

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

ORDER NO. 89-006

WASTE DISCHARGE REQUIREMENTS
FOR
WESTERN POWER GROUP UNIT II INC.
IMPERIAL RESOURCE RECOVERY PROJECT
15 Megawatt (Net) Biomass Waste Fueled Power Plant
South of Brawley - Imperial County

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

1. Western Power Group Unit II Inc. (Corporate No. 13286950), 620 Newport Center Drive, Suite 820, Newport Beach, CA 92660 (hereinafter also referred to as the discharger), submitted, via its Managing Director, Gary L. Palo, a report of waste discharge dated October 11, 1988.
2. The discharger operates a 15 megawatt (net) electric power generating station which utilizes a combination of crop residue and cattle manure as fuel. The plant generates a maximum of 170,000 gallons-per-day (gpd) of non hazardous wastewater which is composed of the following wastestreams:
 - a. Cooling tower blowdown (81 percent by volume)
 - b. Boiler Blowdown (14 percent by volume)
 - c. Boiler make-up water treatment system (deionizer) blowdown (5 percent by volume)
3. The wastewater has the following characteristics:
 - a. pH range: 6.5 to 9.0
 - b. Total dissolved solids: less than 4,000 mg/l
 - c. Total suspended solids: maximum of 50 mg/l
4. The discharger utilizes water supplied by Imperial Irrigation District via the Redwood lateral. The incoming water is treated with the following chemicals.

*Supervised
by 93-020
3/31/93*

| <u>Chemical</u> | <u>Dosage</u> | <u>Purpose of Treatment</u> |
|-------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------------------|
| a. Drewgard 303 (Olefin polymer) | 40 to 60 ppm (Vol.) | Deposit Inhibitor (CWT) ¹ |
| b. Drewgard 302 | 80 to 100 ppm (Vol.) | Corrosion Inhibitor (CWT) |
| c. Biosperse 250 (5-Chloro-2- 2-methyl 4-isothiazolin-3-one, 2-methyl- 4-isothiazolin-3-one) | 25 to 100 ppm (Vol.) | Control of bacteria, Fungi and algae (CWT) |
| d. Amersite 70 (Methyl Ethyl Ketone and Oxime) | To be determined during operation | Corrosion Inhibitor (BWT) ² |
| e. Amercor 8750 (Cyclohexylamine and Morpholine) | To be determined during operation | Corrosion Inhibitor (BWT) |
| f. Drewplex 502 (Sodium Polyacrylate potassium hydroxide and glycol) | To be determined during operation | Sludge Conditioner (BWT) |
| g. Adjunct B (pure grade neutral phosphate) | To be determined during operation | Deposit Inhibitor (BWT) |
| h. Chlorine | To be determined during operation | Raw Water Treatment |

5. The discharge is subject to Board Order No. 88-004 (NPDES Permit No. CA 0105066) under which the discharger could discharge a maximum of 170,000 gpd of wastewater to the Rose Drain. However, because of restrictions from Imperial Irrigation District on the volume of discharge to the Rose Drain, Western Power proposes to discharge an average of 145,000 gpd of wastewater to an on-site evaporation-percolation pond; the remaining volume of wastewater (about 25,000

¹Cooling Water Treatment

²Boiler Water Treatment

gpd) would be discharged to the Rose Drain under Board Order No. 88-004 (NPDES No. CA 0105066),

6. The proposed evaporation-percolation pond has a surface area of 1.5 acres and a holding capacity of 187,200 gpd. The pond is to be located in N½ of Section 27, T14S, R14E, SBB&M, as shown on the attached site map.
7. Approximately 50 tons per day of ash is generated by the combustion process and is disposed at a nearby privately owned landfill.
8. A septic lagoon system is used for sanitary wastewater discharge.
9. The Water Quality Control Plan for the Colorado River Basin Region of California was adopted by the Regional Board on November 14, 1984.
10. The Basin Plan delineates the location of proposed discharge to be in the Imperial Hydrologic Unit. Beneficial uses at some locations of the hydrologic unit are:
 - a. Municipal supply
 - b. Industrial supply

However, ground water at the proposed pond site is not beneficially used. The plant site lies in an area where ground water total dissolved solids content has been found to range from 9,000 milligrams/liter (mg/l) to over 13,000 mg/l.

11. In accordance with the provisions of the California Environmental Quality Act, Public Resources Code Section 21000 et seq. the Board adopted a Negative Declaration for the proposed evaporation-percolation pond on January 25, 1989.
12. The discharge to the proposed pond is exempt from the provisions of Subchapter 15, Chapter 3, Title 23 of the California Code of Regulations in accordance with Section 2511 of same Subchapter 15.
13. The Board has notified the discharger and interested agencies and persons of its intent to update waste discharge requirements for the discharge.
14. The Board in a public meeting heard and considered all comments pertaining to the existing discharge.

IT IS HEREBY ORDERED that the discharger shall comply with the following:

A. Discharge Specifications

1. The treatment or disposal of waste shall not cause pollution or nuisance as defined in Section 13050 of the California Water Code.

2. A minimum depth of free board of two feet shall be maintained in the evaporation-percolation pond.
3. Adequate protective work shall be provided to assure that flood or surface drainage waters do not erode or otherwise render portions of the discharge facility inoperable.
4. Ash generated by the combustion process shall be disposed at an approved landfill site.

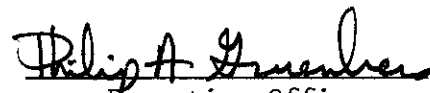
B. Prohibitions

1. The use of hazardous chemicals in the cooling tower water treatment process or in any other part of the plant process that may result in the discharge of hazardous waste to the pond is prohibited.

C. Provisions

1. This Order includes the attached Monitoring and Reporting Program No. 89-006 and future revisions thereto as specified by the Executive Officer.
2. The discharger shall obtain the approval of the Executive Officer prior to the use of any new chemical (other than that in Finding No. 4) for the purpose of boiler water treatment or cooling tower water treatment and maintenance.
3. Prior to any modifications in this facility which could result in material change in quality or quantity of wastewater discharged to the pond, the discharger shall report thereon to the Regional Board.
4. In the event of any change in operation control or 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 the Regional Board).
5. This Order does not authorize violation of any federal, state or local laws or regulations.

I, Phil Gruenberg, 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 25, 1989.


Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. 89-006
FOR

WESTERN POWER GROUP UNIT II, INC.
IMPERIAL RESOURCE RECOVERY PROJECT
15 Megawatt (Net) Biomass Waste Fueled Power Plant
South of Brawley - Imperial County

Location of Discharge: N½ of Section 27, T14S, R14E, SBB&M

EFFLUENT MONITORING

Wastewater discharged to the evaporation-percolation pond shall be monitored as follows:

| <u>Constituent</u> | <u>Unit</u> | <u>Sample</u> | <u>Sampling Frequency</u> |
|-------------------------------------|-------------|---------------|---------------------------|
| 1. Total Dissolved Solids | mg/l | Grab | Weekly |
| 2. Iron (total) | mg/l | Grab | Weekly |
| 3. Total Phosphorus | mg/l | Grab | Weekly |
| 4. pH | - | Grab | Daily |
| 5. Wastewater delivered to the pond | gpd | - | Daily |

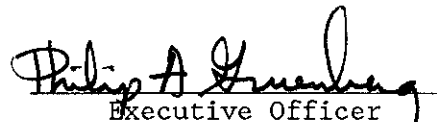
REPORTING

For each month, the discharger shall submit the results of the above monitoring by the fifteenth (15) day of the following month.

Submit monitoring reports to:

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

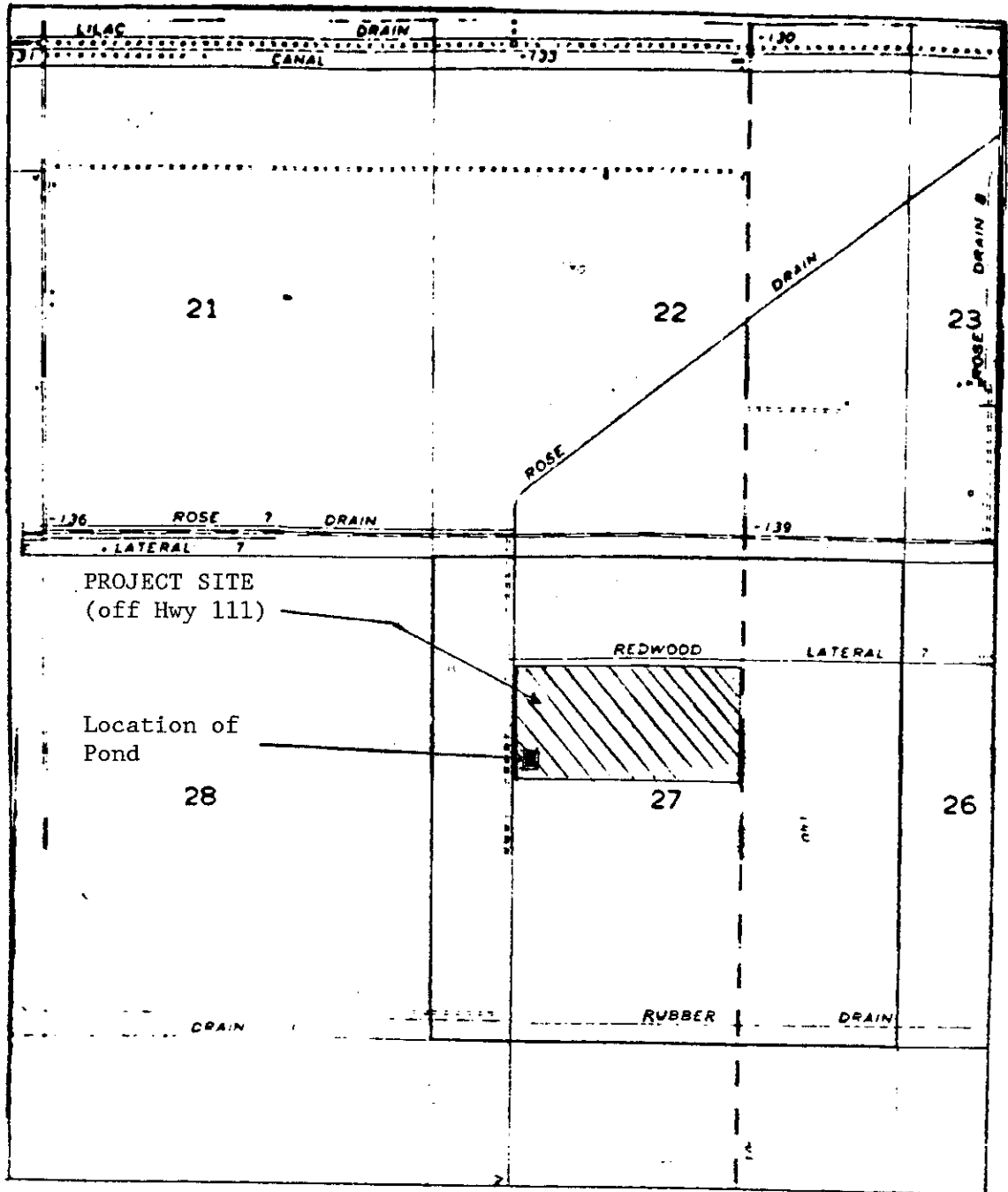
ORDERED BY:


Executive Officer

January 25, 1989

Date

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SITE MAP

WESTERN POWER GROUP UNIT II INC.
 IMPERIAL RESOURCE RECOVERY PROJECT
 15 Megawatt (Net) Biomass Waste Fueled Power Plant
 South of Brawley - Imperial County

N $\frac{1}{2}$ of Section 27, T14S, R14E, SBB&M
 USGS Brawley 7.5 Minute Topographic Map

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