

**CALENDAR ITEM
C48**

- A)) Statewide
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W 9777.234
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**CONSIDER AMENDMENT TO BALLAST WATER PERFORMANCE STANDARDS
REGULATIONS TO REQUIRE VESSELS TO INSTALL SAMPLING PORTS FOR
COMPLIANCE VERIFICATION**

PROPOSAL

Pursuant to Public Resources Code (PRC) Section 71205.3, Commission Staff is proposing to amend the California Code of Regulations, Title 2, Division 3, Chapter 1, Article 4.7, titled "Regulations Establishing Performance Standards for the Discharge of Ballast Water for Vessels Operating in California Waters." The proposed amendments would modify Sections 2291, 2292, and 2294 in order to clarify and correct inconsistencies between the governing statute and the regulations regarding the implementation dates for the performance standards. The proposed amendments would also adopt Section 2297 which would add new requirements for the installation of sampling facilities (i.e. ports) to collect ballast water samples for verification of compliance with the performance standards.

BACKGROUND

The Coastal Ecosystems Protection Act (Act) of 2006 expanded the Marine Invasive Species Act of 2003 to more effectively address the threat of nonindigenous species introductions through ballast water discharge. The Act charged the California State Lands Commission to implement performance standards for the discharge of ballast water and to prepare a report assessing the efficacy, availability, and environmental impacts, including water quality, of currently available ballast water treatment technologies. The performance standards regulations were adopted in October 2007, and the first technology assessment report was approved by the Commission in

CALENDAR PAGE

MINUTE PAGE

CALENDAR ITEM NO. **C48** (CONT'D)

December 2007 (see Dobroski et al. 2007). In response to the recommendations in the 2007 report, the California Legislature passed Senate Bill (SB) 1781 (Chapter 696, Statutes of 2008) which delayed the initial implementation of the performance standards from January 1, 2009 to January 1, 2010. Article 4.7 was amended in January, 2009 to modify Section 2294, Implementation Schedule for Interim Performance Standards for Ballast Water Discharges, to reflect this change in statute.

The currently proposed amendments modify Sections 2294(c) and 2294(d) to maintain consistency with PRC Section 71205.3 and to preserve the continuity and clarity of Article 4.7. Additionally, when Article 4.7 was approved in October, 2007, the regulation inadvertently included an error in Section 2294(d). The proposed amendment to that provision is necessary to rectify the error and ensure that PRC Section 71205.3 and the regulation are consistent. Finally, Section 2291(c) is repealed to eliminate any confusion as to when the standards shall be implemented.

PRC Section 71206 requires the Commission to take samples of ballast water and sediment from at least 25 percent of arriving vessels. Thus, in addition to the necessary amendments to the implementation schedule, the proposed regulations must also address the need to take samples of discharged ballast water from vessels in order to verify compliance with the performance standards. The International Maritime Organization (IMO) has approved Guidelines for Ballast Water Sampling (G2) for uniform application of the International Convention for the Control and Management of Ships' Ballast Water and Sediments (IMO 2005). The Guidelines provide information on sampling facilities (i.e. ports) to take ballast water samples and have been incorporated into the proposed regulation (Sections 2297(a) and 2297(b)) to maintain international consistency. Additional specifications are added based on computational fluid dynamic modeling conducted by the U.S. Naval Research Laboratory and the United States Coast Guard. These models support the proposed technical amendments to the regulation and are necessary to maximize the likelihood of collecting a representative sample from the ballast water discharge line and to minimize organism mortality due to shear forces in the sampling facility. Specific terms used in Section 2297 are added to Section 2292 to clarify the fundamental concepts of the regulation and to maintain international consistency.

CALENDAR ITEM NO. **C48** (CONT'D)

Altogether, the amendments to Article 4.7 will ensure the clarity and consistency of the regulation, enhance the ability of the Commission to verify vessel compliance with the performance standards, and minimize the transport of NIS into the waters of the State of California.

ISSUES OR CONCERNS:

Commission staff received three comment letters sufficiently related to the proposed regulatory action. Commission staff incorporated one comment by modifying the language of the proposed regulation. The additional language merely makes explicit what would be the only reasonable way of complying with the requirements of the regulation. Therefore the change is considered nonsubstantive and does not require an additional comment period. The remaining comments were either accepted for updated informational purpose without changing the regulatory text, or were rejected, as they were not sufficiently related to the regulatory text. All comments are summarized in the Final Statement of Reasons per the Administrative Procedures Act. The Final Statement of Reasons is displayed on the Commission's website.

STATUTORY AND OTHER REGULATIONS:

- A. Public Resources Code Section 71200 through 71271

PERMIT STREAMLINING ACT DEADLINE:

N/A.

OTHER PERTINENT INFORMATION:

1. Pursuant to the Commission's delegation of authority and the State CEQA Guidelines (14 Cal. Code Regs. 10561), the Commission Staff has determined that this activity is exempt from the requirements of the CEQA because the activity is not a "project" as defined by CEQA and the State CEQA Guidelines.

Authority: Public Resources Code Section 21065 and Title 14, California Code of Regulations, sections 15060(c)(3) and 15378.

CALENDAR ITEM NO. **C48** (CONT'D)

2. The proposed regulatory amendments do not affect small businesses as defined in Government Code Section 11342, subsection (h), because all affected businesses are transportation and warehousing businesses having annual gross receipts of more than \$1,500,000, as specified under Government Code Section 11342, subsection (h)(2)(I)(vii).

EXHIBIT:

A. TEXT OF PROPOSED MODIFIED REGULATIONS

IT IS RECOMMENDED THAT THE COMMISSION:

1. FIND THAT THE ACTIVITY IS NOT SUBJECT TO THE REQUIREMENTS OF THE CEQA PURSUANT TO TITLE 14, CALIFORNIA CODE OF REGULATIONS, SECTION 15060(c)(3) BECAUSE THE ACTIVITY IS NOT A PROJECT AS DEFINED BY PUBLIC RESOURCES CODE SECTION 21065 AND TITLE 14, CALIFORNIA CODE OF REGULATIONS, SECTION 15378
2. FIND THAT THE AMENDMENT WILL NOT AFFECT SMALL BUSINESSES AS DEFINED IN GOVERNMENT CODE SECTION 11342(h), BECAUSE ALL AFFECTED BUSINESSES ARE TRANSPORTATION AND WAREHOUSING BUSINESSES HAVING ANNUAL GROSS RECEIPTS OF MORE THAN \$1,500,000, AS SPECIFIED UNDER GOVERNMENT CODE SECTION 11342(h)(2)(I)(VII).
3. FIND THAT THE AMENDMENT WILL NOT HAVE A SIGNIFICANT IMPACT ON THE CREATION OR ELIMINATION OF JOBS OR NEW OR EXISTING BUSINESSES WITHIN CALIFORNIA, NOR WILL THEY HAVE AN ADVERSE ECONOMIC IMPACT ON BUSINESS, INCLUDING THE ABILITY OF CALIFORNIA BUSINESSES TO COMPETE WITH BUSINESSES IN OTHER STATES.
4. FIND THAT NO ALTERNATIVE WOULD BE MORE EFFECTIVE IN CARRYING OUT THE PURPOSE FOR WHICH THE AMENDMENT IS PROPOSED OR WOULD BE AS EFFECTIVE AS AND LESS BURDENSOME TO AFFECTED PRIVATE PERSONS THAN THE PROPOSED REGULATIONS.

CALENDAR PAGE
MINUTE PAGE

CALENDAR ITEM NO. **C48** (CONT'D)

5. ADOPT THE PROPOSED AMENDMENT, WHICH WOULD AMEND ARTICLE 4.7, SECTIONS 2291, 2292, AND 2294, AND ADD SECTION 2297, TO TITLE 2, DIVISION 3, CHAPTER 1, OF THE CALIFORNIA CODE OF REGULATIONS, SUBSTANTIALLY IN THE FORM OF THOSE SET FORTH IN EXHIBIT "A", TO BECOME EFFECTIVE IMMEDIATELY AFTER THEY HAVE BEEN FILED WITH THE SECRETARY OF STATE.
6. AUTHORIZE COMMISSION STAFF TO MAKE MODIFICATIONS IN THE AMENDMENT IN RESPONSE TO RECOMMENDATIONS MADE BY THE OFFICE OF ADMINISTRATIVE LAW.
7. DIRECT COMMISSION STAFF TO TAKE WHATEVER ACTION IS NECESSARY AND APPROPRIATE TO COMPLY WITH PROVISIONS OF THE GOVERNMENT CODE REGARDING ADOPTION OF REGULATIONS AND AMENDMENTS AND TO ENSURE THAT THE AMENDMENT BECOMES EFFECTIVE.
8. DIRECT COMMISSION STAFF TO TAKE WHATEVER ACTION IS NECESSARY AND APPROPRIATE TO IMPLEMENT THE AMENDMENT AT SUCH TIME AS IT BECOMES EFFECTIVE.

STATE LANDS COMMISSION

TEXT OF PROPOSED MODIFIED REGULATIONS

The Commission has illustrated changes to the original text noticed to the public in the following manner: regulation language originally proposed is underlined; deletions from the language originally proposed are shown in strikeout using a “-“; and additions to the language originally proposed are double underlined.

**Title 2, Division 3, Chapter 1,
Article 4.7 Performance Standards for the Discharge of Ballast Water For Vessels
Operating in California Waters**

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 that discharge ballast water in California waters except those that are exempt under Section 71202, Public Resources Code.
- ~~(c) The provisions of these regulations become effective on or before January 1, 2008.~~

Authority Cited: Sections 71201.7, 71202 and 71205.3, Public Resources Code

Reference Cited: Sections 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 verification purposes.
- ~~(b)~~(c) “Board” means the State Water Resources Control Board

- ~~(e)~~(d) "Colony Forming Unit" means a measure of viable bacterial numbers.
- ~~(d)~~(e) "Commission" means the California State Lands Commission.
- ~~(e)~~(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.
- ~~(f)~~(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.
- (k) "Sampling Point" means that place in the ballast water piping where the sample is taken.
- ~~(g)~~(l) "Vessel" means a vessel of 300 gross registered tons or more.

Authority Cited: Sections 71201.7 and 71205.3, Public Resources Code

Reference Cited: Sections 71200, 71201.7 and 71205.3, Public Resources Code

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

Sections 2293 and 2297 ~~applies~~ 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 ~~2009~~, 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 ~~2009~~, 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.

Authority Cited: Sections 71201.7 and 71205.3, Public Resources Code

Reference Cited: Sections 71201.7 and 71205.3, Public Resources Code

Section 2297. Collection of Ballast Water 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:

$$D_{iso} = D_m \sqrt{\frac{Q_{iso}}{Q_m}}$$

where D_{iso} and D_m are the diameters of the sample port opening and the main flow in the discharge line, respectively; and Q_{iso} and Q_m 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 lock-out 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.

Authority Cited: Sections 71201.7, 71205.3 and 71206, Public Resources Code

Reference Cited: Sections 71201.7, 71205.3 and 71206, Public Resources Code