CALENDAR ITEM
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CONSIDER APPROVAL OF PROPOSED AMENDMENTS AND ADDITIONS TO THE CALIFORNIA CODE OF REGULATIONS, TITLE 2, DIVISION 3, CHAPTER 1, ARTICLE 4.8 – BIOFOULING MANAGEMENT TO MINIMIZE THE TRANSFER OF NONINDIGENOUS SPECIES FROM VESSELS OPERATING IN CALIFORNIA WATERS

PROPOSAL:

Commission staff proposes to amend Article 4.8 of the California Code of Regulations, Title 2, Division 3, Chapter 1 to:

- Amend section 2298 and renumber and adopt it as section 2298.5; and
- Adopt sections 2298.1, 2298.2, 2298.3, 2298.4, 2298.6, 2298.7, 2298.8, 2298.9, and 2298.9.1.

This proposal would amend reporting requirements and establish biofouling management and recordkeeping requirements for vessels arriving at a California port or place, as mandated by Public Resources Code section 71204.6. The proposed regulations are necessary to minimize the transfer of nonindigenous species from vessels to State waters.

BACKGROUND:

Nonindigenous species (NIS) are organisms that are introduced into areas where they do not occur naturally or historically. Once introduced, NIS can become invasive and create a variety of negative impacts, including the following:

- Economic impacts: NIS are responsible for $120 billion in losses and damages annually in the United States (Pimentel et al. 2005). Economic impacts to California's coastal economy are a major concern, as California has the second highest ocean-based gross state product in the U.S. (2011 data; National Ocean Economics Program 2014a). In 2014, water hyacinth, a nonindigenous aquatic plant, caused significant negative

impacts to the Port of Stockton and several San Francisco Bay-Delta marinas. The Port of Stockton spent $200,000 to mechanically remove the plant, and the shipping industry lost an estimated $300,000 due to delays in cargo operations (Wingfield, J. pers. comm. 2015).

- Environmental impacts: Worldwide, 42% of threatened or endangered species are listed, in part, because of impacts from NIS (Pimentel et al. 2005). In San Francisco Bay, the nonindigenous overbite clam spread throughout the waterways within two years of first detection in 1986. The overbite clam is able to consume 80% to 90% of the microscopic animals from the water column in the shallow portions of the bay (Greene et al. 2011). By dramatically reducing the concentrations of these microscopic animals in the water, the clam is believed to be contributing to the decline of several native pelagic fish species in the Sacramento-San Joaquin River Delta, including the threatened delta smelt (Feyrer et al. 2003, Sommer et al. 2007).

- Human health impacts: Outbreaks of cholera, human intestinal pathogens, and parasites that cause "swimmers itch" have all been linked to vectors known to transport aquatic NIS into new environments.

Most pollutants in aquatic ecosystems (e.g., oil) dissipate over time, as do their impacts on the environment. Nonindigenous species, however, reproduce and increase in numbers over time, and are nearly impossible to eradicate once they become established. Prevention strategies to reduce introduction are therefore more successful and cost-efficient than "reactive" control or eradication attempts.

In coastal environments, commercial ships are the primary vectors responsible for the introduction of NIS (Hewitt and Campbell 2010). Ships transport and introduce NIS through two main mechanisms.

- Ballast water: Water taken onboard a vessel to maintain a vessel's trim and stability during cargo loading, transport, and unloading operations. Ballast water (and the millions of organisms contained in it) is typically loaded in one port and subsequently discharged into another port.

- Vessel biofouling: The community of organisms that attach to, or associate with, a vessel's underwater surfaces. Marine biofouling organisms colonize available hard surfaces in the ocean, including ships. The vessel's biofouling "community" is transported to every port that a vessel

visits along its itinerary, potentially introducing these organisms as they drop off or spawn (i.e., reproduce) along the way.

In response to shipping-mediated NIS introductions to California, the State Legislature enacted the 1999 Ballast Water Management for Control of Nonindigenous Species Act (Stat. 1999, Ch. 849), which created a State program focused on NIS prevention through vector management (i.e., managing ships as vectors). This law was subsequently amended and reauthorized as the 2003 Marine Invasive Species Act (Act) (Stat. 2003, Ch. 491), expanding the authority of the program and renaming it as the Marine Invasive Species Program.

Initially, ballast water management was the main focus of the MISP. However, the Act required the Commission to assess the risk of introducing NIS through non-ballast shipping mechanisms. After consultation with a Technical Advisory Group, the Commission submitted a report to the Legislature in 2006 describing *Commercial Vessel Fouling in California* (see Takata et al. 2006). The Legislature responded to the report's recommendations by amending the Act in 2007 (Stat. 2007, Ch. 370) to require the Commission to develop and adopt regulations governing the management of vessel biofouling.

Over the last 30 years, ballast water discharge has been considered the greatest risk for aquatic species introductions to coastal habitats. However, only 15% (on average) of the vessels arriving at California ports discharge ballast water and represent a risk of ballast water-mediated NIS introductions. In contrast, 100% of the vessels arriving at California ports have some amount of biofouling associated with their underwater surfaces, so every vessel carries a risk of introducing NIS through biofouling. Vessel biofouling communities are also likely to increase in extent and species diversity over time, as vessels visit different regional and international ports. Each port that a vessel visits during the typical 5-year period between out-of-water maintenance activities (i.e., dry docking) represents an opportunity for more biofouling organisms to accumulate on a vessel's underwater surfaces. Therefore, new evidence suggests that vessel biofouling is the most potent mechanism for the introduction of NIS into coastal waters, and is believed to be responsible for up to 60% of the currently established NIS in California's coastal and estuarine waters (Ruiz et al. 2011). These proposed regulations are designed to reduce the risk of biofouling-based NIS introduction.

To prepare for and develop the proposed regulations, the MISP staff has:

- Created, and adopted via regulations, an annual reporting form (the *Hull Husbandry Reporting Form*) to collect information on existing vessel maintenance and operational practices known to influence biofouling accumulation and survival;
- Funded several research studies to identify patterns of vessel biofouling on a variety of vessel types and vessel surfaces;
- Consulted with the shipping industry, scientists, and regulatory stakeholders by convening a Biofouling Technical Advisory Group (TAG) and meeting four times during 2010 – 2011;
- Proposed regulations via a rulemaking action in 2011, including three revisions and eventual withdrawal in 2012 because the one-year limit for rulemaking actions under the Administrative Procedures Act was exceeded;
- Reconvened and consulted with the Biofouling TAG in 2014 to revise draft regulations; and
- Released draft regulations for informal public comment in late-2014.

The proposed regulations have been developed through an open, transparent, inclusive process, incorporating current best management practices used by the shipping industry to prevent biofouling-induced drag and associated fuel consumption. Finally, the proposed regulations are intended to align State regulatory requirements with international guidance and requirements, including:

- The International Maritime Organization's (IMO) Guidelines for the Control and Management of Ships' Biofouling to Minimize the Transfer of Invasive Aquatic Species (voluntary biofouling management guidance; IMO 2011); and

- New Zealand's Craft Risk Management Standards (mandatory biofouling management standards; New Zealand Ministry for Primary Industries 2014).

Commission staff, in consultation with stakeholders and through the TAG process, will develop compliance assessment protocols in a future rulemaking. These protocols will establish the process for assessing the level of biofouling on

a particular vessel. Enforcement of sections 2298.6(a), 2298.6(c) and 2298.7(a) is dependent upon the future adoption of protocols.

OBJECTIVES OF THE PROPOSED REGULATIONS:
The proposed regulations include objectives to:

- *Encourage vessel owners and operators to create and implement vessel-specific strategies for comprehensive biofouling management.* The proposed regulations will achieve this objective by requiring Biofouling Management Plans and Biofouling Record Books that are aligned with International Maritime Organization guidance.

- *Codify current best management practices*. Most vessels use anti-fouling or foul-release coatings to prevent biofouling accumulation and the associated drag-induced fuel consumption. The proposed regulations will align regulatory expectations with these current best practices by encouraging vessel operators to ensure that their coatings are used in accordance with specifications.

- *Encourage ship owners and operators to manage all underwater surfaces*. Current shipping industry biofouling management efforts focus on flat surfaces of the hull (i.e., areas that affect drag and fuel consumption), but ignore or undermanage other underwater surfaces (e.g., recesses and appendages collectively known as niche areas). The proposed regulations will require owners or operators to manage these often undermanaged niche areas in a manner that the owner or operator determines is most appropriate.

- *Address several categories of "high risk" vessel operational practices that increase a vessel's likelihood of introducing NIS into California waters*. Vessels with excessive biofouling and vessels that stay in the same location for prolonged periods of time (i.e., 45 days or more) are likely to accumulate extensive, diverse biofouling communities and represent a high risk of NIS introduction (Coutts 2002, Coutts et al. 2003, Coutts and Taylor 2004, Takata et al. 2006, Davidson et al. 2008, Floerl and Coutts 2009, National System for the Prevention and Management of Marine Pest Incursions 2009a, 2009b, Davidson et al. 2010, Sylvester and MacIsaac 2010, Sylvester et al. 2011, and Hopkins and Forrest 2010). The proposed regulations place additional management requirements on the small number of vessels that are expected to fall into these categories (estimated in the Notice of Proposed Regulatory Action to be less than 4% of the vessels operating in California).

- *Provide mechanisms for vessel owners or operators to petition for alternative management options or safety exemptions*. The proposed regulations outline the steps to be taken to petition the Commission staff for approval of an alternative form of biofouling management, and the steps to be taken when claiming a safety exemption from the proposed regulations requirements.

SUMMARY OF PUBLIC COMMENT PROCESS:

The proposed regulations were published in the California Regulatory Notice Register (Register 2015, No. 18-Z) on May 1, 2015.

The proposed regulations are the result of over five years of consultation and negotiation with the Commission's Biofouling TAG and the public, including industry stakeholders. This process has resulted in a number of compromises to create a set of regulations that meets the goal of the Legislative mandate while limiting the regulatory burden on the shipping industry. Many industry stakeholders voiced support and appreciation for the inclusive, transparent process in their comments for the second Public Comment Period.

The initial Public Comment Period for the proposed regulations spanned 46 days, from May 1, 2015, through June 16, 2015, with a Public Hearing at the Port of Long Beach on June 16, 2015. Commission staff received 191 comments during this initial Public Comment Period. Multiple commenters identified a need to exempt specific underwater surfaces with excessive fouling from California Code of Regulations, Title 2, section 2298.6, subdivision (c), because these surfaces may be difficult or dangerous to clean. Another concern raised by multiple commenters focused on situations where vessels may need to maintain biofouling management planning documents for compliance with sections 2298.3 and 2298.4, even though the vessel may not be scheduled to operate in California, because they may be rerouted to California at some point in their itinerary. In response to these comments and all of the comments received, the Commission proposed non-substantive, but sufficiently-related, changes to 16 subsections of the proposed regulations, including the creation of two new subsections and the withdrawal of one subsection.

The Commission staff held a second Public Comment Period for 17 days, from July 31, 2015, through August 17, 2015. Commission staff received 55 comments during this second Public Comment Period. After reviewing the comments from the second Public Comment Period, no further changes were made to the proposed regulations.

Although many of the shipping industry's concerns have been addressed throughout the regulatory development process, American Waterways Operators (AWO), representing the tug and barge industry, has continued to voice a concern that Section 2298.7 *Requirements for Vessels with Extended Residency Periods* will disproportionately affect their members' vessels, particularly vessels that may not be able to come into California from other states without first inspecting or managing their biofouling. The AWO also expressed concerns that this situation may cause conflicts with the Dormant Commerce Clause, implied in the U.S. Constitution. Commission staff has discussed these concerns with an AWO representative and believe that, because the requirements apply equally to vessels working within the State and coming from outside, the requirements do not violate the Dormant Commerce Clause. These concerns are adequately addressed in the Final Statement of Reasons.

The proposed regulations are intended to become effective July 1, 2016. However, most provisions will become effective for individual vessels after the vessel's first regularly scheduled out-of-water maintenance (i.e., dry docking) on or after July 1, 2016.

Staff recommends approval of the proposed regulations.

STATUTORY AND OTHER REGULATIONS:

A. Public Resources Code sections 71200 through 71271
B. California Code of Regulations, Title 2, Division 3, Chapter 1

OTHER PERTINENT INFORMATION:

1. The staff recommends that the Commission find that this activity is exempt from the requirements of the California Environmental Quality Act (CEQA) as a categorically exempt project. The project is exempt under Class 8, Actions by Regulatory Agencies for Protection of the Environment; California Code of Regulations, Title 14, section 15308.

   Authority: Public Resources Code section 21084 and California Code of Regulations, Title 14, section 15300.

2. No alternatives would be more effective in carrying out the purposes for which the amendments are proposed, or would be as effective as and less burdensome, or would more greatly lessen any adverse economic impact on small businesses or affected private persons, than the proposed regulations.

3. The proposed regulatory amendments are not considered a "major regulation" as defined by California Department of Finance in California Code of Regulations, Title 1, section 2000, subdivision (g).

EXHIBITS:

A. Proposed Final Regulatory Text
B. Proposed Hull Husbandry Reporting Form
C. References Cited in Calendar Item

IT IS RECOMMENDED THAT THE COMMISSION:

1. Find that the activity is exempt from the requirements of CEQA pursuant to California Code of Regulations, Title 14, section 15061 as a categorically exempt project, Class 8, Actions by Regulatory Agencies for Protection of the Environment; California Code of Regulations, Title 14, section 15308.

2. Find that no alternatives would be more effective in carrying out the purposes for which the amendments are proposed, or would be as effective as and less burdensome, or would more greatly lessen any adverse economic impact on small businesses or affected private persons, than the proposed regulations.

3. Adopt the proposed additions and amendments to California Code of Regulations, Title 2, Division 3, Chapter 1, Article 4.8, sections 2298 through 2298.9.1 substantially in the form of that set forth in Exhibit "A".

4. Authorize the Commission staff to make any minor modifications to the proposed amendments in response to recommendations by the Office of Administrative Law.

5. Direct the Commission staff to take whatever action is necessary and appropriate to comply with provisions of the Government Code regarding the lawful adoption and publication of the regulations and amendments and to ensure that the regulations become effective.

6. Direct Commission staff to take whatever action is necessary and appropriate to implement the amended regulations at such time as they become effective.

EXHIBIT A

LEGEND FOR PROPOSED CHANGES:
- For changes proposed during initial 46-Day Public Comment Period:
  - New text is underlined
  - Repealed text appears in ~~strikeout~~
- For changes proposed during 17-Day Public Comment Period:
  - New text is double underlined
  - Repealed text appears in ~~double strikeout~~

Article 4.8. ~~The Collection of Information Relating to Hull Husbandry Practices of Vessels for Control of Marine Invasive Species in Waters of California~~ Biofouling Management to Minimize the Transfer of Nonindigenous Species from Vessels Operating in California Waters

~~Section 2298. Hull Husbandry Reporting Form.~~

~~(a) Section 71205(e) of the Public Resources Code requires the master, owner, operator, agent, or person in charge of a vessel carrying, or capable of carrying, ballast water into the coastal waters of the State to file the "Hull Husbandry Reporting Form" developed by the California State Lands Commission providing information regarding the hull husbandry practices relating to the vessel, within 60 days of receiving a written or electronic request from the Commission.~~

~~(b) The following form "Hull Husbandry Reporting Form" is hereby incorporated by reference and shall be used by the master, owner, operator, agent, or person in charge of a vessel carrying, or capable of carrying, ballast water into the coastal waters of the State to comply with the provisions of Section 71205(e) of the Public Resources Code.~~

~~Authority: Public Resources Code Sections 71201 and 71204.6~~

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

Section 2298.1. Purpose, Applicability, and Date of Implementation.

(a) The purpose of the regulations in Title 2, Division 3, Chapter 1, Article 4.8 of the California Code of Regulations is to move the State expeditiously toward elimination of the discharge of nonindigenous species into the waters of the State, or into waters that may impact the waters of the State, based on the best available technology economically achievable.

(b) The provisions of Article 4.8 apply to all vessels carrying, or capable of carrying, ballast water that arrive at a California port or place, except those vessels that

are exempt under Section 71202 of the Public Resources Code or those vessels that satisfy the requirements of the emergency exemption clause in 2 CCR §2298.9.1.

(c) For the purposes of Article 4.8, all ports and places in the San Francisco Bay area East of the Golden Gate bridge, including the Ports of Stockton and Sacramento, shall be interpreted as the same "California port or place"; the Ports of Los Angeles, Long Beach, and the El Segundo marine terminal shall be interpreted as the same "California port or place."

(d) The provisions of these regulations shall become effective July 1, 2016.

(e) Commission staff shall continue to collect and evaluate all available data to assess the effectiveness of the regulations contained within Article 4.8. The Commission shall revise these regulations to adopt biofouling compliance assessment protocols and make any other revisions as necessary to fulfill the purpose of these regulations, as described in subdivision (a) of this section.

Authority Cited: Sections 71201, 71201.7, 71202 and 71204.6, Public Resources Code

Reference Cited: Sections 71200, 71201, 71201.7, 71202, 71204.6, 71205 and 71207, Public Resources Code

Section 2298.2. Definitions.

Unless the context otherwise requires, the following definitions shall govern the construction of this Article:

(a) "Anti-fouling coating" means any paint or other coating that prevents or deters the attachment and growth of biofouling organisms on the wetted portions of a vessel. Anti-fouling coatings can include biocidal or non-biocidal anti-fouling coatings.

(b) "Anti-fouling system" means a coating, paint, surface treatment, surface, or device that is used on a vessel to minimize or prevent attachment, growth, or association of biofouling.

(c) "Biocidal anti-fouling coating" means an anti-fouling coating containing one or more chemical substances that are toxic or act as a deterrent to the settlement of living organisms.

(d) "Biofouling," also referred to as hull fouling or marine growth, means the attachment or association of marine organisms to the wetted portions of a vessel or its appurtenances, including but not limited to, sea chests, propellers, anchors

and associated chains, and other niche areas. Biofouling can include microfouling and macrofouling.

(e) "Biofouling compliance assessment protocols" means protocols that describe the processes, methods, and statistical considerations that Commission staff will use to assess compliance with those regulatory provisions that include a performance standard based on percentage cover. These protocols will be adopted in future revisions of the regulations contained within this article.

(f) "CCR" means the California Code of Regulations.

(g) "Commission staff" means the staff of the California State Lands Commission.

(h) "Division Chief" means the Chief of the Marine Facilities Division of the California State Lands Commission or any employee of the Marine Facilities Division authorized by the Chief to act on her or his behalf.

(i) "Effective coating lifespan" means the age of an anti-fouling coating, as determined by the manufacturer and based on the vessel-specific application scheme (e.g. coating thickness), at which the coating is no longer expected to satisfactorily prevent or deter the attachment and growth of biofouling organisms.

(j) "Extended residency period" means remaining in one port or place consecutively for forty-five days or longer.

(k) "Foul-release coating" means a non-biocidal anti-fouling coating with surface properties that minimize the adhesion strength of biofouling, resulting in organism detachment by vessel movement.

(l) "Geographic location" means a port, anchorage, city and country, or latitude and longitude coordinates.

(m) "In-water cleaning" means the physical removal of biofouling from the wetted portions of a vessel while the vessel remains in the water.

(n) "In-water inspection" means underwater survey or inspection by diver(s) or with remotely operated vehicle(s). Inspections of a vessel's hull and other underwater surfaces for purposes other than surveying biofouling may be considered opportunities for evaluating the extent of biofouling.

(o) "In-water treatment" means any method or process that is aimed at killing or inactivating, but not removing, biofouling from the wetted portions of a vessel while the vessel remains in the water. In-water treatment may render organisms inactive, but any remnants that remain may serve as suitable substrate to facilitate further biofouling.

(p) "Macrofouling" means large, distinct multicellular organisms visible to the human eye such as barnacles, tubeworms, or fronds of algae.

(q) "Marine Growth Prevention System" or "MGPS" means an anti-fouling system device used to reduce or prevent biofouling accumulation in internal seawater systems and sea chests and can include the use of anodes, injection systems, and electrolysis.

(r) "Microfouling" means microscopic organisms including, but not limited to, bacteria and single-celled algae and the slimy substances that they produce. Biofouling comprised of only microfouling is commonly referred to as a slime layer.

(s) "Niche area" means an area on a vessel that may be more susceptible to biofouling due to variable hydrodynamic forces, susceptibility to coating system wear or damage, or due to inadequate protection by anti-fouling systems. Examples of niche areas include, but are not limited to, sea chests, bow thrusters, propeller shafts, inlet gratings, and out-of-water support strips.

(t) "Non-biocidal anti-fouling coating" means an anti-fouling coating that does not rely on one or more chemical substances intended to be toxic or act as a deterrent to organism settlement in order to achieve its anti-fouling properties. Non-biocidal anti-fouling coatings can include foul-release coatings.

(u) "Obviously excessive biofouling" means macrofouling percentage cover significantly in excess of fifteen percent of the wetted surface under investigation, as determined using the biofouling compliance assessment protocols. Filamentous or turf algae on the bulbous bow and at the waterline, including one meter above and one meter below the waterline, shall be excluded from this calculation.

(v) "Out-of-water maintenance" means removal of the vessel from the water and into a dry dock or slipway for inspection or maintenance. Out-of-water maintenance is commonly referred to as dry docking.

(w) "Out-of-water support blocks" means support blocks placed underneath the vessel while the vessel is undergoing out-of-water maintenance in a dry dock or slipway.

(x) "Out-of-water support strips" means sections of a vessel's hull that rest on out-of-water support blocks while the vessel is undergoing out-of-water maintenance in a dry dock or slipway. These areas are typically not cleaned or treated with fresh anti-fouling systems, resulting in reduced anti-fouling protection.

(y) "Percentage cover" means the percentage of the surface area under examination that is occupied by macrofouling, as determined using the biofouling compliance assessment protocols.

(z) "Significantly in excess of" means statistically significantly greater than the percentage cover value referenced. Statistical significance will be dependent on percentage cover measurements, number of photographs collected, and level of acceptable uncertainty as defined by the biofouling compliance assessment protocols.

(aa) "Vessel" means a vessel of 300 gross registered tons (GRT) or more.

(bb) "Waterline" means the line along the external hull of a vessel where the surface of the water interfaces with the hull of the vessel. The waterline is not a fixed location; its placement is dependent on a vessel's load or ballast condition.

(cc) "Wetted portion of a vessel" means all parts of a vessel's hull and structures that are either submerged in water when the vessel is loaded to the deepest permissible draft or associated with internal piping structures in contact with water taken onboard.

Authority Cited: Sections 71201, 71201.7 and 71204.6, Public Resources Code

Reference Cited: Sections 71200, 71201, 71201.7, 71204.6, 71205 and 71207, Public Resources Code

Section 2298.3. Biofouling Management Plan.

(a) The provisions described in this section apply to newly constructed vessels delivered into service on or after July 1, 2016, and to existing vessels beginning with completion of the first regularly scheduled out-of-water maintenance on or after July 1, 2016.

(1) If a vessel does not have a Biofouling Management Plan consistent with the requirements of subpart (b) of this section and is arriving at a California port or place for the first time since the most recent regularly scheduled out-of-water maintenance or since delivery as a newly constructed vessel if no out-of-water maintenance has yet occurred, there shall be a 60-day grace period commencing on the date of arrival to enable the development of the required documents. After this 60-day grace period, a vessel shall have a Biofouling Management Plan consistent with the requirements of subpart (b) of this section upon arrival at a California port or place.

(b) The master, owner, operator, or person in charge of a vessel arriving at a California port or place shall maintain a Biofouling Management Plan to be retained onboard and prepared specifically for that vessel. Upon request, the plan shall be made available to Commission staff for inspection and review. This plan shall provide a description of the biofouling management strategy for the vessel that is sufficiently detailed to allow a master or other appropriate ship's officer or crew member serving on that vessel to understand and follow the biofouling management strategy. This plan shall be regularly reviewed and revised so as to be current as of the last day of the most recent out-of-water maintenance, or as of delivery if the vessel has never undergone out-of-water maintenance. At a minimum, this plan shall:

(1) Maintain consistency with the components of the Biofouling Management Plan described in the International Maritime Organization's "Guidelines for the Control and Management of Ships' Biofouling to Minimize the Transfer of Invasive Aquatic Species (adopted on July 15, 2011)," hereby incorporated by reference; and

(2) Include separate lists describing the biofouling management practices and anti-fouling systems specifically used for the hull and each of the vessel's niche areas listed in 2 CCR §2298.6(b)(1). For each anti-fouling system listed, include the following:

(A) Manufacturer name, model name, and product number, if applicable;

(B) Date each system was installed or applied;

(C) For anti-fouling coatings:

(i) Include the vessel's final specification document for the anti-fouling coating applied, or a separate list documenting the information required by this subsection. The specification document or separate list shall include the parameters of the vessel's operating profile used for the specification of the anti-fouling system, including, ~~but not limited to~~ at a minimum:

(1) The specified intended out-of-water maintenance or dry-docking interval of the vessel;

(2) The specified range of vessel operating speeds;

(3) The specified vessel activity level (e.g. percentage of time underway at sea compared with percentage of

time berthed, anchored, moored, or adrift), if applicable;

(4) The specified vessel operating area or trading routes (e.g. coastal, deep-sea), if applicable.

(ii) Specify the applied dry film thickness;

(iii) Specify the expected effective coating lifespan (e.g. 60 months) at applied dry film thickness; and

(iv) Include a copy of the International Maritime Organization's International Anti-fouling System Certificate, if applicable.

(D) For MGPS:

(i) Indicate where anodes or dosing outlets are installed (i.e. sea chest, strainer, or other location within seawater intake system); and

(ii) Specify manufacturer's recommended doses and dosage frequency, if applicable.

Authority Cited: Sections 71201, 71201.7 and 71204.6, Public Resources Code

Reference Cited: Sections 71200, 71201, 71201.7, 71204.6, 71205 and 71207, Public Resources Code

Section 2298.4. Biofouling Record Book.

(a) The provisions described in this section apply to newly constructed vessels delivered on or after July 1, 2016, and to existing vessels beginning with completion of the first regularly scheduled out-of-water maintenance on or after July 1, 2016.

(1) If a vessel does not have a Biofouling Record Book consistent with the requirements of subpart (b) of this section and is arriving at a California port or place for the first time since the most recent regularly scheduled out-of-water maintenance or since delivery as a newly constructed vessel if no out-of-water maintenance has yet occurred, there shall be a 60-day grace period commencing on the date of arrival to enable the development of the required documents. After this 60-day grace period, a vessel shall have a Biofouling Record Book consistent with the requirements of subpart (b) of this section upon arrival at a California port or place.

(b) The master, owner, operator, or person in charge of a vessel that operates in the waters of the State shall maintain a Biofouling Record Book to be retained onboard the vessel. The Biofouling Record Book must contain details of all inspections and biofouling management measures undertaken on the vessel since the beginning of the most recent scheduled out-of-water maintenance or since delivery as a newly constructed vessel if no out-of-water maintenance has yet occurred. At a minimum, this record book shall:

(1) Maintain consistency with the components of the Biofouling Record Book described in the International Maritime Organization's "Guidelines for the Control and Management of Ships' Biofouling to Minimize the Transfer of Invasive Aquatic Species (adopted on July 15, 2011)";

(2) Include a description of all completed niche area management practices, as required in 2 CCR §2298.6(b)(2); and

~~(3) Include a description of any occurrences since the most recent out-of-water maintenance when the vessel remained in the same geographic location for ten or more consecutive days. Details shall include, at a minimum:~~

~~(A) Geographic location where the vessel remained for ten or more consecutive days;~~

~~(B) Date of arrival at that geographic location;~~

~~(C) Date of departure from that geographic location;~~

~~(D) Any biofouling maintenance undertaken prior to (e.g. blanking off intakes), during, or following a residency period of ten or more consecutive days.~~

(c) During the 60-day grace period described in subpart (a)(1) of this section, the master, owner, operator, or person in charge of a vessel that operates in the water of the State shall:

(1) Maintain records containing details of all inspections and biofouling management measures undertaken on the vessel since the beginning of the most recent regularly scheduled out-of-water maintenance or since delivery as a newly constructed vessel if no out-of-water maintenance has yet occurred; and

(2) Make the records described in 2 CCR §2298.4(c)(1) available upon request of Commission staff.

Authority Cited: Sections 71201, 71201.7 and 71204.6, Public Resources Code

Reference Cited: Sections 71200, 71201, 71201.7, 71204.6, 71205 and 71207, Public Resources Code

Section 2298.5. Hull Husbandry Reporting Form.

The form "California State Lands Commission Marine Invasive Species Program Hull Husbandry Reporting Form (Revised June 5, 2014)" is hereby incorporated by reference. The master, owner, operator, agent or person in charge of a vessel carrying, or capable of carrying, ballast water into the coastal waters of the State shall submit the "Hull Husbandry Reporting Form (Revised June 5, 2014)" to the Commission in written or electronic form at least twenty-four hours in advance of the first arrival of each calendar year to a California port or place of call.

Authority Cited: Sections 71201, 71201.7 and 71204.6, Public Resources Code

Reference Cited: Sections 71200, 71201, 71201.7, 71204, 71204.6, 71205 and 71207, Public Resources Code

Section 2298.6. Biofouling Management for Wetted Surfaces.

The provisions described in this section apply to newly constructed vessels delivered on or after July 1, 2016, and to existing vessels beginning with completion of the first regularly scheduled out-of-water maintenance on or after July 1, 2016.

(a) The master, owner, operator, or person in charge of a vessel arriving at a California port or place shall manage biofouling on the wetted surfaces of the vessel, except those niche areas described in subdivision (b) of this section, in any of the following ways:

(1) If a vessel is using an anti-fouling coating, the coating shall not be aged beyond its effective coating lifespan, as documented in 2 CCR §2298.3(b)(2)(C);

(2) If a vessel is using an anti-fouling coating and the coating is aged beyond its effective coating lifespan, as documented in 2 CCR §2298.3(b)(2)(C), the biofouling on the wetted surfaces of the vessel, except those niche areas listed in subdivision (b)(1) of this section, shall be managed so that macrofouling percentage cover is not significantly in excess of five percent of the surface area under investigation, as determined by Commission staff using the biofouling compliance assessment protocols. Filamentous or turf algae on the bulbous bow and at the waterline, including one meter

above and one meter below the waterline, shall be excluded from this calculation; or

(3) If a vessel is not using an anti-fouling coating, the biofouling on the wetted surfaces of the vessel, except those niche areas listed in subdivision (b)(1) of this section, shall be managed so that macrofouling percentage cover is not significantly in excess of five percent of the surface area under investigation, as determined by Commission staff using the biofouling compliance assessment protocols. Filamentous or turf algae on the bulbous bow and at the waterline, including one meter above and one meter below the waterline, shall be excluded from this calculation.

(b) The master, owner, operator, or person in charge of a vessel arriving at a California port or place shall manage biofouling on the niche areas listed in subdivision (b)(1) of this section, if present, in a manner consistent with the requirements listed in subdivision (b)(2) of this section. Any other niche areas should also be managed in a manner consistent with subdivision (b)(2) of this section.

(1) Biofouling management shall apply to the following niche areas, if present:

(A) Sea chests;

(B) Sea chest gratings;

(C) Bow and stern thrusters;

(D) Bow and stern thruster gratings;

(E) Fin~~s~~ stabilizers and recesses;

(F) Out-of-water support strips;

(G) Propellers and propeller shafts; and

(H) Rudders.

(2) Biofouling in niche areas must be managed using one or more biofouling management practices or strategies that are appropriate for the vessel and its operational profile.

(A) All niche area management practices and strategies to be employed as part of the overall biofouling management strategy shall be listed in the Biofouling Management Plan, as required by 2 CCR §2298.3(b)(2).

(B) All completed niche area management practices shall be documented in the Biofouling Record Book, as required by 2 CCR 2298.4(b)(2).

(C) If any of the niche area management practices listed in the Biofouling Management Plan are not conducted as planned, the reason(s) why the practice(s) were not conducted shall be documented in the Biofouling Record Book.

(c) A vessel shall not exhibit obviously excessive biofouling upon arrival to a California port or place. If, upon inspection utilizing the biofouling compliance assessment protocols, Commission staff detects obviously excessive biofouling, the master, owner, operator, or person in charge of a vessel shall:

(1) Receive a written warning indicating the occurrence of obviously excessive biofouling, if either of the following occurs:

(A) Current detection of obviously excessive biofouling is restricted to a vessel's sea chests, sea chest gratings, fin stabilizer recesses, rudder recesses, rope guard internal recesses, and/or bow or stern thrusters; or

(B) Current detection of obviously excessive biofouling for any wetted surface except sea chests, sea chest gratings, fin stabilizer recesses, rudder recesses, rope guard internal recesses, and/or bow or stern thrusters is:

(i) The first occurrence in California since the most recent of either the previous out-of-water maintenance or the vessel's delivery; and

(ii) The vessel remains in State waters for less than ~~96~~ 168 consecutive hours.

(2) Be in violation of this article, if:

(A) Current detection of obviously excessive biofouling for any wetted surface except sea chests, sea chest gratings, fin stabilizer recesses, rudder recesses, rope guard internal recesses, and/or bow or stern thrusters is the second or subsequent occurrence in California since the vessel's most recent out-of-water maintenance or since delivery if the vessel has not undergone an out-of-water-maintenance; or

(B) The vessel exhibits obviously excessive biofouling for any wetted surface except sea chests, sea chest gratings, fin stabilizer

recesses, rudder recesses, rope guard internal recesses, and/or bow or stern thrusters and remains in State waters for ~~96~~ 168 consecutive hours or more.

(3) Be required to manage the biofouling prior to the vessel's next arrival to a California port or place, using the following approaches:

(A) The niche areas listed in subdivision (b) of this section, if present, must be evaluated and managed in a manner that is consistent with the niche area management practices listed in the Biofouling Management Plan, and all activities shall be documented in the Biofouling Record Book; and

(B) The wetted portions of the vessel identified in subdivision (a) of this section shall be managed so that upon the vessel's next arrival to a California port or place, macrofouling percentage cover is not significantly in excess of five percent, as determined by Commission staff using the biofouling compliance assessment protocols, with the following exceptions:

(i) If a vessel found to exhibit obviously excessive biofouling is scheduled to arrive at another California port or place within 21 days, there shall be a 21-day grace period commencing on the date of violation, to allow for scheduling and implementation of biofouling management activities; or

(ii) If a vessel found to exhibit obviously excessive biofouling remains for greater than 21 days in the same California port or place where the violation occurred, the Division Chief may require the master, owner, operator, or person in charge of a vessel to clean or treat the vessel to remove or inactivate macrofouling, using available in-water cleaning technologies, in-water treatment technologies, or out-of-water maintenance, and in consultation with Commission staff.

(iii) If a master, owner, operator, or person in charge of a vessel makes a reasonable attempt to manage biofouling to reduce extent to the level required by subpart (c)(3)(B) but finds that services are unavailable, he or she will not be found in violation of subdivision (c)(3) of this section if the following conditions are met:

(iii.1) In-water cleaning or in-water treatment services are not available (including lack of availability due to adverse weather or sea state) in any of the ports visited between the warning or violation of the

obviously excessive biofouling provision found in subpart (c) and the vessel's next arrival to a California port or place;

(iii.2) All of the ports visited between the warning or violation of the obviously excessive biofouling provision found in subpart (c) and the vessel's next arrival to a California port or place are listed in the Biofouling Record Book; and

(iii.3) Attempts to procure in-water cleaning or in-water treatment at all of the ports visited between the warning or violation of the obviously excessive biofouling provision found in subpart (c) and the vessel's next arrival to a California port or place are documented in the Biofouling Record Book.

(4) Be required to maintain documentation providing evidence of such management and the resulting approximate biofouling extent within the vessel's Biofouling Record Book described in 2 CCR §2298.4.

Authority Cited: Sections 71201, 71201.7 and 71204.6, Public Resources Code

Reference Cited: Sections 71200, 71201, 71201.7, 71204.6, 71205 and 71207 Public Resources Code

Section 2298.7. Requirements for Vessels with Extended Residency Periods.

The master, owner, operator, or person in charge of a vessel that has experienced an extended residency period since its most recent out-of-water maintenance, in-water treatment, or in-water cleaning must ensure that the vessel is compliant with the following requirements upon arrival to a California port or place:

(a) Manage biofouling to ensure, upon arrival to a California port or place, that macrofouling percentage cover is not significantly in excess of five percent of the wetted portions of the vessel, excluding the niche areas described in 2 CCR §2298.6(b), as determined by Commission staff using the biofouling compliance assessment protocols;

(1) Reports from any activities to manage biofouling, including in-water inspection, in-water cleaning, in-water treatment, or out-of-water maintenance, after an extended residency period shall be documented in the Biofouling Record Book.

(b) Manage biofouling in the niche areas described in 2 CCR §2298.6(b), if present, in a manner that is consistent with the niche area management practices listed in the Biofouling Management Plan. All activities employed immediately before and after the extended residency period to manage biofouling in the niche areas described in 2 CCR §2298.6(b), if present, shall be documented in the Biofouling Record Book.

Authority Cited: Sections 71201, 71201.7 and 71204.6, Public Resources Code

Reference Cited: Sections 71200, 71201, 71201.7, 71204.6 and 71205, Public Resources Code

Section 2298.8. Propeller Cleaning in California Waters.

Propeller cleaning in California waters is not prohibited under this article.

Authority Cited: Sections 71201, 71201.7 and 71204.6, Public Resources Code

Reference Cited: Sections 71200, 71201, 71201.7, 71204, 71204.6, 71205 and 71207, Public Resources Code

Section 2298.9. Alternatives.

(a) Petitions for Alternatives.

(1) Any person subject to these regulations may submit a petition to the Division Chief for alternatives to the requirements of Article 4.8 as applied to the petitioner.

(2) All petitions for alternatives must be submitted in writing. A petition may be in any form, but it must contain all data and information necessary to evaluate its merits in order to fulfill the purposes of these regulations.

(3) All petitions for alternatives must be submitted and must receive approval prior to the vessel's arrival to a California port or place.

(b) Response to Petitions.

(1) The Division Chief shall respond in writing to any petition for alternatives within thirty days of receipt of the petition.

(c) Approval of Alternatives.

(1) The Division Chief may approve any proposed alternatives to the requirements of Article 4.8 if she or he determines that the proposed alternatives will fulfill the purpose of these regulations as outlined in 2 CCR §2298.1(a).

(2) If the Division Chief approves any proposed alternatives under this section, a letter of approval shall be issued to the petitioner setting forth the findings upon which the approval is based.

(3) The Division Chief may withdraw the letter of approval of any alternative requirements at any time if he or she finds that the person or persons subject to these regulations have not complied with the approved alternative requirements.

(4) Withdrawal of a letter of approval under this section shall be effective upon receipt by the petitioner of written notification of the withdrawal from the Division Chief.

Authority Cited: Sections 71201, 71201.7 and 71204.6, Public Resources Code

Reference Cited: Sections 71200, 71201, 71201.7, 71204, 71204.6, 71205 and 71207, Public Resources Code

Section 2298.9.1. Emergency Exemptions

(a) A vessel will be exempt from the requirements contained within Article 4.8 if all of the following conditions are satisfied:

(1) The vessel makes an unscheduled arrival to a California port or place because of an emergency;

(A) Arrival for scheduled bunkering only is not an emergency under this clause;

(2) The master, owner, operator, agent, or person in charge of the vessel notifies the Division Chief, in written or electronic form, of the emergency, and provides details on the nature of the emergency, no later than twenty-four hours after arrival;

(3) The vessel has not arrived to another California port or place since the most recent of either the previous out-of-water maintenance or the vessel's delivery; and

(4) The vessel will remain in California waters for 21 days or less;

(A) If the vessel remains in California waters for greater than 21 days, the Division Chief may require the master, owner, operator, or person in charge of a vessel to clean or treat the vessel to remove or inactivate macrofouling, using available in-water cleaning technologies, in-water treatment technologies, or out-of-water maintenance, in consultation with Commission staff.

Authority Cited: Sections 71201, 71201.7 and 71204.6, Public Resources Code

Reference Cited: Sections 71200, 71201, 71201.7, 71204, 71204.6, 71205 and 71207, Public Resources Code

EXHIBIT B

California State Lands Commission
Marine Invasive Species Program
Hull Husbandry Reporting Form
Public Resources Code 71204.6
June 5, 2014
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 ☐
Yes, partial coat ☐ Date last full coat applied (**Day/Month/Year**)
No coat applied ☐ 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:
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 chest(s) and/or sea strainer(s)?

Yes☐	Manufacturer:	Model:
If Yes, MGPS installed in (**check all that apply**): Sea Chest(s)☐ Sea strainer(s)☐		
No ☐		

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 ☐

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 ☐	How many times?
No ☐	

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

Yes ☐	How many times?
No ☐	

c. Panama Canal?

Yes ☐	How many times?
No ☐	

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:
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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.

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):
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Port or Position: Country:

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

EXHIBIT B

California State Lands Commission
Marine Invasive Species Program
Hull Husbandry Reporting Form
Public Resources Code – 71204.6
June 5, 2014
Part II: Supplementary Instructions for Completing Reporting Form

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HULL HUSBANDRY REPORTING FORM TO BE SUBMITTED AT LEAST TWENTY-FOUR HOURS IN ADVANCE OF THE FIRST ARRIVAL OF THE CALENDAR YEAR TO A CALIFORNIA PORT OR PLACE

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.
- 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 (MGPS) are systems installed in the sea chests or sea strainers 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.
- If Yes was selected, indicate whether MGPS is installed in sea chests or strainers (or both).

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.

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^{o} S and 23.5^{o} 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.

- 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 CITED: Sections 71201, 71201.7, and 71204.6 Public Resources Code.

REFERENCE CITED: Sections 71200, 71201, 71201.7, 71204.6, 71205, and 71207, Public Resources Code.

EXHIBIT C

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EXHIBIT C

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