

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION**

ORDER NO. 88-30 (Revised)

WASTE DISCHARGE REQUIREMENTS
FOR
PACIFIC GAS AND ELECTRIC COMPANY
TOPOCK COMPRESSOR STATION
Southeast of Needles - San Bernardino County

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

1. Pacific Gas and Electric Company, (hereinafter also referred to as the discharger), 77 Beale Street, San Francisco, CA 94106, submitted a Report of Waste Discharge dated August 26, 1987, to discharge wastewater from a natural gas compressor station, located one-half ($\frac{1}{2}$) mile west of the Colorado River across from Topock, Arizona.
2. The discharger proposes to discharge a maximum of 30,000 gallons per day of nonhazardous industrial wastewater into four (4) new evaporation basins to be constructed and located in the E $\frac{1}{2}$ of the NE $\frac{1}{4}$ of Section 7, T7N, R24E, SBB&M. A general location map is shown as Attachment 'A' appended hereto as a part of this Order. The four evaporation basins would be constructed in accordance with Class II surface impoundment standards listed in Subchapter 15, Chapter 3, Title 23 of the California Code of Regulations.
3. The discharger reports that the wastewater to be discharged to the proposed basins would have pH values ranging from 6 to 9 and a total dissolved solids concentration of about 6,600 mg/l. The said wastewater is composed primarily of cooling tower blowdown (95 percent of wastewater) and a small amount (5 percent) of the wastewater generated from intermittent activities such as degreasing of equipment, descaling of compressor engine parts and intermittent draining of the closed cooling water system. These small waste streams would be processed in an oil/water separator prior to discharge.
4. The discharger proposes to treat the cooling tower water with the following:
 - a. Sulfuric acid to maintain pH at 7.5 in order to inhibit calcium carbonate scaling in the cooling system.
 - b. Nontoxic phosphate-based inhibitors and bromine-based biocides.
5. The degreasing wastestream contains several cleaning agents and residual oils from equipment; and the closed cooling system wastewater contains a molybdenum based corrosion inhibitor. None of these substances are toxic at the concentrations present in the wastewater streams.
6. The proposed discharge has been subject to waste discharge requirements prescribed by Order No. 85-99 according to which the said wastewater is being discharged to four (4) evaporation basins in the SW $\frac{1}{4}$ of Section 8, TN7,

R24E, SBB&M. As soon as the four proposed evaporation basins have been constructed, Pacific Gas and Electric Company plans to close the four existing basins along with all hazardous waste facilities at the Topock Compressor Station. The said closure would be in compliance with the closure requirements of 40 CFR Part 265 and Subchapter 15, Chapter 3, Title 23 of the California Code of Regulations.

7. Domestic sewage from employee working areas is disposed by means of septic tank and leach field system.
8. The Water Quality Control Plan for the Colorado River Basin Region of California was adopted by the Board on November 14, 1984. The Basin Plan contains water quality objectives for the Colorado River Hydrologic Unit.
9. The beneficial uses of the waters to be protected are:
 - a. Surface Waters: The nearest surface water is the Colorado River. The proposed evaporation basins would be located approximately one mile west of the Colorado River. The beneficial uses of the Colorado River below the Needles-Topock Bridge are:
 1. Municipal supply
 2. Agricultural supply
 3. Industrial supply
 4. Ground water recharge
 5. Contact and noncontact water recreation
 6. Warm freshwater habitat
 7. Wildlife habitat
 8. Hydropower generation
 - b. Ground Water: Ground water within one mile radius of the compressor station is currently not being used. Recent analysis of ground water samples taken from four piezometer wells located at the proposed evaporation ponds' site indicate an average pH of 7.7 and TDS that ranges from 350 mg/l to 2800 mg/l. Depth to ground water at the site ranges from 167 feet to 202 feet as measured from the ground surface.
10. The Board has notified the discharger and interested agencies and persons of its intent to update waste discharge requirements for the discharge.
11. The Board in a public meeting heard and considered all comments pertaining to the existing discharge.
12. On January 27, 1988, the Regional Board adopted waste discharge requirements in Board Order No. 88-30 for the proposed discharge.
13. The principal purpose of this Order is to revise Board Order No. 88-30 only to the extent of deleting Provision No. 7 of Board Order No. 88-30, which provided for the superseding of Order No. 85-99.

14. These waste discharge requirements govern an existing facility, which the discharger is currently operating, and therefore is exempt from the provisions of the California Environmental Quality Act in accordance with Section 15301, Chapter 3, Title 14 of the California Code of Regulations.

IT IS HEREBY ORDERED, that Pacific Gas and Electric Company shall comply with the following:

A. Discharge Specifications

1. Neither the treatment nor the discharge of wastes shall create a pollution or a nuisance as defined in Division 7 of the California Water Code.
2. The discharge of industrial wastewater shall be confined to the evaporation basins constructed and explained in Finding No. 2 and shown on Attachment 'B' appended hereto as a part of this Order.
3. A minimum freeboard depth of at least two (2) feet shall be maintained at all times in each basin.
4. Measures shall be taken to assure that wastewater discharged to the basins shall not overflow.
5. Adequate protective works shall be provided to assure that flood or surface drainage water does not erode or otherwise render portions of the disposal facilities inoperable.
6. Residual solids obtained by evaporation of process wastewaters shall be discharged only at a waste management unit approved by the Board to receive such wastes.
7. Without prior approval of the Executive Officer, the discharger shall not use any treatment chemicals or additives other than those listed in Findings No. 4 and 5 of this Order.

B. Prohibitions:

1. The discharge of wastewaters to Colorado River or to any channel draining to Colorado River is prohibited.
2. The use of hazardous chemicals including chromates in the cooling tower water treatment process is prohibited.

C. Provisions:

1. The discharger shall maintain a copy of this Order at the site and make it available at all times to site operating personnel.
2. The discharger shall comply with "Monitoring and Reporting Program No. 88-30 (Revised), and future revisions thereto, as specified by the Regional Board's Executive Officer.

3. Prior to any modifications in this facility which would result in material change in the quality or quantity of wastewater discharged, or any material change in location of discharge, the discharger shall report in writing to the Regional Board.
4. In the event of any change in operation, or in control or ownership of land or waste disposal facilities owned or controlled by the discharger, the discharger shall:
 - a. Notify this Board of such change; and
 - b. Notify the succeeding owner or operator by letter of the existence of this Order, a copy of which shall be filed with this Board.
5. This Order does not authorize violation of any federal, state or local laws or regulations.
6. The discharger shall comply, to the satisfaction of the Executive Officer, with the below-listed requirements of the California Code of Regulations, Title 23, Subchapter 15, as applicable to Class II surface impoundments:
 - a. Class II Waste Management Units for Designated Wastes: Article 3, Section 2352
 - b. Construction Standards: Article 4, Sections 2540, 2541, 2542, 2543, 2546, 2547, 2548
 - c. Water Quality Monitoring for Classified Waste Management Units: Article 5, Sections 2550 through 2559
 - d. Surface Impoundment Closure Requirements: Article 8, Section 2582

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 March 23, 1988.



Executive Officer

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION**

MONITORING AND REPORTING PROGRAM NO. 88-30 (REVISED)
FOR
PACIFIC GAS AND ELECTRIC COMPANY
TOPOCK COMPRESSOR STATION
Southeast of Needles - San Bernardino County

Location of Discharge: E $\frac{1}{2}$ of NE $\frac{1}{4}$ of Section 7, T7N, R24E, SBB&M

MONITORING

Pacific Gas and Electric Company shall monitor the evaporation basins, ground water and vadose zone in accordance with the following:

A. Evaporation Basins Monitoring

1. Discharge wastewater samples shall be taken from the discharge point of each of the four evaporation basins for analyses of constituents indicated below:

	<u>Constituent</u>	<u>Unit</u>	<u>Sampling Frequency</u>
1.	Total Dissolved Solids (TDS)	mg/l	Biannually
2.	Specific Conductance	micromhos/cm	Biannually
3.	pH	-	Biannually
4.	Fluoride (F)	mg/l	Biannually
5.	Total Phosphorus (P)	mg/l	Biannually
6.	Total Chromium (Cr)	mg/l	Biannually
7.	Total Wastewater Delivered to 4 Basins	gallons	Biannually

2. Leachate Collection and Removal System Monitoring

Leachate collection sumps for the evaporation basins shall be monitored weekly to check whether or not the liner system is leaking. In case of a leak being detected in the liner system, the discharger shall report the same immediately to the Regional Board. Otherwise, the "no leak detected" information shall be submitted on a biannual basis.

B. Vadose Zone Monitoring

The vadose zone detection system for the basins shall be monitored quarterly for detection of change in moisture content of the materials in the unsaturated zone. In the event that a significant change in moisture content is observed, the discharger shall (a) report the information to the Regional Board, (b) if feasible, use a pressure vacuum lysimeter or other device to recover samples for analyses of wastewater constituents. Results of this analyses shall be submitted to the Regional Board.

If no significant change in moisture content is observed, the same shall be reported biannually to the Regional Board.

C. Ground Water Monitoring

The discharger shall obtain representative samples of ground water from the proposed two upgradient and three downgradient ground water monitoring wells for analyses of constituents indicated below:

	<u>Constituent</u>	<u>Unit</u>	<u>Sampling Frequency</u>
1.	Total Dissolved Solids (TDS)	mg/l	Biannually
2.	Specific Conductance	micromhos/cm	Biannually
3.	pH	-	Biannually
4.	Fluoride (F)	mg/l	Biannually
5.	Total Phosphorus (P)	mg/l	Biannually
6.	Total Chromium (Cr)	mg/l	Biannually
7.	Total Wastewater Delivered to 4 Basins	gallons	Biannually

The collection, preservation and holding times of all samples shall be in accordance with the U. S. Environmental Protection Agency (EPA) recommended methods for all the aforementioned constituents.

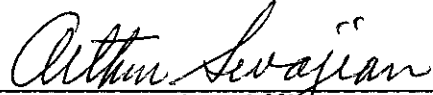
The discharger shall implement the above monitoring program upon completion of construction of proposed evaporation basins.

REPORTING

Monitoring reports shall be submitted to the Regional Board by July 15 and January 15 of each year. Forward monitoring reports to:

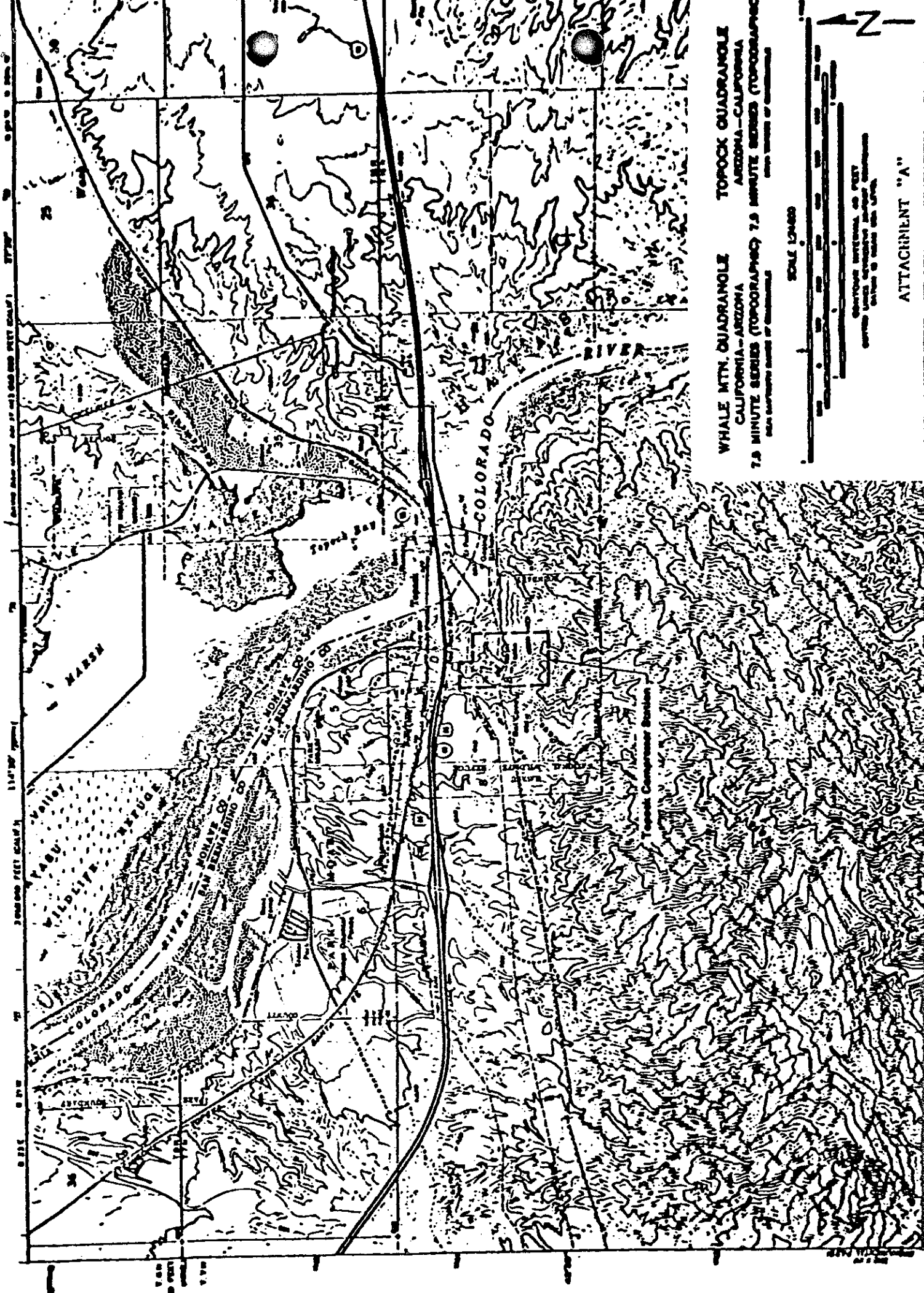
California Regional Water Quality Control Board
Colorado River Basin Region
73-271 Highway 111, Suite 21
Palm Desert, CA 92260

ORDERED BY:


Executive Officer

March 23, 1988

Date

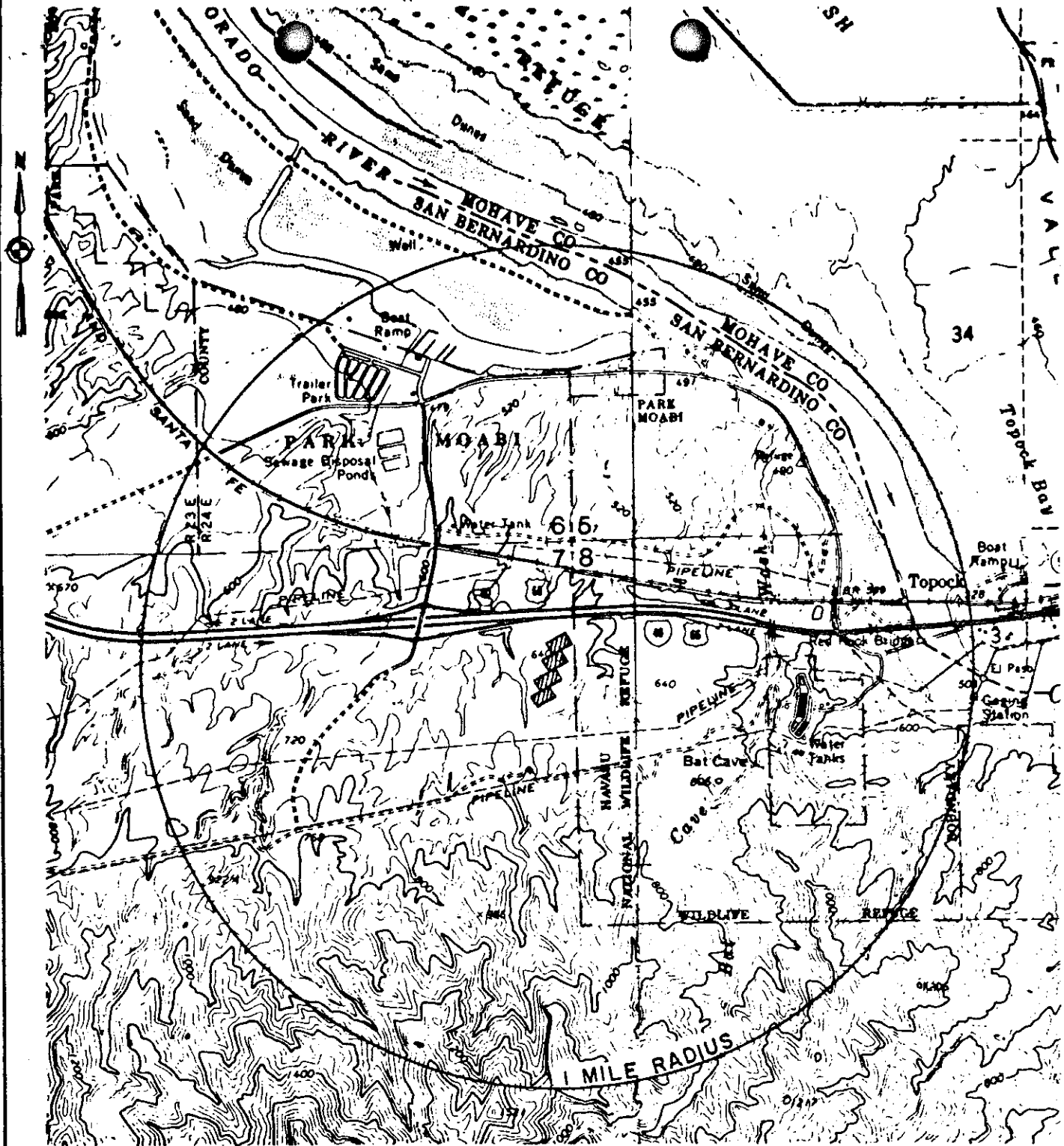


WHALE MTH. QUADRANGLE TOPOCK QUADRANGLE
CALIFORNIA - ARIZONA ARIZONA - CALIFORNIA
7.5 MINUTE SERIES (TOPOGRAPHIC) 7.5 MINUTE SERIES (TOPOGRAPHIC)
DATE SURVEYED: 1954


SCALE 1:50,000

VERTICAL INTERVAL, 40 FEET
HORIZONTAL INTERVAL, 1:50,000
EARTH TO SCALE 1:50,000

ATTACHMENT "A"



Scale in Feet

 Evaporation Basins

ATTACHMENT "B"

SITE MAP

PACIFIC GAS AND ELECTRIC COMPANY - TOPOCK COMPRESSOR STATION
Southeast of Needles - San Bernardino County

Evaporation Basins in E½ of NE¼ of Section 7, T7N, R24E, SBB&M

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION**

ORDER NO. 88-30

**WASTE DISCHARGE REQUIREMENTS
FOR
PACIFIC GAS AND ELECTRIC COMPANY
TOPOCK COMPRESSOR STATION
Southeast of Needles - San Bernardino County**

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

1. Pacific Gas and Electric Company (hereinafter also referred to as the discharger), 77 Beale Street, San Francisco, CA 94106, submitted a Report of Waste Discharge dated August 26, 1987, to discharge wastewater from a natural gas compressor station, located one-half ($\frac{1}{2}$) mile west of the Colorado River across from Topock, Arizona.
2. The discharger proposes to discharge a maximum of 30,000 gallons per day of nonhazardous industrial wastewater into four (4) new evaporation basins to be constructed and located in the E $\frac{1}{2}$ of NE $\frac{1}{4}$ of Section 7, T7N, R24E, SBB&M. A general location map is shown as attachment 'A' appended hereto as a part of this Order. The four evaporation basins would be constructed in accordance with Class II surface impoundment standards listed in Subchapter 15, Chapter 3, Title 23 of the California Administrative Code.
3. The discharger reports that the wastewater to be discharged to the proposed basins would have pH values ranging from 6 to 9 and a total dissolved solids concentration of about 6,600 mg/l. The said wastewater is composed primarily of cooling tower blowdowns (95 percent of wastewater) and a small amount (5 percent) of the wastewater generated from intermittent activities such as degreasing of equipment, descaling of compressor engine parts and intermittent draining of the closed cooling water system. These small waste streams would be processed in an oil/water separator prior to discharge.
4. The discharger proposes to treat the cooling tower water with the following:
 - a. Sulfuric acid to maintain pH at 7.5 in order to inhibit calcium carbonate scaling in the cooling system.
 - b. Nontoxic phosphate-based inhibitors and bromine-based biocides.
5. The degreasing wastestream contains several cleaning agents and residual oils from equipment; the closed cooling system wastewater contains a molybdenum based corrosion inhibitor. None of these substances are toxic at the concentrations present in the wastewater streams.
6. The proposed discharge has been subject to waste discharge requirements, prescribed by Order No. 85-99 according to which the said wastewater

*Superseded
3/23/88
88-30R*

is being discharged to four (4) evaporation basins in SW $\frac{1}{4}$ of Section 8, T7N,R24E, SBB&M. As soon as the four proposed evaporation basins have been constructed, Pacific Gas and Electric Company plans to close the four existing basins along with all hazardous waste facilities at the Topock Compressor Station. The said closure would be in compliance with the closure requirements of 40 CFR Part 265 and Subchapter 15, Chapter 3, Title 23 of the California Administrative Code.

7. Domestic sewage from employee working areas is disposed by means of septic tank and leach field system.
8. The Water Quality Control Plan for the Colorado River Basin Region was adopted by the Regional Board on November 14, 1984. The Basin Plan contains water quality objectives for the Colorado River Hydrologic Unit.
9. The beneficial uses of the waters to be protected are:
 - a. Surface Waters: The nearest surface water is the Colorado River. The proposed evaporation basins would be located approximately one mile west of the Colorado River. The beneficial uses of the Colorado River below the Needles-Topock Bridge are:
 1. Municipal supply
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 3. Industrial supply
 4. Ground water recharge
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 7. Wildlife habitat
 8. Hydropower generation
 - b. Ground water: Ground water within one mile radius of the compressor station is currently not being used. Recent analysis of ground water samples taken from four piezometers located at the proposed evaporation ponds' site indicate an average pH of 7.7 and TDS that ranges from 350 mg/l to 2800 mg/l. Depth to ground water at the site ranges from 167 feet to 202 feet as measured from the ground surface. The regional ground water quality (within 1 $\frac{1}{2}$ mile radius) as measured using five wells show an average pH of about 7.7 and TDS ranging from 350 mg/l to 2800 mg/l.
10. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this facility.
11. The Board in a public meeting heard and considered all comments pertaining to the discharge.
12. These waste discharge requirements govern an existing facility, which the discharger is currently operating, and therefore is exempt from the provisions of the California Environmental Quality Act in accordance with Section 15301, Chapter 3 of Title 14 of the California Administrative Code.

IT IS HEREBY ORDERED, that Pacific Gas and Electric Company shall comply with the following:

A. Discharge Specifications:

1. Neither the treatment nor the discharge of wastes shall create a pollution or a nuisance as defined in Division 7 of the California Water Code.
2. The discharge of industrial wastewater shall be confined to the evaporation basins shown on Attachment "B" appended hereto as a part of this Order.
3. A minimum freeboard depth of at least one (1) foot shall be maintained at all times in each basin.
4. Measures shall be taken to assure that wastewater discharged to the basins shall not overflow.
5. Adequate protective works shall be provided to assure that flood or surface drainage water does not erode or otherwise render portions of the disposal facilities inoperable.
6. Residual solids obtained by evaporation of process wastewaters shall be discharged only at a waste management unit approved by the Board to receive such wastes.
7. Without prior approval of the Executive Officer, the discharger shall not use any treatment chemicals or additives other than those listed in Findings No. 4 and 5 of this Order.

B. Prohibitions:

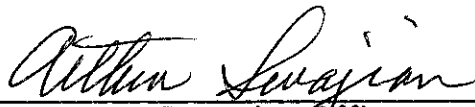
1. The discharge of wastewaters to Colorado River or to any channel draining to Colorado River is prohibited.
2. The use of hazardous chemicals including chromates in the cooling tower water treatment process is prohibited.

C. Provisions:

1. The discharger shall maintain a copy of this Order at the site and make it available at all times to site operating personnel.
2. The discharger shall comply with "Monitoring and Reporting Program No. 88-30" and future revisions thereto, as specified by the Regional Board's Executive Officer.
3. Prior to any modifications in this facility which could result in material change in quality or quantity of wastewater discharged, or any material change in location of discharge, the discharger shall report thereon to the Regional Board.
4. In the event of any change in operation, or in control of ownership of land or waste disposal facilities owned or controlled by the discharger, the discharger shall:

- a. Notify the Regional Board in writing of such change; and
 - b. Notify the succeeding owner or operator in writing of the existence of this Order, a copy of which shall be filed with this Board.
5. This Order does not authorize violation of any federal, state or local laws or regulations.
6. The discharger shall comply, to the satisfaction of the Executive Officer, with the below-listed requirements of the California Administrative Code, Title 23, Subchapter 15, as applicable to Class II surface impoundments:
- a. Class II Waste Management Units for Designated Wastes: Article 3, Section 2532
 - b. Constructino Standards: Article 4, Sections 2540, 2541, 2542, 2543, 2546, 2547, 2548
 - c. Water Quality Monitoring for Classified Waste Management Units: Article 5, Sections 2550 through 2559
 - d. Surface Impoundment Closure Requirements: Article 8, Section 2582
7. This Order supersedes Board Order No. 85-99.

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 January 27, 1988.



Executive Officer

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION**

**MONITORING AND REPORTING PROGRAM NO. 88-30
FOR
PACIFIC GAS AND ELECTRIC COMPANY
TOPOCK COMPRESSOR STATION
Southeast of Needles - San Bernardino County**

Location of Discharge: E $\frac{1}{2}$ of NE $\frac{1}{4}$ of Section 7, T7N, R24E, SBB&M

MONITORING

Pacific Gas and Electric Company shall monitor the evaporation basins, ground water and vadoze zone in accordance with the following:

A. Evaporation Basins Monitoring

1. Discharge wastewater samples shall be taken from the discharge point of each of the four evaporation basins for analyses of constituents indicated below:

	<u>Constituent</u>	<u>Unit</u>	<u>Sampling Frequency</u>
1.	Total Dissolved Solids (TDS)	mg/l	biannually
2.	Specific Conductance	micromhos/cm	biannually
3.	pH	-	biannually
4.	Fluoride (F)	mg/l	biannually
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2. Leachate Collection and Removal System Monitoring

Leachate collection sumps for the evaporation basins shall be monitored weekly to check whether or not the liner system is leaking. In case of a leak being detected in the liner system, the discharger shall report the same immediately to the Regional Board. Otherwise, the "no leak detected" information shall be submitted on a biannual basis.

B. Vadoze Zone Monitoring

The vadoze zone detection system for the basins shall be monitored quarterly for detection of change in moisture content of the materials in the unsaturated zone. In the event that a significant change in moisture content is observed, the discharger shall (a) report the information to the Regional Board, (b) if feasible, use a pressure vacuum lysimeter or other device to recover samples for analyses of wastewater constituents. Results of this analyses shall be submitted to the Regional Board.

If no significant change in moisture content is observed, the same shall be reported biannually to the Regional Board.

C. Ground Water Monitoring

The discharger shall obtain representative samples of ground water from the proposed two upgradient and three downgradient ground water monitoring wells for analyses of constituents indicated below:

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1.	Total Dissolved Solids (TDS)	mg/l	biannually
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4.	Fluoride (F)	mg/l	biannually
5.	Total Phosphorus (P)	mg/l	biannually
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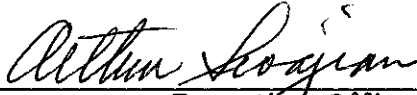
The collection, preservation and holding times of all samples shall be in accordance with the U. S. Environmental Protection Agency (EPA) recommended methods for all the aforementioned constituents.

The discharger shall implement the above monitoring program upon completion of construction of proposed evaporation basins.

REPORTING

Monitoring reports shall be submitted to the Regional Board by July 15 and January 15 of each year. Forward monitoring reports to:

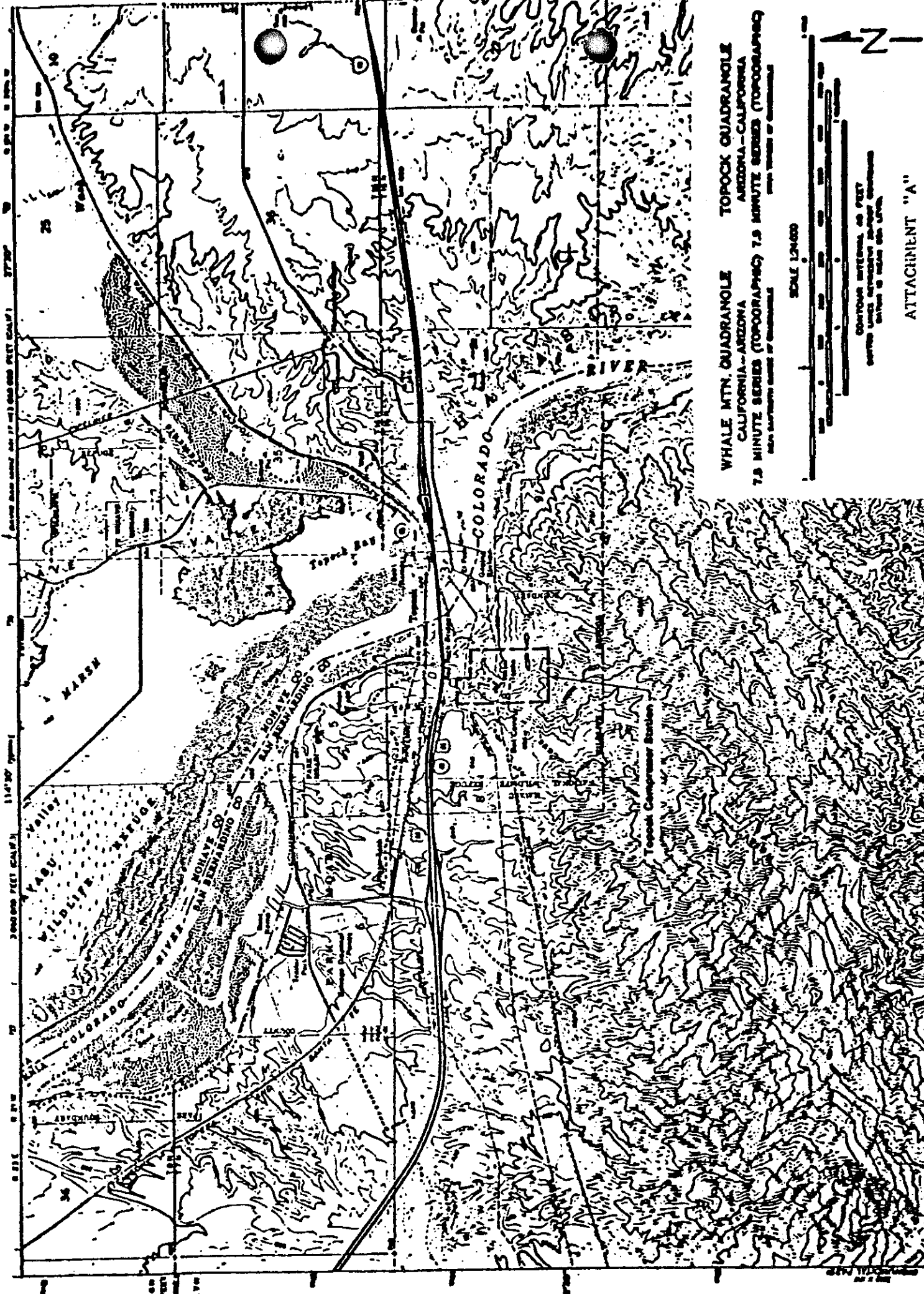
California Regional Water Quality Control Board
Colorado River Basin Region
73-271 Highway 111, Suite 21
Palm Desert, CA 92260



Executive Officer

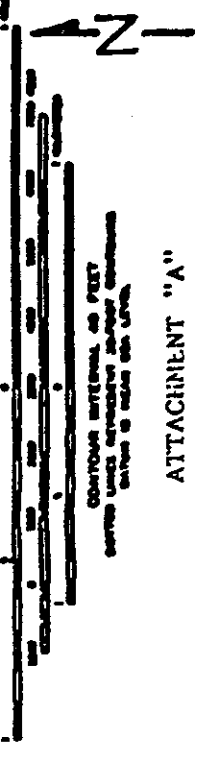
January 27, 1988

Date



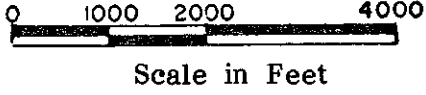
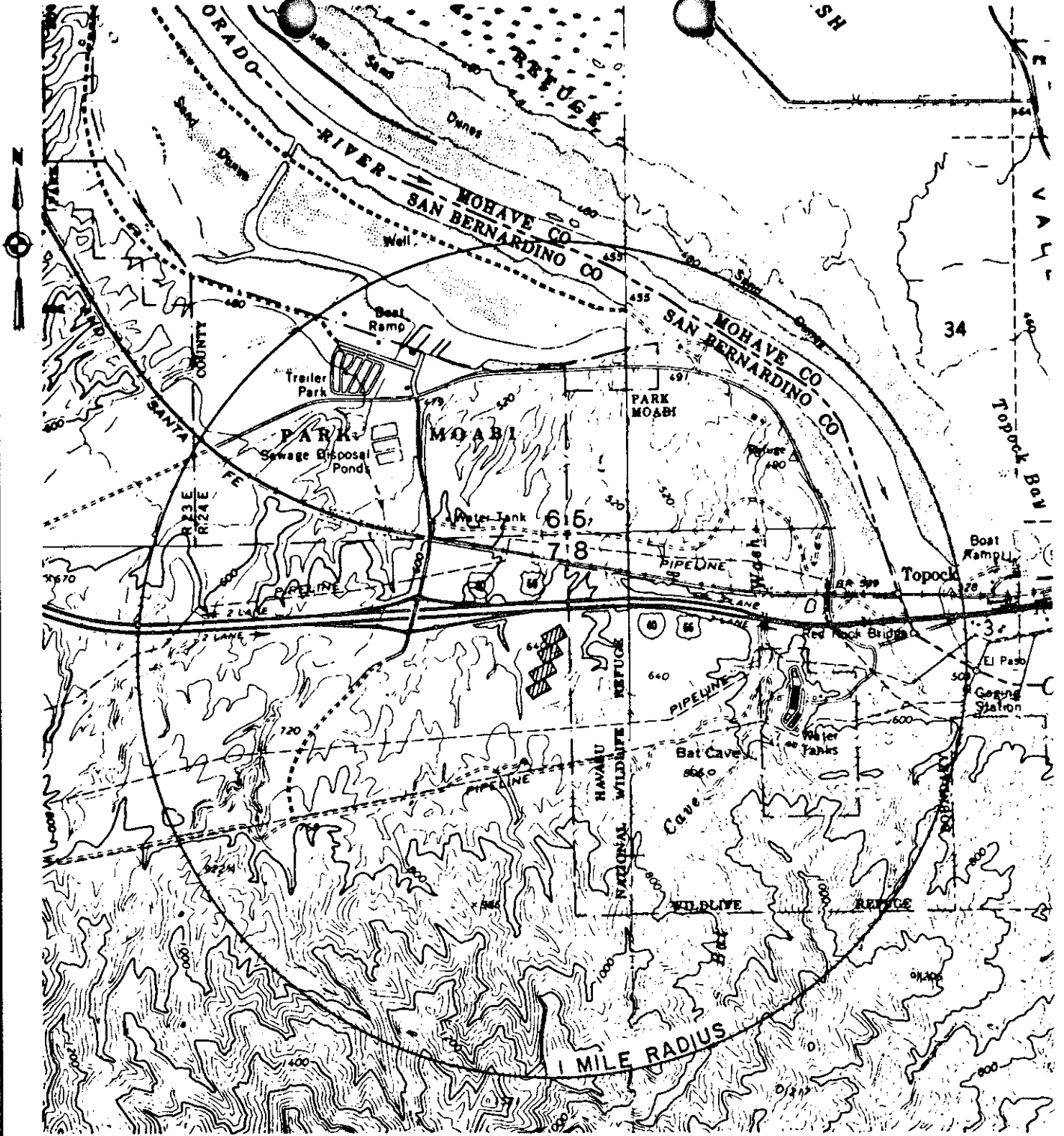
WHALE MTN. QUADRANGLE TOPOCK QUADRANGLE
 CALIFORNIA--ARIZONA
 7.5 MINUTE SERIES (TOPOGRAPHIC) 7.5 MINUTE SERIES (TOPOGRAPHIC)
 U.S. GEOLOGICAL SURVEY


SCALE 1:24,000



ATTACHMENT "A"

ATTACHMENT B



 Evaporation Basins

SITE MAP

PACIFIC GAS AND ELECTRIC COMPANY - TOPOCK COMPRESSOR STATION
Southeast of Needles - San Bernardino County

Evaporation Basins in E $\frac{1}{2}$ of NE $\frac{1}{4}$ of Section 7, T7N, R24E, SBB&M