Outfall Drain. This makeup flow will be clarified and partially softened with lime. A coagulant and coagulant aid will be added to enhance settling. In the demonstration facility, the total dissolved solids will become concentrated to about fifteen times that of the original drain water.
4. Wastewater, consisting of cooling tower blowdown with a TDS of about 28,000 mg/l and sludge from clarifiers, in a total amount of about 0.7 gpm, average flow, would be discharged to a lined evaporation basin of approximately one-half acre in size. The basin will be partitioned to allow for simultaneous testing of three different liner materials. An impermeable substructure will be constructed below the liners to allow monitoring of potential leakage through each liner.

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5. After completion of the water treatment system testing, the equipment will be dismantled and removed from the site. The test basin may be maintained for a longer period of time to demonstrate liner integrity and salt retention characteristics. The salts in the evaporation basin will then be removed and discharged elsewhere.
6. The demonstration facility will be located in the NW $\frac{1}{4}$ , NW $\frac{1}{4}$  of Section 25, T9S, R21E, SBB&M. This was formally flood plain area of the Colorado River with a high ground water elevation.
7. The Water Quality Control Plan for the East Colorado River Basin was adopted by the Board on April 10, 1975, and this Order implements the objectives stated in the Plan.
8. The beneficial uses of the groundwaters of the Colorado Hydrologic Unit are:
  - a. Municipal supply
  - b. Industrial supply
  - c. Agricultural supply
9. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the proposed discharge.
10. The Board in a public meeting heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, San Diego Gas and Electric Company shall comply with the following:

A. Discharge Specifications

1. Neither the treatment nor the discharge of wastes shall cause a pollution or a nuisance.
2. There shall be no seepage from the evaporation basin and/or conduits which discharge wastewaters thereto.
3. A freeboard depth of not less than 18 inches shall be maintained in the basin at all times.
4. There shall be no surface flow of wastewater away from the designated evaporation basin.
5. The evaporation basin shall not be located within one hundred feet of any irrigation canal or drainage ditch, and shall not be located within two hundred feet of any water supply well.

6. The bottom of the evaporation basin shall be constructed at least five feet above high ground water elevation.
7. Adequate protective works shall be provided to assure that a storm which would be expected to occur on a frequency of once in a 20-year period would not erode or otherwise render portions of the treatment and discharge facilities inoperable.
8. All wastes shall be removed from the evaporation basin, with final cleanup by not later than 24 months following completion of operation of the water treatment demonstration facility.
9. Sludge and other wastes removed from the basin, and other solid wastes, shall be discharged only at an approved Class I solid waste disposal site or other site approved by the Regional Board to receive these wastes.

#### B. Provisions

1. The discharger shall comply with "Monitoring and Reporting Program No. 76-43", and the "General Provisions for Monitoring and Reporting", and future revisions thereto, as specified by the Executive Officer.
2. Prior to the discharge of any wastewater into the evaporation basin or to channels discharging thereto, the discharger shall submit to the Regional Board a technical report signed by a California Registered Civil Engineer stating that the basin and attendant facilities are constructed to meet the requirements contained in this Order. Said report shall also show the design of the basin and the method to be used to determine any leakage therefrom.
3. The discharger shall prepare a semiannual water balance accounting for the volume of all water delivered to and removed from the evaporation basin.
4. Prior to any modifications which would result in material change in the quality or quantity of wastes discharged, or any material change in the method or location of discharge, the discharger shall report thereon to the Board.
5. At least 6 months prior to removal of wastes from the evaporation basin, the discharger shall submit a technical report to the Regional Board, setting forth the proposed method and location of final disposal of said wastes.

6. Prior to destruction of the evaporation basin, the discharger shall inform the Regional Board of the discharger's intent and request a Regional Board staff inspection and approval of the cleanup procedures.

I, Arthur Swajian, 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, Colorado River Basin Region, on November 18, 1976.

*Arthur Swajian*

Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. 76-43

FOR

SAN DIEGO GAS AND ELECTRIC COMPANY

Palo Verde - Imperial County

Location: In NW $\frac{1}{4}$ , NW $\frac{1}{4}$  of Section 25, T9S, R21E, SBB&M. (About 4 miles south of community of Palo Verde.)

MONITORING

San Diego Gas and Electric Company shall report the following to the Regional Board concerning the discharge from the temporary water treatment demonstration facility:

<u>Item</u>	<u>Units</u>	<u>Reporting Frequency</u>
1. Total wastewater discharged to evaporation basin during month	Gallons	Monthly
2. Gain in pond volume of evaporation basin during month, directly measured as increase in surface level	Gallons	Monthly
3. Unaccounted for water during month	Gallons	Monthly
4. Area of water surface of evaporation basin during month	Square Feet	Monthly
5. Evaporation measured from standard pan during month	Inches	Monthly
6. Total evaporation from evaporation basin during month, as calculated using the evaporation pan data in Item 5, above	Gallons	Monthly

### OTHER REPORTS

7. The discharger shall prepare a water balance in January and July of each year accounting for all water delivered to the evaporation basin during the previous six month period.
8. Immediate reporting of any accidental spillage or release of waste material, and also, plan for immediate measures being taken to correct same and to limit detrimental effects.
9. Prior to the discharge of any wastewater into the evaporation basin or to channels discharging thereto, the discharger shall submit to the Regional Board a technical report signed by a California Registered Civil Engineer stating that the basin and attendant facilities are constructed to meet the requirements contained in this Order. Said report shall also show the design of the basin and the method to be used to determine any leakage therefrom.
10. At least ten (10) days prior to commencement of operations of the temporary water treatment demonstration facility, the discharger shall inform the Regional Board concerning the proposed commencement of discharge.
11. At least six (6) months prior to removal of wastes from the evaporation basin, the discharger shall submit a technical report to the Regional Board, setting forth the proposed method and location of final disposal of said wastes.
12. At least ten (10) days prior to destruction of the evaporation basin, the discharger shall request a Regional Board staff inspection and approval of cleanup procedure.
13. Report of completion of removal of all wastes from evaporation basin and cleanup of premises - Reported within one week following completion of work.

### REPORTING

Monitoring reports shall be submitted to the Regional Board as follows:

Semi-annually - February 15 and August 15 of each year.

Monthly Reports - by the 15th day of the following month.

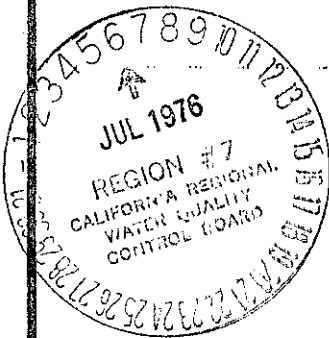
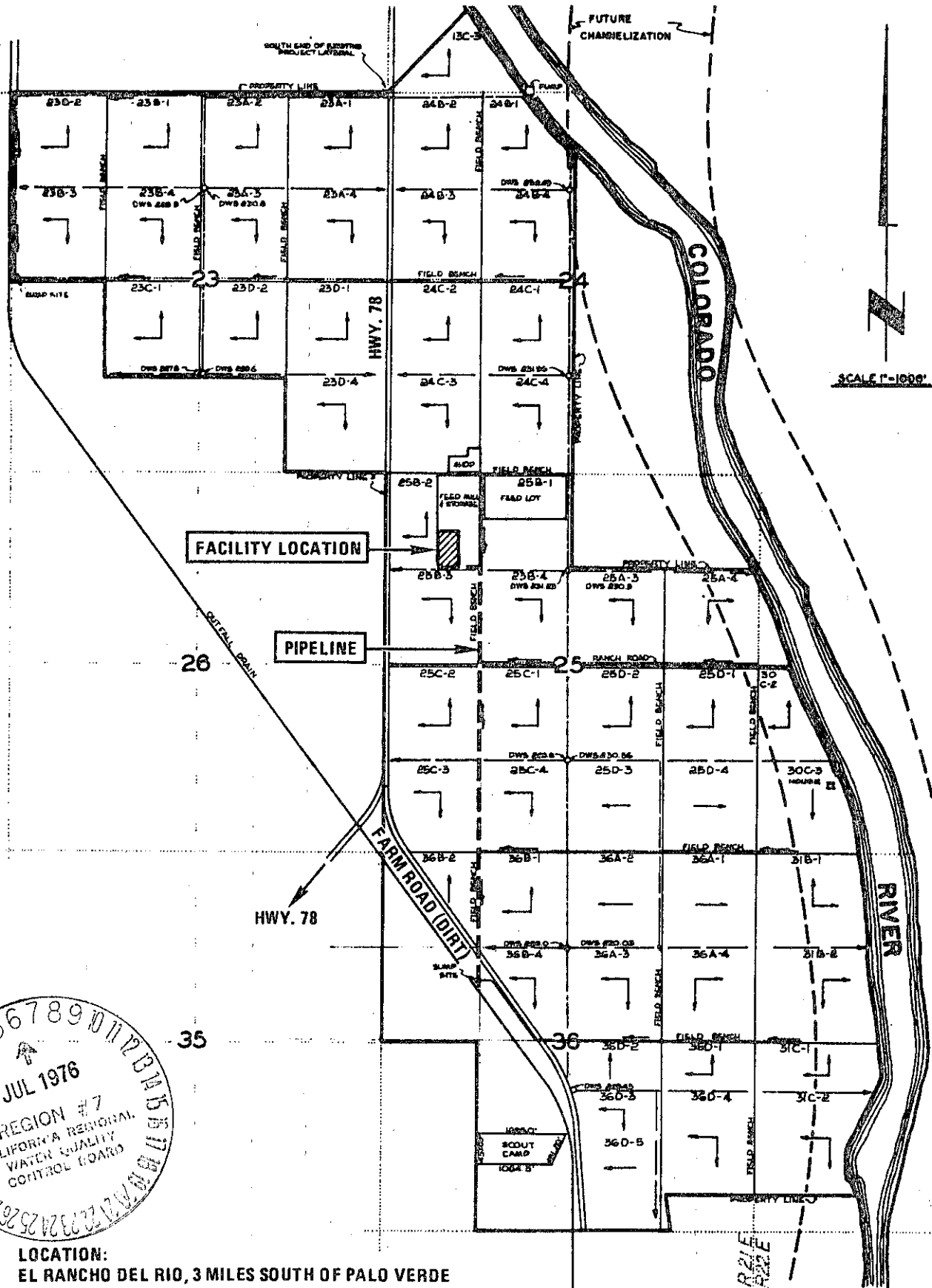
Forward Monitoring Reports to:

California Regional Water Quality Control Board  
Colorado River Basin Region  
73-271 Highway 111, Suite 21  
Palm Desert, California 92260

Ordered by: Arthur Sevajian  
Executive Officer

November 18, 1976  
Date

# WATER TREATMENT DEMONSTRATION FACILITY LOCATION MAP SAN DIEGO GAS & ELECTRIC COMPANY



**LOCATION:**  
 EL RANCHO DEL RIO, 3 MILES SOUTH OF PALO VERDE  
 IMPERIAL COUNTY, CALIF.  
 SECTION 25  
 TOWNSHIP 9S  
 RANGE 21E  
 SAN BERNARDINO BASE & MERIDIAN

### LEGEND

- PROJECT LATERALS
- FARM DITCHES
- DRAINS
- DIRECTION OF IRRIGATION →
- IRRIGATION TURNOUT └