

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

ORDER NO. 00-120
NPDES NO. CA7000013

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
WASTE DISCHARGE REQUIREMENTS
FOR
TERRA ORGANICS INTERNATIONAL INC., OWNER/OPERATOR
DEMONSTRATION SALTON SEA TREATMENT FACILITY
Salton City – Imperial County

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

1. On July 24, 2000, Terra Organics International, Inc., Owner/Operator (hereinafter referred to as the discharger), 74-940 Highway 111, Suite 311, Indian Wells, California 92210, submitted an application for discharge of treated water to the Salton Sea under the National Pollutant Discharge Elimination System (NPDES).
2. The discharger owns and operates 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 The bioremediation station is designed to treat a maximum of 0.864 million gallons-per-day (MGD) of water withdrawn from the Salton Sea.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 discharged back into the Salton Sea. The application is for a demonstration bioremediation station to be located at 2636 Flamingo Ave., Salton City, California 92275, on land owned by the Imperial Irrigation District.
3. The intake water is from the Salton Sea and the discharge is returned to the Salton Sea in Section 9, T10S, R10E, SBB&M.
4. 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 contain three (3) successive layers of aggregate of various sizes and are designated as first stage bioremediation reactors. Water from the bioreactor tanks flows to a second stage unit consisting of 48 rotating biological disc contactors. Following treatment through the second stage unit, water is discharged to the Salton Sea via discharge piping.
5. 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.

6. 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)
7. Federal regulations for storm water discharges were promulgated by the U. S. Environmental Protection Agency on November 16, 1990 (40 CFR Parts 122, 123, and 124). The regulations require specific categories of facilities which discharge storm water associated with industrial activity (storm water) to obtain NPDES permits and to implement Best Conventional Pollutant Technology (BCPT) to reduce or eliminate industrial storm water pollution.
8. The State Water Resources Control Board adopted Order No. 91-13-DWQ (General Permit No. CAS000001), as amended by Water Quality Order No. 92-12-DWQ, specifying waste discharge requirements for discharges of storm water associated with industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent by industries to be covered under the Permit.
9. The State Water Resources Control Board adopted Order No. 99-03-DWQ (General Permit No. CAS000002), requiring discharges of storm water to surface waters associated with construction activity including, clearing, grading, and excavation activities (except operations that result in disturbances of less than five acres of total land area and which are not part of a larger common plan of development or sale) to obtain an NPDES permit.
10. The U.S. Environmental Protection Agency adopted the National Toxics Rule (NTR) on February 5, 1993. The NTR requires effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause, or contribute to an in-stream excursion above a narrative or numeric water quality standard.
11. On May 18, 2000, the U.S. Environmental Protection Agency published the adopted California Toxics Rule (CTR). The CTR promulgates new criteria for both human health protection and protection of aquatic life. New numeric aquatic life criteria for 23 priority toxic pollutants and numeric human health criteria for 57 priority toxic pollutants are listed. In addition, the CTR contains a compliance schedule provision, which authorizes the State to issue schedules of compliance for new or revised NPDES permit limits based on the federal criteria when certain conditions are met.
12. On March 2, 2000, the State Water Resources Control Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California (California Toxics Policy). This Policy establishes (1) implementation provisions for priority pollutant criteria promulgated by the U.S. EPA through the NTR and CTR and for priority pollutant objectives established by the Regional Water Quality Control Boards in their water quality control plans; (2) chronic toxicity control provisions.
13. The proposed discharge is consistent with the anti-degradation provisions of 40 CFR 131.12 and State Water Resources Control Board Resolution No. 68-16.
14. Effluent and receiving water limitations in this Board Order are based on the Federal Clean Water Act, Basin Plan, State Water Resources Control Board's plans and policies, U. S. Environmental Protection Agency guidance, best professional judgment, and best available technology economically achievable.

15. Effluent limitations and toxic and pretreatment effluent standards, established pursuant to Section 208(b), 301, 302, 304, and 307 of the Federal Clean Water Act (CWA) and amendments thereto that are applicable to this discharge are implemented in this Board Order.
16. The action to adopt an NPDES Permit is exempt from the provisions of the California Environmental Quality Act (CEQA: Public Resources Code Section 21100, et. seq.), pursuant to Section 13389 of the California Water Code.
17. The Imperial County Planning and Building Department has issued a Categorical Exemption from the provisions of the California Environmental Quality Act for this project, pursuant to Section 15304 (E) of the Guidelines for Implementation of the California Environmental Quality Act.
18. The Board has notified the discharger and all known interested agencies and persons of its intent to adopt an NPDES Permit and waste discharge requirements for said discharge, and has provided them with an opportunity for a public meeting and an opportunity to submit comments.
19. The Board, in a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, that in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Clean Water Act, and regulations and guidelines adopted thereunder, the discharger shall comply with the following:

A. Effluent Limitations

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

<u>Constituent</u>	<u>Unit</u>	<u>30-Day¹ Arithmetic Mean Discharge Rate</u>	<u>7-Day² Arithmetic Mean Discharge Rate</u>
20°C BOD ₅	mg/L ³	30	45
Suspended Solids	mg/L	30	45

2. The pH (hydrogen ion) of the effluent shall not adversely affect beneficial uses of the Salton Sea.
3. The hydraulic flow rate processed by the treatment unit shall not exceed 0.864 MGD.
4. 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.
5. The effluent shall not contain Group 1 or Group 2 pollutants in concentrations that exceed background levels and limitations for those pollutants. Exceedence for a Group 1 pollutant by 40 percent or a Group 2 pollutant by 20 percent or more is a serious violation. Group 1 and Group 2 pollutants are defined in 40 CFR Section 123.45.
6. 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.

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 mg/L - Milligrams/Liter

B. Receiving Water Limitations

1. Receiving water limitations are based upon water quality objectives contained in the Basin Plan. As such, they are a required part of this Board Order. The effluent shall not:
 - a. Cause changes in the dissolved oxygen of the receiving water to the extent that beneficial uses are adversely affected.
 - b. Cause the presence of oil, grease, floating material (liquids, solids, foam and scum) or suspended material in amounts that create a nuisance or adversely affect beneficial uses.
 - c. Result in the deposition of pesticides or combination of pesticides to be detected in concentrations that adversely affect beneficial uses.
 - d. Cause aesthetically undesirable discoloration or odors in the receiving water.
 - e. Cause a significant increase in fungi, slime, or other objectionable growth.
 - f. Cause changes in the turbidity of the receiving water to the extent that beneficial uses are adversely affected.
 - g. Cause changes in the pH of the receiving water to the extent that beneficial uses are adversely affected.
 - h. Result in the deposition of material that causes nuisance or adversely affects beneficial uses.
 - i. Cause changes in the electrical conductivity to the extent that beneficial uses are adversely affected.
 - j. Cause chemical constituents to exceed concentrations that adversely affect beneficial uses or create nuisance.
 - k. Cause toxic pollutants to be present in the water column, sediments or biota in concentrations that adversely affect beneficial uses or that produce detrimental physiological responses in human, plant, animal, or aquatic life.
 - l. Cause the receiving water temperature to be altered to the extent that beneficial uses are adversely affected.
2. The discharge shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Board or the State Water Resources Control Board as required by the Federal Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Regional Board will revise and modify this Permit in accordance with such more stringent standards.

C. Prohibitions

1. Discharge of treated water at a location or in a manner different from that described in Findings No. 2, 3, and 4 is prohibited.
2. The discharge of waste to land not owned or controlled by the discharger is prohibited.

D. Specifications

1. The treatment or disposal of water at this facility shall not cause pollution or nuisance as defined in Section 13050(l) and 13050(m) of Division 7 of the California Water Code.
2. The discharge shall not cause degradation of any water supply.
3. Bioassays shall be performed to evaluate the toxicity of the influent and effluent 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 as approved by the Regional Board's Executive Officer. Atherinops affinis (Topsmelt) is the suggested test species that may be utilized. The bioassays shall be conducted in accordance with the protocol given in EPA/600/R-95-136 – Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms.
 - b. The bioassay test specified in the Monitoring and Reporting Program shall be performed as specified.
4. Any chronic toxicity test that exceeds 2 chronic toxicity units (TU_c) or a three-sample median (quarterly 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 less than 80% survival at 96 hours of the chronic toxicity test.
5. 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.
6. 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 at 96 hours of the chronic toxicity test.
7. 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.
8. 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.

E. Provisions

1. This Board Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Federal Clean Water Act, as amended, and shall become effective at the end of ten (10) days from the date of the hearing when this Board Order was adopted by the Regional Board, provided the Regional Administrator, U.S. Environmental Protection Agency has no objections.
2. This Board Order expires five years from date of adoption on November 8, 2005, and the discharger shall file a complete Report of Waste Discharge in accordance with Title 23, California Code of Regulations, at least 180 days in advance of such date as an application for issuance of a new Board Order.
3. The discharger shall ensure that all site-operating personnel are familiar with the content of this Board Order, and shall maintain a copy of this Board Order at the site.
4. Prior to any change in ownership or management of this operation, the discharger shall transmit a copy of this Board Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Regional Board.
5. 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.
6. The discharger shall comply with all conditions of this Board Order. Noncompliance constitutes a violation of the Federal Clean Water Act, and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification of waste discharge requirements; or denial of a Permit renewal application.
7. The discharger shall comply with "Standard Provisions for National Pollutant Discharge Elimination System Permit" dated October, 1990 (attached).
8. This Board Order does not authorize violation of any federal, state, or local laws or regulations.
9. 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.
10. The discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the discharger to achieve compliance with this Board Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a discharger only when necessary to achieve compliance with the conditions of this Board Order.
11. Unless otherwise approved by the Regional Board's Executive Officer, all analyses shall be conducted by a laboratory certified for such analysis 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" (40 CFR 136), promulgated by the United States Environmental Protection Agency.
12. The discharger shall comply with "Monitoring and Reporting Program No. 00-120", 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 this Board Order.
 - c. The discharger shall retain records of all monitoring information, including all calibrations 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.
 - d. Records of monitoring information shall include:
 1. The date, exact place, and time of sampling measurement(s);
 2. The individual(s) who performed the sampling or measurement(s);
 3. The date(s) analyses were performed;
 4. The individual(s) who performed the analyses;
 5. The analytical techniques or methods used; and
 6. The results of such analyses.
 - e. The results of any analysis of samples taken more frequently than required at the locations specified in Monitoring and Reporting Program No. 00-120 shall be reported to the Regional Board.
13. The discharger shall allow the Regional Board, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:
- a. Enter upon the premises regulated by this Board Order, or the place where records must be kept under the conditions of this Board Order;
 - b. Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this Board Order;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Board Order; and
 - d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Board Order or as otherwise authorized by the California Water Code, any substances or parameters at this location.
14. The discharger shall provide adequate notice to the Regional Board's Executive Officer of the following:
- a. 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.
 - b. 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 applications process, or not reported pursuant to an approved land applications plan.

- c. 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 effluent and/or sludge.
 - d. 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.
15. The discharger shall not cause degradation of any beneficial use of surface or ground water.
 16. Adequate measures shall be taken to assure that flood or surface drainage waters do not erode or otherwise render portions of the discharge facilities inoperable.
 17. The discharger shall implement acceptable operation and maintenance at the facility so that needed repair and maintenance are performed in a timely manner.
 18. This discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board as required by the Federal Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Regional Board will revise and modify this Board Order in accordance with such more stringent standards.
 19. 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.
 20. The discharger may be required to submit technical reports as directed by the Regional Board's Executive Officer.
 21. The discharger shall obtain prior written approval from the Regional Board's Executive Officer specifying location and method of disposal before disposing of any solid waste materials generated by the treatment facility.
 22. The discharger shall exclude from the treatment plant any liquid or solid materials that could adversely affect the plant operation or effluent quality. The excluded liquid or solid waste shall be disposed in accordance with applicable regulations.
 23. The discharger shall maintain a permanent log of all solids hauled away from the treatment facility for use/disposal elsewhere and shall provide a monthly summary of the volume, type, and method of disposal.
 24. This Board Order may be modified, revoked and reissued, or terminated for any cause stated below. The filing of a request by the discharger for a Board Order modification, revocation, and re-issuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Board Order condition. Causes for modification include the promulgation of new regulations, modification of land application plans, or adoption of new regulations by the State Board or Regional Board, including revisions to the Basin Plan.
 25. The discharger shall report any noncompliance that is likely to 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 (OES). During non-business hours, the discharger shall leave a message on the Regional Board's voice mail. The Office of Emergency Services is operational 24 hours a day. A written report shall be submitted

to this office, within five business days of the discharger becoming aware of the incident. The 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. All intentional or accidental spills exceeding 1,000 gallons shall be reported as required by this provision.

26. The discharger shall submit data sufficient to determine if a water quality-based effluent limitation is required in the discharge permit as required under the California Toxics Policy. It is the discharger's responsibility to provide all information requested by the Regional Board for use in the analysis. Within 90 days of adoption of this Board Order, the discharger shall provide a time schedule acceptable to the Regional Board for providing the data. The time schedule shall be as short as possible but not to exceed three years from the effective date of the California Toxics Policy. The time schedule shall contain interim requirements and dates for their achievement. There shall not be more than one year between interim dates. The interim requirements require that the discharger shall notify the Regional Board, in writing, no later than 14 days following each interim date, of its compliance or noncompliance with the interim requirements. The permit shall be reopened to establish water quality-based effluent limitations, if necessary.
27. In addition, should the discharger request to use a translator for metals and selenium different than the U.S. EPA conversion factor, it shall complete a translator study within two years from the date of the issuance of this permit as stated in the California Toxics Policy. In the event a translator study is not completed within the specified time, the U.S. EPA conversion factor-based effluent limitation as specified in the CTR shall be effective as a default limitation.
28. The discharger shall, as required by the Executive Officer, conduct a Pollutant Minimization Program in accordance with the California Toxics Policy when there is evidence that the priority pollutant is present in the effluent above an effluent limitation and a sample result is reported as detected and not quantified and the effluent limitation is less than the reported minimum level; or a sample result is reported as not detected and the effluent limitation is less than the method detection limit.
29. The permit shall be reopened and modified or revoked and reissued as a result of the detection of a reportable priority pollutant identified by special conditions' monitoring data, included in this permit. These special conditions in the permit may be, but are not limited to, fish tissue sampling, whole effluent toxicity tests, monitoring requirements on internal waste stream(s), and monitoring for surrogate parameters. Additional requirements may be included in the permit as a result of the special condition monitoring data.
30. Collected solids removed from liquid being treated shall be disposed of in a manner that is consistent with State Water Resources Control Board and Integrated Waste Management Board's joint regulations (Title 27) of the California Code of Regulations and approved by the Regional Board's Executive Officer.
31. The Federal Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Federal Clean Water Act is subject to a civil or criminal penalty.
32. This Board Order does not convey any property rights of any sort or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement or violation of federal, state, or local laws or regulations.

I, Philip A. Gruenberg, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the Regional Water Quality Control Board, Colorado River Basin Region, on November 8, 2000.

Original signed by/
Executive Officer