State of California
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

ORDER NO. 01-075

WASTE DISCHARGE REQUIREMENTS
for
Stellar Biotechnologies Inc.
(NPDES NO. CA0063070)

The California Regional Water Quality Board, Los Angeles Region (Regional Board) finds:

1. Stellar Biotechnologies Inc. (SBI), a California "C" corporation, is located at 448 Lighthouse Circle at the southeast tip of Port Hueneme Harbor. SBI discharges waste under waste discharge requirements and National Pollutant Discharge Elimination System (NPDES) permit contained in Order No. 97-058 adopted by this Regional Board on May 12, 1997 (NPDES Permit No. CA0063070). Order No. 97-058 expires on April 10, 2002.

2. SBI has filed a report of waste discharge and has applied for renewal of its waste discharge requirements and NPDES permit for discharge of wastes to surface waters.

3. SBI is located within the southwest jetty of Port Hueneme Harbor and operates an abalone aquaculture nursery and hatchery in the City of Port Hueneme. Figure 1 and 2 show the location of the facility.

4. Formerly known as Agua Dulce Partners Inc., d.b.a. Channel Island Ocean Farms, the facility was renamed to SBI in September 1999 with no ownership changes.

5. SBI obtains its intake water from the harbor entrance. SBI is not filtering the intake water prior to using it in its facility, but it plans to begin using sand filtration in the near future. When the filter is installed, the filter backwash will be discharged back to the ocean via the discharge pipe. The intake water is pumped to a holding tank. Then, by means of gravity flow, the water cascades through a series of tanks that house the marine organisms. As the water passes through the tanks, the marine organisms may contribute small amounts of waste. The wastewater is not re-circulated. It is allowed to flow through and is discharged through a common drain. No chemicals are added to the water during any part of the operation. The process generates up to 4.32 million gallons per day (MGD) of aquaculture wastewater. SBI discharges the wastewater to a point (Discharge Serial No. 001, Latitude 34^{o} 08' 36"; Longitude 119^{o} 13' 48") close to the mouth of Port Hueneme Harbor, a water of the United States. Figure 3 shows the schematic of wastewater flow.

6. The Report of Waste Discharge, Form 2E, describes the effluent characteristics as follows:

Constituent	Units	Maximum Daily Value
pH	Standard Unit	8.2 – 8.4
Temperature	^{o}C	14 - 18
BOD_5 20 ^{o}C	mg/L	ND
Total Suspended Solids	mg/L	10

Fecal Coliform	MPN/100 ml	7

7. On June 13, 1994, The Regional Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan). The Basin Plan contains water quality objectives for, and lists the following beneficial uses for the Port Hueneme Harbor:

   Existing: industrial, navigation, contact and non-contact water recreation, commercial and sport fishing, marine habitat, and preservation of rare and endangered species.

8. On May 18, 2000, the USEPA promulgated numeric criteria for priority pollutants for the State of California [known as the *California Toxics Rule* (CTR) and codified as 40 CFR part 131.38]. On March 2, 2000, State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP was effective April 28, 2000 with respect to the priority pollutants criteria that were promulgated for California by the USEPA through the National Toxics Rule (NTR) and also with respect to the priority pollutant objectives established by the Regional Boards in their Basin Plans, with the exception of the provision on "alternate test procedures for individual discharges" that have been approved by the USEPA Regional Administrator. The "alternate test procedures" provision was effective on May 22, 2000. The SIP was effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR.

9. Effluent limitations prescribed in this Order are based on the CTR, SIP, Basin Plan, best professional judgment (BPJ), current plant performance, or the existing Order. These requirements, as they are met, will protect and maintain existing beneficial uses of the receiving water.

10. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) in accordance with the California Water Code, Section 13389.

11. The Regional Board has determined that, based on the reported nature of the operations, the discharge from SBI is not toxic to the receiving waters.

12. The Regional Board has determined that, except metals, based on the reported nature of the operations and the facility's performance history, there is no evidence that the discharge from SBI cause, have a reasonable potential to cause, or contribute to an excursion above any applicable toxic pollutant criterion or objective.

13. Section 1.3 (Step 4) of the SIP requires that a limit be prescribed for a constituent whose reported maximum concentration in the effluent is higher than the applicable criterion specified in the CTR. SBI has reported a value of 9 μg/L for copper in its December 1999 monitoring report. SBI has also reported a value of 240 μg/L for zinc in its December 2000 monitoring report. The CTR specifies 3.7 μg/L and 5.8 μg/L as criterion continuous and maximum concentrations (total recoverable) for copper in saltwater, respectively. The CTR specifies 85.6 μg/L and 95.1 μg/L as criterion continuous and maximum concentrations (total recoverable) for zinc in saltwater,

respectively. Therefore, a limit, according to the SIP, has been calculated and assigned

for copper and zinc in this order. SBI is required to collect sufficient data for other metals, so that a reasonable potential analysis (RPA) can be performed for these constituents.

14. The Regional Board has notified the Discharger and interested agencies and persons of its intent to issue waste discharge requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.

15. The Regional Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements.

16. This Order shall serve as a NPDES permit pursuant to Section 402 of the Federal Clean Water Act or amendments thereto, and shall take effect at the end of ten days from the date of its adoption provided the Regional Administrator, United States Environmental Protection Agency (USEPA), has no objections.

17. Pursuant to California Water Code Section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Board. A petition must be sent to the State Water Resources Control Board, P. O. Box 100, Sacramento, California, 95812, within 30 days of adoption of the Order.

IT IS HEREBY ORDERED that SBI, 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, shall comply with the following:

I. Discharge Requirements

A. Discharge Prohibition

1. Waste discharge shall be limited to aquaculture flow-through wastewater, as proposed.

2. Discharges of water, materials, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, or wastes other than those authorized by this Order, to waters of the State are prohibited.

B. Effluent Limitations

The discharge of an effluent from Discharge Serial No. 001 containing constituents violating or in excess of the following limits is prohibited:

1. A pH value between 6.5 and 8.5 standard units.

2. A flow rate of 4.32 MGD.

3. A log mean fecal coliform concentration of 200 MPN/100 ml (based on a minimum of not less than four samples for any 30-day period), and a value of 400 MPN/100ml for more than 10 percent of the total samples during any 30-day period.

4. Ammonia concentrations listed in the table 1 through table 4 (attached).

5. A mean annual dissolved oxygen concentration of at least 7 mg/L, with no single determination of less than 5.0 mg/L.

6. A discharge temperature of no more than 20°F higher than the natural receiving water temperature and a maximum increase of 4°F in the natural receiving water temperature as a result of waste discharge.

7. In addition to the Requirements B.1 through B.6 above, the discharge from Discharge Serial No. 001 containing constituents in excess of the following limits is prohibited:

		Discharge Limitations	
Constituent	Units	30-Day Average	Daily Maximum
Turbidity	NTU	50	150
Oil and grease	mg/L	10	15
	lbs/day[1]	360	540
BOD_5 20°C	mg/L	20	30
	lbs/day[1]	720	1,080
Suspended solids	mg/L	50	75
	lbs/day[1]	1,800	2,700
Copper	µg/L	2.88	5.78
	lbs/day[1]	0.10	0.21
Zinc	µg/L	47.3	94.9
	lbs/day[1]	1.70	3.42

1. Based on the maximum waste flow rate of 4.32 million gallons per day

C. Receiving Water Limitations

The discharge shall not cause the following to be present in the receiving waters:

1. Toxic pollutants at concentrations that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human heath.

2. Chemical substances in amounts that adversely affect any designated beneficial use.

3. Alteration of color, creation of a visual contrast with the natural appearance, or aesthetically undesirable discoloration.

4. Floating materials, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.

5. A mean annual dissolved oxygen concentration of less than 7 mg/L, and a single determination of less than 5.0 mg/L.

6. The purposeful discharge of PCBs to the receiving water is prohibited.

7. Taste or odor-producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible aquatic resources, cause nuisance, or adversely affect beneficial uses.

II. Requirements and Provisions

1. This Order Includes the attached *Standard Provisions and General Monitoring and Reporting Requirements* (Standard Provisions, Attachment N). If there is any conflict between provisions stated hereinbefore and attached Standard Provisions, those stated hereinbefore prevail

2. This Order includes the attached Monitoring and Reporting Program. If there is any conflict between provisions stated in the Monitoring and Reporting Program and the Standard Provisions, those provisions stated in the former prevail.

3. This Order may be modified, revoked, reissued, or terminated in accordance with the provisions of 40 CFR Parts 122.44, 122.62, 122.63, 122.64, 125.62 and 125.64. Causes for taking such actions include, but are not limited to: failure to comply with any condition of this Order; endangerment to human health or the environment resulting from the permitted activity; or acquisition of newly obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the Discharger for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

4. Discharge of wastes to any point other than specifically described in this Order and permit is prohibited and constitutes a violation thereof.

5. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic, and all federal regulations established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, 307, 316, 403, and 405 of the Federal Clean Water Act and amendments thereto.

6. This Order may be reopened and modified, to incorporate in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include requirements for the implementation of the watershed management approach.

7. This Order may be reopened and modified, in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include new minimum levels (MLs).

8. This Order may be reopened and modified, to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of the ammonia objective.

9. This Order may be reopened and modified, in accordance with SIP Section 2.2.2.A, to incorporate new limits based on future reasonable potential analysis to be conducted, upon completion of the collection of additional data by the Discharger.

III. Expiration Date

This Order expires on April 10, 2006.

The Discharger must file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.

IV. Rescission

Order No. 97-058, adopted by this Regional Board on May 12, 1997, is hereby rescinded except for enforcement purposes.

I, Dennis A. Dickerson, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region on May 24, 2001.

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Dennis A. Dickerson
Executive Officer