CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

FACT SHEET
APPLICATION FOR
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
AND
WASTE DISCHARGE REQUIREMENTS
TO DISCHARGE TO STATE WATERS

Permittee Name: Terra Organics International Inc. Public Notice No.: 7-00-25

NPDES Permit Number: CA7000013 Board Order No.: 00-120

Mailing Address: Terra Organics International, Inc.
74940 Highway 111, Suite 311
Indian Wells, CA 92210

Location 2636 Flamingo Ave
Salton City, CA 92275

Contact Person: Celia Hillings, C.E.O.

Telephone: (760) 416-8857

I. Status of Permit

On July 24, 2000, Terra Organics International, owner/operator (hereinafter referred to as the discharger), submitted an application to obtain a permit to discharge treated water under the National Pollutant Discharge Elimination System (NPDES). The application is for a bioremediation station for use in demonstrating the feasibility of this treatment technology for use in improving the water quality of the Salton Sea. The treatment facility is to be located at the address mentioned above.

II. Facility Description

The discharger owns and proposes to operate a bioremediation station for use as a demonstration project to establish the efficacy of this technology to improve the water quality in the Salton Sea. The bioremediation station is designed to treat a maximum of 0.864 Million-Gallons Per Day (MGD) of water withdrawn from the Salton Sea. The treated water is to be discharged back into the Salton Sea. Discharge is located in Section 9, T10S, R10E, SBB&M as shown on the attached map.

The Bioremediation Reactor Station consists of two intake pumps each with a rated capacity of 300 gallons-per-minute, two 500-gallon supply tanks, two 5,000-gallon bioreactor tanks, one biorotating disk unit, and related intake and discharge piping. Water drawn from the Salton Sea is pumped into the bioreactor tanks. Just prior to introduction of water into the bioreactor tanks, a mixture of enzymes, coenzymes, amino acids, protein, trace minerals, and naturally occurring microbial organisms is introduced into the water stream. The water and introduced formula flow upward through the bioreactor tanks. The bioreactor tanks are designated as the first stage bioremediation reactors. The bioreactor tanks contain three successive layers of aggregate of various sizes. Water from the bioreactor tanks then flows to a second stage unit. The second stage unit consists of 48 rotating biological disc contactors. Following treatment through the second stage unit, water is discharged to the Salton Sea via discharge piping.

III. Description of Discharge

All water discharged at this facility is discharged through Outfall 001 to the Salton Sea. The discharge consists of water withdrawn from the Salton Sea that has received treatment in the bioremediation unit.

IV. Receiving Water

The receiving water for Outfall OO1 is the Salton Sea. Water withdrawn from the Salton Sea is treated in the bioremediation unit and discharged back to the Salton Sea.

The beneficial uses of waters in the Salton Sea are:

a. Aquaculture (AQUA)
b. Water Contact Recreation (REC I)
c. Non-Contact Water Recreation (REC II)
d. Warm Water Habitat (WARM)
e. Wildlife Habitat (WILD)
f. Preservation of Rare, Endangered or Threatened Species (RARE)

V. Proposed Effluent Limitations

Treated water discharged to the Salton Sea shall not contain constituents in excess of the following limits:

Constituents	Unit	30-Day [1] Arithmetic Mean Discharge Rate	7-Day[2] Arithmetic Mean Discharge Rate
20° BOD_5 [3]	mg/L	30	45
Total Suspended Solids	mg/L	30	45

The pH (hydrogen ion) of the effluent shall not adversely affect beneficial uses of the Salton Sea.

The hydraulic flow rate processed by the treatment unit shall not exceed 0.864 MGD.

The effluent shall not contain heavy metals, chemicals, pesticides or other constituents in concentrations that exceed background levels and that are toxic to aquatic life.

There shall be no acute toxicity in the treatment plant effluent, nor chronic toxicity in the receiving water caused by the effluent. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, or bioassays of appropriate duration or other appropriate methods specified by the Regional Board.

VI. Basis of Effluent Limitations

Effluent discharged from this facility could contain pollutants in sufficient quantities to affect receiving water quality. Pursuant to Section 13263, Article 4, Chapter 4 of the Porter Cologne Water Quality Control Act, the Regional Boards are required to issue Waste Discharge Requirements for discharges that could affect the quality of the State's waters. Furthermore,

[1] 30-Day Mean – The arithmetic mean of pollutant parameter values of samples collected in a period of 30 consecutive days.
[2] 7-Day Mean – The arithmetic mean of pollutant parameter values of samples collected in a period of 7 consecutive days.
[3] Biochemical Oxygen Demand

Federal Regulation 40 CFR 122.1 requires the issuance of NPDES permits for pollutants discharged from a point source to the waters of the United States. The draft discharge requirements contain specific discharge limitations for selected pollutants. The rationales for each of the limitations is as follows:

Constituents	Basis for Limitations
Biochemical Oxygen Demand (BOD)	Discharge to waters that support aquatic life, which is dependent on oxygen. Organic matter in the discharge may consume oxygen as it breaks down.
Total Suspended Solids (TSS)	High levels of suspended solids can adversely impact aquatic habitat. Untreated or improperly treated wastewater can contain high amounts of suspended solids.
Hydrogen Ion (pH)	Hydrogen Ion (pH) is a measure of Hydrogen Ion concentration in the water. The pH (hydrogen ion) of the effluent shall not adversely affect beneficial uses of the Salton Sea.
Flow	The current design capacity of the treatment system is 0.864 MGD.
Toxicity	Toxicity testing ensures that the effluent does not contain metals, chemicals, pesticides or other constituents in concentrations that are toxic to aquatic life.

VII. Monitoring Requirements

Monitoring for those pollutants expected to be present in the Outfall OO1 will be required as shown on the proposed monitoring and reporting program.

VIII. Information Sources

While developing effluent limitations and receiving water limitations, monitoring requirements, and special conditions for the draft permit, the following information sources were used:

(1) EPA NPDES Application Forms 1 and 2D dated July 24, 2000.
(2) 40 CFR Parts 117,122, 123, 124, 136, 302, and 403
(3) Water Quality Control Plan (Colorado River Basin – Region 7) dated 1994
(4) Porter-Cologne Water Quality Control Act with additions and amendments effective January 1, 2000
(5) Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, adopted March 2, 2000.
(6) California Toxics Rule, published by May 18, 2000 by U.S. EPA.
(7) National Toxics Rule (NTR) adopted by U.S. EPA on February 5, 1993.

Written Comments

Interested parties and agencies are invited to submit written comments on the proposed waste discharge requirements and the Regional Board's Executive Officer's proposed determinations. Comments should be submitted in writing not later than September 22, 2000 to:

Executive Officer
California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260

The application number shall appear on the first page of any submitted comments. All comments received by the above date will be considered in the formulation of the final determinations.

Public Hearing

The Waste Discharge Requirements will be considered by the Regional Board at a public hearing to be held at the City of La Quinta City Council Chambers, 78495 Calle Tampico, La Quinta on November 8, 2000.

Waste Discharge Requirements Appeals

Any person may petition the State Board to review the decision of the Regional Board regarding waste discharge requirements. A petition must be made within 30 days of the Regional Board's hearing.

Additional Information

Persons wishing further information may write to the following address:

California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260

or call the Regional Board at (760) 346-7491