CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

ORDER NO. 00-082

WASTE DISCHARGE REQUIREMENTS
FOR
PRIMARY POWER MANAGEMENT AND DEVELOPMENT INC., OWNER
IMPERIAL VALLEY RESOURCE RECOVERY CO. LCC, OPERATOR
DISCHARGE OF INDUSTRIAL WASTEWATER FROM A
17 MEGAWATT BIOMASS WASTE FUELED POWER PLANT
South of Brawley - Imperial County

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

1. On July 31, 1998, Imperial Valley Resource Recovery Co., LLC, operator, and Primary Power Management and Development Inc., owner (hereinafter collectively referred to as the discharger), 3505 Highway 111, six miles south of Brawley, submitted an application to update their (WDR) Order for discharge to wastewater percolation ponds. A map showing the location of the facility (Figure 1) is incorporated herein and made a part of this Board Order.

2. The discharger operates a power generating facility that burns approximately 485 tons-per-day of wood waste as fuel to generate approximately 17 megawatts of electricity. The wood fuel consists primarily of construction waste, pallets, trees, and reclaimed landfill material.

3. The facility currently is inactive. The discharger anticipates reactivation of this facility in January 2001.

4. When the facility is in operation, the discharger discharges approximately 0.17 million gallons-per-day (MGD) of wastewater into a percolation/evaporation pond as shown in Figure 2 incorporated herein and made a part of this Board Order. The pond has an overflow weir to another smaller pond. The smaller pond collects much of the storm water flow from the site. There is a gate on this pond that leads to Rose Drain. Currently, all of the wastewater either percolates to the ground water or evaporates to the atmosphere. No wastewater is discharged to Rose Drain except when storm events threaten the structural integrity of the percolation pond. The location of the discharge to Rose Drain is in the N 1/2 of Section 27, T14S, R14E, SBB&M. Rose Drain flows about five miles to the Alamo River and then twenty-nine miles to the Salton Sea.

5. The discharger is currently regulated by Board Order 94-002 for wastewater discharge into percolation ponds. Board Order No. 00-082 will replace Board Order No. 94-002.

6. Discharges of wastewater to the Rose Drain are covered in Board Order No. 00-020.

7. Wastewater from the facility is generated from the following sources:

    a. Cooling tower blowdown
    b. Boiler blowdown
    c. Reverse osmosis
    d. Plant drains (rainwater, wash water)
    e. Laboratory drain

f. Treated sewage (AIRR Treatment System) from the plant

8. The following chemicals are added to the process water to treat the boiler and cooling tower water:

| Chemical/Brand Name | Dosage/Range | Purpose/Use |
|---|---|---|
| Phosphoric Acid | as needed | pH Control |
| Sulfuric Acid | as needed | pH Control |
| Chlorine | as needed | Microbiological Control |
| Chemco 7478 | as needed | Dispersant Agent |
| Chemco 2446 | as needed | Hardness Control |
| Chemco 2150 | as needed | Corrision Inhibitor |
| Chemco 5468 | 8-12 ppm[1] | Scale Inhibitors |
| Chemco 7478 | as needed | Cleaning Dispersant |
| Chemco 8301D | 1.94 gal/day[2] | Dispersant Agent |
| Chemco 8306D | 1.45 gal/day | Corrision Inhibitor |
| Chemco 1337 | as needed | Microbiocide Agent |
| Elimin-OX | 2.29 gal/day | Oxygen Scavenger |
| Chemco 352 | 0.26 gal/day | Naturalizing Agent |
| Chemco 1747 | 1.22 gal/day | Corrosion Inhibitor |

9. The Water Quality Control Plan for the Colorado River Basin Region of California (Basin Plan) was adopted on November 17, 1993 and designates the beneficial uses of ground and surface waters in this Region.

10. The beneficial uses of waters in the Imperial Valley Drains are:

    a. Fresh Water Replenishment of Salton Sea (FRSH)
    b. Water Contact Recreation (REC I)[3], [4]
    c. Noncontact Water Recreation (REC II)[3]
    d. Warm Water Habitat (WARM)
    e. Wildlife Habitat (WILD)
    f. Preservation of Rare, Endangered or Threatened Species (RARE)[5]

11. The primary purpose of drains in the Imperial Hydrologic Unit is for conveyance of drainage in support of agriculture.

12. The Board, in a public meeting, heard and considered all comments pertaining to this discharge.

13. The Board has notified the discharger and all known interested agencies and persons of its intent to update this WDR permit and waste discharge requirements for the discharge and has provided them with an opportunity for a public meeting and an opportunity to submit comments.

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[1] PPM - Parts-Per-Million
[2] gal/day - Gallons-Per-Day
[3] Unauthorized use
[4] The only Rec 1 usage that is known to occur is from infrequent fishing.
[5] Rare, endangered, or threatened wildlife exists in or utilizes some of these waterway(s). If the RARE beneficial use may be affected by a water quality control decision, responsibility for substantiation of the existence of rare, endangered, or threatened species on a case-by-case basis is upon the California Department of Fish and Game on its own initiative and/or at the request of the Regional Board; and such substantiation must be provided with a reasonable time frame as approved by the Regional Board.

IT IS HEREBY ORDERED, that Board Order No. 94-002 is rescinded, and in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, the discharger shall comply with the following:

A. Effluent Limitations

1. Effluent discharged to the Percolation Pond shall not contain constituents in excess of the following limits:

| Constituents | Unit | 30-Day Arithmetic Mean Discharge Rate[6] | Daily Maximum[7] |
|---|---|---|---|
| Total Dissolved Solids (TDS) | mg/L[8] | 4000 | 4,500 |
| Total Suspended Solids (TSS) | mg/L | 30 | 100 |
| Total Copper | mg/L | ---- | 0.05 |
| Chromium | mg/L | .002 | 0.06 |
| Zinc | mg/L | ----- | 0.37 |
| 20 °Biochemical Oxygen Demand (BOD) | mg/L | 30 | 45 |
| Settleable Matter | ml/L[9] | 0.3 | 1.0 |

2. The inverse log of the hydrogen ion (pH) of the effluent shall be maintained within the limits of 6.0 to 9.0.

3. The effluent shall not contain heavy metals, chemicals, pesticides or other constituents in concentrations toxic to aquatic life.

[6] 30 Day Men-The arithmetic mean of pollutant parameter values of samples collected in a period of 30 consecutive days as specified in the Monitoring and Reporting Program.

[7] Maximum-The maximum of pollutant parameter values of samples collected in a period of 30 consecutive days as specified in the Monitoring and Reporting Program.

[8] mg/L - milligrams-per-Liter

[9] ml/L - milliliters-per-Liter

B. Discharge Specifications

1. The discharge shall not cause the following conditions to exist in the ground water:

   a. An increase in the TDS content, unless it can be demonstrated to the satisfaction of the Regional Board' s Executive Officer that such an increase does not adversely affect the beneficial uses.

   b. Objectionable color and/or odor.

2. Discharge to Rose Drain shall occur only in emergency situations as permitted by Board Order No. 00-020. Regular disposal of wastewater shall be done through percolation ponds.

C. Prohibitions

1. The direct discharge of any waste to any surface waters or surface drainage courses is prohibited.

2. The discharge of oil, trash, industrial waste sludge, or any other solids directly to the wastewater at this facility or in any manner that allows it to be washed to surface water in this Region is prohibited.

3. A minimum depth of freeboard of two (2) feet shall be maintained at all times in the percolation pond.

4. All storm water discharges from this facility must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies, regarding discharges of storm water to storm water drain systems or other courses under their jurisdiction.

D. Specifications

1. The treatment or disposal of wastes at this facility shall not cause pollution or nuisance as defined in Section 13050 of Division 7 of the California Water Code.

2. Bypass or overflow of untreated or partially treated waste is prohibited.

3. At no time shall the contents of the pond described in Finding No. 3 contain hazardous wastes as defined by State or Federal law.

4. Bioassays shall be performed to evaluate the toxicity of the discharged wastewater in accordance with the following procedures unless otherwise specified by the Regional Board's Executive Officer or his designee:

   a. Bioassays shall be conducted on a sensitive fish species and an invertebrate species as approved by the Regional Board's Executive Officer. Pimephales promelas (fathead minnow) and Ceriodaphnia are suggested test species that may be utilized. The bioassays shall be conducted in accordance with the protocol given in EPA/600/4 - 91/002 – Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to Freshwater Organisms and EPA/600/4-90/027F-Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters for Freshwater and Marine Organisms

b. The bioassay test specified in the Monitoring and Reporting Program shall be performed as specified. In addition, pH stabilization of the bioassay sample is acceptable.

5. Any chronic toxicity test that exceeds 2 chronic toxicity units ($TU_c$) or a three-sample median (monthly samples) that exceeds 1 $TU_c$ may trigger an accelerated monitoring frequency. In addition, any acute toxicity results showing high toxicity may trigger an accelerated monitoring frequency. High acute toxicity is defined as follows:

   a. Less than 80% survival when acute toxicity is calculated from results of the chronic toxicity test, or
   b. Less than 90% survival as calculated from the results of the acute toxicity test.

6. Accelerated monitoring frequency shall consist of performing three toxicity tests in a six-week period following the first exceedence of the chronic or acute toxicity triggers.

7. A Toxicity Identification Evaluation (TIE) may be triggered if the accelerated monitoring frequency indicate any of the following:

   a. A chronic toxicity of 2 $TU_c$ or greater;
   b. The three-sample median exceeds 1 $TU_c$,
   c. Less than 80% survival when acute toxicity is calculated from results of the chronic toxicity test, or,
   d. Less than 90% survival when acute toxicity is calculated from the results of the acute toxicity test.

8. The TIE shall be conducted to identify and evaluate toxicity in accordance with procedures recommended by the United States Environmental Protection Agency (USEPA) and includes, but need not be limited to, proposed:

   a. Test species;
   b. Method of collection of effluent samples (preferably composite samples);
   c. Duration of test;
   d. Environmental conditions under which the tests are to be performed;
   e. Number of replications;
   f. Descriptions of the "treatment" of the effluent; and
   g. Time schedule for implementation.

9. If repeated tests reveal toxicity as a result of the waste discharge, the discharger may be required to conduct a Toxicity Reduction Evaluation (TRE). The discharger shall take all reasonable steps to control toxicity once the source of the toxicity is identified; and a failure to conduct required toxicity tests or a TRE within a designated period shall result in the establishment of effluent limitations for chronic toxicity in a permit or appropriate enforcement action.

10. The facility shall be protected from any washout or erosion of wastes or covering material, and from inundation, which could occur as a result of floods having a predicted frequency of once in 100 years.

11. Storm water associated with industrial activities generated within the facility is contained on-site in an impoundment pond or directed to the headworks for treatment and subsequent discharge.

12. Storm water discharges from the facility shall not cause or threaten to cause pollution, contamination, or nuisance.

13. Storm water discharges from the facility shall not contain hazardous substances equal to or in excess of a reportable quantity listed in 40 CFR part 117 and/or 40 CFR Part 302.

14. The treatment or disposal of wastes at this facility shall not cause pollution or nuisance as defined in Sections 13050(l) and 13050(m) of Division 7 of the California Water Code.

E. Provisions

1. Stockpiling of ash at this facility for more than 90 days is prohibited. The discharger shall maintain an ash management plan. Any changes to the ash management plan shall be approved by the Regional Board's Executive Officer before the changes may take effect. All ash hauled away shall go to an approved location. Any ash stored on site prior to the adoption of this Board Order shall be removed or disposed of in an approved manner within six months of the adoption of this Board Order.

2. Prior to any change in ownership or management of this operation, the discharger shall transmit a copy of this Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Regional Board.

3. The discharger shall furnish, under penalty of perjury, technical monitoring program reports, and such reports shall be submitted in accordance with the specifications prepared by the Regional Board's Executive Officer. Such specifications are subject to periodic revisions as may be warranted.

4. The discharger shall report all intentional or accidental spills exceeding 1,000 gallons and also any noncompliance that could endanger human health or the environment within 24-hours of becoming aware of its occurrence. The incident shall be reported to the Regional Board Office **and** to the Office of Emergency Services. During non-business hours, the discharger shall leave a message on the Regional Board's voice mail. A written report shall be submitted to this office within five business days of the discharger becoming aware of the incident. This report shall contain a description of the noncompliance, its causes, the duration, and the actual or anticipated time for achieving compliance. The report shall include complete details of the steps that the discharger has taken, or intends to take, in order to prevent recurrence.

5. Within 90 days of the issuance of this Board Order, the discharger shall submit a Spill Response Plan (SRP) for Regional Board staff review. Thereafter, the plan shall be updated annually, and shall be available for staff review during Regional Board inspections. The discharger shall ensure that all operating personnel are familiar with the contents of the SRP. A copy of the SRP shall be maintained at the site and shall be accessible to all operating personnel.

6. The discharger shall comply with "Monitoring and Reporting Program No. 00-082 ", and future revisions thereto, as specified by the Regional Board's Executive Officer; and shall be in accordance with the following:

   a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

   b. All monitoring, must be conducted according to test procedures approved under 40

CFR, Part 136 or as specified in the Board Order.

c. The discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Board Order, and records of all data used to complete the application for this Board Order, for a period of at least 5 years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Board's Executive Officer at any time.

d. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements.
2. The individual(s) who performed the sampling or measurements.
3. The date(s) analyses were performed.
4. The individual(s) who performed the analyses.
5. The results of such analyses.

7. If the discharger monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR).

8. This Board Order does not authorize violation of any federal, state, or local laws or regulations.

9. The discharger shall comply with all of the conditions of this Board Order. Any noncompliance with this Board Order constitutes a violation of the Porter-Cologne Water Quality Control Act and is grounds for enforcement action.

10. The discharger shall provide adequate notice to the Regional Board's Executive Officer of the following:

11. Any substantial change in the volume or character of pollutants being introduced into any of the treatment facilities described in the Findings of this Board Order by an existing or new source.

a. Any planned physical alterations or additions to the facilities described in this Board Order, or changes planned in the discharger's sludge use or disposal practice, where such alterations, additions, or changes may justify the application of Board Order conditions that are different from or absent in the existing Board Order, including notification of additional disposal sites not reported during the Board Order application process, or not reported pursuant to an approved land application plan.

b. Adequate notice shall include information on the quality and quantity of effluent introduced, and any anticipated impact of the change on the quantity or quality of the discharger's wastewater.

c. The discharger shall report all instances of noncompliance. Reports of noncompliance shall be submitted with the discharger's next scheduled self-monitoring report or earlier if requested by the Regional Board's Executive Officer, or if required by an applicable standard for sludge use and disposal.

12. The discharger is the responsible party for the waste discharge requirements and the monitoring and reporting program for the facility. The discharger shall comply with all conditions of these waste discharge requirements. Violations may result in enforcement actions, including Regional Board Orders or court orders, requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Regional Board.

13. The discharger shall install a device that will continuously monitor TDS concentrations in the effluent. The continuous monitoring device shall be installed within 120 days of the adoption of this Board Order.

14. The discharger shall, at all times, properly operate and maintain all systems and components of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of this Board Order. Proper operation and maintenance includes effective performance, adequate process controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar system necessary to achieve compliance with the conditions of this Board Order. All systems, both in service and reserve, shall be inspected and maintained on a regular basis. Records shall be kept of these inspection results and maintenance performed and made available to the Regional Board upon demand.

15. The discharger shall obtain prior written approval from the Regional Board's Executive Officer specifying location and method of disposal, before disposing of treated or untreated sludge, or similar solid waste materials. In addition, the discharger shall provide the results of any sludge analyses as specified by the Regional Board's Executive Officer.

16. The discharger shall allow the Regional Board's Executive Officer, or his/her authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

    a. Enter upon the discharger's premises where a regulated facility or activity is located or conducted, including reclaimed water treatment or discharge facilities, sludge use and disposal activities, or facilities where records must be kept under the conditions of this Board Order.

    b. Have access to and copy, at reasonable times, any records that must be kept under the same conditions of this Order. Inspect and sample or monitor, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Board Order, including reclaimed water treatment, discharge, sludge use or disposal sites.

    c. To sample or monitor influent, effluent, and sludge for the purposes of determining compliance with this Board Order and other applicable requirements regarding sludge use and disposal.

17. The discharger shall maintain a copy of this Board Order at the site so as to be available at all times to site-operating personnel. The discharger shall ensure that all site-operating personnel are familiar with the content of this Board Order.

18. This Board Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the discharger for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliancedoes not stay any permit condition. Causes for modification include the promulgationof new regulations or adoption of new regulations by the State Board or the Regional Board, including revisions to the Basin Plan.

19. The discharger may be required to submit technical reports as directed by the Regional Board's Executive Officer.

20. Unless otherwise approved by the Regional Board's Executive Officer, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. All analyses shall be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the United States EnvironmentalProtection Agency.

21. The discharger shall exclude from the wastewater treatment plant any liquid or solid waste which could adversely affect the plant operation or effluent quality. The excluded liquid or solid waste shall be disposed of in accordance with applicable regulations.

22. All maintenance performed shall be reported with the monitoringreports as required.

23. This Board Order may be reopened to address any new amendments to applicable Water Quality Control Plans that would affect the requirementsfor the discharge.

I, Philip A. 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 June 28, 2000.

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Executive Officer