## California Regional Water Quality Control Board

## Los Angeles Region

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## ORDER NO. R4-2007-0005 NPDES NO. CA0064131

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 1. Discharger Information

Discharger	Stellar Biotechnologies, Inc.		
Name of Facility	Port Hueneme Aquaculture Park		
Facility Address	Hueneme Aquaculture Park, #432 Lighthouse Circle		
	Port Hueneme, California 93041		
	Ventura County		

The discharge by Stellar Biotechnologies, Inc. from the discharge points identified below is subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Location

Discha Poir	No. of Contract of	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001		Aquaculture Wastewater	34°, 08', 45" N	119°, 12', 50" W	Port Hueneme Harbor

## Table 3. Administrative Information

new waste discharge requirements.

This Order was adopted by the Regional Water Quality Control Board on:	January 11, 2007	
This Order shall become effective on:	March 2, 2007	
This Order shall expire on:	December 10, 2011	
The U.S. Environmental Protection Agency (USEPA) and the Regional Wadischarge as a minor discharge.	ter Board have classified this	
The Discharger shall file a Report of Waste Discharge in accordance with Regulations not later than 180 days in advance of the Order expiration date.		

IT IS HEREBY ORDERED, that Order No. 01-076 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code (CWC) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA), and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

I, Jonathan Bishop, Executive Officer, do hereby certify the following is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on January 11, 2007.

Jonathan S. Bishop, Executive Officer

# CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD REGION 4, LOS ANGELES REGION

## ORDER NO. R4-2007-0005 NPDES NO. CA0064131

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## I. FACILITY INFORMATION

The following Discharger is authorized to discharge in accordance with the conditions set forth in this Order:

**Table 4. Facility Information** 

Discharger	Stellar Biotechnologies, Inc.		
Name of Facility	Port Hueneme Aquaculture Park		
	Hueneme Aquaculture Park,#432 Lighthouse Circle		
Facility Address	Port Hueneme, California		
	Ventura County		
Facility Contact, Title, and Phone	John McMullen, Aquaculture and Facility Manager (805) 488-4967		
Mailing Address	417 E. Hueneme Road, Port Hueneme, California 93041		
Type of Facility	Aquaculture		
Facility Design Flow	1.08 million gallons per day (mgd), Maximum permitted flow		

#### II. FINDINGS

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

A. **Background.** Stellar Biotechnologies, Inc. (hereinafter Discharger) is currently discharging pursuant to Order No. 01-076 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0064131. The permit was originally issued to Port Hueneme Aquaculture Park, but was transferred to Stellar Biotechnologies, Inc. in December 2004. A Record of Waste Discharge (ROWD) including a request to discharge up to 1.08 mgd of untreated aquaculture wastewater from Port Hueneme Aquaculture Park (hereinafter Facility) dated November 17, 2005 was submitted. Supplemental information was requested and submitted on February 14, 2006 and February 28, 2006. The application was deemed complete on March 1, 2006.

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

- B. Facility Description. The Discharger owns and operates the Facility. Stellar Biotechnologies husbands and propagates marine organisms for the production of marine derived products for the pharmaceutical industry. The products are used for research and in the development of various cancer vaccines and other products. Native marine organisms propagated at the facility include: limpets, abalone, fishes, crustaceans, other mollusks, other invertebrates, and algae. The facility contains up to 215 Individual Culture Modules (ICMs) that will be used to raise the mollusks. The facility contains several 500 gallon recirculating systems, and if necessary, a portion of this volume may be discharged per day. Each ICM requires about 250 gallons of intake water and discharges approximately 15 percent of the intake. The remaining seawater will be recirculated and cleaned using filter bags, bio media, cartridge filters and ultraviolet light. The aquaculture wastewater is discharged from Discharge 001 (see table on cover page) to the Port Hueneme Harbor, a water of the United States. Attachment B provides a topographic map of the area around the facility. Attachment C provides a flow schematic of the facility.
- C. Legal Authorities. This Order is issued pursuant to section 402 of the Federal CWA and implementing regulations adopted by the USEPA and Chapter 5.5, Division 7 of the CWC. It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4 of the CWC for discharges that are not subject to regulation under CWA section 402.
- D. **Background and Rationale for Requirements**. The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through E, G, and H are also incorporated into this Order.
- E. California Environmental Quality Act (CEQA). Under Water Code section 13389, this action to adopt a NPDES permit is exempt from the provisions of the CEQA Public Resources Code sections 21100-21177.

- F. **Technology-based Effluent Limitations.** Title 40 of the Code of Federal Regulations at section 122.44(a)<sup>1</sup> requires that permits include applicable technology-based limitations and standards. This Order includes technology-based effluent limitations based on Best Professional Judgment (BPJ) in accordance with section 125.3. A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).
- G. Water Quality-based Effluent Limitations. Section 122.44(d) requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) may be established: (1) using USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) on an indicator parameter for the pollutant of concern; or (3) using a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).
- H. Water Quality Control Plans. The Regional Water Board adopted a Water Quality Control Plan for the Los Angeles Region (hereinafter Basin Plan) on June 13, 1994 that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Beneficial uses applicable to Port Hueneme Harbor are as follows:

Table 5. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Uses		
001	Port Hueneme Harbor	Existing:		
		Industrial Process Supply (PROC), Navigation (NAV), Commercial and Sport Fishing (COMM), Contact (REC-1) and non-contact recreation (REC-2), Marine Habitat (MAR), wildlife habitat (WILD), shellfish harvesting (SHELL) and rare, threatened or endangered species (RARE).		
		Potential:		
		Spawning, reproduction, and/or early development (SPAWN).		

Ammonia Basin Plan Amendment. The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Tables 3-1 through 3-4. However, those ammonia objectives were revised on March 4, 2004, by the Regional Water Board with the adoption of Resolution No. 2004-022, Amendment to the Water Quality Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters Not Characteristic of Freshwater (including enclosed bays, estuaries and wetlands) with the Beneficial Use designations for protection of "Aquatic Life". The ammonia Basin Plan amendment was approved by the Office of Administrative Law on September 15, 2004 and by USEPA on May 19, 2005. The amendment revised the Basin Plan by updating the ammonia objectives for inland surface waters not characteristic of freshwater such that they are consistent with the USEPA "Ambient Water Quality Criteria for Ammonia (Saltwater) – 1989." The amendment revised the regulatory provisions of the Basin Plan by adding language to Chapter 3, "Water Quality Objectives."

<sup>&</sup>lt;sup>1</sup> All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise noted.

The amendment contains objectives for a 4-day average concentration of un-ionized ammonia of 0.035 mg/L, and a 1-hour average concentration of un-ionized ammonia of 0.233 mg/L. The objectives are fixed concentrations of un-ionized ammonia, independent of pH, temperature, or salinity. The amendment also contains an implementation procedure to convert un-ionized ammonia objectives to total ammonia effluent limitations. The implementation plan as outlined is to be used to determine the appropriate effluent limit for Total Nitrogen.

The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal* and *Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for inland surface waters. Subsequently, a white paper was developed by Regional Water Board staff entitled *Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region* The white paper evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel. A survey was completed for several kinds of fish and the 86 °F temperature was found to be protective. The new temperature effluent limitation was developed that is reflective of new information available that indicates that the 100 °F temperature is not protective of aquatic organisms, but that 86 °F is protective.

Requirements of this Order specifically implement the applicable Water Quality Control Plans.

- I. National Toxics Rule (NTR) and California Toxics Rule (CTR). USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.
- J. State Implementation Policy. On March 2, 2000, the State Water 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 became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements included in this Order implement the SIP.
- K. Compliance Schedules and Interim Requirements. Section 2.1 of the SIP provides that, based on a discharger's request and demonstration that it is infeasible for an existing discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds 1 year, the Order must include interim numeric limitations for that constituent or parameter. Where allowed by the Los Angeles Region Basin Plan, compliance schedules and interim effluent limitations or discharge specifications may also be granted to allow time to implement a new or revised water quality objective. This Order does not include compliance schedules and interim effluent limitations.

- L. **Antidegradation Policy.** Section 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the requirements of the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. As discussed in detail in the Fact Sheet the permitted discharge is consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.
- M. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the existing permit, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.
- N. **Monitoring and Reporting.** Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements to implement federal and State requirements. This MRP is provided in Attachment E.
- O. **Standard and Special Provisions.** Standard Provisions, which apply to all NPDES permits in accordance with sections 122.41 and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet.
- P. Alaska Rule. On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes. (40 C.F.R. § 131.21; 65 Fed. Reg. 24641 (April 27, 2000).) Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000 may be used for CWA purposes, whether or not approved by USEPA.
- Q. Stringency of Requirements for Individual Pollutants. This Order contains restrictions on individual pollutants that are no more stringent than required by the federal CWA. Individual pollutant restrictions consist of technology-based restrictions and water quality-based effluent limitations. The technology-based effluent limitations consist of restrictions on biochemical oxygen demand (BOD), oil and grease, total suspended solids (TSS), and turbidity. Restrictions on biochemical oxygen demand (BOD), oil and grease, total suspended solids (TSS), and turbidity are specified in federal regulations as discussed in section IV.B of the Fact Sheet, and the permit's technology-based pollutant restrictions are no more stringent than required by the CWA. WQBELs have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the

extent that toxic pollutant WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to section 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the technology-based requirements of the CWA and the applicable water quality standards for purposes of the CWA.

- R. **Notification of Interested Parties.** The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet of this Order.
- S. **Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet of this Order.

#### **III. DISCHARGE PROHIBITIONS**

- A. The discharge of wastes from accidental spills or other sources is prohibited.
- B. Discharges of water, materials, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, or wastes other than those authorized by this Order, to a storm drain system, Port Hueneme Harbor, or other waters of the State, are prohibited.
- C. Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or nuisance as defined by Section 13050 of the CWC.
- D. Wastes discharged shall not contain any substances in concentrations toxic to human, animal, plant, or aquatic life.
- E. The discharge shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or the State Water Board as required by the Federal CWA and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal CWA, and amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.
- F. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.
- G. Any discharge of wastes at any point(s) other than specifically described in this Order is prohibited, and constitutes a violation of the Order.

### IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

## A. Effluent Limitations – Discharge Point 001

## 1. Final Effluent Limitations – Discharge Point 001

a. The discharge of aquaculture wastewater shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the attached MRP (Attachment E):

**Table 6. Final Effluent Limitations** 

	Effluent Limitations				
Parameter	Instantaneous Maximum	Instantaneous Minimum	Average Monthly	Maximum Daily	
Biochemical Oxygen Demand (BOD <sub>5</sub> 20°C) (mg/L)			20	30	
BOD <sub>5</sub> 20°C (lbs/day)			180	270	
Oil and Grease (mg/L)			10	15	
Oil and Grease (lbs/day)			90	135	
pH (s.u.)	8.5	6.5			
Suspended Solids (mg/L)			50	75	
Suspended Solids (lbs/day)			450	676	
Flow (mgd)			1.08		
Temperature (ºF)				86	
Turbidity (NTU)			50	75	

Mass-based effluent limitations developing using a maximum 1.08 mgd flow.

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

## **2. Interim Effluent Limitations** Not applicable to this permit.

## **B.** Land Discharge Specifications

Not applicable to this permit.

## C. Reclamation Specifications

Not applicable to this permit.

#### V. RECEIVING WATER LIMITATIONS

#### A. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. The discharge shall not cause the following in Port Hueneme Harbor:

- 1. The normal ambient pH to fall below 6.5 nor exceed 8.5 units nor vary from normal ambient pH levels by more than 0.5 units.
- 2. Depress the concentration of dissolved oxygen below 5.0 mg/L anytime, and the median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation.
- **3.** Surface water temperature to rise greater than 5°F above the natural temperature of the receiving waters at any time or place. The temperature of the receiving water shall at no time be raised above 80°F as a result of waste discharged.
- **4.** Total ammonia (as N) concentrations equivalent to the un-ionized ammonia concentrations specified in the Regional Water Board Resolution No. 2004-022, Amendment to the Water Quality Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters Not Characteristic of Freshwater (including enclosed bays, estuaries and wetlands) with the Beneficial Use designations for protection of "Aquatic Life" to be exceeded.
- **5.** The presence of visible, floating, suspended or deposited macroscopic particulate matter or foam.
- **6.** Oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the receiving water or on objects in the water.
- 7. Suspended or settleable materials, chemical substances or pesticides in amounts that cause nuisance or adversely affect any designated beneficial use.
- **8.** Toxic or other deleterious substances in concentrations or quantities which cause deleterious effects on aquatic biota, wildlife, or waterfowl or render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
- **9.** Accumulation of bottom deposits or aquatic growths.
- **10.** Biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.
- **11.** The presence of substances that result in increases of BOD that adversely affect beneficial uses.

- **12.** Taste or odor-producing substances in concentrations that alter the natural taste, odor, and/or color of fish, shellfish, or other edible aquatic resources; cause nuisance; or adversely affect beneficial uses.
- **13.** Alteration of turbidity, or apparent color beyond natural background levels.
- **14.** Damage, discolor, nor cause formation of sludge deposits on flood control structures or facilities nor overload the design capacity.
- **15.** Degrade surface water communities and populations including vertebrate, invertebrate, and plant species.
- **16.** Problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests.
- **17.** Create a nuisance, or adversely effect beneficial uses of the receiving water.
- **18.** Toxicity limitations for discharges from Outfalls 001:
  - a. Acute Toxicity Limitation and Requirements
    - 1. The acute toxicity of the effluent shall be such that: (i) the average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and (ii) no single test producing less than 70 % survival.
    - If either of the above requirements (Section V.A.18.) is not met, the Discharger shall conduct six additional tests over a six-week period. The discharger shall ensure that they receive results of a failing acute toxicity test within 24 hours of the close of the test and the additional tests shall begin within 3 business days of the receipt of the result. If the additional tests indicate compliance with acute toxicity limitation, the discharger may resume regular testing. However, if the results of any two of the six accelerated tests are less than 90% survival, then the Discharger shall begin a Toxicity Identification Evaluation (TIE). The TIE shall include all reasonable steps to identify the sources of toxicity. Once the sources are identified, the Discharger shall take all reasonable steps to reduce toxicity to meet objective.
    - 3. If the initial test and any of the additional six acute toxicity bioassay test result in less than 70% survival, including the initial test, the Discharger shall immediately begin a TIE.
    - 4. The Discharger shall conduct acute toxicity monitoring as specified in Monitoring and Reporting Program (MRP) No. 7854.

- b. Chronic Toxicity Limitation and Requirements:
  - This Order includes a chronic testing toxicity trigger defined as an exceedance of 1.0 TU<sub>c</sub> in a critical life stage test for 100% effluent. (The monthly median for chronic toxicity of 100% effluent shall not exceed 1.0 TU<sub>c</sub> in a critical life stage test.)
  - 2. If the chronic toxicity of the effluent exceeds 1.0 TU<sub>c</sub>, the Discharger shall immediately implement an accelerated chronic toxicity testing according to MRP No. 7854, Section V.D. If the results of two of the six accelerated tests exceed 1.0 TU<sub>c</sub>, the Discharger shall initiate a TIE and implement the Initial Investigation TRE Workplan. (see MRP No. 7854, Section V.E.).
  - 3. The Discharger shall conduct chronic toxicity monitoring as specified in MRP No. 7854.
  - 4. The chronic toxicity of the effluent shall be expressed and reported in toxic units, where:

$$TU_c = \frac{100}{NOEC}$$

The No Observable Effect Concentration (NOEC) is expressed as the maximum percent effluent concentration that causes no observable effect on test organisms, as determined by the results of a critical life stage toxicity test.

- 5. Preparation of an Initial Investigation TRE Workplan
  - i. The Discharger shall submit a detailed initial investigation Toxicity Reduction Evaluation (TRE) workplan to the Executive Officer of the Regional Board for approval within 90 days of the effective date of this permit. The Discharger shall use EPA manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) as guidance or current versions. At a minimum, the TRE workplan must contain the provisions in Attachment C. This workplan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include, at a minimum:
  - ii. A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency;
  - iii. A description of the facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in operation of the facility; and,

- iv. If a toxicity identification evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor) (See MRP Section V.E.3. for guidance manuals).
- 19. Violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or State Water Board. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments thereto, the Regional Water Board will revise or modify this Order in accordance with such standards.

#### **B.** Groundwater Limitations

Not applicable to this permit.

#### VI. PROVISIONS

#### A. Standard Provisions

- **1. Federal Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.
- **2. Regional Water Board Standard Provisions.** The Discharger shall comply with the following provisions:
  - a. This Order may be modified, revoked, reissued, or terminated in accordance with the provisions of sections 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.
  - b. The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or other water courses under their jurisdiction; including applicable requirements in municipal storm water management program developed to comply with NPDES permits issued by the Regional Water Board to local agencies.
  - c. Discharge of wastes to any point other than specifically described in this Order and permit is prohibited and constitutes a violation thereof.
  - d. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to Sections 301, 302, 303(d), 304, 306, 307, 316, 318, 405, and 423 of the Federal CWA and amendments thereto.
  - e. These requirements do not exempt the operator of the waste disposal facility from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility, and they leave unaffected any further restraints on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.
  - f. Oil or oily material, chemicals, refuse, or other pollutionable materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off of the property and/or discharged to surface

waters. Any such spill of such materials shall be contained and removed immediately.

- g. A copy of these waste discharge specifications shall be maintained at the discharge facility so as to be available at all times to operating personnel.
- h. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:
  - (1) Violation of any term or condition contained in this Order:
  - (2) Obtaining this Order by misrepresentation, or failure to disclose all relevant facts:
  - (3) A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- i. If there is any storage of hazardous or toxic materials or hydrocarbons at this facility and if the facility is not manned at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.
- j. The Discharger shall notify the Regional Water Board not later than 120 days in advance of implementation of any plans to alter production capacity of the product line of the manufacturing, producing or processing facility by more than ten percent. Such notification shall include estimates of proposed production rate, the type of process, and projected effects on effluent quality. Notification shall include submittal of a new report of waste discharge appropriate filing fee.
- k. The Discharger shall file with the Regional Water Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location or volume of the discharge.
- I. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Regional Water Board as soon as they know or have reason to believe that they have begun or expect to begin to use or manufacture intermediate or final product or byproduct of any toxic pollutant that was not reported on their application.
- m. In the event of any change in name, ownership, or control of these waste disposal facilities, the discharger shall notify this Regional Water Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Regional Water Board.
- n. The CWC provides that any person who violates a waste discharge requirement or a provision of the CWC is subject to civil penalties of up to \$5,000 per day, \$10,000 per day, or \$25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to \$10 per gallon per day or \$25 per gallon per day of

violation; or some combination thereof, depending on the violation, or upon the combination of violations.

Violation of any of the provisions of the NPDES program or of any of the provisions of this Order may subject the violator to any of the penalties described herein, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.

- o. The discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which may ultimately be released to waters of the United States, is prohibited unless specifically authorized elsewhere in this permit or another NPDES permit. This requirement is not applicable to products used for lawn and agricultural purposes.
- p. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream that ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this permit.
- q. The Discharger shall notify the Executive Officer in writing no later than 6 months prior to planned discharge of any chemical, other than the products previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include:
  - (1) Name and general composition of the chemical,
  - (2) Frequency of use,
  - (3) Quantities to be used,
  - (4) Proposed discharge concentrations, and
  - (5) USEPA registration number, if applicable.

#### B. Monitoring and Reporting Program Requirements

The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order. If there is any conflict between provisions stated in the MRP and the Regional Water Board Standard Provisions, those provisions stated in the MRP shall prevail.

#### C. Special Provisions

## 1. Reopener Provisions

- a. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal CWA, and amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.
- b. This Order may be reopened to include effluent limitations for toxic constituents determined to be present in significant amounts in the

discharge through a more comprehensive monitoring program included as part of this Order and based on the results of the reasonable potential analysis (RPA).

- c. This Order may be reopened and modified, to incorporate in accordance with the provisions set forth in Parts 122 and 124, to include requirements for the implementation of the watershed management approach or to include new Minimum Levels (MLs).
- d. This Order may be reopened and modified to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of an objective or the adoption of a TMDL for the Port Hueneme Harbor.
- e. This Order may be reopened upon submission by the Discharger of adequate information, as determined by the Regional Water Board, to provide for dilution credits or a mixing zone, as may be appropriate.

# 2. Special Studies, Technical Reports and Additional Monitoring Requirements

Within 90 days of the effective date of this permit, the Discharger is required to submit the following to the Regional Water Board:

- a. **Toxicity Reduction Evaluation (TRE) Workplan.** This plan shall describe the steps the permittee intends to follow in the event toxicity is detected. The Discharger shall develop the TRE workplan in accordance with the specification discussed in Section V of the MRP, Attachment E.
- b. Chemical Use Report. The Discharger shall submit to the Board, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could affect the waste discharge, including quantities of each. The Discharger shall develop the Chemical Use Report in accordance with the specification discussed in Section IX of the MRP, Attachment E.

#### 3. Best Management Practices and Pollution Prevention

Within 90 days of the effective date of this permit, the Discharger is required to submit a Best Management Practice Plan (BMPP) to the Regional Water Board. This plan shall entail site-specific plans and procedures implemented and/or to be implemented to prevent hazardous waste/material from being discharged to waters of the State. The Discharger shall develop BMPP in accordance with the specification discussed in Section IX.A of the MRP, Attachment E.

## 4. Compliance Schedules

a. Compliance Plan.

Not applicable to this permit.

- b. Pollutant Minimization Plan (PMP).
   Not applicable to this permit.
- **5.** Construction, Operation and Maintenance Specifications Not applicable to this permit.
- 6. Special Provisions for Municipal Facilities (POTWs Only)
  Not applicable to this permit.
- 7. Other Special Provisions
  Not applicable to this permit.

### VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in Section IV of this Order will be determined as specified below:

## A. Single Constituent Effluent Limitation.

If the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (see Reporting Requirement I.G of the MRP), then the Discharger is out of compliance.

## B. Effluent Limitations Expressed as a Sum of Several Constituents.

If the sum of the individual pollutant concentrations is greater than the effluent limitation, then the Discharger is out of compliance. In calculating the sum of the concentrations of a group of pollutants, consider constituents reported as ND or DNQ to have concentrations equal to zero, provided that the applicable ML is used.

## C. Effluent Limitations Expressed as a Median.

In determining compliance with a median limitation, the analytical results in a set of data will be arranged in order of magnitude (either increasing or decreasing order); and

- 1. If the number of measurements (n) is odd, then the median will be calculated as = X(n+1)/2, or
- 2. If the number of measurements (n) is even, then the median will be calculated as = [Xn/2 + X(n/2)+1], i.e., the midpoint between the n/2 and n/2+1 data points.

#### D. Mass-based Effluent Limitations.

In calculating mass emission rates from the monthly average concentrations, use one half of the method detection limit for "Not Detected" (ND) and the estimated concentration for "Detected, but Not Quantified" (DNQ) for the calculation of the monthly average concentration. To be consistent with Section VII.B of this Order, if all pollutants belonging to the same group are reported as ND or DNQ, the sum of the individual pollutant concentrations should be considered as zero for the calculation of the monthly average concentration.

## E. Average Monthly Effluent Limitation (AMEL).

If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of noncompliance in a 31-day month). The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

In determining compliance with the AMEL, the following provisions shall also apply to all constituents:

- 1. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the AMEL for that constituent, the Discharger has demonstrated compliance with the AMEL for that month;
- 2. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, exceeds the AMEL for any constituent, the Discharger shall collect four additional samples at approximately equal intervals during the month. All five analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later.

When all sample results are greater than or equal to the reported Minimum Level (see Reporting Requirement I.G. of the MRP), the numerical average of the analytical results of these five samples will be used for compliance determination.

When one or more sample results are reported as "Not-Detected (ND)" or "Detected, but Not Quantified (DNQ)" (see Reporting Requirement I.G. of the MRP), the median value of these four samples shall be used for compliance determination. If one or both of the middle values is ND or DNQ, the median shall be the lower of the two middle values.

- **3.** In the event of noncompliance with an AMEL, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the AMEL has been demonstrated.
- **4.** If only one sample was obtained for the month or more than a monthly period and the result exceeds the AMEL, then the Discharger is in violation of the AMEL.

#### F. Maximum Daily Effluent Limitation (MDEL).

If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

#### G. Instantaneous Minimum Effluent Limitation.

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

#### H. Instantaneous Maximum Effluent Limitation.

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

#### I. Mean Annual Effluent Limitation (MAEL).

If the average of daily discharges over a calendar year exceeds the MAEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for each day of that year for that parameter (e.g., resulting in 365 days of non-

compliance in a 365-day month). The average of daily discharges over the calendar year that exceeds the MAEL for a parameter will be considered out of compliance for that year only. If only a single sample is taken during the calendar year and the analytical result for that sample exceeds the MAEL, the discharger will be considered out of compliance for that calendar year. For any one calendar year during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar year.

## ATTACHMENT A - DEFINITIONS, ACRONYMS, AND ABBREVIATIONS

#### **DEFINITIONS**

Average Monthly Effluent Limitation (AMEL): the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL): the highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

**Daily Discharge:** Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

**Instantaneous Maximum Effluent Limitation:** the highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

**Instantaneous Minimum Effluent Limitation:** the lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Maximum Daily Effluent Limitation (MDEL): the highest allowable daily discharge of a pollutant.

μq/L: micrograms per Liter

mg/L: milligrams per Liter

**MGD:** million gallons per day

**Six-month Median Effluent Limitation:** the highest allowable moving median of all daily discharges for any 180-day period.

#### **ACRONYMS AND ABBREVIATIONS**

AMEL Average Monthly Effluent Limitation

B Background Concentration

BAT Best Available Technology Economically Achievable

Basin Plan Water Quality Control Plan for the Coastal Watersheds of Los Angeles

and Ventura Counties

BCT Best Conventional Pollutant Control Technology

BMP Best Management Practices
BMPPP Best Management Practices Plan
BPJ Best Professional Judgment
BOD Biochemical Oxygen Demand

BPT Best practicable treatment control technology

C Water Quality Objective

CCR California Code of Regulations
CEQA California Environmental Quality Act

CFR Code of Federal Regulations

CTR
CV
Coefficient of Variation
CWC
Cilifornia Water Code
Discharger
CMR
Discharge Monitoring Report
DNQ
Detected But Not Quantified
ECA
Effluent Concentration Allowance

ELAP California Department of Health Services Environmental Laboratory

**Accreditation Program** 

ELG Effluent Limitations, Guidelines and Standards

Facility Port Hueneme Aquaculture Park

gpd gallons per day
IC Inhibition Coefficient

IC15 Concentration at which the organism is 15% inhibited IC25 Concentration at which the organism is 25% inhibited IC40 Concentration at which the organism is 40% inhibited IC50 Concentration at which the organism is 50% inhibited

LA Load Allocations

LOEC Lowest Observed Effect Concentration

LTA Long-Term Average

MDEL Maximum Daily Effluent Limitation
MEC Maximum Effluent Concentration

MGD Million Gallons Per Day

ML Minimum Level

MRP Monitoring and Reporting Program

ND Not Detected

NOEC No Observable Effect Concentration

NPDES National Pollutant Discharge Elimination System

NSPS New Source Performance Standards

NTR National Toxics Rule

OAL Office of Administrative Law
POTW Publicly Owned Treatment Works
PMP Pollutant Minimization Plan

QA Quality Assurance

QA/QC Quality Assurance/Quality Control

Regional Water Board California Regional Water Quality Control Board, Los Angeles Region

**RPA** Reasonable Potential Analysis

SCP Spill Contingency Plan

State Implementation Policy (Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of SIP

California)

Self Monitoring Reports SMR

California State Water Resources Control Board State Water Board

**SWPPP** Storm water Pollution Prevention Plan

TAC Test Acceptability Criteria

Water Quality Control Plan for Control of Temperature in the Coastal and Thermal Plan

Interstate Water and Enclosed Bays and Estuaries of California

Toxicity Identification Evaluation TIE **TMDL** Total Maximum Daily Load TOC **Total Organic Carbon** TRE

Toxicity Reduction Evaluation **Technical Support Document** TSD Total Suspended Solid TSS

**Toxicity Unit** TU

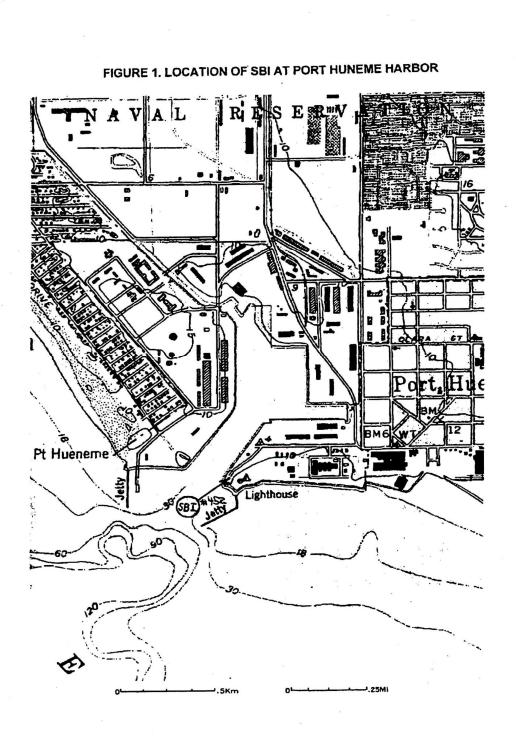
**USEPA** United States Environmental Protection Agency

Waste Discharge Requirements WDR

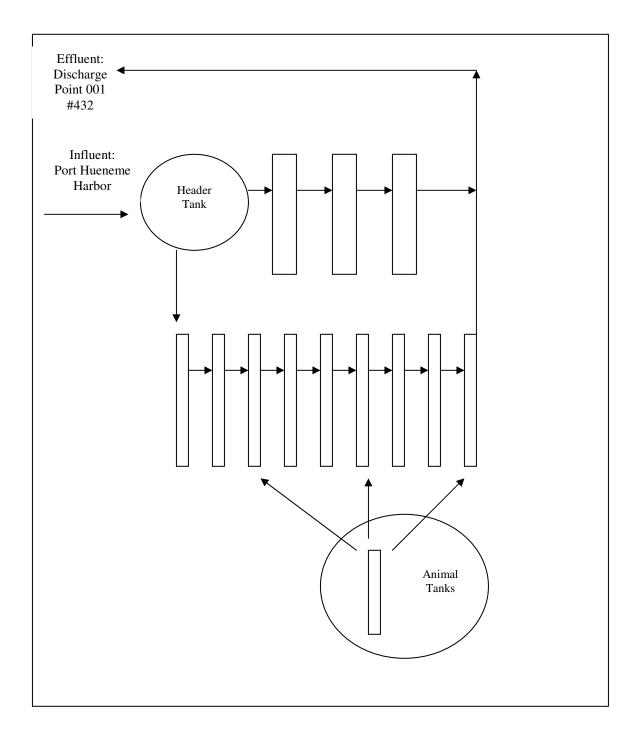
Whole effluent toxicity WET WLA Waste Load Allocations

**WQBELs** Water Quality-Based Effluent Limitations

## ATTACHMENT B - TOPOGRAPHIC MAP



## ATTACHMENT C - FLOW SCHEMATIC



#### ATTACHMENT D - FEDERAL STANDARD PROVISIONS

## I. STANDARD PROVISIONS - PERMIT COMPLIANCE

## A. Duty to Comply

- 1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the CWA and the CWC and is grounds for enforcement action, for permit termination, revocation and reissuance, or denial of a permit renewal application [40 C.F.R. § 122.41(a)].
- 2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not been modified to incorporate the requirement [40 C.F.R. § 122.41(a)(1)].

## B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order [40 C.F.R. § 122.41(c)].

## C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment [40 C.F.R. § 122.41(d)].

## D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this 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 that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order [40 C.F.R. § 122.41(e)].

## E. Property Rights

- **1.** This Order does not convey any property rights of any sort or any exclusive privileges [40 *C.F.R.* § 122.41(g)].
- 2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations [40 C.F.R. § 122.5(c)].

#### F. Inspection and Entry

The Discharger shall allow the Regional Water Quality Control Board (Regional Water Board), State Water Resources Control Board (State Water Board), United States Environmental

Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to [40 C.F.R. § 122.41(i)] [CWC 13383(c)]:

- 1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order [40 C.F.R. § 122.41(i)(1)];
- **2.** Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order [40 C.F.R. § 122.41(i)(2)];
- **3.** Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order [40 C.F.R. § 122.41(i)(3)];
- **4.** Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the CWC, any substances or parameters at any location [40 C.F.R. § 122.41(i)(4)].

## G. Bypass

#### 1. Definitions

- a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility [40 C.F.R. § 122.41(m)(1)(i)].
- b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production [40 C.F.R. § 122.41(m)(1)(ii)].
- 2. Bypass not exceeding limitations The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions Permit Compliance I.G.3 and I.G.5 below [40 C.F.R. § 122.41(m)(2)].
- **3.** Prohibition of bypass Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless [40 C.F.R. § 122.41(m)(4)(i)]:
  - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage [ $40 \text{ C.F.R. } \S 122.41(m)(4)(A)$ ];
  - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance [40 C.F.R. § 122.41(m)(4)(B)]; and
  - c. The Discharger submitted notice to the Regional Water Board as required under Standard Provision Permit Compliance I.G.5 below [40 C.F.R. § 122.41(m)(4)(C)].

**4.** The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above [40 C.F.R. § 122.41(m)(4)(ii)].

#### **5.** Notice

- a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass [40 C.F.R. § 122.41(m)(3)(i)].
- b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions Reporting V.E below [40 .C.F.R. § 122.41(m)(3)(ii)].

## H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation [40 C.F.R. § 122.41(n)(1)].

- 1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph H.2 of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review [40 C.F.R. § 122.41(n)(2)].
- 2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that [40 C.F.R. § 122.41(n)(3)]:
  - a. An upset occurred and that the Discharger can identify the cause(s) of the upset [40 C.F.R. § 122.41(n)(3)(i)];
  - b. The permitted facility was, at the time, being properly operated [40 C.F.R. § 122.41(n)(3)(i)];
  - c. The Discharger submitted notice of the upset as required in Standard Provisions Reporting V.E.2.b [40 C.F.R. § 122.41(n)(3)(iii)]; and
  - d. The Discharger complied with any remedial measures required under Standard Provisions Permit Compliance I.C above [40 C.F.R. § 122.41(n)(3)(iv)].
- **3.** Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof [40 C.F.R. § 122.41(n)(4)].

#### II. STANDARD PROVISIONS - PERMIT ACTION

#### A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition [40 C.F.R. § 122.41(f)].

## B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit [40 C.F.R. § 122.41(b)].

## C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the CWC [40 C.F.R. § 122.41(I)(3)] [40 C.F.R. § 122.61].

#### III. STANDARD PROVISIONS - MONITORING

- **A.** Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity [40 C.F.R. § 122.41(j)(1)].
- **B.** Monitoring results must be conducted according to test procedures under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503 unless other test procedures have been specified in this Order [40 C.F.R. § 122.41(j)(4)] [40 C.F.R. § 122.44(i)(1)(iv)].

#### IV. STANDARD PROVISIONS - RECORDS

**A.** Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by Part 503), 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 Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time [40 C.F.R. § 122.41(j)(2)].

## B. Records of monitoring information shall include:

- 1. The date, exact place, and time of sampling or measurements [40 C.F.R. § 122.41(j)(3)(i)];
- **2.** The individual(s) who performed the sampling or measurements [40 C.F.R. § 122.41(j)(3)(ii)];
- 3. The date(s) analyses were performed [40 C.F.R. § 122.41(j)(3)(iii)];

- **4.** The individual(s) who performed the analyses [40 C.F.R. § 122.41(j)(3)(iv)];
- **5.** The analytical techniques or methods used [40 C.F.R. § 122.41(j)(3)(v)]; and
- **6.** The results of such analyses [40 C.F.R. § 122.41(j)(3)(vi)].

# C. Claims of confidentiality for the following information will be denied [40 C.F.R. § 122.7(b)]:

- 1. The name and address of any permit applicant or Discharger [40 C.F.R. § 122.7(b)(1)]; and
- 2. Permit applications and attachments, permits and effluent data [40 C.F.R. § 122.7(b)(2)].

#### V. STANDARD PROVISIONS - REPORTING

## A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, SWRCB, or USEPA within a reasonable time, any information which the Regional Water Board, SWRCB, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, SWRCB, or USEPA copies of records required to be kept by this Order [40 C.F.R. § 122.41(h)] [CWC 13267].

## **B.** Signatory and Certification Requirements

- 1. All applications, reports, or information submitted to the Regional Water Board, SWRCB, and/or USEPA shall be signed and certified in accordance with paragraph (2.) and (3.) of this provision [40 C.F.R. § 122.41(k)].
- 2. All permit applications shall be signed as follows:
  - a. For a corporation: By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures [40 C.F.R. § 122.22(a)(1)];
  - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively [40 C.F.R. § 122.22(a)(2)]; or
  - c. For a municipality, State, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive

officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA) [40 C.F.R. § 122.22(a)(3)].

- **3.** All reports required by this Order and other information requested by the Regional Water Board, SWRCB, or USEPA shall be signed by a person described in paragraph (b) of this provision, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - a. The authorization is made in writing by a person described in paragraph (2.) of this provision [40 C.F.R. § 122.22(b)(1)];
  - b. The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company (a duly authorized representative may thus be either a named individual or any individual occupying a named position) [40 C.F.R. § 122.22(b)(2)]; and
  - c. The written authorization is submitted to the Regional Water Board, SWRCB, or USEPA [40 C.F.R. § 122.22(b)(3)].
- **4.** If an authorization under paragraph (3.) of this provision is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (3.) of this provision must be submitted to the Regional Water Board, SWRCB or USEPA prior to or together with any reports, information, or applications, to be signed by an authorized representative [40 C.F.R. § 122.22(c)].
- **5.** Any person signing a document under paragraph (2.) or (3.) of this provision shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations" [40 C.F.R. § 122.22(d)].

## C. Monitoring Reports

- **1.** Monitoring results shall be reported at the intervals specified in the MRP in this Order [40 *C.F.R.* § 122.41(I)(4)].
- 2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or SWRCB for reporting results of monitoring of sludge use or disposal practices [40 C.F.R. § 122.41(I)(4)(i)].

- 3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board [40 C.F.R. § 122.41(I)(4)(ii)].
- **4.** Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order [40 C.F.R. § 122.41(I)(4)(iii)].

## D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date [40 C.F.R. § 122.41(I)(5)].

## E. Twenty-Four Hour Reporting

- 1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance [40 C.F.R. § 122.41(l)(6)(i)].
- 2. The following shall be included as information that must be reported within 24 hours under this paragraph [40 C.F.R. § 122.41(l)(6)(ii)]:
  - a. Any unanticipated bypass that exceeds any effluent limitation in this Order [40 C.F.R. § 122.41(l)(6)(ii)(A)].
  - b. Any upset that exceeds any effluent limitation in this Order [40 C.F.R. § 122.41(I)(6)(ii)(B)].
  - c. Violation of a maximum daily discharge limitation for any of the pollutants listed in this Order to be reported within 24 hours [40 C.F.R. § 122.41(I)(6)(ii)(C)].
- 3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours [40 C.F.R. § 122.41(I)(6)(iii)].

## F. Planned Changes

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when [40 C.F.R. § 122.41(I)(1)]:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) [40 C.F.R. § 122.41(l)(1)(i)]; or

- 2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1) [40 C.F.R. § 122.41(l)(1)(ii)].
- **3.** The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan [40 C.F.R. § 122.41(l)(1)(iii)].

## G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Water Board or SWRCB of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements [40 C.F.R. § 122.41(I)(2)].

## H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting E.3, E.4, and E.5 at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E [40 C.F.R. § 122.41(I)(7)].

#### I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, SWRCB, or USEPA, the Discharger shall promptly submit such facts or information [40 C.F.R. § 122.41(I)(8)].

#### VI. STANDARD PROVISIONS - ENFORCEMENT

A. The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The CWA provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such

sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions [40 C.F.R. § 122.41(a)(2)] [CWC 13385 and 13387].

- **B.** Any person may be assessed an administrative penalty by the Regional Water Board for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000 [40 C.F.R. § 122.41(a)(3)].
- **C.** The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both [40 C.F.R. § 122.41(j)(5)].
- **D.** The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both [40 C.F.R. § 122.41(k)(2)].

#### VII. ADDITIONAL PROVISIONS - NOTIFICATION LEVELS

## A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural dischargers shall notify the Regional Water Board as soon as they know or have reason to believe [40 C.F.R. § 122.42(a)]:

- 1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [40 C.F.R. § 122.42(a)(1)]:
  - a. 100 micrograms per liter (µg/L) [40 C.F.R. § 122.42(a)(1)(i)];
  - b. 200 μg/L for acrolein and acrylonitrile; 500 μg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony [40 C.F.R. § 122.42(a)(1)(ii)];
  - c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [40 C.F.R. § 122.42(a)(1)(iii)]; or

- d. The level established by the Regional Water Board in accordance with section 122.44(f) [40 C.F.R. § 122.42(a)(1)(iv)].
- 2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" [40 C.F.R. § 122.42(a)(2)]:
  - a. 500 micrograms per liter (μg/L) [40 C.F.R. § 122.42(a)(2)(i)];
  - b. 1 milligram per liter (mg/L) for antimony [40 C.F.R. § 122.42(a)(2)(ii)];
  - c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge [40 C.F.R. § 122.42(a)(2)(iii)]; or
  - d. The level established by the Regional Water Board in accordance with section 122.44(f) [40 C.F.R. § 122.42(a)(2)(iv)].

## **B. Publicly-Owned Treatment Works (POTWs)**

All POTWs shall provide adequate notice to the Regional Water Board of the following [40 C.F.R. § 122.42(b)]:

- Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Sections 301 or 306 of the CWA if it were directly discharging those pollutants [40 C.F.R. § 122.42(b)(1)]; and
- 2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order [40 C.F.R. § 122.42(b)(2)].

Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW [40 C.F.R. § 122.42(b)(3)].

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## ATTACHMENT E - MONITORING AND REPORTING PROGRAM (MRP) NO. 7854

The Code of Federal Regulations (CFR) at section 122.48 requires that all NPDES permits specify monitoring and reporting requirements. CWC sections 13267 and 13383 also authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements which implement the federal and California regulations.

#### I. GENERAL MONITORING PROVISIONS

- **A.** An effluent sampling station shall be established for the point of discharge (Discharge Point 001 [Latitude 34°08'45" North, Longitude 119°12'50" West]) and shall be located where representative samples of that effluent can be obtained.
- **B.** Effluent samples shall be taken downstream of all operations and/or treatment and prior to mixing with the receiving waters.
- **C.** This Regional Water Board shall be notified in writing of any change in the sampling stations once established, or in the methods for determining the quantities of pollutants in the individual waste streams.
- **D.** Pollutants shall be analyzed using the analytical methods described in 40 CFR sections 136.3, 136.4, and 136.5 (revised May 14, 1999); or, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. Laboratories analyzing effluent samples and receiving water samples shall be certified by the California Department of Health Services Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided each time a new certification and/or renewal of the certification is obtained from ELAP.
- **E.** For any analyses performed for which no procedure is specified in the USEPA guidelines or in the MRP, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report.
- **F.** Each monitoring report must affirm in writing that "all analyses were conducted at a laboratory certified for such analyses by the Department of Health Services or approved by the Executive Officer and in accordance with current USEPA guideline procedures or as specified in this Monitoring and Reporting Program".
- **G.** The monitoring reports shall specify the analytical method used, the Method Detection Limit (MDL), and the Minimum Level (ML) for each pollutant. For the purpose of reporting compliance with numerical limitations, performance goals, and receiving water limitations, analytical data shall be reported by one of the following methods, as appropriate:
  - 1. An actual numerical value for sample results greater than or equal to the ML; or
  - 2. "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML; or,
  - **3.** "Not-Detected (ND)" for sample results less than the laboratory's MDL with the MDL indicated for the analytical method used.

Analytical data reported as "less than" for the purpose of reporting compliance with permit limitations shall be the same or lower than the permit limit(s) established for the given parameter.

Current MLs (Attachment G) are those published by the State Water Board in the Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, February 24, 2005.

**H.** Where possible, the MLs employed for effluent analyses shall be lower than the permit limitations established for a given parameter. If the ML value is not below the effluent limitation, then the lowest ML value and its associated analytical method shall be selected for compliance purposes. At least once a year, the Discharger shall submit a list of the analytical methods employed for each test and associated laboratory QA/QC procedures.

The Regional Water Board, in consultation with the State Water Board Quality Assurance Program, shall establish a ML that is not contained in Attachment A to be included in the Discharger's permit in any of the following situations:

- 1. When the pollutant under consideration is not included in Attachment G;
- 2. When the Discharger and Regional Water Board agree to include in the permit a test method that is more sensitive than that specified in Part 136 (revised May 14, 1999);
- 3. When the Discharger agrees to use an ML that is lower than that listed in Attachment G;
- **4.** When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Attachment G, and proposes an appropriate ML for their matrix; or,
- 5. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the USEPA-approved method 1613 for dioxins and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, the Regional Water Board, and the State Water Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.
- I. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR section 136.3. All QA/QC items must be run on the same dates the samples were actually analyzed, and the results shall be reported in the Regional Water Board format, when it becomes available, and submitted with the laboratory reports.
- J. All analyses shall be accompanied by the chain of custody, including but not limited to data and time of sampling, sample identification, and name of person who performed sampling, date of analysis, name of person who performed analysis, QA/QC data, method detection limits, analytical methods, copy of laboratory certification, and a perjury statement executed by the person responsible for the laboratory.
- **K.** The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments to insure accuracy of measurements, or shall insure that both equipment activities will be conducted.

- L. The Discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. The annual monitoring report required in Section X.D shall also summarize the QA activities for the previous year. Duplicate chemical analyses must be conducted on a minimum of ten percent (10%) of the samples, or at least one sample per sampling period, whichever is greater. A similar frequency shall be maintained for analyzing spiked samples.
- **M.** When requested by the Regional Water Board or USEPA, the Discharger will participate in the NPDES discharge monitoring report QA performance study. The Discharger must have a success rate equal to or greater than 80%.
- N. For parameters that both average monthly and daily maximum limits are specified and the monitoring frequency is less than four times a month, the following shall apply. If an analytical result is greater than the average monthly limit, the Discharger shall collect four additional samples at approximately equal intervals during the month, until compliance with the average monthly limit has been demonstrated. All five analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later. In the event of noncompliance with an average monthly effluent limitation, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the average monthly effluent limitation has been demonstrated. The Discharger shall provide for the approval of the Executive Officer a program to ensure future compliance with the average monthly limit.
- **O.** In the event wastes are transported to a different disposal site during the report period, the following shall be reported in the monitoring report:
  - **1.** Types of wastes and quantity of each type;
  - 2. Name and address for each hauler of wastes (or method of transport if other than by hauling); and
  - **3.** Location of the final point(s) of disposal for each type of waste.

If no wastes are transported off-site during the reporting period, a statement to that effect shall be submitted.

**P.** Each monitoring report shall state whether or not there was any change in the discharge as described in the Order during the reporting period.

#### II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table E-1 Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
001	EFF-001	At the discharge point located where representative samples of the effluent can be obtained.
	RSW-001	Shall be located between 100 to 300 feet from the point of discharge of the effluent to the Port Hueneme Harbor. The monitoring point, located in the Harbor water, should not be influenced by the discharge.

### III. INFLUENT MONITORING REQUIREMENTS

Not applicable to this permit.

### IV. EFFLUENT MONITORING REQUIREMENTS

### A. Monitoring Location EFF-001

1. The Discharger shall monitor aquaculture wastewater at EFF-001 as follows:

Table E-2. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
рН	s.u.	Grab	1/Week	1
BOD <sup>5</sup> 20ºC	mg/L	Grab	1/Quarter	1
Oil and Grease	mg/L	Grab	1/Quarter	1
Suspended Solids	mg/L	Grab	1/Quarter	1
Ammonia	μg/L	Grab	1/Quarter	1
Dissolved Oxygen	mg/L	Grab	1/Week	1
Fecal Coliform	MPN/100 ml	Grab	1/Quarter	1
Flow	mgd	Grab	1/Day	1
Nitrate Nitrogen	μg/L	Grab	1/Quarter	1
Nitrite Nitrogen	μg/L	Grab	1/Quarter	1
Residual Chlorine	mg/L	Grab	1/Year	1
Settleable Solids	ml/L	Grab	1/Quarter	1
Temperature	ºF	Grab	1/Week	1
Turbidity	NTU	Grab	1/Quarter	1
Copper	μg/L	Grab	1/Quarter	1
Zinc	μg/L	Grab	1/Quarter	1
Other Priority Pollutants 3	μg/L	Grab	1/ every five years	1

Pollutants shall be analyzed using the analytical methods described in Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP (Attachment G of this permit package), where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.

<sup>&</sup>lt;sup>2</sup> Flow shall be measured using a flow meter.

Priority Pollutants as defined by the California Toxics Rule (CTR) defined in Finding II.I of the Limitations and Discharge Requirements of this Order, and included as Attachment H.

#### V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

## A. Acute Toxicity Effluent Monitoring Program

- 1. Effluent samples shall be collected before discharge to the receiving water.
- 2. The Discharger shall conduct acute toxicity tests on effluent 24-hour composite samples by methods specified in Part 136 which cites USEPA's *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, October 2002, USEPA, Office of Water, Washington D.C. (EPA/821-R-02-012) or a more recent edition to ensure compliance in 100 % effluent.
- 3. The fathead minnow, *Pimephales promelas*, shall be used as the test species for fresh water discharges and the topsmelt, *Atherinops affinis*, shall be used as the test species for brackish effluent. The method for topsmelt is found in USEPA's *Short-term Method for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, First Edition, August 1995 (EPA/600/R-95/136), or a more recent edition.
- **4.** In lieu of conducting the standard acute toxicity testing with the fathead minnow, the Discharger may elect to report the results or endpoint from the first 48 hours of the chronic toxicity test as the results of the acute toxicity test.

## **B.** Chronic Toxicity Effluent Monitoring Program

- 1. Effluent samples shall be collected after all treatment processes and before discharge to the receiving water.
- **2.** Test Species and Methods:
  - a. The Discharger shall conduct critical life stage chronic toxicity tests on 24-hour composite 100 percent effluent samples in accordance with USEPA's Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, October 2002 (EPA/21-R-02-013) or USEPA's Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, Third Edition, October 2002, (EPA/821/R-02-014), or a more recent edition.
  - b. The Discharger shall conduct tests as follows: with a vertebrate, an invertebrate, and a plant for the first three suites of tests. After the screening period, monitoring shall be conducted using the most sensitive species.
  - c. Re-screening is required every 15 months. The Discharger shall re-screen with the three species listed above and continue to monitor with the most sensitive species. If the first suite of re-screening tests demonstrates that the same species is the most sensitive then re-screening does not need to include more than one suite of tests. If a different species is the most sensitive or if there is ambiguity then the Discharger shall proceed with suites of screening tests for a minimum of three, but not to exceed five suites.

d. In brackish waters, the presence of chronic toxicity may be estimated as specified using West Coast marine organisms according to USEPA's Short-Term Methods for Estimating Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine and Estuarine Organisms, August 1995 (EPA/600/R-95/136), or a more recent edition.

### C. Quality Assurance

- 1. Concurrent testing with a reference toxicant shall be conducted. Reference toxicant tests shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc).
- 2. If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the test methods manuals (EPA/600/4-91/002 and EPA/821-R-02-014), then the Discharger must re-sample and re-test at the earliest time possible.
- **3.** Control and dilution water should be receiving water or laboratory water, as appropriate, as described in the manual. If the dilution water used is different from the culture water, a second control using culture water shall be used.

## D. Accelerated Monitoring and Initial Investigation TRE Trigger

- **1.** Special Provision VI.C.2.a of the Order requires the Discharger to develop and submit for approval an Initial Investigation TRE Workplan.
- 2. If the results of a toxicity test exceed the acute toxicity effluent limitations or chronic toxicity trigger (as defined below):

#### **Acute Toxicity:**

- a. The average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and
- b. No single test shall produce less than 70% survival.

### **Chronic Toxicity:**

a. This Order includes a chronic testing toxicity trigger defined as an exceedance of  $1.0~{\rm TU_c}$  in a critical life stage test for 100% effluent. (The monthly median for chronic toxicity of 100% effluent shall not exceed, 1  ${\rm TU_c}$  in a critical life stage test.)

then, the Discharger shall begin the investigation and evaluation as specified in the Discharger's Initial Investigation TRE Workplan and begin accelerated monitoring by conducting six additional tests, approximately every 2 weeks, over a 12-week period. The samples shall be collected and the tests initiated no less than 7 days apart. The Discharger shall ensure that they receive results of a failing acute toxicity test within 24 hours of the close of the test and the additional tests shall begin within 3 business days of the receipt of the result.

**3.** If implementation of the Initial Investigation TRE Workplan indicates the source of toxicity (e.g., a temporary plant upset, etc.), then the Discharger may discontinue the Initial Investigation Toxicity Reduction Evaluation and resume routine testing frequency.

4. The first step in the Initial Investigation TRE Workplan for downstream receiving water toxicity can be a toxicity test protocol designed to determine if the effluent from Discharge Point 001 causes or contributes to the measured downstream chronic toxicity. If this first step TRE testing (II?) shows that the Discharge Point 001 effluent does not cause or contribute to downstream chronic toxicity, using USEPA's Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, October 2002 (EPA/821/R-02-013), or USEPA's Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, Third Edition, October 2002, (EPA/821/R-02-014) then a report on this testing shall be submitted to the Board and the Initial Investigation TRE will be considered to be completed. Routine testing in accordance with the MRP shall be continued thereafter.

### E. Steps in TRE and TIE Procedures

- 1. Following a TRE trigger, the Discharger shall initiate a TRE in accordance with the facility's Initial Investigation TRE workplan. At a minimum, the Discharger shall use USEPA manuals USEPA/600/2-88/070 (industrial) or USEPA/833B-99/002 (municipal) as guidance. The Discharger shall expeditiously develop a more detailed TRE workplan for submittal to the Executive Officer within 30 days of the trigger, which will include, but not be limited to:
  - a. Further actions to investigate and identify the cause of toxicity;
  - b. Actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity;
  - c. Standards the Discharger will apply to consider the TRE complete and to return to normal sampling frequency; and,
  - d. A schedule for these actions.
- 2. The following is a stepwise approach in conducting the TRE and TIE:
  - a. Step 1 Basic data collection. Data collected for the accelerated monitoring requirements may be used to conduct the TRE;
  - b. Step 2 Evaluates optimization of the treatment system operation, facility housekeeping, and the selection and use of in-plant process chemicals;
  - c. Step 3 If Steps 1 and 2 are unsuccessful, Step 3 implements a TIE by employing all reasonable efforts and using currently available TIE methodologies. The Discharger shall use the USEPA acute and chronic manuals, USEPA/600/6-91/005F (Phase I)/EPA/600/R-96-054 (for marine), USEPA/600/R-92/080 (Phase II), and USEPA-600/R-92/081 (Phase III) as guidance. The objective of the TIE is to identify the substance or combination of substances causing the observed toxicity;
  - d. Step 4 Assuming successful identification or characterization of the toxicant(s), Step 4 evaluates final effluent treatment options;
  - e. Step 5 evaluates in-plant treatment options; and,
  - f. Step 6 consists of confirmation once a toxicity control method has been implemented.

Many recommended TRE elements parallel source control, pollution prevention, and storm water control program best management practices (BMPs). To prevent duplication of efforts, evidence of implementation of these control measures may be sufficient to comply with TRE requirements. By requiring the first steps of a TRE to be accelerated testing and review of the facility's TRE workplan, a TRE may be ended in its early stages. All reasonable steps shall be taken to reduce toxicity to the required level. The TRE may be ended at any stage if monitoring indicates there is no longer toxicity (or six consecutive chronic toxicity test results are less than or equal to 1.0 TUc or six consecutive acute toxicity test results are greater than 90% survival) or six consecutive chronic toxicity results are less than or equal to the 1.0 TUc.

- **3.** The Discharger may initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. The Discharger shall use the EPA acute and chronic manuals, EPA/600/6-91/005F (Phase I)/EPA/600/R-96-054 (for marine), EPA/600//R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III as guidance.
- 4. If a TRE/TIE is initiated prior to completion of the accelerated testing schedule required by this permit, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer.
- **5.** Toxicity tests conducted as part of a TRE/TIE may also be used for compliance determination, if appropriate.
- **6.** The Board recognizes that toxicity may be episodic and identification of causes of and reduction of sources of toxicity may not be successful in all cases. Consideration of enforcement action by the Board will be based in part on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

### H. Reporting

1. The Discharger shall submit a full report of the toxicity test results, including any accelerated testing conducted during the month as required by this permit. Test results shall be reported as % survival for acute toxicity test results and as TU<sub>c</sub> for chronic toxicity test results with the self monitoring reports (SMR) for the month in which the test is conducted.

If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, then those results also shall be submitted with the SMR for the period in which the investigation occurred.

- 2. The full report shall be submitted on or before the end of the month in which the SMR is submitted.
- 3. The full report shall consist of (1) the results; (2) the dates of sample collection and initiation of each toxicity test; (3) the acute toxicity average limit or chronic toxicity limit or trigger and (4) printout of the ToxCalc or CETIS program results.
- **4.** Test results for toxicity tests also shall be reported according to the appropriate manual chapter on Report Preparation and shall be attached to the SMR. Routine reporting shall include, at a minimum, as applicable, for each test:
  - a. Sample date(s);
  - b. Test initiation date;

- c. Test species;
- d. End point values for each dilution (e.g., number of young, growth rate, percent survival);
- e. NOEC value(s) in percent effluent;
- f.  $IC_{15}$ ,  $IC_{25}$ ,  $IC_{40}$  and  $IC_{50}$  values in percent effluent;
- g.  $TU_c$  values  $\left(TU_c = \frac{100}{NOEC}\right)$ ;
- h. Mean percent mortality (+standard deviation) after 96 hours in 100% effluent (if applicable);
- i. NOEC and LOEC values for reference toxicant test(s);
- i. IC25 value for reference toxicant test(s);
- k. Any applicable charts; and
- I. Available water quality measurements for each test (e.g., pH, D.O., temperature, conductivity, hardness, salinity, ammonia).
- **4.** The Discharger shall provide a compliance summary, which includes a summary table of toxicity data from all samples collected during that year.

The Discharger shall notify by telephone or electronically, this Regional Water Board of any toxicity exceedance of the limit or trigger within 24 hours of receipt of the results followed by a written report within 14 calendar days of receipt of the results. The verbal or electronic notification shall include the exceedance and the plan the Discharger has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by the permit, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

#### VI. LAND DISCHARGE MONITORING REQUIREMENTS

Not applicable to this permit.

### VII. RECLAMATION MONITORING REQUIREMENTS

Not applicable to this permit.

### **VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER**

### A. Monitoring Location RSW-001

1. The Discharger shall monitor the Port Hueneme Harbor at RSW-001 as follows:

Table E-3. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
рН	s.u.	Grab	1/year	1,2
Priority Pollutants 3	μg/L	Grab	1/five year	1
Ammonia Nitrogen, Total (as N)	mg/L	Grab	1/quarter	1
Salinity	ppt	Grab	1/quarter	1,2
Temperature	ºF	Grab	1/quarter	1,2

Pollutants shall be analyzed using the analytical methods described in Part 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Attachment 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.

Receiving water pH, salinity, temperature must be analyzed at the same time the samples are collected for priority pollutants analysis.

The receiving water data collected to satisfy requirements specified in Order R4-2007-0XXX, NPDES NO. CA0063070, can be used to satisfy this requirement.

## **B. Visual Monitoring of Receiving Water Sampling Points**

- **1.** A visual observation station shall be established in the vicinity of the discharge point of the outfall to the receiving water (Port Hueneme Harbor).
- 2. General observations of the receiving water shall be made at each discharge point when discharges occur. During months of no discharge, the receiving water observations shall be made on a monthly basis. All receiving water observations shall be reported in the quarterly monitoring report. If no discharge occurred during the observation period, this shall be reported. Observations shall be descriptive where applicable, such that colors, approximate amounts, or types of materials are apparent. The following observations shall be made:
  - a. Tidal stage, time, and date of monitoring
  - b. Weather conditions
  - c. Color of water
  - d. Appearance of oil films or grease, or floatable materials
  - e. Extent of visible turbidity or color patches
  - f. Direction of tidal flow
  - g. Description of odor, if any, of the receiving water
  - h. Presence and activity of California Least Tern and California Brown Pelican.

#### IX. OTHER MONITORING REQUIREMENTS

## A. BMPP and Spill Contingency Plan Status and Effectiveness Report

As required under Special Provision VI.C.3 of this Order, the Discharger shall submit BMPP to the Executive Officer of the Regional Water Board for approval within 90 days of the effective date of this permit. The plan shall entail site-specific plans and procedures implemented and/or to be implemented to prevent hazardous waste/material from being discharged to waters of the United States. BMPs are schedules of activities, prohibitions of practices, cleaning and maintenance procedures, employee training, treatment methods, etc. that are employed to control discharge of pollutants. BMPs shall address all normal facility operations including, but not limited to: cleaning, feeding, transfer and importation of species, removal of dead species, storage and handling of raw material, and disposal of solid waste. The Plan should contain at least the following: statement of BMP policy, feeding procedures, cleaning and maintenance procedures, schedules of activities, prohibited practices, treatment methods, and employee training. The BMPP shall be consistent with the general guidance contained in the USEPA Guidance Manual for Developing Best Management Practices (BMPs) (EPA 833-B-93-004). In particular, a risk assessment of each area identified by the Discharger shall be performed to determine the potential for hazardous or toxic waste/material discharge to surface waters.

## **B.** Chemical Use Report

1. The Discharger shall submit to the Board, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could affect the waste discharge, including quantities of each.

<sup>&</sup>lt;sup>3</sup> Priority Pollutants as defined by the California Toxics Rule (CTR) defined in Finding II.I of the Limitations and Discharge Requirements of this Order, and included as Attachment H.

- 2. The Discharger shall report annually summarizing the quantities of all chemicals, listed by both trade and chemical names, which are used at the facility and which are discharged or have the potential to be discharged.
- 3. The Discharger shall monitor the chemicals used in the facility. Prior to any change in the use of chemical at the facility the discharger must inform the Regional Water Board. No changes in the type or amount of chemicals added to the process water shall be made without the written approval of the Regional Water Board's Executive Officer. The discharger must submit a complete report of the change to the Regional Water Board before the proposed date of change.

#### X. REPORTING REQUIREMENTS

## A. General Monitoring and Reporting Requirements

- **1.** The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
- 2. If there is no discharge during any reporting period, the report shall so state.
- 3. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with waste discharge requirements, as well as all excursions of effluent limitations.
- **4.** The Discharger shall inform the Regional Water Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.
- **5.** The Discharger shall report the results of acute and chronic toxicity testing, TRE and TIE as required in the Attachment E, Monitoring and Reporting, Section V.H.

### B. Self Monitoring Reports (SMRs)

- 1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit self-monitoring reports. Until such notification is given, the Discharger shall submit self-monitoring reports in accordance with the requirements described below.
- 2. The Discharger shall submit quarterly Self Monitoring Reports including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. Quarterly reports shall be due on May 1, August 1, November 1, and February 1 following each calendar quarter.
- **3.** Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-4. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
Continuous	March 2, 2007	All	May 1 August 1 November 1 February 1
1 / week	March 4, 2007	Sunday through Saturday	May 1 August 1 November 1 February 1
1 / quarter	April 1, 2007	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1
1 / year	March 4, 2007	January 1 through December 31	February 1

- **4.** The Discharger shall report with each sample result the applicable ML and the current Method Detection Limit (MDL), as determined by the procedure in Part 136.
- 5. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. Where applicable, the Discharger shall include results of receiving water observations.
- **6.** Each monitoring report shall state whether or not there was any change in the discharge as described in the Order during the reporting period.
- 7. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.
- **8.** SMRs must be submitted to the Regional Water Board, signed and certified as required by the standard provisions (Attachment D), to the address listed below:

California Regional Water Quality Control Board Los Angeles Region 320 W. 4<sup>th</sup> Street, Suite 200 Los Angeles, CA 90013

### C. Discharge Monitoring Reports (DMRs)

Not applicable to this permit.

### D. Other Reports

- 1. Within 90 days of the effective date of this permit, the Discharger is required to submit the following to the Regional Water Board:
  - a. Initial Investigation TRE workplan
  - b. Best Management Practices Plan

- **2.** By March 1 of each year, the Discharger shall submit an annual report to the Board. The report shall contain the following:
  - a. Both tabular and graphical summaries of the monitoring data obtained during the previous year,
  - b. A discussion on the compliance record and the corrective actions taken or planned to bring the discharge into full compliance with the waste discharge requirements,
  - c. A report discussing the following: 1) operation/maintenance problems; 2) changes to the facility operations and activities; 3) potential discharge of the pollutants associated with the changes and how these changes are addressed in the BMPP; 3) calibration of flow meters or other equipment/device used to demonstrate compliance with effluent limitations of this Order.
  - d. A report summarizing the quantities of all chemicals, listed by both trade and chemical names, which are used at the facility and which are discharged or have the potential to be discharged (See Section IX.B of the MRP, Attachment E,)
  - e. A report on the status of the implementation and the effectiveness of the BMPP.
- **3.** As discussed in Section VIII.E of the MRP, Attachment E, the Discharger shall submit to the Board, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could affect this waste discharge, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly.

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#### ATTACHMENT F - FACT SHEET

As described in Section II of this Order, this Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

#### I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	4B191309001		
Discharger	Stellar Biotechnologies Inc.		
Name of Facility	Port Hueneme Aquaculture Park		
	Port Hueneme Aquaculture Park, 432 Lighthouse Circle		
Facility Address	Port Hueneme, California 93041		
	Ventura County		
Facility Contact, Title and	John McMullen, Aquaculture and Facility Manager		
Phone	(805) 488-4967		
Authorized Person to Sign and Submit Reports	SAME		
Mailing Address	SAME		
Billing Address	SAME		
Type of Facility	Aquaculture		
Major or Minor Facility	Minor		
Threat to Water Quality	3		
Complexity	С		
Pretreatment Program	NA		
Reclamation Requirements	NA		
Facility Permitted Flow	1.08 MGD		
Facility Design Flow	1.08 MGD		
Watershed	Ventura County Coastal		
Receiving Water	Port Hueneme Harbor		
Receiving Water Type	Coastal		

- **A.** Stellar Biotechnologies Inc. (hereinafter Discharger) is the owner and operator of the Port Hueneme Aquaculture Park (hereinafter Facility) an aquaculture research facility. The Discharger breeds and cultures mollusks for the production of a blood hormone used as an immune system accelerant for biomedical research.
- **B.** The Facility discharges wastewater to Port Hueneme Harbor, a water of the United States and is currently regulated by Order 01-076 adopted on May 24, 2001. The Order was scheduled to expire on April 10, 2006 but was administratively extended. The Order was previously issued to the Channel Islands Marine Resources Institute, but was transferred to Stellar Biotechnologies, Inc. in December 2004.
- C. The Discharger filed a report of waste discharge and submitted an application for renewal of its Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on November 17, 2005. Supplemental Information was requested and received

on February 14, 2006 and February 28, 2006. A site visit was conducted on November 11, 2005, to observe operations and collect additional data to develop permit limitations and conditions.

#### II. FACILITY DESCRIPTION

Stellar Biotechnologies is the owner and operator of an aquaculture facility (the Facility) located at Port Hueneme Aquaculture Park, 432 Lighthouse Circle, adjacent to the Port Hueneme Harbor. The Facility breeds and cultures mollusks for the production of a blood hormone used as an immune system accelerant for biomedical research, specifically for the treatment of certain cancers in humans.

### A. Description of Wastewater and Treatment

The Facility uses an intermittent supply of seawater for filling and for replenishing seawater in recirculating seawater systems. Seawater is pumped from an intake in the southwest jetty of Port Hueneme Harbor. The water is filtered, pumped into a reservoir tank, and delivered to a series of Individual Culture Modules (ICMs) used to husband the mollusks. Each system contains approximately 500 gallons of seawater and requires about 15% makeup seawater per day. The seawater is recirculated and treated using filter bags, bio media, cartridge filters, and ultra violet light. The process generates up to 1.08 MGD (but is expect to generate a fraction of this amount), of untreated, aquaculture wastewater.

### **B.** Discharge Points and Receiving Waters

The Facility discharges the wastewater to a seawater drain installed by the City of Port Hueneme, Discharge Point 001 (Latitude 34º, 08', 45" and Longitude 119º, 12', 50"), which discharges directly into the Port Hueneme Harbor, a water of the United States.

## C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

The previous Order authorized discharges through two discharge points; 001 and 002. The Discharger ceased discharges through Discharge Point 001; therefore, this Order authorizes the discharge through Discharge Point 002 only, which will henceforth be referred to as Discharge Point 001. Effluent limitations contained in the existing Order for discharges from Discharge Point 001 (Monitoring Location EFF-001) and representative monitoring data from the term of the previous Order are summarized in Table F-2, below.

Table F-2. Summary of Effluent Limitations (Order No. 01-076) and SMR Reporting Discharge Point 001

Table F-2. Sulli	nary or Emue	nt Limitations (Ord	dei 140. 01-070) ali	u Sivin nepoi	ting Discharg	Monitoring
Parameter (units)		Data (From 8/20/01– To 8/30/04)				
(amic)	Annual Mean	Instantaneous Maximum	Instantaneous Minimum	30-day Average	Maximum Daily	Range of Reported Concentrations
Biochemical Oxygen Demand (BOD <sub>5</sub> 20°C) (mg/L)				20	30	1.9 – 15.5
BOD <sub>5</sub> 20°C (lbs/day)				180	270	1.8 – 10.2
Oil and Grease (mg/L)				10	15	<3
Oil and Grease (lbs/day)				90	135	ND
pH (s.u.)		8.5	6.5			6.3 - 8.8
Suspended Solids (mg/L)				50	75	10 - 230
Suspended Solids (lbs/day)				450	676	4.2 – 110.5
Arsenic (μg/L)						20
Cadmium (μg/L)						<5
Chromium, Hexavalent (µg/L)						<10
Copper (µg/L)						<10
Lead (μg/L)						<10
Mercury (μg/L)						0.01
Nickel (µg/L)						<10
Selenium (µg/L)						<10
Silver (µg/L)						<10
Zinc (μg/L)						20 - 30
TCDD (μg/L) <sup>1</sup>						<10
Ammonia (μg/L)			2			0.3 - 0.5
Dissolved Oxygen (mg/L)	7.0				5.0	6.1 – 8.1
Fecal Coliform (MPN/100 mL)			3			2-8
Nitrate Nitrogen (μg/L)						0.1 – 0.2
Nitrite Nitrogen (μg/L)						<0.1
Residual Chlorine (mg/L)						<0.1
Settleable Solids (ml/L)						<0.1
Total Flow (mgd)					1.08	0.043 - 0.137
Temperature (ºC)			4			11 – 19 <sup>5</sup>

Parameter (units)	Effluent Limitation				Monitoring Data (From 8/20/01– To 8/30/04)	
(units)	Annual Mean	Instantaneous Maximum	Instantaneous Minimum	30-day Average	Maximum Daily	Range of Reported Concentrations
Turbidity (NTU)				50	150	0.2 – 1.1

Discharger was required to conduct effluent/receiving water monitoring for the presence of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD or dioxin) congeners.

Ammonia effluent limitations listed in Tables 3-1-3-4 in the 1994 Basin Plan.

A log mean 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/100 mL for more than 10 percent of the total samples during any 30-day period.

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.

Receiving water temperature samples were not submitted, therefore, compliance with the effluent limit cannot be determined. Values listed are for the temperature of the effluent.

## D. Compliance Summary

Data submitted to the Regional Water Board indicate that the Discharger (Channel Islands Marine Resource Institue) has exceeded existing permit limitations as outlined in the table below:

Table F-3. Summary of Compliance History

Date	Monitoring Period	Violation Type	Pollutant	Reported Value	Permit Limitation	Units
11/14/02	4 <sup>th</sup> Quarter, 2002	Daily Maximum	Total Suspended Solids	90	75	mg/L
11/14/02	4 <sup>th</sup> Quarter, 2002	Monthly Average	Total Suspended Solids	90	50	mg/L
11/24/02	4 <sup>th</sup> Quarter, 2002	Instantaneous Maximum	рН	8.8	8.5	s.u.
3/12/03	1 <sup>st</sup> Quarter, 2003	Daily Maximum	Total Suspended Solids	160	75	mg/L
3/12/03	1 <sup>st</sup> Quarter, 2003	Monthly Average	Total Suspended Solids	160	50	mg/L
5/12/03	2 <sup>nd</sup> Quarter 2003	Daily Maximum	Total Suspended Solids	230	50	mg/L
5/12/03	2 <sup>nd</sup> Quarter 2003	Monthly Average	Total Suspended Solids	230	75	mg/L
7/11/03	3 <sup>rd</sup> Quarter 2003	Daily Maximum	Total Suspended Solids	190	50	mg/L
7/11/03	3 <sup>rd</sup> Quarter 2003	Monthly Average	Total Suspended Solids	190	75	mg/L
6/20/04	2 <sup>nd</sup> Quarter 2004	Instantaneous Minimum	рН	6.3	6.5	s.u.

A compliance evaluation inspection was conducted on June 1, 2004. Effluent limitation violations were noted in the CEI report and have been documented above. A compliance evaluation inspection was also conducted on November 10, 2005. The facility was not operating and was vacant at the time of the inspection. A new owner (Stellar Biotechnologies, Inc.) was expected to begin operations by the end of 2005. The inspector discussed the practicality of routing all surface water discharge to an industrial sewer instead of to the Harbor. The facility representative indicated that diverting the discharge was not feasible.

### E. Planned Changes

Not applicable to this permit.

## III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the Order are based on the requirements and authorities described in this section.

### A. Legal Authorities

This Order is issued pursuant to section 402 of the Federal CWA and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the CWC. It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4 of the CWC for discharges that are not subject to regulation under CWA section 402.

## B. California Environmental Quality Act (CEQA)

This action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with Section 13389 of the CWC.

## C. State and Federal Regulations, Policies, and Plans

1. Water Quality Control Plans. The Regional Water Board adopted a Water Quality Control Plan for the Los Angeles Region Basin Plan (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Beneficial uses applicable to the Port Hueneme Harbor are as follows:

Table F-4. Discharge Points, Receiving Waters, and Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Uses
001	Port Hueneme Harbor	Existing: Industrial Process Supply (PROC), Navigation (NAV), Commercial and Sport Fishing (COMM), Contact (REC- 1) and non-contact recreation (REC-2), Marine Habitat (MAR), and Wildlife Habitat (WILD) and rare, threatened or endangered species (RARE). Potential: Spawning, reproduction, and/or early development (SPWN).

2. Ammonia Basin Plan Amendment. The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Tables 3-1 through 3-4. However, those ammonia objectives were revised on March 4, 2004, by the Regional Water Board with the adoption of Resolution No. 2004-022, Amendment to the Water Quality Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters Not Characteristic of Freshwater (including enclosed bays, estuaries and wetlands) with the Beneficial Use designations for protection of "Aquatic Life". The ammonia Basin Plan amendment was approved by the Office of Administrative Law on September 15, 2004 and by USEPA on May 19, 2005. The amendment revised the Basin Plan by updating the ammonia objectives

for inland surface waters not characteristic of freshwater such that they are consistent with the USEPA "Ambient Water Quality Criteria for Ammonia (Saltwater) – 1989." The amendment revised the regulatory provisions of the Basin Plan by adding language to Chapter 3, "Water Quality Objectives."

The amendment contains objectives for a 4-day average concentration of un-ionized ammonia of 0.035 mg/L, and a 1-hour average concentration of un-ionized ammonia of 0.233 mg/L. The objectives are fixed concentrations of un-ionized ammonia, independent of pH, temperature, or salinity. The amendment also contains an implementation procedure to convert un-ionized ammonia objectives to total ammonia effluent limitations. The implementation plan as outlined is to be used to determine the appropriate effluent limit for Total Ammonia.

**3. Thermal Plan.** The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for inland surface waters.

Subsequently, a white paper was developed by Regional Water Board staff entitled *Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region* The white paper evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel. A survey was completed for several kinds of fish and the 86 °F temperature was found to be protective. The new temperature effluent limitation was developed that is reflective of new information available that indicates that the 100 °F temperature is not protective of aquatic organisms, but that 86 °F is protective.

- 4. National Toxics Rule (NTR) and California Toxics Rule (CTR). USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.
- 5. State Implementation Policy. On March 2, 2000, the State Water 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 became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.
- 6. Antidegradation Policy. Section 131.12 requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution No. 68-16 requires that existing water quality is maintained unless degradation is justified based

on specific findings. As discussed in detail in this Fact Sheet, the permitted discharge is consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.

- 7. Anti-Backsliding Requirements. Sections 402(o)(2) and 303(d)(4) of the CWA and section 122.44(I) prohibit backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the existing permit, with some exceptions in which limitations may be relaxed. All effluent limitations in the Order are at least as stringent as the effluent limitations in the previous Order.
- 8. Monitoring and Reporting Requirements. 40 CFR Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Water Boards to require technical and monitoring reports. The MRP establishes monitoring and reporting requirements to implement federal and State requirements. This MRP is provided in Attachment E.
- 9. Alaska Rule. On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes. (40 C.F.R. § 131.21; 65 Fed. Reg. 24641 (April 27, 2000).) Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000 may be used for CWA purposes, whether or not approved by USEPA.
- 10. Stringency of Requirements for Individual Pollutants. This Order contains restrictions on individual pollutants that are no more stringent than required by the federal CWA. Individual pollutant restrictions consist of technology-based restrictions and water quality-based effluent limitations. The technology-based effluent limitations consist of restrictions on biochemical oxygen demand (BOD), oil and grease, total suspended solids (TSS), and turbidity. Restrictions on biochemical oxygen demand (BOD), oil and grease, total suspended solids (TSS), and turbidity are specified in federal regulations as discussed in section IV.B in the Fact Sheet, and the permit's technology-based pollutant restrictions are no more stringent than required by the CWA. Water quality-based effluent limitations (WQBELs) have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to section 131.38. The scientific procedures for calculating the individual WQBELs are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the technology-based requirements of the CWA and the applicable water quality standards for purposes of the CWA.

## D. Impaired Water Bodies on CWA 303(d) List

Section 303(d) of the CWA requires states to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303(d)-listed water bodies and pollutants, the Regional Water Board plans to develop and adopt TMDLs that will specify WLAs for point sources and load allocations (LAs) for non-point sources, as appropriate.

The USEPA approved the State's 2002 303(d) list of impaired water bodies on July 25, 2003. Certain receiving waters in the Los Angeles and Ventura County watersheds do not fully support beneficial uses and therefore have been classified as impaired on the 2002 303(d) list and have been scheduled for TMDL development.

The 2002 State Water Board's California 303(d) List classifies the Port Hueneme Harbor as impaired. The pollutants of concern include PCBs (tissue) and DDT (tissue). The discharge is not expected to contribute either pollutant to the receiving water. To date no TMDLs have been developed; therefore, no conditions in the Order are based on TMDLs.

### E. Other Plans, Polices and Regulations

Not applicable to this permit.

### IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source discharges to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations; and other requirements in NPDES permits. There are two principal bases for effluent limitations: 40 CFR section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR section 122.44(d) requires that permits include WQBELs to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established. Three options exist to protect water quality: 1) section 122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a); 2) proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information may be used; or 3) an indicator parameter may be established.

The Facility is an aquaculture facility that houses marine organisms. The Facility operations generate wastes that typically include unused food and mullusk waste. Typical pollutants present in these waste streams may include oil and grease, solids, and organics. Solids are commonly present in aquaculture facilities and therefore, total suspended solids (TSS) and turbidity are pollutants of concern. Organics are usually determined in wastewater by measuring the 5-day biochemical oxygen demand @ 20 °C (BOD). In addition, unused food and fish excrement may contribute to nitrogen and fecal coliforms in the waste stream, and therefore, ammonia and fecal coliforms are pollutants of concern for this type of waste. Also, pH, temperature, and dissolved oxygen are pollutants of concern because the discharge of aquaculture wastewater also has the potential to affect the pH, temperature, and dissolved oxygen of the receiving water body. When the existing permit was issued in 2001, oil and grease, TSS, turbidity, BOD, ammonia-nitrogen, fecal coliform, pH, temperature, and dissolved oxygen were considered pollutants of concern and were regulated in the existing permit. The Facility operation has changed significantly since the existing permit was issued. A new owner/operator (Stellar Biotechnologies, Inc.) has taken over the facility and the type of organisms previously housed there has changed from fish (Sea Bass) to mollusks.

However, many of the pollutants that are considered pollutants of concern for this permit have not changed.

Generally, mass-based effluent limitations ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limitations. 40 CFR Section 122.45(f)(1) requires that all permit limitations, standards or prohibitions be expressed in terms of mass units except under the following conditions:

- a. for pH, temperature, radiation or other pollutants that cannot appropriately be expressed by mass limitations:
- b. when applicable standards or limitations are expressed in terms of other units of measure; or

if in establishing technology-based permit limitations on a case-by-case basis limitations based on mass are infeasible because the mass or pollutant cannot be related to a measure of production. The limitations, however, must ensure that dilution will not be used as a substitute for treatment.

## A. Discharge Prohibitions

The discharge prohibitions are based on the requirements of the Basin Plan, State Water Board's plans and policies, CWC, and existing permit provisions, and are consistent with the requirements set for other discharges regulated by NPDES permit to the Port Hueneme Harbor.

### B. Technology-Based Effluent Limitations

## 1. Scope and Authority

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

- a. Best practicable treatment control technology (BPT) represents the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and nonconventional pollutants.
- b. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and nonconventional pollutants.
- c. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering the "cost reasonableness" of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.
- d. New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires USEPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and

section 125.3 of the NPDES regulations authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the permit writer must consider specific factors outlined in section 125.3.

### 2. Applicable Technology-Based Effluent Limitations

The ELG for the Concentrated Aquatic Animal Production (CAAP) Point Source Category, published by USEPA, became effective on September 22, 2004. These regulations, available in Part 451, are applicable to CAAP facilities defined in 40 CFR section 122.24. Based on the type operation and production, the Facility is not categorized as a CAAP facility. Therefore, the CAAP ELGs available in Part 451 are not applicable to the Facility.

This Order includes technology-based effluent limitations based on BPJ in accordance with 40 CFR section 125.3. Effluent limitations for turbidity, oil and grease, BOD₅20°C, and total suspended solids (TSS) were developing using best professional judgment (BPJ) in the existing Order (No. 01-076) and all effluent limitations have been carried over except for turbidity. The maximum daily limitation for turbidity has been changed to 75 NTU based on turbidity limits established similar permits issued in the region.

Due to the lack of national ELGs for this Facility and the absence of data to apply BPJ to develop numeric effluent limitations, and pursuant to section 122.44(k), the Regional Water Board will require the Discharger to develop and implement a Best Management Practices Plan (BMPP). The BMPs are to include schedules of activities, prohibitions of practices, cleaning and maintenance procedures, employee training, treatment methods, etc. that are employed to control discharge of pollutants from the Facility. The BMPs shall address all normal facility operations including, but not limited to: cleaning, feeding, transfer and importation of species, removal of dead species, storage and handling of raw material, and disposal of solid waste. The BMPP should contain at least the following: statement of BMP policy, feeding procedures, cleaning and maintenance procedures, schedules of activities, prohibited practices, treatment methods, and employee training.

The BMPP and existing Order limitations based on past performance and reflecting BPJ will serve as the equivalent of technology-based effluent limitations, in the absence of established ELGs, in order to carry out the purposes and intent of the CWA.

Table F-5. Summary of Technology-based Effluent Limitations - Discharge Point 001

	<u> </u>	Effluent Limitations		
Pollutant	Unit	Average Monthly	Maximum Daily	
BOD <sup>5</sup> 20ºC	mg/L	20	30	
	lbs/day	180	270	
Oil and Grease	mg/L	10	15	
	lbs/day	90	135	
Suspended Solids	mg/L	50	75	
	lbs/day	450	676	
Turbidity	NTU	50	75	

Based on a maximum flow of 1.08 MGD.

## C. Water Quality-Based Effluent Limitations (WQBELs)

## 1. Scope and Authority

As specified in 40 CFR section 122.44(d)(1)(i), permits are required to include WQBELs for pollutants (including toxicity) that are or may be discharged at levels that cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard. The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or water quality criteria contained in the CTR and NTR. The specific procedures for determining reasonable potential for discharges from the Facility, and if necessary for calculating WQBELs, are contained in the SIP.

## 2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

As noted in Section II of the Limitations and Discharge Requirements, the Regional Water Board adopted a Basin Plan that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. The beneficial uses applicable to Port Hueneme Harbor are summarized in Section III.C.1 of this Fact Sheet. The Basin Plan includes both narrative and numeric water quality objectives applicable to the receiving water.

Priority pollutant water quality criteria in the CTR are applicable to Port Hueneme Harbor. The CTR contains both saltwater and freshwater criteria. Because a distinct separation generally does not exist between freshwater and saltwater aquatic communities, the following apply, in accordance with section 131.38(c)(3), freshwater criteria apply at salinities of 1 part per thousand (ppt) and below at locations where this occurs 95 percent or more of the time. The Regional Water Board determined that because the discharge is within a coastal waterway, saltwater CTR criteria are applicable. The CTR criteria for saltwater or human health for consumption of organisms, whichever is more stringent, are used to prescribe the effluent limitations in this Order to protect the beneficial uses of the Port Hueneme Harbor, a water of the United States in the vicinity of the discharge.

A very limited number of priority pollutants (metals) were monitoring during two sampling events and no receiving water monitoring data were available, therefore adequate data were not available to evaluate reasonable potential.

## 3. Determining the Need for WQBELs

In accordance with Section 1.3 of the SIP, the Regional Water Board conducts a reasonable potential analysis (RPA) for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the permit. The Regional Water Board analyzes effluent and receiving water data and identifies the maximum observed effluent concentration (MEC) and maximum background concentration (B) in the receiving water for each constituent. To determine reasonable potential, the MEC and the B are then compared with the applicable water quality objectives (C) outlined in the CTR, NTR, as well as the Basin Plan. For all pollutants that have a reasonable potential to cause or contribute to an excursion above a state water quality standard, numeric WQBELs are required. The RPA considers water quality criteria from the CTR and NTR, and when applicable, water

quality objectives specified in the Basin Plan. To conduct the RPA, the Regional Water Board identifies the MEC and maximum background concentration in the receiving water for each constituent, based on data provided by the Discharger.

Section 1.3 of the SIP provides the procedures for determining reasonable potential to exceed applicable water quality criteria and objectives. The SIP specifies three triggers to complete a RPA:

- 1)  $\underline{\text{Trigger 1}}$  If the MEC  $\geq$  C, a limit is needed.
- 2) <u>Trigger 2</u> If the background concentration (B) > C and the pollutant is detected in the effluent, a limit is needed.
- 3) <u>Trigger 3</u> If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, etc. indicates that a WQBEL is required.

Sufficient effluent and receiving water data are needed to conduct a complete RPA. If data are not sufficient, the Discharger will be required to gather the appropriate data for the Regional Water Board to conduct the RPA. Upon review of the data, and if the Regional Water Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

Adequate priority pollutant monitoring data were not available; therefore the RPA was not performed for the priority pollutants regulated in the CTR. No new WQBELs were developed for the discharge from the facility.

#### 4. WQBEL Calculations

Not applicable to this permit.

## 5. WQBELs based on Basin Plan Objectives

The Basin Plan states that the discharge shall not cause the following in Port Hueneme Harbor in Ventura County Coastal Watershed:

- a. 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.
- b. The normal ambient pH to fall below 6.5 nor exceed 8.5 units.
- c. Exceed total ammonia (as N) concentrations specified in the Regional Water Board Basin Plan (1994), as amended by Resolution No. 2004-022, Amendment to the Water Quality Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters Not Characteristic of Freshwater (including enclosed bays, estuaries and wetlands) with the Beneficial Use designations for protection of "Aquatic Life".
- d. Depress the concentration of dissolved oxygen to fall below 5.0 mg/L anytime nor shall allow the mean annual concentration of dissolved oxygen to fall below 7 mg/L.

e. All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.

To meet the water quality objectives in the Basin Plan and to protect the beneficial uses of the receiving water, the above requirements are included as effluent limitations in the Order.

The Basin Plan lists temperature requirements for the receiving waters and references the Thermal Plan. Based on the requirements of the Thermal Plan and a white paper developed by Regional Water Board staff entitled Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region, a maximum effluent temperature limitation of 86 °F is included in the proposed permit. The white paper evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel. The new temperature effluent limitation is reflective of new information available that indicates that the 100 °F temperature is not protective of aquatic organisms. A survey was completed for several kinds of fish and the 86 °F temperature was found to be protective.

### 6. Final WQBELs

Summaries of the water quality effluent limitations are described in Table F-6.

Table F-6. Summary of Water Quality-based Effluent Limitations - Discharge Point 001

		Effluent Limitations				
Parameter	Units	Average Monthly	Mean Annual	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
рН	s.u.				6.5	8.5
Temperature	ºF			86	-	

- a. 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.
- b. A mean annual dissolved oxygen concentration of at least 7 mg/L, with no single determination of less than 5.0 mg/L.
- c. Exceed total ammonia (as N) concentrations specified in the Regional Water Board Basin Plan (1994), as amended by Resolution No. 2004-022, Amendment to the Water Quality Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters Not Characteristic of Freshwater (including enclosed bays, estuaries and wetlands) with the Beneficial Use designations for protection of "Aquatic Life".
- d. There shall be no acute or chronic toxicity in the discharge of low volume waste. The acute toxicity of the effluent shall be such that the average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least ninety percent (90%) and no single test producing less than 70% survival. Compliance with the toxicity objectives will be determined by the method described in MRP in Attachment E.

## 7. Whole Effluent Toxicity (WET)

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative "no toxics in toxic amounts" criterion while implementing numeric criteria for toxicity. There are two types of WET tests: acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth.

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental responses by aquatic organisms. Detrimental response includes but is not limited to decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota. The existing Order does not contain any acute toxicity limitations or monitoring requirements in accordance with the Basin Plan, in which the acute toxicity objective for discharges dictates that the average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test having less than 70% survival. Consistent with Basin Plan requirements, this Order requires over the acute toxicity monitoring requirements.

In addition to the Basin Plan requirements, Section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters.

Due to the nature of the discharge from Discharge Point 001, it is not expected to contribute to long-term toxic effects within the receiving water. Therefore, a chronic toxicity limitation is not necessary, but monitoring requirements been established to determine reasonable potential.

#### D. Final Effluent Limitations

Section 402(o) of the CWA and 40 section CFR 122.44(l) require that effluent limitations or conditions in reissued Orders be at least as stringent as those in the existing Orders based on the submitted sampling data. Effluent limitations for pH, fecal coliform, ammonia, dissolved oxygen, temperature, oil and grease,  $BOD_520^{\circ}C$ , and total suspended solids are being carried over from the previous Order (Order No. 01-076). Turbidity has been made more stringent based on BPJ. Removal of these numeric limitations would constitute backsliding under CWA Section 402(o). The Regional Water Board has determined that these numeric effluent limitations continue to be applicable to the Facility and that backsliding is not appropriate.

The existing Order, section I.B.4, contains effluent limitations for ammonia that appear to be based on the Basin Plan. The 1994 Basin Plan contained water quality objectives for ammonia, in Tables 3-1 through 3-4. However, those ammonia objectives were revised on March 4, 2004, by the Regional Water Board, with the adoption of Resolution No. 2004-022. The amendment revised the Basin Plan by updating the ammonia objectives for inland surface waters not characteristic of freshwater such that they are consistent with the USEPA "Ambient Water Quality Criteria for Ammonia (Saltwater)-1989." The amendment revised the regulatory provisions of the Basin Plan by adding language to Chapter 3, "Water Quality Objectives." The amendment also includes language for implementing the revised objectives in the Los Angeles Region.

The water quality objectives are for un-ionized ammonia; however, the amendment contains an implementation procedure to convert the un-ionized ammonia objectives to total ammonia effluent limitations. The formula provided in the amendment requires data input values that are not available for this permit renewal. The Discharger did not provide receiving water monitoring data; therefore, development of effluent limitations in accordance with the Basin Plan amendment provisions is not possible during this permit renewal. As a result, the Order carries forward the existing effluent limitations for ammonia and requires the Discharger to monitor the effluent and receiving water accordingly, to collect the necessary data to develop effluent limitations for ammonia during the next permit renewal.

### **Mass-based Effluent Limitations**

Mass-based effluent limitations are established using the following formula:

Mass (lbs/day) = flow rate (MGD)  $\times$  8.34  $\times$  effluent limitation (mg/L) where: Mass = mass limitation for a pollutant (lbs/day)

Effluent limitation = concentration limit for a pollutant (mg/L)

Flow rate = discharge flow rate (MGD)

Table F-7. Summary of Final Effluent Limitations - Discharge Point 001

	Effluent Limitations					
Parameter	Instantaneous Maximum	Instantaneous Minimum	30-day Average	Maximum Daily		
Biochemical Oxygen Demand (BOD <sub>5</sub> 20°C) (mg/L)			20	30		
BOD <sub>5</sub> 20°C (lbs/day)			180	270		
Oil and Grease (mg/L)			10	15		
Oil and Grease (lbs/day)			90	135		
pH (s.u.)	8.5	6.5	-			
Suspended Solids (mg/L)			50	75		
Suspended Solids (lbs/day)			450	676		
Temperature (ºF)		86				
Turbidity (NTU)			50	75		

<sup>1.</sup> Mass-based effluent limitations developing using a maximum 1.08 mgd flow.

- a. 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.
- b. A mean annual dissolved oxygen concentration of at least 7 mg/L, with no single determination of less than 5.0 mg/L.
- c. Exceed total ammonia (as N) concentrations specified in the Regional Water Board Basin Plan (1994), as amended by Resolution No. 2004-022, Amendment to the Water Quality Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters Not Characteristic of Freshwater (including enclosed bays, estuaries and wetlands) with the Beneficial Use designations for protection of "Aquatic Life".

## **E.** Interim Effluent Limitations

Not applicable to this permit.

## F. Land Discharge Specifications

Not applicable to this permit.

## G. Reclamation Specifications

Not applicable to this permit.

## V. RATIONALE FOR RECEIVING WATER LIMITATIONS

#### A. Surface Water

The Basin Plan contains numeric and narrative water quality objectives applicable to all surface waters within the Los Angeles Region. Water quality objectives include an objective to maintain the high quality waters pursuant to federal regulations (section 131.12) and State Water Board Resolution No. 68-16. Receiving water limitations in this Order are included to ensure protection of beneficial uses of the receiving water and are based on the water quality objectives contained in the Basin Plan.

#### B. Groundwater

Not applicable to this permit.

#### VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 requires all NPDES permits to specify recording and reporting of monitoring results. Sections 13267 and 13383 of the CWC authorize the Water Boards to require technical and monitoring reports. The MRP, Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

## A. Influent Monitoring

Not applicable to this permit.

## **B.** Effluent Monitoring

Monitoring for those pollutants expected to be present in the Monitoring Locations EFF-001 for Discharge Point 001 will be required as shown on the proposed MRP (Attachment E). To determine compliance with effluent limitations, the proposed monitoring plan carries forward monitoring requirements from previous Order 01-076 with some modifications.

In the proposed permit, weekly monitoring requirements for pH, temperature, and dissolved oxygen are carried over from the existing permit. Quarterly monitoring for suspended solids,  $BOD_520^{\circ}C$ , oil and grease, nitrite nitrogen, and settleable solids, turbidity, fecal coliform, ammonia, and nitrate nitrogen are carried over as well due to detections during the existing permit term. The weekly monitoring for flow has been changed to daily flow monitoring through the use of a flow meter. The existing permit requires annual monitoring for hexavalent chromium, arsenic, cadmium, copper, lead, zinc, silver, mercury, nickel, selenium and TCDD (dioxin), however, the frequency could be reduced if the pollutants were undetectable. The proposed permit does not allow this frequency reduction.

According to the SIP, the Discharger is required to monitor the effluent for the CTR priority pollutants, to determine reasonable potential; therefore, the Regional Water Board is requiring that the Discharger conduct annual effluent monitoring of the CTR priority pollutants, including the ones with annual monitoring requirements in the existing permit.

## C. Whole Effluent Toxicity Testing Requirements

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth. This Order includes monitoring requirements for acute and chronic toxicity which are included in the MRP (Attachment E) to determine compliance with the Basin Plan.

## D. Receiving Water Monitoring

## 1. Surface Water

According to the SIP, the Discharger is required to monitor the receiving water for the CTR priority pollutants, to determine reasonable potential. Accordingly, the Regional Water Board is requiring that the Discharger conduct receiving water monitoring of the CTR priority pollutants at Monitoring Location RSW-001. The Discharger is also required to monitor the receiving water for total ammonia, salinity, and temperature once per quarter, during the permit term, to provide sufficient data to develop effluent limitations for total ammonia in accordance with the Basin Plan amendment adopted March 4, 2004 (Resolution No. 2004-022).

The Facility is also required to perform general observations of the receiving water when discharges occur and report the observations in the monitoring report. Attention shall be given to the presence or absence of: floating or suspended matter, discoloration, aquatic life, visible film, sheen or coating, and fungi, slime, or objectionable growths.

#### 2. Groundwater

Not applicable to this permit.

## E. Other Monitoring Requirements

Monitoring and reporting of BMPP is required to ensure the plans are being implemented, monitored and revised as needed based on a regularly scheduled basis. Chemical use, storage and disposal monitoring and reporting is required to ensure the Regional Water Board is adequately notified of changes in chemical use and of potential sources of pollutants in wastewaters and storm water discharged from the site.

## **VII. RATIONALE FOR PROVISIONS**

#### A. Standard Provisions

## 1. Federal Standard Provisions

Standard Provisions, which in accordance with sections 122.41and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D to the Order.

## 2. Regional Water Board Standard Provisions

Regional Water Board Standard Provisions are based on the CWA, USEPA regulations, and the CWC.

## **B.** Special Provisions

## 1. Reopener Provisions

These provisions are based on Part 123 and the previous Order. The Regional Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new federal regulations, modification in toxicity requirements, or adoption of new regulations by the State Water Board or Regional Water Board, including revisions to the Basin Plan.

## 2. Special Studies and Additional Monitoring Requirements

**Toxicity Identification Evaluations or Toxicity Reduction Evaluations.** The provision for TIE/TRE is based on the SIP, Section 4, Toxicity Control Provisions, which establishes minimum toxicity control requirements for implementing the narrative toxicity objective for aquatic life protection established in the basin plans of the State of California.

## 3. Best Management Practices and Pollution Prevention

The objective of the Order is to protect the beneficial uses of receiving waters. To meet this objective, the tentative Order requires the Discharger to develop and implement a BMPP and address the wastewater discharges to the Port Hueneme Harbor.

The Discharger uses, stores, handles and disposes of materials, chemicals, and wastes at the facility, and conducts operational and maintenance activities to its facility and equipment that are potential or existing sources of pollutants in wastewater discharged from the facility. Therefore, this Order requires the discharger to develop and implement a BMPP that entails site-specific plans, procedures, and practices to minimize the amount of pollutants entering wastewater discharges from materials being stored and activities being conducted throughout the entire facility. To ensure the discharger considers and implements appropriate and effective BMPs, the discharger is required to consider implementing BMPs contained in the USEPA *Guidance Manual for Developing Best Management Practices (BMPs)* (EPA 833-B-93-004) or equivalent alternatives when developing its BMPP.

## 4. Compliance Schedules

Not applicable to this permit.

# 5. Construction, Operation, and Maintenance Specifications Not applicable to this permit.

## Special Provisions for Municipal Facilities (POTWs Only) Not applicable to this permit.

#### 7. Other Special Provisions

Not applicable to this permit.

#### **VIII. PUBLIC PARTICIPATION**

The Regional Water Board is considering the issuance of WDRs that will serve as a NPDES permit for the Port Hueneme Aquaculture Park. As a step in the WDR adoption process, the Regional Water Board staff has developed WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

## A. Notification of Interested Parties

The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through the following a local newspaper.

#### **B.** Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these WDRs. Comments should be submitted either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order.

To be fully responded to by staff and considered by the Regional Water Board, written comments should be received at the Regional Water Board offices by 5:00 p.m. on December 8, 2006. The comments should also be submitted in Word format to cowens@waterboards.ca.gov.

## C. Public Hearing

The Regional Water Board will hold a public hearing on the WDRs during its regular Board meeting on the following date and time and at the following location:

Date: January 11, 2007

Time: 9:00 A.M.

Location: Metropolitan Water District of Southern California

700 North Alameda Street

Los Angeles, CA

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our web address is <a href="http://www.waterboards.ca.gov/losangeles">http://www.waterboards.ca.gov/losangeles</a> where you can access the current agenda for changes in dates and locations.

## D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Water Board's action to the following address:

STELLAR BIOTECHNOLOGIES, INC. PORT HUENEME AQUACULTURE PARK ORDER NO. R4-2007-0005 NPDES NO. CA0064131

> State Water Resources Control Board Office of Chief Counsel P.O. Box 100, 1001 I Street Sacramento, CA 95812-0100

## E. Information and Copying

The Report of Waste Discharge (RWD), related documents, effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address below at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (213) 576-6600.

California Regional Water Quality Control Board Los Angeles Region 320 West 4<sup>th</sup> Street, Suite 200 Los Angeles, CA 90013

## F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference this facility, and provide a name, address, and phone number.

## **G.** Additional Information

Requests for additional information or questions regarding this order should be directed to Cassandra Owens at (213) 576-6750.

## ATTACHMENT G - STATE WATER BOARD MINIMUM LEVELS

## SWB Minimum Levels in ppb (µg/L)

The Minimum Levels (MLs) in this appendix are for use in reporting and compliance determination purposes in accordance with section 2.4 of the State Implementation Policy. These MLs were derived from data for priority pollutants provided by State certified analytical laboratories in 1997 and 1998. These MLs shall be used until new values are adopted by the SWRCB and become effective. The following tables (Tables 2a - 2d) present MLs for four major chemical groupings: volatile substances, semi-volatile substances, inorganics, and pesticides and PCBs.

Table 2a - VOLATILE SUBSTANCES*	GC	GCMS
1,1 Dichloroethane	0.5	1
1,1 Dichloroethylene	0.5	2
1,1,1 Trichloroethane	0.5	2
1,1,2 Trichloroethane	0.5	2
1,1,2,2 Tetrachloroethane	0.5	1
1,2 Dichlorobenzene (volatile)	0.5	2
1,2 Dichloroethane	0.5	2
1,2 Dichloropropane	0.5	1
1,3 Dichlorobenzene (volatile)	0.5	2
1,3 Dichloropropene (volatile)	0.5	2
1,4 Dichlorobenzene (volatile)	0.5	2
Acrolein	2.0	5
Acrylonitrile	2.0	2
Benzene	0.5	2
Bromoform	0.5	2
Methyl Bromide	1.0	2
Carbon Tetrachloride	0.5	2
Chlorobenzene	0.5	2
Chlorodibromo-methane	0.5	2
Chloroethane	0.5	2
Chloroform	0.5	2
Chloromethane	0.5	2
Dichlorobromo-methane	0.5	2
Dichloromethane	0.5	2
Ethylbenzene	0.5	2
Tetrachloroethylene	0.5	2
Toluene	0.5	2
Trans-1,2 Dichloroethylene	0.5	1
Trichloroethene	0.5	2
Vinyl Chloride	0.5	2

<sup>\*</sup>The normal method-specific factor for these substances is 1; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

Table 2b - SEMI-VOLATILE	GC	GCMS	LC	COLOR
SUBSTANCES*	10	<i>E</i>		
Benzo (a) Anthracene	10	5 2		
1,2 Dichlorobenzene (semivolatile)	2	1		
1,2 Diphenylhydrazine	4			
1,2,4 Trichlorobenzene	1	5		
1,3 Dichlorobenzene (semivolatile)	2	1		
1,4 Dichlorobenzene (semivolatile)	2	1		
2 Chlorophenol	2	5		
2,4 Dichlorophenol	1	5		
2,4 Dimethylphenol	1 1	2		
2,4 Dinitrophenol	5	5		
2,4 Dinitrotoluene	10	5		
2,4,6 Trichlorophenol	10	10		
2,6 Dinitrotoluene		5		
2- Nitrophenol		10		
2-Chloroethyl vinyl ether	1	1		
2-Chloronaphthalene		10		
3,3' Dichlorobenzidine		5		
Benzo (b) Fluoranthene		10	10	
3-Methyl-Chlorophenol	5	1		
4,6 Dinitro-2-methylphenol	10	5		
4- Nitrophenol	5	10		
4-Bromophenyl phenyl ether	10	5		
4-Chlorophenyl phenyl ether		5		
Acenaphthene	1	1	0.5	
Acenaphthylene		10	0.2	
Anthracene		10	2	
Benzidine		5		
Benzo(a) pyrene		10	2	
Benzo(g,h,i)perylene		5	0.1	
Benzo(k)fluoranthene		10	2	
bis 2-(1-Chloroethoxyl) methane		5		
bis(2-chloroethyl) ether	10	1		
bis(2-Chloroisopropyl) ether	10	2		
bis(2-Ethylhexyl) phthalate	10	5		
Butyl benzyl phthalate	10	10		
Chrysene		10	5	
di-n-Butyl phthalate		10		
di-n-Octyl phthalate		10		
Dibenzo(a,h)-anthracene		10	0.1	
Diethyl phthalate	10	2		
Dimethyl phthalate	10	2		
Fluoranthene	10	1	0.05	
Fluorene		10	0.1	

Table 2b - SEMI-VOLATILE SUBSTANCES*	GC	GCMS	LC	COLOR
Hexachloro-cyclopentadiene	5	5		
Hexachlorobenzene	5	1		
Hexachlorobutadiene	5	1		
Hexachloroethane	5	1		
Indeno(1,2,3,cd)-pyrene		10	0.05	
Isophorone	10	1		
N-Nitroso diphenyl amine	10	1		
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
Pentachlorophenol	1	5		
Phenanthrene		5	0.05	
Phenol **	1	1		50
Pyrene		10	0.05	

<sup>\*</sup> With the exception of phenol by colorimetric technique, the normal method-specific factor for these substances is 1,000; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 1,000.

\*\* Phenol by colorimetric technique has a factor of 1.

Table 2c –	FAA	GFAA	ICP	ICPMS	SPGFAA	HYDRIDE	CVAA	COLOR	DCP
INORGANICS*									
Antimony	10	5	50	0.5	5	0.5			1,000
Arsenic		2	10	2	2	1		20	1,000
Beryllium	20	0.5	2	0.5	1				1,000
Cadmium	10	0.5	10	0.25	0.5				1,000
Chromium	50	2	10	0.5	1				1,000
(total)									
Chromium VI	5							10	
Copper	25	5	10	0.5	2				1,000
Cyanide								5	
Lead	20	5	5	0.5	2				10,000
Mercury				0.5			0.2		
Nickel	50	5	20	1	5				1,000
Selenium		5	10	2	5	1			1,000
Silver	10	1	10	0.25	2				1,000
Thallium	10	2	10	1	5				1,000
Zinc	20		20	1	10				1,000

<sup>\*</sup> The normal method-specific factor for these substances is 1; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

Table 2d – PESTICIDES – PCBs*	GC
4,4'-DDD	0.05
4,4'-DDE	0.05
4,4'-DDT	0.01
a-Endosulfan	0.02
alpha-BHC	0.01
Aldrin	0.005
b-Endosulfan	0.01
Beta-BHC	0.005
Chlordane	0.1
Delta-BHC	0.005
Dieldrin	0.01
Endosulfan Sulfate	0.05
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
Gamma-BHC (Lindane)	0.02
PCB 1016	0.5
PCB 1221	0.5
PCB 1232	0.5
PCB 1242	0.5
PCB 1248	0.5
PCB 1254	0.5
PCB 1260	0.5
Toxaphene	0.5

<sup>\*</sup> The normal method-specific factor for these substances is 100; therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 100.

## **Techniques:**

GC - Gas Chromatography

GCMS - Gas Chromatography/Mass Spectrometry

HRGCMS - High Resolution Gas Chromatography/Mass Spectrometry (i.e., EPA 1613, 1624, or 1625)

LC - High Pressure Liquid Chromatography

FAA - Flame Atomic Absorption

GFAA - Graphite Furnace Atomic Absorption

HYDRIDE - Gaseous Hydride Atomic Absorption

CVAA - Cold Vapor Atomic Absorption

ICP - Inductively Coupled Plasma

ICPMS - Inductively Coupled Plasma/Mass Spectrometry

SPGFAA - Stabilized Platform Graphite Furnace Atomic Absorption (i.e., EPA 200.9)

DCP - Direct Current Plasma

**COLOR** - Colorimetric

# ATTACHMENT H – PRIORITY POLLUTANTS LIST

CTR	Parameter CAS		Suggested		
Number	Num		Analytical Methods		
			-		
1	Antimony	7440360	EPA 6020/200.8		
2	Arsenic	7440382	EPA 1632		
3	Beryllium	7440417	EPA 6020/200.8		
4	Cadmium	7440439	EPA 1638/200.8		
5a	Chromium (III)	16065831	EPA 6020/200.8		
5a	Chromium (VI)	18540299	EPA 7199/1636		
6	Copper	7440508	EPA 6020/200.8		
7	Lead	7439921	EPA 1638		
8	Mercury	7439976	EPA 1669/1631		
9	Nickel	7440020	EPA 6020/200.8		
10	Selenium	7782492	EPA 6020/200.8		
11	Silver	7440224	EPA 6020/200.8		
12	Thallium	7440280	EPA 6020/200.8		
13	Zinc	7440666	EPA 6020/200.8		
14	Cyanide	57125	EPA 9012A		
15	Asbestos	1332214	EPA/600/R-		
13			93/116(PCM)		
16	2,3,7,8-TCDD	1746016	EPA 8290 (HRGC)		
16			MS		
17	Acrolein	107028	EPA 8260B		
18	Acrylonitrile	107131	EPA 8260B		
19	Benzene	71432	EPA 8260B		
20	Bromoform	75252	EPA 8260B		
21	Carbon Tetrachloride	56235	EPA 8260B		
22	Chlorobenzene	108907	EPA 8260B		
23	Chlorodibromomethane	124481	EPA 8260B		
24	Chloroethane	75003	EPA 8260B		
25	2-Chloroethylvinyl Ether	110758	EPA 8260B		
26	Chloroform	67663	EPA 8260B		
27	Dichlorobromomethane	75274	EPA 8260B		
28	1,1-Dichloroethane	75343	EPA 8260B		
29	1,2-Dichloroethane	107062	EPA 8260B		
30	1,1-Dichloroethylene	75354	EPA 8260B		
31	1,2-Dichloropropane	78875	EPA 8260B		
32	1,3-Dichloropropylene	542756	EPA 8260B		
33	Ethylbenzene	100414	EPA 8260B		
34	Methyl Bromide	74839	EPA 8260B		
35	Methyl Chloride	74873	EPA 8260B		
36	Methylene Chloride	75092	EPA 8260B		
37	1,1,2,2-Tetrachloroethane	79345	EPA 8260B		
38	Tetrachloroethylene	127184	EPA 8260B		
39	Toluene	108883	EPA 8260B		
40	1,2-Trans-Dichloroethylene	156605	EPA 8260B		
41	1,1,1-Trichloroethane	71556	EPA 8260B		
42	1,12-Trichloroethane	79005	EPA 8260B		
43	Trichloroethylene	79016	EPA 8260B		
44	Vinyl Chloride	75014	EPA 8260B		
45	2-Chlorophenol	95578	EPA 8270C		

CTR	Parameter	CAS	Suggested	
Number		Number	<b>Analytical Methods</b>	
46	2,4-Dichlorophenol	120832	EPA 8270C	
47	2,4-Dimethylphenol	105679	EPA 8270C	
48	2-Methyl-4,6-Dinitrophenol	534521	EPA 8270C	
49	2,4-Dinitrophenol	51285	EPA 8270C	
50	2-Nitrophenol	88755	EPA 8270C	
51	4-Nitrophenol	100027	EPA 8270C	
52	3-Methyl-4-Chlorophenol	59507	EPA 8270C	
53	Pentachlorophenol	87865	EPA 8270C	
54	Phenol	108952	EPA 8270C	
55	2,4,6-Trichlorophenol	88062	EPA 8270C	
56	Acenaphthene	83329	EPA 8270C	
57	Acenaphthylene	208968	EPA 8270C	
58	Anthracene	120127	EPA 8270C	
59	Benzidine	92875	EPA 8270C	
60	Benzo(a)Anthracene	56553	EPA 8270C	
61	Benzo(a)Pyrene	50328	EPA 8270C	
62	Benzo(b)Fluoranthene	205992	EPA 8270C	
63	Benzo(ghi)Perylene	191242	EPA 8270C	
64	Benzo(k)Fluoranthene	207089	EPA 8270C	
65	Bis(2-Chloroethoxy)Methane	111911	EPA 8270C	
66	Bis(2-Chloroethyl)Ether	111444	EPA 8270C	
67	Bis(2-Chloroisopropyl)Ether	108601	EPA 8270C	
68	Bis(2-Ethylhexyl)Phthalate	117817	EPA 8270C	
69	4-Bromophenyl Phenyl Ether	101553	EPA 8270C	
70	Butylbenzyl Phthalate	85687	EPA 8270C	
71	2-Chloronaphthalene	91587	EPA 8270C	
72	4-Chlorophenyl Phenyl Ether	7005723	EPA 8270C	
73	Chrysene	218019	EPA 8270C	
74	Dibenzo(a,h)Anthracene	53703	EPA 8270C	
75	1,2-Dichlorobenzene	95501	EPA 8260B	
76	1,3-Dichlorobenzene	541731	EPA 8260B	
77	1,4-Dichlorobenzene	106467	EPA 8260B	
78	3,3'-Dichlorobenzidine	91941	EPA 8270C	
79	Diethyl Phthalate	84662	EPA 8270C	
80	Dimethyl Phthalate	131113	EPA 8270C	
81	Di-n-Butyl Phthalate	84742	EPA 8270C	
82	2,4-Dinitrotoluene	121142	EPA 8270C	
83	2,6-Dinitrotoluene	606202	EPA 8270C	
84	Di-n-Octyl Phthalate	117840	EPA 8270C	
85	1,2-Diphenylhydrazine	122667	EPA 8270C	
86	Fluoranthene	206440	EPA 8270C	
87	Fluorene	86737	EPA 8270C	
88	Hexachlorobenzene	118741	EPA 8260B	
89	Hexachlorobutadiene	87863	EPA 8260B	
90	Hexachlorocyclopentadiene	77474	EPA 8270C	
91	Hexachloroethane	67721	EPA 8260B	
92	Indeno(1,2,3-cd)Pyrene	193395	EPA 8270C	
93	Isophorone	78591	EPA 8270C	
94	Naphthalene	91203	EPA 8260B	
95	Nitrobenzene	98953	EPA 8270C	
96	N-Nitrosodimethylamine	62759	EPA 8270C	
97	N-Nitrosodi-n-Propylamine	621647	EPA 8270C	
98	N-Nitrosodiphenylamine	86306	EPA 8270C	

CTR	Parameter	CAS	Suggested
Number	DI II	Number	Analytical Methods
99	Phenanthrene	85018	EPA 8270C
100	Pyrene	129000	EPA 8270C
101	1,2,4-Trichlorobenzene	120821	EPA 8260B
102	Aldrin	309002	EPA 8081A
103	alpha-BHC	319846	EPA 8081A
104	beta-BHC	319857	EPA 8081A
105	gamma-BHC	58899	EPA 8081A
106	delta-BHC	319868	EPA 8081A
107	Chlordane	57749	EPA 8081A
108	4,4'-DDT	50293	EPA 8081A
109	4,4'-DDE	72559	EPA 8081A
110	4,4'-DDD	72548	EPA 8081A
111	Dieldrin	60571	EPA 8081A
112	alpha-Endosulfan	959988	EPA 8081A
113	beta-Endosulfan	33213659	EPA 8081A
114	Endosulfan Sulfate	1031078	EPA 8081A
115	Endrin	72208	EPA 8081A
116	Endrin Aldehyde	7421934	EPA 8081A
117	Heptachlor	76448	EPA 8081A
118	Heptachlor Epoxide	1024573	EPA 8081A
119	PCB-1016	12674112	EPA 8082
120	PCB-1221	11104282	EPA 8082
121	PCB-1232	11141165	EPA 8082
122	PCB-1242	53469219	EPA 8082
123	PCB-1248	12672296	EPA 8082
124	PCB-1254	11097691	EPA 8082
125	PCB-1260	11096825	EPA 8082
126	Toxaphene	8001352	EPA 8081A