

State Water Resources Control Board



Linda S. Adams
Secretary for
Environmental Protection

Executive Office

Arnold Schwarzenegger
Governor

Tam M. Doduc, Board Chair
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February 4, 2009

Mr. Douglas Eberhardt
U.S. Environmental Protection Agency
Region 9
75 Hawthorne Street
San Francisco, CA 94105-3901

Dear Mr. Eberhardt:

MODIFICATION TO CALIFORNIA'S WATER QUALITY CERTIFICATION FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY'S VESSEL GENERAL PERMIT

The State Water Resources Control Board (State Water Board) is in receipt of the United States Environmental Protection Agency's (USEPA) response to our request to modify our December 17, 2008 Water Quality Certification (Certification) of USEPA's draft Vessel General Permit (VGP). The State Water Board disagrees with USEPA's conclusions, and notes that the State Water Board's Certification was expressly conditioned on the ability to modify the Certification and that USEPA accepted this provision and attached it to the VGP, unmodified. Even with USEPA's refusal to incorporate revised conditions of certification, the modified Certification is an enforceable order within California waters pursuant to the California Water Code.

However, to provide immediate regulatory certainty, to avoid potentially conflicting state and federal law requirements for the regulated community, and to avoid a protracted debate on the authority to modify conditions of Certification, the State Water Board is providing the attached redline version of the December 17, 2008 Certification. The redlined provisions are those provisions which the State Water Board is requesting that USEPA delete from California's Certification and are deemed invalid. Further, for clarity sake, the February 3, 2008 modified Certification is hereby rescinded.

This action is not to be construed as an agreement with USEPA's actions or the legality of its position in this matter. USEPA lacks the authority to issue a National Pollutant Discharge Elimination System Permit for discharges into California waters and the State Water Board reserves its rights to pursue appropriate challenges.

If you have any questions regarding this letter or its enclosures, please contact Darrin Polhemus, Deputy Director of the Division of Water Quality, at (916) 341-5458 or dpolhemus@waterboards.ca.gov.

Sincerely,

Dorothy Rice
Executive Director

Enclosures

California Environmental Protection Agency



Linda S. Adams
Secretary for
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ENCLOSURE 1

**ORDER FOR CLEAN WATER ACT SECTION 401
WATER QUALITY CERTIFICATION (CERTIFICATION)
FOR UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
VESSEL GENERAL PERMIT**

Project: Vessel General Permit (VGP) (Project)

Applicant: Douglas Eberhardt (Agent)
United States Environmental Protection Agency (USEPA)-Region 9 (applicant)
75 Hawthorne Street
San Francisco, CA 94105-3901

This Order responds to your request, received on June 27, 2008, on behalf of USEPA for a water quality certification for the subject project.

ACTION

	Order for Standard Certification	Order for Denial of Certification
X	Order for Technically Conditioned Certification	Order for Waiver of Waste Discharge Requirements

AUTHORIZATION:

This Certification conditionally certifies the VGP, based on the proposed VGP issued by USEPA on December 18, 2008 in Federal Register Volume 73, Number 249 that regulates the discharge of 26 vessel discharge streams by establishing effluent limitations including Best Management Practices (BMPs).

Table 1: Vessel Waste Discharges Eligible for Coverage Under the VGP

No.	Discharge	No.	Discharge
1	Deck Runoff and Above Water Line Hull Cleaning	15	Graywater
2	Bilgewater/Oily Water Separator Effluent	16	Motor Gasoline and Compensating Discharge
3	Ballast Water	17	Non-Oily Machinery Wastewater
4	Anti-Fouling Leachate From Anti-Fouling Hull Coatings/Hull Coating Leachate	18	Refrigeration and Air Condensate Discharge
5	Aqueous Film Forming Foam (AFFF)		
6	Boiler/Economizer Blowdown	19	Seawater Cooling Overboard Discharge
7	Cathodic Protection	20	Seawater Piping Biofouling Prevention
8	Chain Locker Effluent	21	Boat Engine Wet Exhaust
9	Controllable Pitch Propeller and Thruster Hydraulic Fluid and other Oil Sea Interfaces	22	Sonar Dome Discharge
10	Distillation and Reverse Osmosis Brine		
11	Elevator Pit Effluent	23	Underwater Ship Husbandry
12	Firemain Systems	24	Welldeck Discharges
13	Freshwater Layup	25	Graywater Mixed With Sewage
14	Gas Turbine Wash Water	26	Exhaust Gas Scrubber Washwater Discharge

For each discharge type, the permit establishes effluent limitations pertaining to the constituents found in the effluent. The permit also establishes BMPs designed to decrease the volume of constituents entering the waste stream. Even though a vessel may not produce all of these discharges, a vessel owner or operator is responsible for meeting the applicable effluent limitations and conditions for every listed waste type that the vessel discharges. The VGP includes effluent limitations to control a variety of pollutants, which have been classified into seven types:

Table 2: Types of Pollutants Regulated by the VGP

Pollutant Groups	Examples
Aquatic Nuisance Species (a.k.a., aquatic invasive species, or nonindigenous aquatic species)	Non-native Jellyfish, Zebra Mussels, Asian Clams, etc.
Most Conventional Pollutants	Biochemical Oxygen Demand, Oil and Grease, pH, Total Suspended Solids, etc.
Metals	Iron, Nickel, Zinc, Copper, Bronze, Silver, etc.
Nutrients	Phosphorous and Nitrogen
Pathogens	E. Coli and Fecal Coliform
Other Toxic Pollutants	Anti-foulants, rust inhibitors, epoxy coating materials, etc.
Non-Conventional Pollutants with Toxic Effects	Phthalates, Phenol, Tetrachloroethylene, Chlorine Residual, Chlorides, etc.

The VGP contains effluent limitations to control these pollutants which are potentially constituents of industrial waste, chemical waste, or garbage discharged from vessels.

The VGP also establishes technology-based requirements for certain discharges from eight specific classes of vessels, such as cruise ships, research vessels, and large ferries. Further, it provides water quality-based effluent limitations that incorporate requirements for impaired water bodies. Under the VGP, certain discharge types would be limited or prohibited in waters protected for conservation purposes (for example, national marine sanctuaries and national parks). The VGP also establishes specific corrective actions as well as inspections, monitoring record keeping, and reporting requirements. The VGP will cover vessel discharges into waters of the U.S. in all states and territories.

The VGP also requires submission of a Notice of Intent (NOI) for vessels that are 300 tons or greater or have a ballast water capacity of at least eight cubic meters. All other vessels covered by the VGP would not have to submit an NOI.

Based on a review of the project information submitted to date, State Water Resources Control Board (State Water Board) staff determined that this project is categorically exempt from California Environmental Quality Act review (California Code of Regulations, Title 14, section 15308 - Actions Taken by Regulatory Agencies for Protection of the Environment) and anticipated filing a Notice of Exemption for this project.

To comply with the public notice requirements of section 3858, Title 23, of the California Code of Regulations (CCR Title 23), which governs the State's Certification Program, a Public Notice of Application for Water Quality Certification for the subject project was posted on the State Water Board's Web site on August 27, 2008.

STANDARD CONDITIONS:

1. This Certification is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the California Water Code and Article 6 (commencing with section 3867) of Chapter 28, CCR Title 23.
2. This Certification is not intended and shall not be construed to apply to any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to subsection 3855(b) of Chapter 28, CCR Title 23, and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. This Certification is conditioned upon total payment of any fee required under Chapter 28, CCR Title 23 and owed by the applicant.

ADDITIONAL CONDITIONS:

1. ~~The VGP is only applicable to discharges incidental to the normal operation of non-military vessels engaged in transportation. Vessels in the U.S. Department of Transportation's Maritime Administration fleet, including but not limited to those located in Suisun Bay, do not qualify and must not be covered by the VGP. All vessels authorized under this permit that are less than 300 gross tons or have a capacity of less than eight cubic meters of ballast water that enter California waters must also submit an NOI to USEPA. USEPA must provide the State Water Board access to its database to get information on vessels that have submitted NOIs. DELETED~~
2. ~~All discharges are prohibited in State Water Quality Protection Areas as defined in the Public Resources Code (PRC) and the California Ocean Plan (Ocean Plan). DELETED~~
3. Vessel discharges must be in accordance with the requirements of PRC section 72400 et seq. None of the 268 discharges covered by the VGP may contain hazardous waste as defined under California law, as well as hazardous substances listed in Attachment 2 of this document. The following other wastes are prohibited from discharge: sewage sludge, used or spent oil, garbage or trash (including plastic), photo-developing wastes, dry cleaning wastes, noxious liquid substance residues, and medical wastes. The vessel owner or operator must submit a certification stating that hazardous wastes as defined under California law, and prohibited wastes, will not be discharged.
4. Vessel discharges must comply with California State Lands Commission (SLC) requirements for ballast water discharges and hull fouling to control and prevent the introduction of nonindigenous species, found in PRC section 71200 et seq. and in the CCR sections 2270 through 2291, inclusive (See Attachment 3 of this document).
5. ~~If the ballast water receives chlorination treatment, the discharge must not exceed a maximum level of 8 micrograms per liter of total residual chlorine. DELETED~~
6. Propeller cleaning is allowed until January 1, 2012, after which, propeller cleaning is allowed as specified in regulations adopted by SLC. All other in-water hull cleaning is prohibited unless conducted using the best available technologies economically feasible, as determined by both SLC and the State Water Board. This prohibition includes underwater ship husbandry discharges (Discharge #25).
7. ~~Vessel discharges must comply with all statewide and regional water quality control plans (Basin Plans). Attachment 4 lists the narrative water quality objectives that must be met in the receiving water. Attachment 5 lists the numeric effluent limitations that must be met in the effluent discharged into the receiving water depending on the type of water body into which the discharge occurs. DELETED~~

- ~~8. Cruise ship graywater discharges are prohibited in State waters.⁴ Graywater discharges from oceangoing vessels that weigh 300 gross tons or more are also prohibited if such vessels have sufficient holding capacity. All other oceangoing vessels (those that weigh 300 gross tons or more and do not have sufficient holding capacity and those that weigh less than 300 gross tons) must not exceed the effluent limitations in Attachment 5 when discharging graywater. DELETED~~
- ~~9. Any co-mingling of black water (sewage) and graywater waste streams will be considered graywater for purposes of these conditions, and must comply with Additional Condition 8 above. DELETED~~
- ~~10. Dye tabs shall be placed in graywater systems when ships are in port. DELETED~~
11. There must be no oily sheen from any discharge, and oil and grease must not exceed 15 milligrams per liter (mg/L) from any discharge.
12. Detergents must not be used to disperse hydrocarbon sheens in any waste streams. To ensure this practice is implemented for all state waters, and additionally to protect drinking water sources in the Sacramento and San Joaquin Delta, methylene blue active substances (MBAS) should not exceed 0.5 mg/L in all waterbodies.
- ~~13. Effluent monitoring must be performed on all waste streams discharged into State waters to determine waste stream quantity and quality. In the case of discharges that do not lend themselves to effluent sampling, such as antifouling hull coating leachate (Discharge #4), cathodic protection (Discharge #7), and sonar dome (Discharge #23), reporting according to Attachment 6, Additional Monitoring and Reporting Requirements, will suffice. For effluent that results from in-water maintenance near or below the water line, such as propeller hydraulic fluid (Discharge #9), rudder bearing lubrication (Discharge #19), and stern tube discharge (Discharge #24), receiving water sampling and analysis must be performed according to Attachment 6. DELETED~~
- ~~14. In addition to the other monitoring requirements, the volume of each discharge into State waters must be measured or estimated, and the constituents in Attachment 5 must be monitored according to the table in Attachment 6 when any discharge into State waters occurs. For discharges to enclosed bays, estuaries, and freshwater streams (defined in Attachment 5), except for polynuclear aromatic hydrocarbons (PAHs) and solvents (benzene, toluene, ethylbenzene, and xylene), the vessel owner or operator may submit to USEPA and the State Water Board a certification stating that the discharge does not contain specific volatile and semi-volatile organic constituents in lieu of monitoring for those constituents. For samples collected when a discharge occurs while a vessel is underway in State waters, the sample may be held until the vessel arrives at its next port at which time the sample shall be analyzed and the appropriate reports submitted to USEPA and the State Water Board or SLC as shown in Additional Condition 16 below. When in a California~~

⁴ "State waters" extend three nautical miles into the Pacific Ocean. State water quality authority applies to any discharges or threats of discharges into such waters or outside the boundaries of the state that could affect the quality of state waters. (Cal. Const., art. III, § 2; Gov. Code, § 160 et seq.; Wat. Code, § 13260, subd. (a)(2).)

~~port or ocean terminal, samples must be analyzed by, or sent for analysis to, a certified laboratory as soon as possible. DELETED~~

~~15. When the manifest for vessel cargo indicates the presence of any hazardous substances as set forth in Title 22, Chapter 11, Appendix X of the California Code of Regulations, the discharges must also be monitored for those specific substances (see Attachment 2). DELETED~~

16. All monitoring and reporting information shall be submitted to USEPA. Vessels entering the State of California shall also submit reports using the following forms:

~~• 7.1 – State Water Board Discharge Type Reporting Form DELETED~~

~~• 7.2 – State Water Board Constituent Type Reporting Form DELETED~~
Submit annually or whenever a report is submitted to USEPA.

Attention: NPDES Unit
Division of Water Quality
State Water Resources Control Board
1001 "I" Street, 15th Floor
Sacramento, CA 95814

• 7.3 – SLC Marine Invasive Species Program Hull Husbandry Reporting Form
Submit annually within 60 days of receiving a written or electronic request from the California State Lands Commission.

• 7.4 – SLC Ballast Water Reporting Form
Upon departure from each port or place in California waters.

California State Lands Commission
Marine Facilities Division
200 Oceangate, Suite 900
Long Beach, CA 90802

17. This Certification includes Attachments 1-7. Following is a description of these attachments:

- Attachment 1 – Signatory Requirements;
- Attachment 2 – List of Chemical Names and Common Names for Hazardous Wastes and Hazardous Materials, Title 22, Chapter 11, Appendix X, California Code of Regulations
- Attachment 3 – California State Lands Commission's Ballast Water Performance Standards; and
- ~~• Attachment 4 – Narrative Discharge Objectives in the California Ocean Plan and Basin Plans; DELETED~~
- ~~• Attachment 5 – Numeric Effluent Limitations; DELETED~~
- ~~• Attachment 6 – Sampling and Monitoring Requirements; and DELETED~~
- Attachment 7 – Vessel Discharge Reporting Forms.

ADMINISTRATIVE CONDITIONS:

1. This Certification shall expire five (5) years from the date of issuance.
2. The State Water Board reserves the right to suspend, cancel, or modify and reissue this Certification, after providing notice to USEPA, if the State Water Board determines that the project fails to comply with any of the terms or conditions of this Certification.
3. This Water Quality Certification is subject to the acquisition of all local, regional, state, and federal permits and approvals as required by law. Failure to meet any conditions contained herein or any the conditions contained in any other permit or approval issued by the State of California or any subdivision thereof may result in the revocation of this Certification.
4. USEPA shall notify the State Water Board within 24 hours of any noncompliance that may impact the beneficial uses of waters of the State. The notification shall include the volume and type of materials discharged and recovered, measures used to stop and contain the discharge, and measures implemented to prevent future discharges.
5. In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation must be subject to any remedies, penalties, processes, or sanctions as provided for under State law.

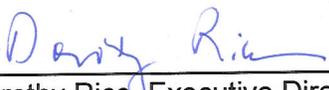
STATE WATER BOARD CONTACT PERSON:

If you have any questions or comments, please contact Darrin Polhemus, Deputy Director of our Division of Water Quality, at (916) 341-5458 (dpolhemus@waterboards.ca.gov) or Dominic Gregorio, Chief of our Ocean Unit, at (916) 341-5488 (dgregorio@waterboards.ca.gov).

WATER QUALITY CERTIFICATION:

I hereby issue an order certifying that discharges as described in the VGP comply with the applicable provisions of Clean Water Act sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards) if all of the conditions listed in this Certification are met. These discharges are also regulated pursuant to State Water Board Water Quality Order No. 2003-0017-DWQ, which authorizes this Certification to serve as Waste Discharge Requirements pursuant to the California Water Code section 13000 et seq.

Except insofar as may be modified by any preceding conditions, all Certification actions are contingent on (a) the discharge being limited and all proposed mitigation being completed in strict compliance with the VGP, and (b) compliance with all applicable requirements of Statewide Water Quality Control Plans and the Regional Water Quality Control Board Water Quality Control Plans.



Dorothy Rice, Executive Director
State Water Resources Control Board



Date

Attachment 1

Signatory Requirements

*All Documents Submitted In Compliance With This Order
Shall Meet The Following Signatory Requirements:*

1. All applications, reports, or information submitted to the State Water Resources Control Board (State Water Board) must be signed and certified as follows:
 - (a) For a corporation, by a responsible corporate officer of at least the level of vice-president.
 - (b) For a partnership or sole proprietorship, by a general partner or proprietor, respectively.
 - (c) For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.

2. Alternatively, for a vessel operating in waters of the State, all applications, reports, or information submitted to the State Water Board may be signed and certified by a duly authorized representative of a person designated in Items 1.a through 1.c, such as the master, operator, agent, or other person in charge if:
 - (a) The authorization is made in writing by a person described in Items 1.a through 1.c above.
 - (b) The authorization specifies either an individual or position having responsibility for the overall operation of the regulated activity.
 - (c) The written authorization is submitted to the State Water Board's Executive Director:

Attention: NPDES Unit
Division of Water Quality
State Water Resources Control Board
1001 "I" Street, 15th Floor
Sacramento, CA 95814

3. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Attachment 2

List of Chemical Names and Common Names for Hazardous Wastes and Hazardous Materials

Title 22, Chapter 11, Appendix X, California Code of Regulations

(a) This Attachment sets forth a list of chemicals which create a presumption that a waste is a hazardous waste. If a waste consists of or contains a chemical listed in this Attachment, the waste is presumed to be a hazardous waste unless it is determined that the waste is not a hazardous waste pursuant to the procedures set forth in section 66262.11 of Title 22 of the California Code of Regulations (CCR Title 22). The hazardous characteristics which serve as a basis for listing the chemicals are indicated in the list as follows: (X) toxic, (C) corrosive, (I) ignitable, and (R) reactive. A chemical denoted with an asterisk (*) is presumed to be an extremely hazardous waste unless it does not exhibit any of the criteria set forth in section 66261.110 and section 66261.113 of CCR Title 22. Trademark chemical names are indicated by all capital letters. The list can be found at: <http://www.dtsc.ca.gov/LawsRegsPolicies/Title22/>.

(b) This Attachment sets forth a list of common names of wastes which are presumed to be hazardous wastes unless it is determined that the waste is not a hazardous waste pursuant to the procedures set forth in section 66262.11 of CCR Title 22. The hazardous characteristics which serve as a basis for listing the common names of wastes are indicated in the list as follows: (X) toxic, (C) corrosive, (I) ignitable, and (R) reactive.

Acetylene sludge (C)	Drilling mud (X)
Acid and water (C)	Dyes (X)
Acid sludge (C)	Etching acid liquid or solvent (C,I)
AFU Floc (X)	Fly ash (X,C)
Alkaline caustic liquids (C)	Fuel waste (X,I)
Alkaline cleaner (C)	Insecticides (X)
Alkaline corrosive battery fluid (C)	Laboratory waste (X,C,R,I)
Alkaline corrosive liquids (C)	Lime and sulfur sludge (C)
Asbestos waste (X)	Lime and water (C)
Ashes (X,C)	Lime sludge (C)
Bag house wastes (X)	Lime wastewater (C)
Battery acid (C)	Liquid cement (I)
Beryllium waste (X)	Mine tailings (X,R)
Bilge water (X)	Obsolete explosives (R)
Boiler cleaning waste (X,C)	Oil and water (X)
Bunker Oil (X,I)	Oil Ash (X,C)
Catalyst (X,I,C)	Paint (or varnish) remover or stripper (I)
Caustic sludge (C)	Paint thinner (X,I)
Caustic wastewater (C)	Paint waste (or slops) (X,I)
Cleaning solvents (I)	Pickling liquor (C)
Corrosion inhibitor (X,C)	Pigments (X)

Attachment 2
List of Hazardous Materials
Title 22, Chapter 11, Appendix X, California Code of Regulations

Data processing fluid (I)	Stripping solution (X,I)
Drilling fluids (X,C)	Sulfonation oil (I)
Retrograde explosives (R)	Tank bottom sediment (X)
Sludge acid (C)	Plating waste (X,C)
Soda ash (C)	Printing Ink (X)
Solvents (I)	Tanning sludges (X)
Spent acid (C)	Toxic chemical toilet wastes (X)
Spent caustic (C)	Unrinsed pesticide containers (X)
Spent (or waste) cyanide solutions (X,C)	Unwanted or waste pesticides --an unusable portion of active ingredient or undiluted formulation (X)
Spent mixed acid (C)	Waste epoxides (X,I)
Spent plating solution (X,C)	Waste (or slop) oil (X)
Spent sulfuric acid (C)	Weed Killer (X)

(c) This Attachment sets forth a list of electronic wastes that are presumed to be hazardous wastes unless it is determined that the electronic waste is not a hazardous waste pursuant to the procedures set forth in section 66262.11 of CCR Title 22. The hazardous characteristics that serve as a basis for listing the common names of electronic wastes are indicated in the list as follows: (X) toxic, (C) corrosive, (I) ignitable, and (R) reactive. For purposes of Health and Safety Code section 25214.10.1, devices marked with a pound symbol (#) were listed herein on or before July 1, 2004. Notwithstanding section 66260.202 of CCR Title 22, subsections (a) and (b), the prohibition described in subsection (a) of section 66260.202 shall not be applied to devices in this list marked with a delta symbol (Δ) until July 1 of the year subsequent to the year in which the devices were added to the list, as specified in parentheses below, and then it shall apply only to those devices that are manufactured on or after that July 1 date:

- # Cathode ray tube containing devices (CRT devices) with CRTs greater than four inches measured diagonally (X)
- # Cathode ray tubes (CRTs) greater than four inches measured diagonally (X);
- # Computer monitors containing cathode ray tubes greater than four inches measured diagonally (X)
- # Laptop computers with liquid crystal display (LCD) screens greater than four inches measured diagonally (X)
- # LCD containing desktop monitors greater than four inches measured diagonally (X)
- # Televisions containing cathode ray tubes greater than four inches measured diagonally (X)
- Televisions containing liquid crystal display (LCD) screens greater than four inches measured diagonally (X) (added December 2004)
- Plasma televisions with screens greater than four inches measured diagonally (X) (added December 2004)
- Δ Portable DVD players with liquid crystal display (LCD) screens greater than four inches measured diagonally (X) (added December 2006)

Attachment 3

California State Lands Commission's Ballast Water Performance Standards

Organism Size Class	Performance Standards ^[1,2]
Organisms greater than 50 µm^[3] in minimum dimension	No detectable living organisms
Organisms 10 – 50 µm in minimum dimension	< 0.01 living organisms per ml ^[4]
Living organisms less than 10 µm^[3] in minimum dimension	< 10 ³ bacteria/100 ml < 10 ⁴ viruses/100 ml
<i>Escherichia coli</i>	< 126 CFU ^[5] /100 ml
Intestinal enterococci	< 33 CFU/100 ml
Toxicogenic <i>Vibrio cholerae</i> (01 & 0139)	< 1 CFU/100 ml or < 1 CFU/gram wet weight zoological samples

^[1] See Implementation Schedule below for dates by which vessels must meet California Interim Performance Standards.

^[2] The final discharge standard for California, beginning January 1, 2020, is zero detectable living organisms for all organism size classes.

^[3] Micrometer

^[4] Milliliter

^[5] Colony-forming unit

Performance Standards Implementation Schedule

Ballast Water Capacity of Vessel	Standards apply to new vessels in this size class constructed on or after	Standards apply to all other vessels in this size class beginning in
< 1500 metric tons	2010	2016
1500 – 5000 metric tons	2010	2014
> 5000 metric tons	2012	2016

Attachment 4

Narrative Discharge Objectives in the California Ocean Plan and Basin Plans

- ~~1. The discharge shall be free of floating materials that would be visible in the receiving water.~~
- ~~2. The discharge must not cause oil and grease to be visible in the receiving water (no visible sheen).~~
- ~~3. The discharge must not cause aesthetically undesirable discoloration of the surface of the receiving water.~~
- ~~4. Natural light shall not be significantly reduced in the receiving water as the result of the discharge.~~
- ~~5. The discharge must not contain inert solids and other settleable materials or organic substances that will degrade benthic communities.~~
- ~~6. The discharge must not contain toxic substances in toxic concentrations, and substances that could accumulate to toxic levels in the receiving water or sediments.~~
- ~~7. The discharge must not contain substances that bioaccumulate, in fish, shellfish, or other marine/aquatic life used for human consumption, to levels that are harmful to human health.~~
- ~~8. The discharge must not contain substances that alter the taste, odor, or color of fish, shellfish, or other marine/aquatic life used for human consumption.~~
- ~~9. The discharge must not contain radioactive wastes or byproducts.~~
- ~~10. The discharge must not contain nutrient concentrations that would cause objectionable aquatic growths or degrade indigenous biota in the receiving water.~~
- ~~11. The discharge must not cause dissolved oxygen concentrations in the receiving water to be depressed more than 10 percent from that which occurs naturally, as the result of the discharge of oxygen demanding wastes.~~
- ~~12. The discharge must not cause pH in the ocean receiving water to be changed more than 0.2 unit from that which occurs naturally.~~
- ~~13. The discharge must not cause pH in freshwater receiving water (Sacramento and San Joaquin Rivers) to be changed more than 0.5 unit from that which occurs naturally.~~
- ~~14. The discharge must not cause dissolved sulfide concentrations in the receiving water to be increased above that present under natural conditions.~~

Attachment 5

Numeric Effluent Limitations

Because of the episodic nature of ballast water and all other 27 vessel discharges, many of the limitations in the following tables are based on the Ocean Plan instantaneous maximums, daily maximums, or 30-day averages, and the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California relevant to specific constituents implementing the California Toxics Rule (Code of Federal Regulations [CFR], Title 40, § 131.38) and Basin Plan objectives. The instantaneous maximums limitations will apply only if monitoring is conducted on a continuous basis. The daily maximums and 30-day averages in the Ocean Plan will apply as daily maximum limits when monitoring is based on single grab samples. The oil and grease limit is the same for the United States Coast Guard and International Convention for the Prevention of Pollution from Ships (better known as MARPOL). The tables below are separated for discharges to: (1) all water bodies, (2) the ocean, and (3) for discharges to all inland waters including enclosed bays, estuaries, and freshwater streams. Enclosed bays include San Francisco Bay, Los Angeles/Long Beach Harbors, Mission Bay, and San Diego Bay. Estuaries include the Sacramento and San Joaquin River Delta, Suisun Bay, and Carquinez Strait down to Carquinez Bridge. Freshwater streams include the San Joaquin and Sacramento Rivers.

Water Quality-Based Effluent Limitations, All Water Bodies

CHEMICAL CONSTITUENTS					
Constituent	Units	Basis	Limit (Daily Maximum)	Limit (Single Sample)	Analytical Method⁴
Oil and Grease	mg/l	Best Professional Judgment (BPJ)	15	15	USEPA 1664
TOXICITY CONSTITUENTS					
Acute toxicity	TUa	Aquatic Life	0.3	0.3	See tables in Attachment 6
Chronic toxicity	TUc	Aquatic Life	1.0	1.0	See tables in Attachment 6

INDICATOR BACTERIA CONSTITUENTS					
Constituent	Units	Basis	Limit (30-day Geo-Mean)	Limit (Single Sample)	Analytical Method⁴
Total Coliform Bacteria	MPN or CFU	Water Contact Recreation	1,000/100ml	10,000/100ml	40 CFR 136 Table 1A
Fecal Coliform Bacteria ⁴	MPN or	Water Contact Recreation	200/100ml	400/100ml	40 CFR 136 Table 1A

Attachment 5
Numeric Effluent Limitations

INDICATOR BACTERIA CONSTITUENTS					
Constituent	Units	Basis	Limit (30-day Geo-Mean)	Limit (Single Sample)	Analytical Method¹
	CFU				
<i>E. coli</i> in ballast water after January 1, 2010 ²	MPN or CFU	SLC nonindigenous species	—	126/100ml	40 CFR 136 Table 1A (EPA Method 1603) or Standard Method 9222.G (1998, 20 th Ed.)
Enterococcus Bacteria	MPN or CFU	Water Contact Recreation	35/100ml	104/100ml	40 CFR 136 Table 1A
Enterococcus Bacteria in ballast water after Jan. 1, 2010 ²	MPN or CFU	SLC nonindigenous species	—	33/100ml	40 CFR 136 Table 1A (EPA Method 1600) or Standard Method 9230.G (1998, 20 th Ed.)

1. *E. coli* may be substituted for Fecal Coliform.

2. Applies only to new vessels capable of carrying less than 5000 MT of ballast water beginning on January 1, 2010, and new vessels capable of carrying more than 5000 MT of ballast water beginning on January 1, 2012.

Water Quality-Based Effluent Limitations for Ocean Discharges

CHEMICAL CONSTITUENTS					
Constituent	Units	Basis	Limit (Daily Maximum or where noted 30-day average)	Limit (Instantaneous Maximum)	Analytical Method
Arsenic	µg/l	Marine Aquatic Life	32	80	USEPA 1640 for Seawater or EPA 200.12, or EPA 6020/200.8
Cadmium	µg/l	Marine Aquatic Life	4	10	USEPA 1640 for Seawater or EPA 6020/200.8
Chromium VI ⁺	µg/l	Marine Aquatic Life	8	20	USEPA 218.4 or EPA 6020/200.8
Copper	µg/l	Marine Aquatic Life	12	30	USEPA 1640 for Seawater or EPA 6020/200.8

Attachment 5
Numeric Effluent Limitations

CHEMICAL CONSTITUENTS					
Constituent	Units	Basis	Limit (Daily Maximum or where noted 30-day average)	Limit (Instantaneous Maximum)	Analytical Method
Lead	µg/l	Marine Aquatic Life	8	20	USEPA 1640 for Seawater or EPA 6020/200.8
Mercury	µg/l	Marine Aquatic Life	0.16	0.4	USEPA 245.7
Nickel	µg/l	Marine Aquatic Life	20	50	USEPA 1640 for Seawater or EPA 6020/200.8
Selenium	µg/l	Marine Aquatic Life	60	150	USEPA 200.12 or EPA 6020/200.8
Silver	µg/l	Marine Aquatic Life	2.8	7	USEPA 1640 for Seawater or EPA 6020/200.8
Zinc	µg/l	Marine Aquatic Life	80	200	USEPA 1640 for Seawater or EPA 6020/200.8
Cyanide	µg/l	Marine Aquatic Life	4	10	Std Method 4500CN or EPA 6020/200.8
Ammonia-N	µg/l	Marine Aquatic Life	2,400	6,000	Std Method 4500-NH ₃ -D or EPA 350.1 (Rev 2.0) or EPA 6020/200.8
Total Chlorine Residual ²	µg/l	Marine Aquatic Life	8	60	Std Method 4500-Cl-E or EPA 6020/200.8
Phenolic Compounds —(non-chlorinated)	µg/l	Marine Aquatic Life	120	300	Std Methods 6240 or USEPA 8270C or EPA 6020/200.8
Chlorinated Phenolics	µg/l	Marine Aquatic Life	4	10	Std Methods 6240 or USEPA 8270C or EPA 6020/200.8
Endosulfan	µg/l	Marine Aquatic Life	0.018	0.027	USEPA 8080 or EPA 6020/200.8
Endrin	µg/l	Marine Aquatic Life	0.004	0.006	USEPA 8080 or EPA 6020/200.8
Hexachloro-cyclohexane	µg/l	Marine Aquatic Life	0.008	0.012	USEPA 8080 or EPA 6020/200.8
Halomethanes	µg/l	Human Health —seafood	130 ⁴	—	USEPA 8010 or 8260B or EPA

Attachment 5
Numeric Effluent Limitations

CHEMICAL CONSTITUENTS					
Constituent	Units	Basis	Limit (Daily Maximum or where noted 30-day average)	Limit (Instantaneous Maximum)	Analytical Method
		consumption			6020/200.8
Tributyltin	µg/l	Human Health —seafood consumption	0.0014 ⁴	-----	Std Method 6710 or EPA 6020/200.8
PAHs	µg/l	Human Health —seafood consumption	0.0088 ⁴	-----	Individual PAHs from USEPA 625 or EPA 6020/200.8
Tetrachloroethylene	µg/l	Human Health —seafood consumption	2.0 ⁴	-----	USEPA 8260 or EPA 6020/200.8
pH	pH units	COP ³ Table A effluent limits	6-9	6-9	USEPA 150.2 or Std Method 4500-H ⁺ -B or EPA 6020/200.8

PHYSICAL CONSTITUENTS					
Constituent	Units	Basis	Limit (Daily Maximum)	Limit (Instantaneous Maximum)	Analytical Method
Turbidity	NTU	COP ⁴ Table A effluent limits	---	225	USEPA 180.1 or Standard Method 2130 B
Suspended solids	mg/l	COP ⁴ Table A effluent limits	---	60	Std Method 2540-D
Settleable Solids	ml/l	COP ⁴ Table A effluent limits	---	3	Std Method 2540-F

1. ~~For Hexavalent Chromium (Cr VI), total Chromium analyses can be used, but results must still meet the limitation. For total chromium, use EPA method 200.12.~~
2. ~~For waters exceeding 1000 mg/L dissolved solids must use either a matrix removal sample preparation step, or a matrix reduction process.~~
3. ~~Both total residual chlorine and chlorine produced oxidants, refer to the sum of free and combined chlorine and bromine as measured by the methods for total residual chlorine. The term "chlorine produced oxidants" is sometimes used in seawater samples because of the many oxidative reactions that chlorine can undergo in salt water.~~
4. ~~COP— California Ocean Plan~~
5. ~~For human health objectives in the COP, the limits are in terms of 30-day averages. When only one sample is collected, that limit applies to that sample.~~

Attachment 5
Numeric Effluent Limitations

**Water Quality-Based Effluent Limitations for Discharges
to Inland Waters, Enclosed Bays, and Estuaries**

CHEMICAL CONSTITUENTS - VOLATILE ORGANICS					
GTR #	Constituent	Units	Basis¹	Limit (Daily Maximum)	Analytical Method
28	1,1-Dichloroethane	µg/l	Primary MCL	5	USEPA8260B
30	1,1-Dichloroethene	µg/l	HH NTR	0.057	USEPA8260B
41	1,1,1-Trichloroethane	µg/l	Primary MCL	200	USEPA8260B
42	1,1,2-Trichloroethane	µg/l	HH NTR	0.6	USEPA8260B
37	1,1,2,2-Tetrachloroethane	µg/l	HH NTR	0.17	USEPA8260B
75	1,2-Dichlorobenzene	µg/l	HH CTR	2700	USEPA8260B
29	1,2-Dichloroethane	µg/l	HH NTR	0.38	USEPA8260B
-	cis-1,2-Dichloroethene	µg/l	Primary MCL	6	USEPA8260B
34	1,2-Dichloropropane	µg/l	HH CTR	0.52	USEPA8260B
101	1,2,4-Trichlorobenzene	µg/l	HH CTR	None	USEPA8260B
76	1,3-Dichlorobenzene	µg/l	HH CTR	400	USEPA8260B
32	1,3-Dichloropropene	µg/l	Primary MCL	0.5	USEPA8260B
77	1,4-Dichlorobenzene	µg/l	Primary MCL	5	USEPA8260B
17	Acrolein	µg/l	HH CTR	320	USEPA8260B
18	Acrylonitrile	µg/l	HH NTR	0.059	USEPA8260B
19	Benzene	µg/l	Primary MCL	4	USEPA8260B
20	Bromoform	µg/l	HH CTR	4.3	USEPA8260B
34	Bromomethane	µg/l	HH CTR	48	USEPA8260B
21	Carbon tetrachloride	µg/l	HH NTR	0.25	USEPA8260B
22	Chlorobenzene (mono chlorobenzene)	µg/l	HH CTR	680	USEPA8260B
24	Chloroethane	µg/l	HH CTR	None	USEPA8260B
25	2-Chloroethyl vinyl ether	µg/l	HH CTR	None	USEPA8260B
26	Chloroform	µg/l	HH CTR	Reserved	USEPA8260B
35	Chloromethane	µg/l	HH CTR	None	USEPA8260B
23	Dibromochloromethane	µg/l	HH CTR	0.41	USEPA8260B
27	Dichlorobromomethane	µg/l	HH CTR	0.56	USEPA8260B
36	Dichloromethane	µg/l	HH CTR	4.7	USEPA8260B
33	Ethylbenzene	µg/l	HH CTR	3100	USEPA8260B
88	Hexachlorobenzene	µg/l	HH CTR	0.00075	USEPA8260B
89	Hexachlorobutadiene	µg/l	HH NTR	0.44	USEPA8260B
94	Hexachloroethane	µg/l	HH NTR	1.9	USEPA 8260B

Attachment 5
Numeric Effluent Limitations

CHEMICAL CONSTITUENTS – VOLATILE ORGANICS					
CTR #	Constituent	Units	Basis ¹	Limit (Daily Maximum)	Analytical Method
94	Naphthalene	µg/l	HH CTR	None	USEPA8260B
38	Tetrachloroethene	µg/l	HH NTR	0.8	USEPA 8260B
39	Toluene	µg/l	Primary MCL	150	USEPA 8260B
40	trans-1,2-Dichloroethylene	µg/l	Primary MCL	10	USEPA 8260B
43	Trichloroethene	µg/l	HH NTR	2.7	USEPA 8260B
44	Vinyl chloride	µg/l	Primary MCL	0.5	USEPA 8260B
-	Methyl-tert-butyl ether (MTBE)	µg/l	Secondary MCL	5	USEPA 8260B
-	Trichlorofluoromethane	µg/l	Primary MCL	150	USEPA 8260B
-	1,1,2-Trichloro-1,2,2-Trifluoroethane	µg/l	Primary MCL	1200	USEPA 8260B
-	Styrene	µg/l	Primary MCL	100	USEPA 8260B
-	Xylenes	µg/l	Primary MCL	1750	USEPA 8260B

CHEMICAL CONSTITUENTS – SEMI-VOLATILE ORGANICS					
CTR #	Constituent	Units	Basis ¹	Limit (Daily Maximum)	Analytical Method
60	1,2-Benzanthracene	µg/l	HH CTR	0.0044	USEPA 8270C
85	1,2-Diphenylhydrazine	µg/l	HH NTR	0.04	USEPA 8270C
45	2-Chlorophenol	µg/l	HH CTR	120	USEPA 8270C
46	2,4-Dichlorophenol	µg/l	HH CTR	93	USEPA 8270C
47	2,4-Dimethylphenol	µg/l	HH CTR	540	USEPA 8270C
49	2,4-Dinitrophenol	µg/l	HH NTR	70	USEPA 8270C
82	2,4-Dinitrotoluene	µg/l	HH NTR	0.11	USEPA 8270C
55	2,4,6-Trichlorophenol	µg/l	HH CTR	2.1	USEPA 8270C
83	2,6-Dinitrotoluene	µg/l	HH CTR	None	USEPA8270C
50	2-Nitrophenol	µg/l	HH CTR	None	USEPA8270C
71	2-Chloronaphthalene	µg/l	HH CTR	1700	USEPA 8270C
78	3,3'-Dichlorobenzidine	µg/l	HH NTR	0.04	USEPA 8270C
62	3,4-Benzofluoranthene	µg/l	HH CTR	0.0044	USEPA 8270C
52	4-Chloro-3-methylphenol	µg/l	HH CTR	None	USEPA8270C
48	4,6-Dinitro-2-methylphenol	µg/l	HH NTR	13.4	USEPA 8270C
51	4-Nitrophenol	µg/l	HH CTR	None	USEPA8270C
69	4-Bromophenyl phenyl	µg/l	HH CTR	None	USEPA8270C

Attachment 5
Numeric Effluent Limitations

CHEMICAL CONSTITUENTS - SEMI-VOLATILE ORGANICS					
CTR #	Constituent	Units	Basis¹	Limit (Daily Maximum)	Analytical Method
	ether				
72	4-Chlorophenyl phenyl ether	µg/l	HH CTR	None	USEPA8270G
56	Acenaphthene (PAH)	µg/l	HH CTR	1200	USEPA 8270G
57	Acenaphthylene (PAH)	µg/l	HH CTR	None	USEPA8270G
58	Anthracene (PAH)	µg/l	HH CTR	9,600	USEPA 8270G
59	Benzidine	µg/l	HH NTR	0.00012	USEPA 8270G
61	Benzo(a)pyrene (3,4-Benzopyrene) (PAH)	µg/l	HH CTR	0.0044	USEPA 8270G
63	Benzo(g,h,i)perylene (PAH)	µg/l	HH CTR	None	USEPA8270G
64	Benzo(k)fluoranthene (PAH)	µg/l	HH CTR	0.0044	USEPA 8270G
65	Bis(2-chloroethoxy) methane	µg/l	HH CTR	None	USEPA8270G
66	Bis(2-chloroethyl) ether	µg/l	HH NTR	0.031	USEPA 8270G
67	Bis(2-chloroisopropyl) ether	µg/l	HH CTR	1400	USEPA 8270G
68	Bis(2-ethylhexyl) phthalate	µg/l	HH NTR	1.8	USEPA 8270G
70	Butyl benzyl phthalate	µg/l	HH CTR	3000	USEPA 8270G
73	Chrysene (PAH)	µg/l	HH CTR	0.0044	USEPA 8270G
81	Di-n-butylphthalate	µg/l	HH CTR	2700	USEPA 8270G
84	Di-n-octylphthalate	µg/l	HH CTR	None	USEPA8270G
74	Dibenzo(a,h)-anthracene (PAH)	µg/l	HH CTR	0.0044	USEPA 8270G
79	Diethyl phthalate	µg/l	HH CTR	23000	USEPA 8270G
80	Dimethyl phthalate	µg/l	HH CTR	313000	USEPA 8270G
86	Fluoranthene (PAH)	µg/l	HH CTR	300	USEPA 8270G
87	Fluorene (PAH)	µg/l	HH CTR	1300	USEPA 8270G
90	Hexachlorocyclopentadiene	µg/l	HH CTR	240	USEPA 8270G
92	Indeno(1,2,3-c,d)pyrene (PAH)	µg/l	HH CTR	0.0044	USEPA 8270G
93	Isophorone	µg/l	HH NTR	8.4	USEPA 8270G
98	N-Nitrosodiphenylamine	µg/l	HH NTR	5	USEPA 8270G
96	N-Nitrosodimethylamine	µg/l	HH NTR	0.00069	USEPA 8270G
97	N-Nitrosodi-n-propylamine	µg/l	HH CTR	0.005	USEPA 8270G

Attachment 5
Numeric Effluent Limitations

CHEMICAL CONSTITUENTS – SEMI-VOLATILE ORGANICS					
CTR #	Constituent	Units	Basis¹	Limit (Daily Maximum)	Analytical Method
95	Nitrobenzene	µg/l	HH NTR	17	USEPA 8270C
53	Pentachlorophenol	µg/l	Aquatic Toxicity	13	USEPA 8270C
99	Phenanthrene (PAH)	µg/l	HH CTR	None	
54	Phenol	µg/l	HH CTR	21000	USEPA 8270C
100	Pyrene (PAH)	µg/l	HH CTR	960	USEPA 8270C

CHEMICAL CONSTITUENTS – INORGANICS					
CTR #	Constituent	Units	Basis¹	Limit (Daily Maximum)	Analytical Method
-	Aluminum	µg/l	Freshwater Aquatic Toxicity	750	USEPA 6020/200.8
1	Antimony	µg/l	Primary MCL	6	USEPA 6020/200.8
2	Arsenic	µg/l	Primary MCL	10	USEPA 6020/200.8
15	Asbestos	MFL	HH NTR/ Primary MCL	7	USEPA/600/R-93/116(PCM)
-	Barium	µg/l	Basin Plan Objective	100	USEPA 6020/200.8
3	Beryllium	µg/l	Primary MCL	4	USEPA 6020/200.8
4	Cadmium	µg/l	Freshwater Aquatic Toxicity CTR	5.8 ²	USEPA 6020/200.8
5a	Chromium (total)	µg/l	Primary MCL	50	USEPA 6020/200.8
5b	Chromium (VI)	µg/l	Freshwater Aquatic Toxicity CTR	16	USEPA 7199/1636
6	Copper	µg/l	Basin Plan Objective	10	USEPA 6020/200.8
14	Cyanide	µg/l	Freshwater Aquatic Toxicity CTR	22	USEPA 9012A
-	Iron	µg/l	Secondary MCL/Basin Plan Objective	300	USEPA 6020/200.8

Attachment 5
Numeric Effluent Limitations

CHEMICAL CONSTITUENTS – INORGANICS					
CTR #	Constituent	Units	Basis¹	Limit (Daily Maximum)	Analytical Method
7	Lead	µg/l	Freshwater Aquatic Toxicity CTR	109 ²	USEPA 6020/200.8
8	Mercury	µg/l	HH CTR	0.050	USEPA 1631
-	Manganese	µg/l	Secondary MCL/ Basin Plan Objective	50	USEPA 6020/200.8
9	Nickel	µg/l	Freshwater Aquatic Toxicity CTR	570 ²	USEPA 6020/200.8
10	Selenium	µg/l	Primary MCL	50	USEPA 6020/200.8
11	Silver	µg/l	Freshwater Aquatic Toxicity CTR	6 ²	USEPA 6020/200.8
12	Thallium	µg/l	HH NTR	1.7	USEPA 6020/200.8
-	Tributyltin	µg/l	Freshwater Aquatic Toxicity	0.46	Standard Method 6710
13	Zinc	µg/l	Basin Plan Objective	100	USEPA 6020/200.8

OTHER CHEMICAL CONSTITUENTS					
CTR #	Constituent	Units	Basis¹	Limit (Daily Maximum)	Analytical Method
	Ammonia (as N)	µg/l	SF Bay Basin Plan Objective	1,600	Standard Method 4500-NH ₃ -D or EPA 350.1 (Rev 2.0)
-	Ammonia (as N)	µg/l	Freshwater Aquatic Toxicity	3200 ³	USEPA 350.1
-	Chloride	µg/l	Agricultural Use	106,000	USEPA 300.0
-	Foaming Agents (MBAS)	µg/l	Secondary MCL	500	SM5540C
-	Nitrate (as N)	µg/l	Primary MCL	10,000	USEPA 300.0
-	Nitrite (as N)	µg/l	Primary MCL	1000	USEPA 300.0

Attachment 5
Numeric Effluent Limitations

OTHER CHEMICAL CONSTITUENTS					
GTR #	Constituent	Units	Basis¹	Limit (Daily Maximum)	Analytical Method
-	pH	µg/l	Central Valley Basin Plan Objective	6.5-8.5	USEPA 150.1
-	Specific conductance (EC)	µg/l	Agricultural Use	700 umhos/cm	USEPA 120.1
-	Sulfate	µg/l	Secondary MCL	250,000	USEPA 300.0
-	Total Dissolved Solids (TDS)	µg/l	Agricultural Use	450,000	USEPA 160.1

1. ~~If the basis for the limitation is a primary or secondary MCL or a Human Health California Toxics Rule or Human Health National Toxics Rule (HH CTR or HH NTR), or agricultural use or a Freshwater toxicity objective, then this limitation only applies when the Vessel discharges in the Sacramento-San Joaquin Delta.~~
2. ~~Freshwater aquatic life criteria for metals are expressed as a function of total hardness (mg/L) in the water body. Values displayed correspond to a total hardness of 125 mg/L, which is the applicable yearly average hardness in the Sacramento-San Joaquin Delta.~~
3. ~~Freshwater acute aquatic life criteria for ammonia are expressed as a function of pH of the water body, in this case for the Sacramento-San Joaquin Delta, the worst case pH values allowed would be for a pH of 8.5.~~
4. ~~For discharges to enclosed bays and estuaries, except for PAHs and solvents, the vessel owner or operator may submit a certification stating that the discharge does not contain specific volatile and semi-volatile organic constituents in lieu of monitoring for those constituents.~~
5. ~~For waters exceeding 1000 mg/L dissolved solids must use either a matrix removal sample preparation step, or a matrix reduction process.~~

Attachment 6

ADDITIONAL MONITORING AND REPORTING REQUIREMENTS

In addition to the requirements of the VGP, the following monitoring and reporting is required per discharge type, but only if that discharge type occurs in State waters. As stated in Additional Condition 16 of the Enclosure, all monitoring results and reports must be sent to USEPA. Results reported in Attachments 7.1 and 7.2 must be submitted to the State Water Board. Results reported in Attachments 7.3 and 7.4 must be submitted to the State Lands Commission (SLC).

Table 6.a

Discharge	Monitoring and Reporting Conditions	Notes
1. Deck Washdown & Runoff	Effluent sampling and analysis for all Attachment 5 chemical, physical, and toxicity constituents.	A, C
2. Bilgewater/Oily Water separator effluent	Effluent sampling and analysis for all Attachment 5 bacterial, chemical, toxicity, and physical constituents.	A, B
3. Ballast Water	Effluent sampling and analysis for all Attachment 5 bacterial, chemical, toxicity, and physical constituents. All vessels, regardless of whether ballast was discharged, must also submit a completed Ballast Water Reporting Form (Attachment 7.4) to SLC upon departure from each port or place in California waters.	A, C
4. Anti-fouling Leachate from Anti-Fouling Coatings/ Hull Coating Leachate	Report the type of hull coating, (including the active ingredients) in use to the State Water Board. Also all vessels must submit annually a completed Hull Husbandry Reporting Form (Attachment 7.4) to SLC regardless of whether discharges occur or not.	A
5. Aqueous Film Forming Foam	Effluent sampling and analysis for all Attachment 5 chemical, toxicity, and physical constituents.	A, C
6. Boiler/Economizer Blowdown	Effluent sampling and analysis for all Attachment 5 chemical, toxicity, and physical constituents.	A
7. Cathodic Protection	Report the number and types of cathodic protection devices used on the vessel.	A

Attachment 6
Sampling and Monitoring Requirements

Discharge	Monitoring and Reporting Conditions	Notes
8. Chain Locker Effluent	Effluent sampling and analysis for all Attachment 5 chemical, toxicity, and physical constituents.	A, C
9. Propeller Hydraulic Fluid	Report any maintenance or release of fluids in State waters. If a liquid release occurs, sample and analyze receiving water for oil and grease.	A
10. Distillation and Reverse Osmosis Brine	Effluent sampling and analysis for all Attachment 5 chemical and toxicity constituents.	A
11. Elevator Pit Effluent	Effluent sampling and analysis for all Attachment 5 chemical, toxicity, and physical constituents.	A
12. Firemain Systems	Effluent sampling and analysis for all Attachment 5 chemical and toxicity constituents.	A, B
13. Freshwater Layup	Effluent sampling and analysis for all Attachment 5 chemical and toxicity constituents.	A
14. Gas Turbine Wash Water	Effluent sampling and analysis for all Attachment 5 chemical, toxicity, and physical constituents.	A
15. Graywater	Effluent sampling and analysis for all Attachment 6 bacterial, chemical, toxicity, and physical constituents.	A, B
16. Motor Gasoline & Compensating Discharge	Effluent sampling and analysis for all Attachment 5 chemical, toxicity, and physical constituents.	A
17. Non-Oily Machinery Wastewater	Effluent sampling and analysis for all Attachment 5 chemical, toxicity, and physical constituents.	A
18. Refrigeration/Air Condensate	Effluent sampling and analysis for all Attachment 5 chemical and toxicity constituents.	A
19. Rudder Bearing Lubrication Discharge	Report any maintenance or release of fluids in state waters. If a liquid release occurs, sample and analyze receiving water for oil and grease.	A
20. Seawater Cooling Overboard Discharge	Effluent sampling and analysis for all Attachment 5 chemical and toxicity constituents.	A, C
21. Seawater Piping Biofouling Discharge	Effluent sampling and analysis for all Attachment 5 bacterial, chemical, toxicity, and physical constituents.	A, C

Attachment 6
Sampling and Monitoring Requirements

Discharge	Monitoring and Reporting Conditions	Notes
22. Small Boat Engine Wet Exhaust	Effluent sampling and analysis for all Attachment 5 chemical, toxicity, and physical constituents.	A
23. Sonar Dome Discharge	Report coating (including the active ingredients) in use: report any maintenance or release of fluids in State waters.	A
24. Stern Tube Oily Discharge	Report any maintenance or release of fluids in State waters. If a liquid release occurs, sample and analyze receiving water for oil and grease.	A
25. Underwater Ship Husbandry Discharge	Any prohibited in-water cleaning must be reported to the State Water Board. Also, submit annually a Hull Husbandry Reporting Form to SLC.	A, C
26. Welldeck Discharges	Effluent sampling and analysis for all Attachment 5 chemical, toxicity, and physical constituents.	A
27. Graywater Mixed With Sewage	Effluent sampling and analysis for all Attachment 5 bacterial, chemical, toxicity, and physical constituents.	A, B
28. Exhaust Gas Scrubber Washwater Discharge	Effluent sampling and analysis for all Attachment 5 chemical, toxicity, and physical constituents.	A

Notes

A: Wat. Code; Statewide and Regional Water Quality Control Plans & Policies

B: Pub. Resources Code, § 72400 et seq.

C: Pub. Resources Code, § 71200 et seq.

Sampling Requirements

~~Samples for chemical analysis should be collected, preserved, handled, and transported in accordance with Standard Methods for the Examination of Water and Wastewater, 1998 (Standard Methods) and the Code of Federal Regulations (CFR) in 40 CFR Part 136. Analysis for chemical constituents should be performed in accordance with the methods and minimum levels (the lowest concentrations that can be quantified given laboratory performance capabilities) described in Appendix II, of the Ocean Plan, and according to 40 CFR Part 136 or Standard Methods where appropriate (see Attachment 5). All analytical tests performed in California, including toxicity, must be conducted by a laboratory approved under the California Department of Public Health Environmental Laboratory Accreditation Program.~~

Attachment 6
Sampling and Monitoring Requirements

If bacteria samples are collected when the ship is underway, the allowable holding time may be exceeded provided that the samples are refrigerated but not frozen until they reach a laboratory for testing.

Aquatic Toxicity Procedures

California has specific objectives for acute and chronic toxicity as described in the 2005 Ocean Plan. Toxicity is measured in acute and chronic toxicity units. Acute toxicity units (TUA) are the inverse of the laboratory endpoint “Lethal Concentration 50%” (LC50), the percent of the waste giving 50 percent survival of test organisms. Chronic toxicity units (TUC) are the inverse of the laboratory endpoint “No Observed Effects Level” (NOEL), the maximum percent of the effluent that causes no observed effect on test organisms.

Acute toxicity methods should be in accordance with USEPA approved protocols as provided in 40 CFR Part 136. At least one marine species and one freshwater species should be tested. The table below provides species and test methods that may be used for acute toxicity tests.

Table 6.b – Acute Toxicity Test Methods

Marine Water

USEPA Method	Species	Water
2007.0	Mysid, <i>Mysidopsis bahia</i>	Marine
2004.0	Sheepshead Minnow, <i>Cyprinodon variegatus</i>	Marine
2006.0	Silverside, <i>Menidia beryllina</i> , <i>Menidia menidia</i> , and <i>Menidia peninsulae</i>	Marine

Freshwater

USEPA Method	Species	Water
2002.0	Water flea, <i>Ceriodaphnia dubia</i>	Fresh
2021.0	Water flea, <i>Daphnia pulex</i> and <i>Daphnia magna</i>	Fresh
2000.0	Fathead Minnow, <i>Pimephales promelas</i> , and Bannerfin shiner, <i>Cyprinella loedsi</i>	Fresh
2019.0	Rainbow Trout, <i>Oncorhynchus mykiss</i> , and brook trout, <i>Salvelinus fontinalis</i>	Fresh

Monitoring for chronic toxicity for seawater under the Ocean Plan and for waters included under the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) requires the use of critical life stage toxicity tests as specified in the table below. For marine waters, a minimum of three marine test species with approved test protocols shall be used to measure

Attachment 6
Sampling and Monitoring Requirements

compliance with the toxicity objective. If possible, the test species shall include a fish, an invertebrate, and an aquatic plant.

Table 6.c - Chronic Toxicity Test Methods – Marine Water

Species	Effect	Tier	Reference
Giant kelp, <i>Macrocystis pyrifera</i>	Percent germination; germ tube length	4	Chapman et al. 1995 State Water Board, 1996
Red abalone, <i>Haliotis rufescens</i>	Abnormal shell development	4	Chapman et al. 1995 State Water Board, 1996
Oyster, <i>Crassostrea gigas</i> ; mussels, <i>Mytilus spp</i>	Abnormal shell development; percent survival	4	Chapman et al. 1995 State Water Board, 1996
Urchin, <i>Strongylocentrotus purpuratus</i> ; sand dollar, <i>Dendraster excentricus</i>	Percent normal development	4	Chapman et al. 1995 State Water Board, 1996
Urchin, <i>Strongylocentrotus purpuratus</i> ; sand dollar, <i>Dendraster excentricus</i>	Percent fertilization	4	Chapman et al. 1995 State Water Board, 1996
mysid, <i>Holmesimysis costata</i>	Percent survival; growth	4	Chapman et al. 1995 State Water Board, 1996
mysid, <i>Mysidopsis bahia</i>	Percent survival; growth; fecundity	2	Klemm et al. 1994 Weber et al. 1988
topsmelt, <i>Atherinops affinis</i>	Larval growth rate; percent survival	4	Chapman et al. 1995 State Water Board, 1996
Silversides, <i>Menidia beryllina</i>	Larval growth rate; percent survival	2	Klemm et al. 1994 Weber et al. 1988

Table Note – The first tier test methods are the preferred toxicity tests for compliance monitoring. A second tier test method may be used, if after contacting California certified laboratories, first tier organisms are not available.

Attachment 6
Sampling and Monitoring Requirements

Testing for chronic toxicity in freshwater should also be performed, since there are inland ports in California such as the Port of Stockton and the Port of Sacramento. According to the SIP, at least one of the tests in Table 6.d should be conducted.

Table 6.d - Chronic Toxicity Test Methods – Fresh Water

USEPA Method	Species	Effect	Test duration
1000.0	Fathead Minnow (<i>Pimephales promelas</i>)	Larval survival and growth	7 days
1002.0	Water Flea (<i>Ceriodaphnia dubia</i>)	Survival and reproduction	6 to 8 days
1003.0	Alga (<i>Selenastrum capricornutum</i>)	Growth	4 days

Toxicity Test Reference: U.S. EPA. 1994. Short term methods for estimating the chronic toxicity of effluents and receiving waters to freshwater organisms. Third edition. U.S. USEPA Environmental Monitoring Systems Laboratory, Cincinnati, Ohio. EPA/600/4-91-002

Attachment 7
Vessel Discharge Reporting Forms

**7.1 – State Water Board Discharge Type Reporting Form
(Required for each port visit or discharge in state waters)**

Vessel Name:

Location:

Date:

Discharge Type	Discharge occurred		Flow (gpd)	Appendix E Monitoring Conducted		Discharge exceeded Attachment 5 limitations (list the constituents). If not, write "in compliance."
	Yes	No		Yes	No	
Deck Washdown & Runoff						
Bilgewater/Oily Water separator effluent						
Ballast Water						
Anti-fouling Leachate From Anti Fouling Coatings/ Hull Coating Leachate.						
Aqueous Film Forming Foam						
Boiler/Economizer Blowdown						
Cathodic Protection						
Chain Locker Effluent						
Propeller Hydraulic Fluid						
Distillation and Reverse Osmosis Brine						
Elevator Pit Effluent						
Firemain Systems						
Freshwater Layup						
Gas Turbine Wash Water						
Graywater						
Motor Gasoline & Compensating Discharge						
Non-Oily Machinery Wastewater						
Refrigeration/Air Condensate						
Rudder Bearing Lubrication Discharge						
Seawater Cooling Overboard Discharge						
Seawater Piping Biofouling Discharge						

Attachment 7
Vessel Discharge Reporting Forms

**7.1 – State Water Board Discharge Type Reporting Form
(Required for each port visit or discharge in state waters)**

Vessel Name:
Location:
Date:

Discharge Type	Discharge occurred		Flow (gpd)	Appendix E Monitoring Conducted		Discharge exceeded Attachment 5 limitations (list the constituents). If not, write "in compliance."
	Yes	No		Yes	No	
Small Boat Engine Wet Exhaust						
Stern Tube Oily Discharge						
Sonar Dome Discharge						
Underwater Ship Husbandry Discharge						
Welldeck Discharges						
Graywater Mixed With Sewage						
Exhaust Gas Scrubber Washwater Discharge						

**7.2 – State Water Board Constituent Type Monitoring Form
(Required for each port visit or discharge in state waters)**

Vessel Name:
Location:
Date:

VOLATILE ORGANIC COMPOUNDS

Constituent	Units	Limit (Daily Maximum) – Inland, Bays, Estuaries	Limit (Daily Maximum) – Ocean	Lab Result	Comments
1,1-Dichloroethane	µg/l	5			
1,1-Dichloroethene	µg/l	0.057			
1,1,1-Trichloroethane	µg/l	200			
1,1,2-Trichloroethane	µg/l	0.6			
1,1,2,2-Tetrachloroethane	µg/l	0.17			
1,2-Dichlorobenzene	µg/l	2700			
1,2-Dichloroethane	µg/l	0.38			

Attachment 7
Vessel Discharge Reporting Forms

**7.2 – State Water Board Constituent Type Monitoring Form
(Required for each port visit or discharge in state waters)**

Vessel Name:

Location:

Date:

VOLATILE ORGANIC COMPOUNDS

Constituent	Units	Limit (Daily Maximum) – Inland, Bays, Estuaries	Limit (Daily Maximum) – Ocean	Lab Result	Comments
cis-1,2-Dichloroethene	µg/l	6			
1,2-Dichloropropane	µg/l	0.52			
1,2,4-Trichlorobenzene	µg/l	None			
1,3-Dichlorobenzene	µg/l	400			
1,3-Dichloropropene	µg/l	0.5			
1,4-Dichlorobenzene	µg/l	5			
Acrolein	µg/l	320			
Acrylonitrile	µg/l	0.059			
Benzene	µg/l	1			
Bromoform	µg/l	4.3			
Bromomethane	µg/l	48			
Carbon tetrachloride	µg/l	0.25			
Chlorobenzene (mono chlorobenzene)	µg/l	680			
Chloroethane	µg/l	None			
2-Chloroethyl vinyl ether	µg/l	None			
Chloroform	µg/l	Reserved			
Chloromethane	µg/l	None			
Dibromochloromethane	µg/l	0.41			
Dichlorobromomethane	µg/l	0.56			
Dichloromethane	µg/l	4.7			
Ethylbenzene	µg/l	3100			
Hexachlorobenzene	µg/l	0.00075			
Hexachlorobutadiene	µg/l	0.44			
Hexachloroethane	µg/l	1.9			
Naphthalene	µg/l	None			
Tetrachloroethene	µg/l	0.8			
Toluene	µg/l	150			
trans-1,2-	µg/l	10			

Attachment 7
Vessel Discharge Reporting Forms

**7.2 – State Water Board Constituent Type Monitoring Form
(Required for each port visit or discharge in state waters)**

Vessel Name:

Location:

Date:

VOLATILE ORGANIC COMPOUNDS

Constituent	Units	Limit (Daily Maximum) – Inland, Bays, Estuaries	Limit (Daily Maximum) – Ocean	Lab Result	Comments
Dichloroethylene					
Trichloroethene	µg/l	2.7			
Vinyl chloride	µg/l	0.5			
Methyl tert butyl ether (MTBE)	µg/l	5			
Trichlorofluoromethane	µg/l	150			
1,1,2 Trichloro 1,2,2- Trifluoroethane	µg/l	1200			
Styrene	µg/l	100			
Xylenes	µg/l	1750			

**7.2 – State Water Board Constituent Type Monitoring Form
(Required for each port visit or discharge in state waters)**

Vessel Name:

Location:

Date:

SEMI – VOLATILE ORGANIC COMPOUNDS

Constituent	Unit	Limit (Daily Maximum) – Inland, Bays, Estuaries	Limit (Daily Maximum) – Ocean	Lab Result	Comment
1,2-Benzanthracene	µg/l	0.0044			
1,2-Diphenylhydrazine	µg/l	0.04			
2-Chlorophenol	µg/l	120			
2,4-Dichlorophenol	µg/l	93			
2,4-Dimethylphenol	µg/l	540			
2,4-Dinitrophenol	µg/l	70			
2,4-Dinitrotoluene	µg/l	0.11			
2,4,6-Trichlorophenol	µg/l	2.1			

Attachment 7
Vessel Discharge Reporting Forms

**7.2 – State Water Board Constituent Type Monitoring Form
(Required for each port visit or discharge in state waters)**

Vessel Name:

Location:

Date:

SEMI – VOLATILE ORGANIC COMPOUNDS

Constituent	Unit	Limit (Daily Maximum) – Inland, Bays, Estuaries	Limit (Daily Maximum) – Ocean	Lab Result	Comment
2,6-Dinitrotoluene	µg/l	None			
2-Nitrophenol	µg/l	None			
2-Chloronaphthalene	µg/l	1700			
3,3'-Dichlorobenzidine	µg/l	0.04			
3,4-Benzofluoranthene	µg/l	0.0044			
4-Chloro-3-methylphenol	µg/l	None			
4,6-Dinitro-2-methylphenol	µg/l	13.4			
4-Nitrophenol	µg/l	None			
4-Bromophenyl-phenyl ether	µg/l	None			
4-Chlorophenyl-phenyl ether	µg/l	None			
Acenaphthene	µg/l	1200			
Acenaphthylene	µg/l	None			
Anthracene	µg/l	9,600			
Benzidine	µg/l	0.00012			
Benzo(a)pyrene (3,4-Benzopyrene)	µg/l	0.0044			
Benzo(g,h,i)perylene	µg/l	None			
Benzo(k)fluoranthene	µg/l	0.0044			
Bis(2-chloroethoxy) methane	µg/l	None			
Bis(2-chloroethyl) ether	µg/l	0.031			
Bis(2-chloroisopropyl) ether	µg/l	1400			
Bis(2-ethylhexyl) phthalate	µg/l	1.8			
Butyl benzyl phthalate	µg/l	3000			
Chrysene	µg/l	0.0044			
Di-n-butylphthalate	µg/l	2700			

Attachment 7
Vessel Discharge Reporting Forms

**7.2 – State Water Board Constituent Type Monitoring Form
(Required for each port visit or discharge in state waters)**

Vessel Name:

Location:

Date:

SEMI – VOLATILE ORGANIC COMPOUNDS

Constituent	Unit	Limit (Daily Maximum) – Inland, Bays, Estuaries	Limit (Daily Maximum) – Ocean	Lab Result	Comment
Di-n-octylphthalate	µg/l	None			
Dibenzo(a,h)-anthracene	µg/l	0.0044			
Diethyl phthalate	µg/l	23000			
Dimethyl phthalate	µg/l	313000			
Fluoranthene	µg/l	300			
Fluorene	µg/l	1300			
Hexachlorocyclopentadiene	µg/l	240			
Indeno(1,2,3-c,d)pyrene	µg/l	0.0044			
Isophorone	µg/l	8.4			
N-Nitrosodiphenylamine	µg/l	5			
N-Nitrosodimethylamine	µg/l	0.00069			
N-Nitrosodi-n-propylamine	µg/l	0.005			
Nitrobenzene	µg/l	17			
Pentachlorophenol	µg/l	0.28			
Phenanthrene	µg/l	None			
Phenol	µg/l	21000			
Pyrene	µg/l	960			

Attachment 7
Vessel Discharge Reporting Forms

**7.2 – State Water Board Constituent Type Monitoring Form
(Required for each port visit or discharge in state waters)**

Vessel Name:

Location:

Date:

INORGANIC COMPOUNDS

Constituent	Unit	Limit (Daily Maximum) – Inland, Bays, Estuaries	Limit (Daily Maximum) – Ocean	Lab Result	Comment
Aluminum	µg/l	750			
Antimony	µg/l	6			
Arsenic	µg/l	10	32		
Asbestos	MFL	7			
Barium	µg/l	100			
Beryllium	µg/l	4			
Cadmium	µg/l	5.8	4		
Chromium (total)	µg/l	50			
Chromium (VI)	µg/l	16	8		
Copper	µg/l	10	12		
Cyanide	µg/l	5.2	4		
Iron	µg/l	300			
Lead	µg/l	109 (2)	8		
Mercury	µg/l	0.050-	0.16		
Manganese	µg/l	50			
Nickel	µg/l	570 (2)	20		
Selenium	µg/l	50	60		
Silver	µg/l	6 (2)	2.8		
Thallium	µg/l	1.7			
Tributyltin	µg/l	0.46	<0.0014 (ND)		
Zinc	µg/l	100	80		

Attachment 7
Vessel Discharge Reporting Forms

**7.2 – State Water Board Constituent Type Monitoring Form
(Required for each port visit or discharge in state waters)**

Vessel Name:

Location:

Date:

OTHER CONSTITUENTS

Constituent	Unit	Limit (Daily Maximum) – Inland, Bays, Estuaries	Limit (Daily Maximum) – Ocean	Lab Result	Comment
Ammonia (as N)	µg/l	3200 (3)	0.16		
Chloride	µg/l	106,000			
Total Chlorine Residual	µg/l		8		
Phenolic Compounds (non-chlorinated)	µg/l		120		
Chlorinated Phenolics	µg/l		4		
Endosulfan	µg/l		0.018		
Endrin	µg/l		0.004		
Foaming Agents (MBAS)	µg/l	500			
Halomethanes	µg/l		130		
Hexachlorocyclohexane	µg/l		0.008		
Nitrate (as N)	µg/l	10,000			
Nitrite (as N)	µg/l	1000			
PAHs	µg/l		0.0088		
pH	µg/l	6.5-8.5	6.0-9.0 (ph units)		
Oil and Grease	mg/l		15		
Specific conductance (EC)	µg/l	700 umhos/cm			
Sulfate	µg/l	250,000			
Tetrachloroethylene			2.0		
Total Dissolved Solids (TDS)	µg/l	450,000			
Turbidity	NTU		225		
Suspended Solids	mg/l		60		
Settleable Solids	ml/l		3		
Acute Toxicity	TUa		0.3		
Chronic Toxicity	TUc		1.0		

Attachment 7
Vessel Discharge Reporting Forms

**7.2 – State Water Board Constituent Type Monitoring Form
(Required for each port visit or discharge in state waters)**

Vessel Name:

Location:

Date:

OTHER CONSTITUENTS

Constituent	Unit	Limit (Daily Maximum) – Inland, Bays, Estuaries	Limit (Daily Maximum) – Ocean	Lab Result	Comment
Total Coliform Bacteria	CFU or MPN per 100ml		10,000/100 ml		
Fecal Coliform Bacteria	CFU or MPN per 100ml		400/100 ml		
Enterococcus Bacteria	CFU or MPN per 100ml		104/100 ml		

Attachment 7
Vessel Discharge Reporting Forms

**7.3 – California State Lands Commission
Marine Invasive Species Program
Hull Husbandry Reporting Form
Public Resources Code – 71205(e) and 71205(f)
June 6, 2008
Part I: Reporting Form**

Vessel Name:
Official / IMO Number:
Responsible Officer's Name and Title:
Date Submitted (Day/Month/Year):

Hull Husbandry Information

1. Since delivery, has this vessel ever been removed from the water for maintenance?
Yes No

a. If Yes, enter the date and location of the most recent out-of-water maintenance:

Last date out of water (Day/Month/Year):	
Port or Position:	Country:

b. If No, enter the delivery date and location where the vessel was built:

Delivery date (Day/Month/Year):	
Port or Position:	Country:

2. Were the submerged portions of the vessel coated with an anti-fouling treatment or coating during the **out-of-water** maintenance or shipbuilding process listed above?

Yes, full coat applied <input type="checkbox"/>
Yes, partial coat <input type="checkbox"/> Date last full coat applied (Day/Month/Year)
No coat applied <input type="checkbox"/> Date last full coat applied (Day/Month/Year)

3. For the most recent **full coat** application of anti-fouling treatment, what type of anti-fouling treatment was applied and to which specific **sections** of the submerged portion of the vessel was it applied?

Manufacturer/Company:
Product Name:

Applied on (**Check all that apply**): Hull Sides Hull Bottom Sea Chests Sea Chest Gratings Propeller Rope Guard/Propeller Shaft Previous Docking Blocks Thrusters Rudder Bilge Keels

Manufacturer/Company:

Attachment 7
Vessel Discharge Reporting Forms

Product Name: _____

Applied on (**Check all that apply**): Hull Sides Hull Bottom Sea Chests Sea Chest Gratings Propeller Rope Guard/Propeller Shaft
Previous Docking Blocks Thrusters Rudder Bilge Keels

Official / IMO Number: _____

Manufacturer/Company: _____

Product Name: _____

Applied on (**Check all that apply**): Hull Sides Hull Bottom Sea Chests Sea Chest Gratings Propeller Rope Guard/Propeller Shaft
Previous Docking Blocks Thrusters Rudder Bilge Keels

4. Were the sea chests inspected and/or cleaned during the **out-of-water** maintenance listed above? If no out-of-water maintenance since delivery, select Not Applicable. **Check all that apply.**

Yes, sea chests inspected Yes, sea chests cleaned
No, sea chests not inspected or cleaned Not Applicable

5. Are Marine Growth Protection Systems (MGPS) installed in the sea chests?

Yes <input type="checkbox"/>	Manufacturer: _____	Model: _____
No <input type="checkbox"/>	_____	

6. Has the vessel undergone **in-water** cleaning to the submerged portions of the vessel since the last out-of-water maintenance period? Yes No

a. If Yes, when and where did the vessel most recently undergo **in-water** cleaning (Do not include cleaning performed during out-of-water maintenance period)?

Date (**Day/Month/Year**): _____

Port or Position: _____ Country: _____

Vendor providing cleaning service: _____

Section(s) cleaned (**Check all that apply**):

Hull Sides Hull Bottom Propeller Sea Chest Grating
Sea Chest Bilge Keels Rudder Docking Blocks
Thrusters Unknown

Cleaning method: Divers Robotic Both

7. Has the propeller been polished since the last **out-of-water** maintenance (including shipbuilding process) or **in-water** cleaning?

Yes Date of propeller polishing (**Day/Month/Year**): _____

No

Attachment 7
Vessel Discharge Reporting Forms

8. Are the anchor and anchor chains rinsed during retrieval? Yes No

Voyage Information

9. List the following information for this vessel averaged over the last four months:

a. Average Voyage Speed (knots):	
b. Average Port Residency Time (hours or days):	Hours or Days
Official / IMO Number: _____	

10. Since the hull was last cleaned (**out-of-water** or **in-water**), has the vessel visited:

a. Fresh water ports (Specific gravity of less than 1.005)?

Yes <input type="checkbox"/>	How many times?
No <input type="checkbox"/>	

b. Tropical ports (between 23.5° S and 23.5° N latitude)?

Yes <input type="checkbox"/>	How many times?
No <input type="checkbox"/>	

c. Panama Canal?

Yes <input type="checkbox"/>	How many times?
No <input type="checkbox"/>	

d. List the previous 10 ports visited by this vessel in the order they were visited (start with most recent). Note: If the vessel visits the same ports on a regular route, check here and list the route once (you do not have to use all 10 spaces if the route involves less than 10 ports; add more lines if regular route involves more than 10 ports). **List dates as (Day/Month/Year).**

Port or Position:	Country:
Arrival date:	Departure date:
Port or Position:	Country:
Arrival date:	Departure date:
Port or Position:	Country:
Arrival date:	Departure date:
Port or Position:	Country:
Arrival date:	Departure date:
Port or Position:	Country:
Arrival date:	Departure date:

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Vessel Discharge Reporting Forms

Port or Position:	Country:
Arrival date:	Departure date:

Port or Position:	Country:
Arrival date:	Departure date:

Port or Position:	Country:
Arrival date:	Departure date:

Port or Position:	Country:
Arrival date:	Departure date:

Official / IMO Number: _____

11. Since the **most recent** hull cleaning (out-of-water or in-water) or delivery, has the vessel spent 10 or more consecutive days in any single location (Do not include time out-of-water or during in-water cleaning).

No List the longest amount of time spent in a single location since the last hull cleaning:

Number of Days:	Date of Arrival (Day/Month/Year):
Port or Position:	Country:

Yes List all of the occurrences where the vessel spent 10 or more consecutive days in any single location since the last hull cleaning.

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Vessel Discharge Reporting Forms

Number of Days:	Date of Arrival (Day/Month/Year):
Port or Position:	Country:

Number of Days:	Date of Arrival (Day/Month/Year):
Port or Position:	Country:

Number of Days:	Date of Arrival (Day/Month/Year):
Port or Position:	Country:

Number of Days:	Date of Arrival (Day/Month/Year):
Port or Position:	Country:

Number of Days:	Date of Arrival (Day/Month/Year):
Port or Position:	Country:

Number of Days:	Date of Arrival (Day/Month/Year):
Port or Position:	Country:

Number of Days:	Date of Arrival (Day/Month/Year):
Port or Position:	Country:

Number of Days:	Date of Arrival (Day/Month/Year):
Port or Position:	Country:

Number of Days:	Date of Arrival (Day/Month/Year):
Port or Position:	Country:

Number of Days:	Date of Arrival (Day/Month/Year):
Port or Position:	Country:

Attachment 7
Vessel Discharge Reporting Forms

**California State Lands Commission
Marine Invasive Species Program
Hull Husbandry Reporting Form
Public Resources Code – 71205(e) and 71205(f)
June 6, 2008**

Part II: Supplementary Instructions for Completing Reporting Form

TEXT OF MODIFIED REGULATIONS

The Commission has illustrated changes to the original text noticed to the public in the following manner: deletions from the language originally proposed are indicated using double-strikeout; and additions to the language originally proposed are double-underlined. Note: A change was only made to the directly following statement, and was required to allow for the sole comment received during the 45-day comment period. No other changes were made to the instructions.

7.3 – Hull Husbandry Reporting Form

(Submit annually within 60 days of receiving a written or electronic request from the California State Lands Commission)

SUBMIT THE COMPLETED FORM TO:

California State Lands Commission

Marine Facilities Division
200 Oceangate, Suite 900
Long Beach, CA 90802
FAX: 562-499-6444
Email: bwform@slc.ca.gov

Hull Husbandry Information

Question 1: Check the appropriate box to indicate whether, since delivery, the vessel has ever been removed from the water for maintenance.

- If Yes was selected, enter the date (Day/Month/Year) and location for the most recent out-of-water maintenance period (for example, if vessel was out of water for dry-dock from January 1-10, list January 10 as the last date out of water).
- If No was selected, enter the vessel's delivery date (Day/Month/Year) and the location where the vessel was built.

Question 2: Check the appropriate box to indicate whether the vessel's hull was coated with an anti-fouling treatment/coating during the out-of-water maintenance period or shipbuilding process described in Question 1.

- If "Yes, full coat applied" was selected, move on to Question 3.
- If "Yes, partial coat" was selected, list completion date (Day/Month/Year) of most recent full coat application of an anti-fouling treatment/coating.

Attachment 7
Vessel Discharge Reporting Forms

- If “No coat applied” was selected, list completion date (Day/Month/Year) of most recent full coat application of an anti-fouling treatment/coating.

Question 3: For the most recent full coat application of anti-fouling treatment/coating, list the manufacturer(s)/company(ies) and product names of the treatment(s)/coating(s) and check the box next to the specific section(s) of the submerged portions of the vessel where each treatment was applied (check all sections that apply). List information for each anti-fouling treatment/coating if more than one was applied. Attach additional pages if necessary.

Question 4: Check the appropriate box to indicate whether the sea chest(s) were inspected and/or cleaned during the most recent out-of-water maintenance period described in Question 1. If no out-of-water maintenance since delivery, check Not Applicable.

Question 5: Marine Growth Protection Systems are systems installed in the sea chests to prevent the accumulation of fouling organisms within the sea chests and associated seawater circulation networks. Check the appropriate box to indicate if a Marine Growth Protection System is installed in the sea chest(s).

- If Yes was selected, list the Manufacturer and Model.

Question 6: Check the appropriate box to indicate if the vessel has undergone **in-water** cleaning on the submerged portions of the vessel since the last out-of-water maintenance period. **In-water** cleaning does not include cleaning carried out during out-of-water maintenance but does include cleaning carried out during the Underwater Inspection in Lieu of Dry-Docking (UWILD). For this question, out-of-water maintenance includes the shipbuilding process.

- If Yes was selected, answer Question 6a.
- If No was selected, move on to Question 7.

Question 6a: List date (Day/Month/Year) and location of most recent in-water cleaning (do not include cleaning performed during out-of-water maintenance period) as well as the vendor that conducted the in-water cleaning. Check the box next to the appropriate sections to indicate those sections of the vessel that were cleaned during the in-water cleaning described in Question 6. Indicate whether in-water cleaning was conducted by divers, a robotic system, or both.

Question 7: Check the appropriate box to indicate whether the propeller has been polished since the most recent out-of-water maintenance or in-water cleaning. For this question, **out-of-water** maintenance includes the shipbuilding process.

- If Yes was selected, list the date of the most recent propeller polishing.

Question 8: Check the appropriate box to indicate whether the anchor and anchor chains are rinsed during retrieval.

Attachment 7
Vessel Discharge Reporting Forms

Voyage Information

Question 9a: Over the past four months, list the average speed (knots) at which this vessel has traveled.

Question 9b: Over the past four months, list the average length of time (either hours or days) that this vessel has spent in any given port.

Question 10a: Check the appropriate box to indicate whether this vessel has visited any freshwater ports (specific gravity of less than 1.005) since the hull was last cleaned (either in-water or out-of-water) or since delivery if the hull has never been cleaned.

- If Yes is selected, list the number of times that this vessel visited freshwater ports since the hull was last cleaned or since delivery if the hull has never been cleaned.

Question 10b: Check the appropriate box to indicate whether this vessel has visited any tropical ports between latitudes 23.5° S and 23.5° N since the hull was last cleaned (either in-water or out-of-water) or since delivery if the hull has never been cleaned.

- If Yes is selected, list the number of times that this vessel visited tropical ports since the hull was last cleaned or since delivery if the hull has never been cleaned.

Question 10c: Check the appropriate box to indicate whether this vessel has traversed the Panama Canal since the hull was last cleaned (either in-water or out-of-water) or since delivery if the hull has never been cleaned.

- If Yes is selected, list the number of times that this vessel has traversed the Panama Canal since the hull was last cleaned or since delivery if the hull has never been cleaned.

Question 10d: Starting with the most recent port, list the last 10 ports visited by this vessel. Provide information on the port or place, country, and the dates of arrival and departure.

If this vessel follows a regular route, visiting the same ports routinely, place a check in the box provided and list the information for the most recently completed route. You do not have to use all ten spaces if the regular route involves less than 10 ports. Add more lines if the regular route involves more than ten ports.

List all dates as Day/Month/Year.

Question 11: Check the appropriate box to indicate whether this vessel has spent 10 or more consecutive days in any single location since the last time the hull was cleaned (either in-water or out of water) or since delivery if the hull has never been cleaned. Do not include time spent out-of-water or time spent during in-water cleaning.

Attachment 7
Vessel Discharge Reporting Forms

- If No is selected, enter the information for the single longest amount of time this vessel has spent in a single location since the last hull cleaning or since delivery if the hull has never been cleaned.
- If Yes is selected, list all of the occurrences where the vessel spent 10 or more consecutive days in any single location since the last hull cleaning or since delivery if the hull has never been cleaned.

Authority: Public Resources Code Sections 71201 and 71204.6

Reference: Public Resources Code Sections 71205(e) and 71205(f)

Attachment 7
Vessel Discharge Reporting Forms

7.4 – BALLAST WATER REPORTING FORM

IS THIS AN AMENDED BALLAST REPORTING FORM? YES

1. VESSEL INFORMATION CAPACITY

2. VOYAGE INFORMATION

3. BALLAST WATER USAGE AND

Vessel Name:	Arrival Port:	Specify Units Below (m³, MT, LT, ST)		
IMO Number:	Arrival Date (DD/MM/YYYY):	Total Ballast Water on Board:		
Owner:	Agent:	Volume	Units m3	No. of Tanks in Ballast
Type:	Last Port:	Total Ballast Water Capacity:		
GT:	Country of Last Port:	Volume	Units m3	Total No. of Tanks on Ship
Call Sign:	Next Port:			
Flag:				

4. BALLAST WATER MANAGEMENT

Total No. Ballast Water Tanks to be discharged:

Of tanks to be discharged, how many: Underwent Exchange: Underwent Alternative Management:

Please specify alternative method(s) used, if any: _____

If no ballast treatment conducted, state reason why not: _____

Ballast management plan on board? YES Management plan implemented? YES

IMO ballast water guidelines on board [res. A.868(20)]? YES NO

5. BALLAST WATER HISTORY: Record all tanks to be deballasted in port state of arrival (enter additional tanks on page 2). IF NONE, GO TO #6

Tanks/ Holds <small>List multiple sources/tanks separately</small>	BW SOURCE				BW EXCHANGE						BW DISCHARGE			
	DATE DD/MM/YY	PORT or LAT. LONG.	VOLUME (units)	TEMP (units)	DATE DD/MM/YY	ENDPOINT LAT. LONG.	VOLUME (units)	% Exch	METHOD (ER/FT/ ALT)	SEA HT. (m)	DATE DD/MM/YY	PORT or LAT. LONG.	VOLUME (units)	SALINITY (units)
			m3	C			m3		ER				m3	sg

Attachment 7
Vessel Discharge Reporting Forms

Tanks/ Holds List multiple sources/tanks separately	BW SOURCE				BW EXCHANGE						BW DISCHARGE			
	DATE DD/MM/YY	PORT or LAT. LONG.	VOLUME (units)	TEMP (units)	DATE DD/MM/YY	ENDPOINT LAT. LONG.	VOLUME (units)	% Exch	METHOD (ER/FT/ ALT)	SEA HT. (m)	DATE DD/MM/YY	PORT or LAT. LONG.	VOLUME (units)	SALINITY (units)
			m3	C			m3		ER				m3	sg
			m3	C			m3		ER				m3	sg
			m3	C			m3		ER				m3	sg
			m3	C			m3		ER				m3	sg

Ballast Water Tank Codes: Forepeak = FP, Aftpeak = AP, Double Bottom = DB, Wing = WT, Topside = TS, Cargo Hold = CH, Other = O

6. RESPONSIBLE OFFICER'S NAME AND TITLE: _____

2

Tanks/ Holds List multiple sources/tanks separately	BW SOURCE				BW EXCHANGE						BW DISCHARGE			
	DATE DD/MM/YY	PORT or LAT. LONG.	VOLUME (units)	TEMP (units)	DATE DD/MM/YY	ENDPOINT LAT. LONG.	VOLUME (units)	% Exch	METHOD (ER/FT/ ALT)	SEA HT. (m)	DATE DD/MM/YY	PORT or LAT. LONG.	VOLUME (units)	SALINITY (units)
			m3	C			m3		ER				m3	sg
			m3	C			m3		ER				m3	sg
			m3	C			m3		ER				m3	sg
			m3	C			m3		ER				m3	sg
			m3	C			m3		ER				m3	sg

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Tanks/ Holds <small>List multiple sources/tanks separately</small>	BW SOURCE				BW EXCHANGE						BW DISCHARGE			
	DATE DD/MM/YY	PORT or LAT. LONG.	VOLUME (units)	TEMP (units)	DATE DD/MM/YY	ENDPOINT LAT. LONG.	VOLUME (units)	% Exch	METHOD (ER/FT/ ALT)	SEA HT. (m)	DATE DD/MM/YY	PORT or LAT. LONG.	VOLUME (units)	SALINITY (units)
			m3	C			m3		ER			m3	sg	
			m3	C			m3		ER			m3	sg	
			m3	C			m3		ER			m3	sg	
			m3	C			m3		ER			m3	sg	
			m3	C			m3		ER			m3	sg	
			m3	C			m3		ER			m3	sg	
			m3	C			m3		ER			m3	sg	
			m3	C			m3		ER			m3	sg	
			m3	C			m3		ER			m3	sg	
			m3	C			m3		ER			m3	sg	
			m3	C			m3		ER			m3	sg	
			m3	C			m3		ER			m3	sg	
			m3	C			m3		ER			m3	sg	

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