Meeting Date: 04/27/21
Work Order Number: W9777.234
Staff: L. Ceballos Osuna, E. Kennedy

Staff Report 42

PARTY:

California State Lands Commission

PROPOSED ACTION:

Consider approval of proposed amendments to sections 2291, 2292, 2293, 2294, 2295, 2296, and 2297 of the California Code of Regulations, Title 2, Division 3, Chapter 1, Article 4.7.

AREA, LAND TYPE, AND LOCATION:

Statewide.

BACKGROUND:

The California Marine Invasive Species Program (MISP) is a multiagency program designed to reduce the risk of introducing nonindigenous species (NIS) into State waters from vessels 300 gross registered tons or greater that are capable of carrying ballast water. The MISP was established by the Ballast Water Management for Control of Nonindigenous Species Act of 1999 and reauthorized and expanded by the Marine Invasive Species Act of 2003. The purpose of the MISP is to move the State expeditiously toward elimination of the discharge of nonindigenous species into the waters of the state (Public Resources Code, § 71201, subd. (d)). The MISP is funded exclusively through fees assessed on vessels arriving at California ports and penalties assessed for violations of the Marine Invasive Species Act. Fees and penalties are deposited in the Marine Invasive Species Control Fund; the MISP uses no State General Fund dollars.

Nonindigenous species are organisms that have been transported by humans to locations where they do not naturally or historically occur. Once established, NIS can have adverse economic, ecological, and public health consequences. To prevent species introductions in State waters, the Marine Invasive Species Act regulates ballast water and biofouling management, recordkeeping, and reporting for oceangoing vessels arriving at the State's ports.

The Commission is authorized by statute to implement and enforce ballast water discharge performance standards to limit the allowable concentration of living organisms in ballast water discharged in California waters. California's ballast water discharge performance standards were first codified in 2006. Those standards were based on recommendations from the majority of members of a technical advisory panel consisting of scientists, regulators, representatives from the shipping industry, and environmental organizations. California's standards were aspirational and set to be phased in over time to allow for the development of technologies that would enable vessels to meet them.

California's interim performance standards were slated to be implemented in January 2020. Prior to implementing the performance standards, the Commission prepared a report to the Legislature, in accordance with Public Resources Code section 71205.3, assessing the efficacy, availability, and environmental impacts of available ballast water treatment technologies (https://www.slc.ca.gov/wp-content/uploads/2019/01/2018.pdf). The report found that there were no available ballast water treatment technologies to enable implementation of the interim California ballast water discharge performance standards.

Based on recommendations in the report, the Legislature passed AB 912 (Chapter 433, Statutes of 2019), which delayed implementation of the interim and final California ballast water discharge performance standards until January 1, 2030, and January 1, 2040, respectively. Further, AB 912 mandated that the Commission adopt regulations requiring vessels to comply with the federal ballast water discharge performance standards so that the Commission could enforce the federal standards until such time that technologies become available to enable vessels to meet the California interim standards. AB 912 also authorized the Commission to sample vessels' ballast water and sediments for research purposes to help inform revisions to the discharge standards in the future.

PROJECT DESCRIPTION:

The purpose of the proposed rulemaking is to amend Article 4.7 of Title 2, Division 3, Chapter 1 of the California Code of Regulations (Article 4.7) to implement the provisions of AB 912. These proposed regulatory amendments would delay the implementation dates for the California interim and final ballast water discharge performance standards, incorporate the federal ballast water discharge standards and associated implementation schedule into California regulations, establish requirements for vessel owners and operators to monitor the functionality of ballast water treatment systems, and establish conditions for the collection of ballast water and sediment samples for research purposes and compliance assessment. The

regulated community for this requirement includes masters, owners, operators, and persons in charge of vessels 300 gross registered tons or greater that are capable of carrying ballast water.

SUMMARY OF PROPOSED AMENDMENTS

The proposed regulatory action would:

- Amend section 2291 to clarify the applicability provision and establish an effective date for the new regulations.
- Amend section 2292 to repeal or amend existing terminology included within Article 4.7 in addition to adopting new terms to ensure clarity.
- Amend section 2293 to delay the interim and final California performance standards for ballast water discharges.
- Amend section 2293 to adopt the performance standards for the discharge of ballast water set forth in section 151.2030(a) of Title 33 of the Code of Federal Regulations in accordance with the implementation schedule in section 151.2035(b) of Title 33 of the Code of Federal Regulations, as required by Public Resources Code section 71205.3.
- Repeal sections that are no longer relevant (2294, 2295, 2296, and 2297).
- Adopt new section 2294 to establish that Commission staff must be provided access to sampling ports and tanks to collect and analyze ballast water for compliance assessment and ballast water and sediment samples for research purposes.
- Adopt new section 2295 to require vessels using a ballast water treatment system to meet the performance standards to conduct monitoring, calibration, and functionality assessments of the treatment system and operate it in accordance with the treatment system's System Design Limitations.
- Adopt new section 2296 to establish the criteria for ballasting exclusively with water from a Public Water System as an acceptable alternative ballast water management method.
- Adopt new section 2297 to set recordkeeping requirements.

These proposed amendments would become effective January 1, 2022.

SUMMARY OF NOTIFICATION AND RULEMAKING PROCESS

Prior to publication of the proposed regulations, Commission staff provided members of the technical advisory group, which included representatives from state and federal regulatory agencies, researchers, and shipping industry stakeholders, with a preliminary version of the proposed regulations and

incorporated feedback from the technical advisory group into the proposed regulations.

The proposed regulations were published in the California Regulatory Notice Register (Register 2020, No. 47-Z) on November 20, 2020. The Public Comment Period for the proposed regulations spanned 60 days, from November 20, 2020, through January 19, 2021.

After reviewing the comments received during the Public Comment Period, staff recommends one nonsubstantial correction to the lettering of the proposed regulations which does not require notice and a subsequent public comment period. All comments received will be addressed formally in the Final Statement of Reasons as part of the rulemaking process but are summarized with responses below. A complete copy of the final proposed regulations is included as Exhibit A.

SUMMARY OF RESPONSES TO PUBLIC COMMENTS

Commission staff received seven comment letters from individuals representing the following maritime shipping companies, industry organizations, and other government entities:

- John Berge on behalf of the Pacific Merchant Shipping Association
- Art Mead on behalf of Crowley Maritime Corporation
- Charles P. Costanzo on behalf of the American Waterways Operators
- Doug Schneider on behalf of the World Shipping Council
- Maureen Hayes on behalf of the Cruise Lines International Association
- Sharon Shiba of the California Department of Fish and Wildlife
- Dr. Richard A. Everett of the U.S. Coast Guard

Staff reviewed the comment letters and found a total of 24 specific comments among the seven letters. The two commenters from government agencies asked questions about the relationship of the proposed regulations to the Federal Vessel Incidental Discharge Act (VIDA; 33 U.S.C. § 1322). These comments did not require changes to the proposed regulations.

The remaining 22 comments from industry representatives were categorized into 6 groups, and staff's responses are summarized below.

1. Comments related to proposed section 2293, Performance Standards for Ballast Water Discharges, subdivisions (b) and (c):

Proposed section 2293, subdivisions (b) and (c) would codify the revised compliance dates for California's interim and final performance standards for ballast water discharges. Three commenters suggested that a requirement be added to the proposed regulations that the Commission prepare and present a

report to the Legislature on the efficacy, availability, and environmental impacts of currently available technologies for ballast water treatment systems at least 18 months in advance of the implementation of these standards. Staff did not find it necessary to add this requirement to the proposed regulations because this requirement is already in statute (Public Resources Code, § 71205.3, subd. (b)(1)).

2. Comments related to the collection and analysis of ballast water samples for compliance assessment, proposed section 2294, subdivision (a)(2):

Proposed section 2294, subdivision (a)(2) requires that the Commission be provided access to all vessel ballast water sampling ports for compliance assessment unless access is restricted due to safety concerns. Four commenters expressed concern about the feasibility of providing access to sampling ports under specific operational circumstances and requested that the Commission revise the regulations to recognize that access to sampling ports for compliance assessment purposes must be both safe and feasible. Operational concerns cited by the commenters included potential delay of a vessel's scheduled departure and disruption of cargo operations.

Staff does not recommend any change to the proposed amendments in response to these comments. The operational concerns specified by the commentors would not prevent the compliance assessment process from occurring. To prevent the discharge of nonindigenous species into California waters, as the Commission is charged by statute to do, it is critical that the Commission can proceed with ballast water sample collection whenever a vessel intends to discharge ballast water, so long as it is safe to collect the sample. Furthermore, ballast water sample collection for compliance analysis would occur while the vessel is actively discharging ballast water, which is already part of scheduled operations, so such collection would not cause significant disruptions to vessel operations.

3. Comments related to the collection and analysis of ballast water and sediment samples for research purposes, proposed section 2294, subdivision (b)(2):

Proposed section 2294, subdivision (b)(2) requires that the Commission must be given access to ballast water tanks and sampling ports, when feasible, to facilitate sampling for research purposes.

- Two commenters suggested that safety concerns should also be recognized as a reason not to require access for research sampling, and one commenter suggested removing the requirement that vessels grant the Commission access to ballast tanks and other confined spaces, due to safety concerns. Staff believes that no change in response to these comments is

necessary. Staff interprets the proposed "when feasible" language to encompass safety concerns, as well as operational or other practical concerns. Staff would not pursue sampling when it would pose a safety risk.

- One commenter proposed amending the regulations to specify that access to sampling ports and tanks to collect samples for research purposes not be required if it would result in vessel delay. Staff does not recommend any change in response to this comment. Sample collection for research would be coordinated with the vessel's crew, and staff intends to accommodate, as much as possible, the vessel's operations. However, such delays, to the extent that they occur, are necessary to ensure that the Commission can collect data to inform future policy decisions.

4. Comments related to compliance assessment methodology, proposed section 2294, subdivision (a)(4):

Proposed section 2294, subdivision (a)(4) requires that all methods used to analyze any ballast water discharge samples for compliance with the performance standards in section 2293 shall follow scientifically reliable and verifiable quality assurance and quality control procedures. Three commenters suggested including specific references for the methodologies to be used to collect and analyze ballast water samples. Staff recommends against any change to the proposed regulation in response to this comment because the field of compliance assessment methodology is rapidly evolving; it is important that the Commission retain flexibility to choose the best and most appropriate compliance method available at the time. If a vessel is found noncompliant with the standards, the methods of sample collection and analysis would be described as part of the enforcement action and would need to meet the standards of scientific reliability and verifiable quality assurance and quality control procedures to be enforceable.

5. Comments related to the lettering of proposed section 2294, subdivision (b):

Three commenters noted that this section was mistakenly lettered as subdivision (a). Staff corrected the lettering to subdivision (b) in the final proposed regulations.

6. Other general comments not pertaining to a specific section:

- One commenter requested clarification about the definition of "California Waters." It was not clear whether this commenter sought a change to the proposed regulations or simply wanted clarification about the meaning of "California waters," but staff found that no change to the proposed regulations was needed in response to this comment. Staff interprets

"California waters" to be the same as "waters of the state," defined in Public Resources Code section 71200, subdivision (o) as "surface waters, including saline waters, that are within the boundaries of the state." California's jurisdiction extends 3 nautical miles offshore from the coast.

- One commenter asked whether the data collected for compliance assessment and research will be kept confidential and anonymous. Because the Commission is a state agency, information, documents, and other records retained by the Commission are generally subject to disclosure under the Public Records Act (Gov. Code, § 6250 et seq.). Therefore, the Commission cannot adopt regulations that would conflict with the Public Records Act.
- One commenter expressed support for the comments submitted by the Pacific Merchant Shipping Association. Staff notes this support.
- One commenter expressed concern that the misalignment between federal and state regulations will have a negative economic impact on the shipping industry in California. No change is recommended in response to this comment. The proposed amendments bring California's ballast water discharge performance standards into alignment with federal regulations and delay the interim and final California performance discharge standards until 2030 and 2040, respectively, causing no imminent conflict with federal law.
- One commenter requested that the Commission adopt in these regulations a formalized process to request copies of any analyses of samples collected for both compliance and research purposes. No change is recommended in response to this comment because these reports would be public records and available upon request.

STAFF ANALYSIS AND RECOMMENDATION:

AUTHORITY:

Public Resources Code sections 71201.7, 71204.3, 71204.5, and 71205.3.

PUBLIC TRUST AND STATE'S BEST INTERESTS:

The proposed amendments will further the interests of the Public Trust by providing greater protection to Public Trust resources. Currently, the introduction of nonindigenous species to California's waters threatens Public Trust resources and values, including ecosystem preservation and the promotion and protection of

fishing, water-related recreation, maritime commerce, and water-dependent tourism. The proposed regulations are expected to benefit both the State's environment and the health and welfare of California residents. While the U.S. Coast Guard is authorized to enforce the federal ballast water discharge standards, it may not have the resources to inspect as many vessels for compliance with ballast water requirements as the Commission. Therefore, the Commission's ability to enforce the federal performance standards for the discharge of ballast water is expected to reduce the risk of NIS introductions by promoting compliance with the performance standards. Further, the proposed regulations will not interfere with navigation, as the regulated vessels are already subject to the discharge standards under federal law.

The proposed amendments will also allow the Commission to collect samples for research and compile data that will increase the current knowledge about the functionality of ballast water treatment systems and the ability of these systems to meet discharge standards. There are very limited published data available, so the Commission's ability to collect these data would inform future science-based policy development, increasing protection of California waters.

The proposed amendments satisfy the purpose of the Marine Invasive Species Act (Public Resources Code, § 71201, subd. (d)) "to move the State expeditiously toward elimination of the discharge of nonindigenous species into the waters of the State." Thus, staff believes that adoption of the proposed regulations would further enhance and protect Public Trust resources and is in the State's best interests.

CONCLUSION:

For these reasons, staff believes that the proposed amendments would benefit existing Public Trust uses and resources and are in the best interests of the State.

OTHER PERTINENT INFORMATION:

1. Approval or denial of the proposed amendments is a discretionary action by the Commission.

2. The proposed amendments interpret, implement, and make specific the provisions of Public Resources Code sections 71201.7, 71202, 71204.3, 71204.5, and 71205.3.

3. No alternatives would be more effective in carrying out the purposes for which the regulations are proposed, 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 amendments.

4. The proposed regulatory action is not a major regulation as defined by Government Code section 11342.548.

5. This action is consistent with the "Meeting Evolving Public Trust Needs" Strategic Focus Area of the Commission's 2021-2025 Strategic Plan.

6. Staff recommends that the Commission find that adoption of the proposed amendments 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.

EXHIBIT:

A. Text of the proposed regulations

RECOMMENDED ACTION:

It is recommended that the Commission:

CEQA FINDING:

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.

ALTERNATIVES FINDING:

Find that no alternatives would be more effective in carrying out the purposes for which the regulations are proposed, 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.

PUBLIC TRUST AND STATE'S BEST INTERESTS:

Find that adoption of the proposed amendments, or amendments substantially in the same form, will not substantially interfere with the public rights to navigation or the Public Trust needs and values at this time; is consistent with the common law Public Trust Doctrine; and is in the best interests of the State.

AUTHORIZATION:

1. Approve the amendments of sections 2291, 2292, 2293, 2294, 2295, 2296, and 2297 of the California Code of Regulations, Title 2, Division 3, Chapter 1, Article 4.7, substantially in the form as set forth in the attached Exhibit A.

2. Authorize staff to make nonsubstantive modifications to the proposed amendments in response to recommendations by the Office of Administrative Law.

3. Authorize 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 to ensure that the regulations become effective.

4. Authorize staff to take whatever action is necessary and appropriate to implement the regulations at such time as they become effective.

Title 2. ADMINISTRATION
DIVISION 3. STATE PROPERTY OPERATIONS
CHAPTER 1. STATE LANDS COMMISSION
ARTICLE 4.7 PERFORMANCE STANDARDS AND COMPLIANCE ASSESSMENT FOR THE DISCHARGE OF BALLAST WATER FOR VESSELS OPERATING IN CALIFORNIA WATERS

Staff has illustrated changes to the original text in the following manner: proposed language is underlined; deletions from the original text are shown in strikeout using a "-".

Section 2291. Purpose, Applicability, and Date of Implementation.

(a) The purpose of the regulations in Title 2, Division 3, Chapter 1, Article 4.7 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 4.7 apply to all vessels, 300 gross registered tons or more, carrying, or capable of carrying ~~that discharge~~ ballast water, ~~in California waters~~ except those that are exempt under Section 71202, Public Resources Code.

(c) The provisions of Article 4.7 are effective on January 1, 2022.

Note: Authority cited: Sections 71201.7, 71202 and 71205.3, Public Resources Code. Reference: Sections 71201, 71201.7, 71202 and 71205.3, Public Resources Code.

Section 2292. Definitions.

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

(a) "Ballast Water Capacity" means the total volumetric capacity of any tanks, spaces, or compartments on a vessel used for carrying, loading or discharging ballast water, including any multi-use tank, space or compartment designed to allow carriage of ballast water.

(b) "Ballast Water Sample" means a unit of ballast water that may be collected ~~and assessed~~ for compliance assessment or research ~~verification~~ purposes.

(c) "Ballast Water Treatment System," also referred to as a "Ballast Water Management System," means any system that processes ballast water to remove, kill, or render nonviable organisms in ballast water prior to discharge or to avoid the uptake or discharge of organisms.

~~(c) "Board" means the State Water Resources Control Board~~

(d) "Colony Forming Unit" means a measure of viable bacteria in a sample. ~~bacterial numbers.~~

(e) "Commission" means the California State Lands Commission.

~~(f) "Constructed" means a stage of vessel construction where:~~

~~(1) the keel is laid; or~~

~~(2) construction identifiable with a specific vessel begins; or~~

~~(3) assembly of the vessel has commenced comprising at least 50 tonnes or 1 percent of the estimated mass of all structural material, whichever is less; or~~

~~(4) the vessel undergoes a major conversion.~~

~~(g) "Isokinetic Sampling Facility" means a sampling apparatus in which the velocity (or speed) of the sample stream does not change from the pipe being sampled to the sample pipe itself.~~

~~(h) "Isokinetic Diameter" assumes a circular main flow pipe and circular sampling pipe of which the diameter is designed to maintain the fluid velocity from the main flow to the sample flow.~~

~~(i) "Major Conversion" means a conversion of a vessel;~~

~~(1) which changes its ballast water carrying capacity by 15 percent or greater; or~~

~~(2) which changes the vessel type; or~~

~~(3) which, in the opinion of the Commission, is projected to prolong its life by ten years or more; or~~

~~(4) which results in modifications to its ballast water system other than component replacement-in-kind. Conversion of a vessel to meet the provisions of this Article shall not be deemed to constitute a major conversion for the purposes of this Section.~~

~~(j) "Sampling Facilities" means the equipment installed to take the ballast water sample.~~

(f) "Detailed Analysis" means a direct measurement of the organism's concentration in a representative sample to assess compliance with the discharge standards.

(g) "Functionality Monitoring" means monitoring of the applicable operational performance parameters to verify that the ballast water treatment system is operating according to the manufacturers' specifications.

(h) "Indicative Analysis" means a rapid preliminary assessment of the organism concentration in a representative sample of the ballast water volume of interest using biological, chemical, or physical parameters.

(i) "mL" means milliliter.

(j) "Public Water System" means a U.S. system for the provision of water to the public for human consumption, as defined in Title 40 of the Code of Federal Regulations, section 141.2. and subject to the requirements of 40 CFR parts 141 and 143, or a Canadian drinking water system that meets Health Canada's "Guidelines on Canadian Drinking Water Quality."

(k) "Sampling ~~Point~~Port" means the equipment installed in the ballast water piping through which representative samples of the ballast water being discharged are extracted~~that place in the ballast water piping where the sample is taken~~.

(l) "System Design Limitations or SDLs" are the physical or operational parameters important to the proper operation of the ballast water treatment system and designed to achieve the discharge performance standards (for example minimum and maximum flow rates, time between ballast uptake and discharge, water quality limitations, operating environmental conditions, filter pressure, or ultraviolet transmittance).

~~(l)~~ (m) "Vessel" ~~means a vessel of 300 gross registered tons or more.~~ has the same meaning as in Section 71200, Public Resources Code, subdivision (r).

Note: Authority cited: Sections 71201.7 and 71205.3, Public Resources Code. Reference: Sections 71200, 71201.7, 71204, 71206 and 71205.3, Public Resources Code.

Section 2293. ~~Interim~~ Performance Standards for Ballast Water Discharges.

The provisions under this Section apply only to vessels that discharge ballast water in California waters.

(a) Federal Performance Standards for Ballast Water Discharges.

(1) Notwithstanding section 2296, the master, owner, operator, or person in charge of a vessel shall not discharge ballast water in California waters unless the following ballast water discharge performance standards, which are set forth in Section 151.2030 of Title 33 of the Code of Federal Regulations or as that regulation may be amended, are met:

(A) For organisms greater than or equal to 50 micrometers in minimum dimension: discharge must include fewer than 10 organisms per cubic meter of ballast water.

(B) For organisms less than 50 micrometers and greater than or equal to 10 micrometers: discharge must include fewer than 10 organisms per mL of ballast water.

(C) Indicator microorganisms must not exceed:

(1) For toxicogenic *Vibrio cholerae* (serotypes O1 and O139): a concentration of less than 1 colony forming unit (cfu) per 100 mL.
(2) For *Escherichia coli*: a concentration of fewer than 250 cfu per 100 mL.
(3) For intestinal enterococci: a concentration of fewer than 100 cfu per 100 mL.

(2) The performance standards in Section 2293, subdivision (a)(1), must be met according to the following implementation schedule unless the master, owner, operator, or person in charge of a vessel has been granted an extension to the vessel's compliance date by the United States Coast Guard pursuant to Section 151.2036 of Title 33 of the Code of Federal Regulations, or unless the vessel is using water from a Public Water System as ballast water pursuant to Section 2296.

	Vessel's ballast water capacity in cubic meters (m^3)	**Date constructed**	**Vessel's compliance date**
New vessels	All	On or after December 1, 2013	On delivery

Existing vessels	Less than 1,500 m^3	Before December 1, 2013	First scheduled drydocking after January 1, 2016
	1,500-5,000 m^3	Before December 1, 2013	First scheduled drydocking after January 1, 2014
	Greater than 5,000 m^3	Before December 1, 2013	First scheduled drydocking after January 1, 2016

(b) Interim California Performance Standards for Ballast Water Discharges.

~~Subject to the Implementation Schedule in Section 2294, before discharging ballast water in waters subject to the jurisdiction of California,~~ No later than January 1, 2030, the master, owner, operator, or person in charge of a vessel ~~to which this section applies shall conduct ballast water treatment so~~ must comply with the interim California performance standards for the discharge of ballast water. The interim performance standards for the discharge of ballast water in California require that ballast water discharged will contain:

~~(a)~~ (1) No detectable living organisms that are greater than or equal to 50 micrometers in minimum dimension;

~~(b)~~ (2) ~~Less~~ Fewer than 0.01 living organisms per ~~milliliter~~ mL that are less than 50 micrometers in minimum dimension and greater than or equal to ~~more than~~ 10 micrometers in minimum dimension;

~~(c)~~ (3) For living organisms that are less than 10 micrometers in minimum dimension:

~~(1)~~ (A) ~~less~~ fewer than 1,000 bacteria per 100 ~~milliliter~~ mL;
~~(2)~~ (B) ~~less~~ fewer than 10,000 viruses per 100 ~~milliliter~~ mL;
~~(3)~~ (C) concentrations of microbes that are less than:
~~(A)~~ 1.126 colony forming units per 100 ~~milliliters~~ mL of *Escherichia coli*;
~~(B)~~ 2. 33 colony forming units per 100 ~~milliliters~~ mL of Intestinal enterococci; and
~~(C)~~ 3.1 colony forming unit per 100 ~~milliliters~~ mL or 1 colony forming unit per gram of wet weight of zoological samples of Toxicogenic *Vibrio cholerae* (serotypes ~~O~~ O1 and ~~O~~ O139).

(c) Final California Performance Standards for Ballast Water Discharges.

No later than January 1, 2040, the master, owner, operator, or person in charge of a vessel to which this Article applies, must implement and meet the final performance standards for the discharge of ballast water. The final performance standards for the discharge of ballast water in California waters require that the ballast water discharged must have zero detectable living organisms for all organism size classes.

Note: Authority cited: Sections 71201.7 and 71205.3, Public Resources Code. Reference: Sections 71201.7 and 71205.3, Public Resources Code.

~~Section 2294. Implementation Schedule for Interim Performance Standards for Ballast Water Discharges.~~

~~Sections 2293 and 2297 apply to vessels in accordance with the following schedule:~~

~~(a) Beginning January 1, 2010, for vessels constructed on or after that date with a ballast water capacity of less than or equal to 5,000 metric tons.~~

~~(b) Beginning January 1, 2012, for vessels constructed on or after that date with a ballast water capacity greater than 5,000 metric tons.~~

~~(c) Beginning January 1, 2014, for vessels constructed before January 1, 2010, with a ballast water capacity of 1,500 metric tons or more but not more than 5,000 metric tons.~~

~~(d) Beginning January 1, 2016, for vessels constructed before January 1, 2010, with a ballast water capacity of less than 1,500 metric tons, and for vessels constructed before January 1, 2012, with a ballast water capacity greater than 5,000 metric tons.~~

~~Note: Authority cited: Sections 71201.7 and 71205.3, Public Resources Code. Reference: Sections 71201.7 and 71205.3, Public Resources Code.~~

~~Section 2295. Implementation Schedule for Final Performance Standards for Ballast Water Discharges.~~

~~Beginning January 1, 2020, before discharging ballast water in waters subject to the jurisdiction of California, the master, owner, operator, or person in charge of a vessel to which this section applies shall conduct ballast water treatment so that ballast water discharged will contain zero detectable living organisms for all organism size classes.~~

~~Note: Authority cited: Sections 71201.7 and 71205.3, Public Resources Code. Reference: Section 71201.7 and 71205.3, Public Resources Code.~~

~~Section 2296. Delay of Application for Vessels Participating in Promising Technology Evaluations.~~

~~If an owner or operator of a vessel applies to install an experimental ballast water treatment system, and the Commission approves that application on or before January 1, 2008, the Commission shall deem the system to be in compliance with any future treatment standard adopted, for a period not to exceed five years from the date that the interim performance standards would apply to that vessel.~~

~~(a) The Commission may rescind its approval of the system at any time if the Commission, in consultation with the Board and the United States Coast Guard, and after an opportunity for administrative appeal with the executive officer of the Commission, determines that the system has not been operated in accordance with conditions in the agreed upon application package, or that there exists a serious deficiency in performance, human safety, or environmental soundness relative to anticipated performance, or that the applicant has failed to provide the Commission with required test results and evaluations.~~

~~Note: Authority cited: Sections 71201.7, 71204.7, and 71205.3, Public Resources Code. Reference: Sections 71201.7, 71204.7, and 71205, Public Resources Code.~~

Section ~~2297~~ <u>2294</u>. Collection <u>and Analysis</u> of Ballast Water <u>and Sediment</u> Samples.

~~Subject to the implementation schedule in Section 2294 and taking into account the following considerations, a vessel to which this section applies shall install sampling facilities to enable collection of ballast water samples in order to assess compliance with Section 2293.~~

~~(a) Technical specifications for design of in-line sampling facilities:~~

~~(1) The sampling facility shall not damage and/or induce substantial incidental mortality to organisms to be collected in ballast water.~~

~~(2) The isokinetic sample port diameter shall be determined according to the equation:~~

~~Image 1 within Section 2297. Collection of Ballast Water Samples. where Diso and Dm are the diameters of the sample port opening and the main flow in the discharge line, respectively; and Qiso and Qm represent the respective volumetric flow rates through the two pipes.~~

~~Sample port size shall be based on the combination of maximum sample flow rate and minimum ballast flow rate that yields the largest isokinetic diameter.~~

~~(3) The opening of the sampling pipe shall be chamfered to provide a smooth and gradual transition between the inside and outside pipe diameters.~~

~~(4) The length of the straight sample pipe facing into the flow can vary, but shall not be less than one diameter of the sampling pipe. The sampling port shall be oriented such that the opening is facing upstream and its lead length is parallel to the direction of flow and concentric to the discharge pipe, which may require sampling pipes to be "L" shaped with an upstream facing leg if installed along a straight section of discharge pipe.~~

~~(5) The design of the sample facility shall allow for the servicing and/or cleaning of the sampling facility without impacting the safety of the vessel. The sampling pipe should be retrievable either manually or mechanically, or it should be in a system which can be isolated.~~

~~(6) The sample facility and all associated parts of the sampler that come into contact or near proximity with the ballast piping shall be constructed of galvanically compatible materials and generally corrosion resistant.~~

~~(7) When control of the sample flow rate is required, appropriate valves shall be used that do not result in organism mortality due to sharp velocity transitions. Ball, gate or butterfly valves shall not be used.~~

~~(8) If a pump must be used to sample the discharge side of a tank, an appropriate sampling pump shall be used to minimize organism mortality.~~

~~(9) The Master of the vessel must maintain positive control (e.g. tamper evident lockout seals) over the ballast water sampling facility when compliance verification or scientific sampling is not being conducted.~~

~~(b) Technical specifications for installation of a sample point in the ballast water discharge line:~~

~~(1) The sampling point shall be safely accessible to Commission staff, and shall not be in a confined space.~~

~~(2) The sampling point shall be installed in a straight part of the discharge line, downstream of the last treatment process, as near to the ballast water overboard discharge as practicable.~~

~~(3) The sample shall be removed from the main pipeline at a location where the flowing stream at the sample point is representative of the contents of the stream. The sample facility should be placed at a point where the flow in the main pipe is fully mixed and fully developed.~~

~~(4) As many sample points shall be provided as necessary to draw a ballast water sample during typical deballasting of the vessel.~~

~~(5) In cases where the ballast system design does not enable sampling from the discharge line, other arrangements for a sampling point may be made on a vessel-specific basis with prior approval of Commission staff.~~

~~(c) Existing sampling facilities~~

~~Vessels may use existing sampling facilities, installed prior to January 1, 2010, to fulfill the requirements of this Section with prior approval of Commission staff.~~

The Commission may collect and analyze ballast water and sediment samples from vessels that discharge in California waters, in accordance with the following provisions:

(a) Collection and Analysis of Samples for Compliance Assessment

(1) The Commission may collect ballast water samples to assess compliance of ballast water discharges with the performance standards set forth in Section 2293.

(2) To facilitate the Commission's collection of ballast water samples for compliance assessment, the Commission must be provided access to all sampling ports unless access is restricted due to safety concerns.

(3) Compliance assessment may be performed in two steps:

(A) An indicative analysis of a ballast water discharge sample may be performed prior to detailed analysis to establish whether the ballast water discharge is potentially non-compliant with the applicable ballast water discharge performance standards.

(B) If non-compliance is suspected, a detailed analysis may be performed to determine if the ballast water meets the applicable ballast water discharge performance standards.

(4) All methods used to analyze any ballast water discharge sample for compliance with the performance standards in Section 2293 shall follow scientifically reliable and verifiable quality assurance and quality control procedures.

(b) Collection and Analysis of Samples for Research Purposes

(1) The Commission may collect and analyze ballast water and sediment samples for research purposes.

(2) The Commission must be given access to ballast water tanks and sampling ports when feasible.

Note: Authority cited: Sections 71201.7, 71205.3 ~~and 71206~~, Public Resources Code. Reference: Sections ~~71201.7,~~ 71204, 71205.3, ~~and~~ 71206 and 71213, Public Resources Code.

Section 2295. Monitoring, Calibration, and Functionality of Shipboard Ballast Water Treatment Systems

The master, owner, operator, or person in charge of a vessel using a ballast water treatment system approved by the United States Coast Guard or designated as an "Alternate Management System" by the United States Coast Guard to comply with the performance standards in Section 2293 shall not discharge ballast water from a vessel in California waters unless:

(a) The system must be operated in accordance with the System Design Limitations stipulated by the manufacturer or set forth in the United States Coast Guard approval certification or the "Alternate Management System" acceptance letter.
(b) The operational parameters of the equipment have been monitored no less frequently than is recommended by the manufacturer.
(c) All the applicable sensors and other ballast water treatment system control equipment have been calibrated no less frequently than recommended by the manufacturer.

Note: Authority cited: Sections 71201.7, 71204.3 and 71204.5 Public Resources Code. Reference: Sections 71204.3 and 71204.5, Public Resources Code.

Section 2296. Alternative Ballast Water Management Methods

To comply with the performance standards in Section 2293, the master, owner, operator, or person in charge of a vessel may use water from a Public Water System as an alternative ballast water management method if they:

(a) Exclusively use water from a Public Water System for ballast.
(b) Maintain a record of which Public Water System the water was received from, including any receipt, invoice, or other documentation from the Public Water System indicating that water came from that system.
(c) Either clean the ballast tanks (including removing all residual sediments) and supply lines to the tanks prior to using Public Water System water or have never previously introduced ambient water.

Note: Authority cited: Sections 71201.7, 71204.3, 71204.5 and 71205.3, Public Resources Code. Reference: Sections 71204.3, 71204.5 and 71205.3, Public Resources Code.

Section 2297. Recordkeeping

In addition to the information required by Public Resources Code section 71205, subdivision (h), the master, owner, operator, or person in charge of a vessel shall maintain on board the vessel all the following documentation to demonstrate the proper functionality of the vessel's ballast water treatment system:

(a) Printed or electronic records of applicable functionality monitoring, including calibration records, shall be kept on board the vessel for a minimum of two (2) years.
(b) Printed or electronic records of any biological monitoring performed, from at least the past two (2) years, including dates of the monitoring, the individuals or entities who performed the tests, and methods used.
(c) The ballast water treatment system type approval certificate or "Alternate Management System" letter issued by the United States Coast Guard, as applicable.
(d) Procedures in case of equipment malfunction.

Note: Authority cited: Section 71201.7, Public Resources Code
Reference: Sections 71205 and 71206, Public Resources Code