

**MINUTE ITEM**  
This Calendar Item No. C56 was approved as  
Minute Item No. 56 by the California State Lands  
Commission by a vote of 3 to 0 at its  
06/28/07 meeting.

**CALENDAR ITEM**  
**C56**

- A)  
S) ) Statewide

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**CONSIDERATION OF PERMANENT REGULATIONS ESTABLISHING  
PERFORMANCE STANDARDS FOR THE DISCHARGE OF BALLAST WATER FOR  
VESSELS OPERATING IN CALIFORNIA WATERS**

**PROPOSAL**

As mandated by Section 71205.3 of the Public Resources Code (P.R.C.) the Commission's Staff is proposing the adoption of permanent regulations in 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 purpose of these regulations is to establish performance standards for the discharge of ballast water by marine vessels in California waters.

The proposed regulations would implement and make specific the performance standards for the discharge of ballast water requirements under P.R.C. Section 71205.3. Without the regulations, the purpose of the Act as described in P.R.C. Section 71201(d) cannot be achieved. The performance standards prescribed by these proposed regulations are necessary to minimize the transport of nonindigenous species (NIS) into the waters of the State of California.

**BACKGROUND**

P.R.C. Section 71205.3, which became effective January 1, 2007, requires the Commission adopt regulations establishing interim and final performance standards for the discharge of ballast water recommended in accordance with Table X-1 of the California State Lands Commission Report on Performance Standards for Ballast Water Discharges in California Waters, as approved by the Commission on January 26,

CALENDAR ITEM NO. C56 (CONT'D)

2006. Section 71205.3 also mandates that the Commission adopt regulations establishing the implementation schedule for interim performance standards for the discharge of ballast water in accordance with Table X-2 of the California State Lands Commission Report on Performance Standards for Ballast Water Discharges in California Waters, approved by the Commission on January 26, 2006. Section 71204.9 requires adoption of regulations by the Commission under which a vessel may delay the implementation of the performance standards.

Nonindigenous species are organisms that have been transported by humans to locations beyond their natural range. Once a species becomes established in a new area, it can cause adverse economic, ecological, and public health impacts. The most infamous example is the zebra mussel (*Dreissena polymorpha*) which was introduced to the Great Lakes from the Black Sea in the mid-1980s. Zebra mussels attach to hard surfaces in dense populations that clog municipal water systems and electric generating plants, resulting in costs of approximately a billion dollars a year (Pimentel et al. 2004). The overbite clam (*Corbula amurensis*) spread throughout San Francisco Bay and its tributaries within two years after its introduction and accounts for up to 95% of the living biomass in some shallow portions of the bay floor (Nichols et al., 1990). The Chinese mitten crab, *Eriocheir siensis*, was first sighted in the San Francisco Bay in 1992, and quickly spread through the system, clogging pumping stations and riddling levees with burrows (Rudnick et al. 2000). Costs for control and research were \$1 million in 2000-2001 (Carlton 2001).

The transport of ballast water in marine vessels is recognized as a major vehicle (vector) by which aquatic NIS are spread. Ballast water is necessary for many functions related to the trim, stability, maneuverability, and propulsion of large seagoing vessels (Stemming The Tide 1996). Vessels may take on, discharge, or redistribute water during cargo loading and unloading, as they encounter rough seas, or as they transit through shallow coastal waterways. Typically, a vessel will take on ballast water after cargo is unloaded in one port to compensate for the weight imbalance, and later discharge water when cargo is loaded in another. As ballast is transferred from "source" to "destination" ports, so are the many organisms taken into ballast tanks along with the port water. In this fashion, it is estimated that some 7000 plus organisms are moved around the world on a daily basis (Carlton 1999). Currently, California requires vessels operating in State waters to manage their ballast water utilizing a variety of options including the complete retention of ballast water on board, the exchange of ballast water, the discharge of ballast water to a shore-base treatment facility, or the

CALENDAR ITEM NO. C56 (CONT'D)

use of an approved alternative ballast water treatment technology.

Ballast water exchange, the process of exchanging coastal water for mid-ocean water, is presently the most broadly applicable method for managing the risk of NIS introductions, though studies suggest that it may be of limited usefulness because its efficiency is inconsistent. Ballast water exchange efficiency ranges from 50-90%, apparently dependent on many factors such as ship design, ballast system configuration, and exchange location. Due to these limitations most experts view ballast water exchange as a short-term solution, with the final resolution being a combination of treatment technologies and management options.

Both the regulatory community and the commercial shipping industry look toward the development of effective ballast water treatment technologies as a promising management option. For regulators, such systems could provide NIS prevention, possibly even in situations where exchange may be dangerous or impossible. For the shipping industry, an effective ballast water treatment system might allow voyages to proceed along the shortest routes, in all operational scenarios, thereby saving time and money.

Despite these incentives, financial investment for the research and development (R&D) of ballast water treatment systems has been lacking, and the advancement of technologies has been slow. Barriers to furthering ballast water treatment technologies include: the lack of protocols for testing and evaluating performance; inadequate communication between the R&D community, governments, and ship designers, builders and owners; cost of technology development; and equipment design limitations. However, the shipping industry, technology developers, and other investors point to the absence of a specific set of technology performance standards as a primary obstacle. Performance standards would set benchmark levels of organism discharge that a technology would be required to achieve for it to be deemed acceptable for use in California. Developers need these targets so they may design technologies to meet them. Investors are reluctant to devote financial resources towards conceptual or prototype systems without some indication that they may ultimately meet future regulations. For the same reason, vessel owners are hesitant to allow installation and testing of prototype systems onboard operational vessels. The adoption of performance standards would address these concerns and accelerate the advancement of ballast treatment technologies.

CALENDAR ITEM NO. C56 (CONT'D)

In response to the slow progress of ballast water treatment technology development and the need for effective ballast water treatment options, Section 71204.9 of the P.R.C. required the Commission to recommend specific performance standards to the State Legislature after consulting with the State Water Resources Control Board (SWRCB) and considering recommendations provided by an Advisory Panel. Recommendations were put forward to the Legislature by the Commission in a report produced in January of 2006 (Falkner et al. 2006).

Since submission of the final report to the legislature in January 2006, the recommendations put forward by the Commission were incorporated into new legislation. The Coastal Ecosystems Protection Act of 2006 (Senate Bill 497) was passed by lawmakers and signed by Governor Schwarzenegger in September 2006. This Act requires the Commission to develop and adopt regulations that implement the recommended performance standards by January 2008 (Section 71205.3 of the P.R.C.).

**SUMMARY OF THE REGULATIONS**

The proposed regulations contain six sections of management requirements:

- Section 2291 describes the purpose, applicability and date of implementation
- Section 2292 defines several key terms used throughout the regulation
- Section 2293 describes the specific interim performance standards
- Section 2294 describes the implementation schedule for the interim performance standards
- Section 2295 describes the specific final performance standards and an implementation schedule
- Section 2296 describes special circumstances under which a vessel may delay the implementation of the performance standards

Commission staff convened a cross-interest, multi-disciplinary Panel, and facilitated deliberations over the selection of standards based on best available technology economically achievable and designed to protect the beneficial uses of the waters of the State. The performance standards and implementation schedule proposed here were the result of five meetings that were held between March 7<sup>th</sup> and August 8<sup>th</sup> 2005.

CALENDAR ITEM NO. C56 (CONT'D)

During those meetings, information sharing, discussions, and deliberations took place regarding criteria for the selection of ballast treatment performance standards and potential frameworks for their implementation. The Majority Panel voted for and prepared a report recommending a set of performance standards based on organism size class and an implementation schedule. Commission staff considered the recommended performance standards submitted by the Majority Panel in addition to reviewing the most current research and data available and prepared a report titled, "California State Lands Commission Report on Performance Standards for Ballast Water Discharges in California Waters". This report was approved by the Commission on January 29, 2006 and subsequently submitted to the State Legislature. In September 2006, the Governor signed the Coastal Ecosystems Protection Act, which requires the Commission to adopt the recommended performance standards and implementation schedule approved by the Commission.

**ISSUES OR CONCERNS:**

The Commission staff held one public hearing on June 6, 2007 at the Elihu M. Harris State Building, in Oakland, California. One person presented an oral statement relevant to the proposed regulatory action. In addition, Commission staff received eight comment letters relevant to the proposed regulatory action. The comments received fell under four major areas of concern: 1) The need for additional regulations addressing testing, sampling, and compliance; 2) Economic impacts; 3) The definition and determination of accountability regarding determinations of life-extending changes to vessels; and 4) A request to include language on reporting. The specifics of each comment will be addressed in the Final Statement of Reasons; however, a few concerns and comments have been raised and warrant discussion here.

Several of the comments received were directly related to the interim and final performance standards, the implementation schedules related to those standards, and the delay of application provision. While we acknowledge these comments, and they will be addressed in the Final Statement of Reasons, these provisions are prescribed directly by P.R.C. Sections 71204.7 and 71205.3 and are reiterated here simply to maintain the continuity and clarity of Article 4.7. These requirements are mandated in legislation and cannot be changed by the regulatory process.

*Additional Regulations Addressing Testing, Sampling, and Compliance*

Additional comments received expressed concern about the lack of regulatory language

CALENDAR ITEM NO. C56 (CONT'D)

related to the testing, sampling, and compliance monitoring for treatment technologies. Staff acknowledges the need for additional regulations. The effective implementation of performance standards for the discharge of ballast water requires not only the adoption of numeric standards, but also the development of protocols to assess whether technologies meet the standard initially and field-level procedures and processes to verify compliance through time. The adoption of numeric standards and the implementation schedule is relatively straight forward, however the development of additional regulations to assess the effectiveness of a treatment system and our ability to verify compliance with these numeric standards is quite complex. There are currently no universally accepted methods to assess the effectiveness of treatment technologies or to verify compliance with future performance standards. Therefore Commission staff is approaching the adoption of regulations to implement the performance standards for the discharge of ballast water in a phased manner: 1) Phase 1, including the development and adoption of numeric interim and final performance standards and the associated implementation schedule, is the subject of this rulemaking package; 2) Phase 2, a report assessing the status of ballast water treatment technologies, is also underway; and 3) Phase 3, the development and adoption of additional regulations to approve treatment systems and subsequently verify compliance with interim and final performance standards is being developed

The development of the Phase 2 report, as required in Section 71205.3 of the P.R.C., is currently underway. Commission Staff, "shall prepare, or update, and submit to the Legislature a review of the efficacy, availability, and environmental impacts, including the effect on water quality, of currently available technologies for ballast water treatment systems on or before January 1, 2008." In accordance with the law, the Commission must consult with an advisory panel, the SWRCB and U.S. Coast Guard (USCG) to evaluate the status of available technologies to meet the respective standards. To fulfill this mandate, the Marine Invasive Species Program (MISP) is currently assembling the relevant scientific literature, research and development assessment reports, and informational brochures on ballast water treatment technologies. In addition, staff hosted a workshop on May 25, 2007 in Cambridge, MA, bringing together the country's experts on treatment technology review and evaluation. These scientists provided additional data and insight into the status and availability of treatment technologies. Based on their recommendations, the MISP will draft a preliminary technology assessment report in mid-summer to be presented to the performance standards technical advisory panel, as required by P.R.C. Section 71205.3. A final report will incorporate suggestions and comments from the technical advisory panel and should

CALENDAR ITEM NO. C56 (CONT'D)

be presented to the Commission for approval in fall 2007 and subsequently forward to the State Legislature on or before January 1, 2008.

Phase 3, the development and adoption of additional regulations to approve treatment systems and subsequently verify compliance with interim and final performance standards is being developed. The USCG, in collaboration with Commission Staff, is developing protocols that will allow the independent assessment of ballast water treatment technologies. In addition, Commission and USCG staff are developing methods to verify the effectiveness and environmental soundness of treatment technologies once approved and installed on commercial vessels.

Currently, the Commission relies on the USCG Shipboard Treatment Evaluation Program (STEP) to evaluate the effectiveness of experimental ballast water treatment systems. Under STEP, the USCG pays for the review of application packages through a contract with the Department of Transportation, Volpe Center (Volpe). Ideally this activity would be left to the applicant to arrange using competent, approved third parties to conduct reviews according to criteria and procedures established by the USCG and in consultation with California. To that end, the USCG recently entered into a contract with Volpe to prepare a report that will include protocols describing the specific procedures and criteria to be used in reviewing technical information on tests of ballast water treatment systems. California will be working with both USCG and Volpe as these protocols progress.

The USCG intends that the processes and procedures developed and used in STEP will in turn be used to the greatest degree possible by other agencies and programs in approval procedures for ballast water treatment systems. To that end, the USCG will host scoping meetings to address the use of the independent review protocols beyond STEP. Commission staff has been invited to participate in the scoping meetings and put forward comments on the draft report. The final report is expected in mid- to late 2008.

Commission staff, taking into consideration the USCG/Volpe report and in consultation with the SWRCB, will begin drafting additional regulations in 2008 to establish protocols and procedures to assess the effectiveness of potential treatment technologies, grant approval of technologies, and verify compliance of those systems to meet the performance standards once installed on commercial vessels.

*Economic impacts*

CALENDAR ITEM NO. C56 (CONT'D)

One commenter challenged our assessment of economic impacts included in the Notice of Proposed Rulemaking, stating that our estimated costs are significantly lower than costs projected by the maritime industry. During the preparation of CSLC's 2006 Report (Falkner et al., 2006), Staff contacted several technology developers and ship owners on the cost of treatment systems, including installation and operation. As noted in that report, limited information was available from ballast water treatment technology developers and members of the regulated community. Cost information for a subset of treatment technologies that have been installed onboard operational vessels range from \$150,000 to \$525,000 per vessel (these costs are for equipment and installation and do not include operation costs). These costs are only representative of technologies installed under research and development conditions and are expected to decrease as the technologies become commercially available. Additional data compiled by staff during 2007, in preparation of our 2008 Legislative Report (Dobroski et al., in prep) on 24 treatment systems, suggests capital costs range from a low of \$17,000 to a high of \$475,000 with installation costs ranging between \$10,000 and \$500,000. These costs are for full-scale, ship installed systems operating under research and development conditions and costs. As additional information becomes available on installed, full-scale systems, Staff will incorporate it into our legislatively mandated 2008 report.

*Definitions and Accountability Regarding Life-Extending Changes to Vessels*

An additional commenter suggested amending the proposed regulations under Section 2292(f)(3) to read ". . . which, in the opinion of the Administration, is projected to prolong its life by years or more. . ." and suggested adding a definition for "Administration", arguing that Commission lacks the necessary data and expertise to make the determination that a conversion extends the life of a vessel by ten years or more. The commenter argues that the governing flag state for each vessel is better qualified to make this determination. Staff disagrees with this argument. The quality of Flag State administrative agencies varies dramatically, severely limiting the Commission's ability to rely on them for quick and accurate responses. Furthermore, the Commission has the resources in-house or is able to contract with Maritime Classification Societies to make this determination. Many of these classification societies make these types of determinations in their role as "recognized organizations" on behalf of many flag states or their administrations.

*Language on Reporting*

Finally, one commenter suggested amending Sections 2293 and 2294, to include

CALENDAR ITEM NO. C56 (CONT'D)

- A. Proposed Amendment.
- B. Initial Statement of Reasons
- C. Notice of Proposed Rulemaking

**IT IS RECOMMENDED THAT THE COMMISSION:**

1. FIND THAT THE ACTIVITY IS EXEMPT FROM THE REQUIREMENTS OF CEQA PURSUANT TO TITLE 14, CALIFORNIA CODE OF REGULATIONS, SECTION 15061 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 WITH 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 AND LESS BURDENSOME TO AFFECTED PRIVATE PERSONS THAN THE PROPOSED REGULATIONS.
5. ADOPT THE PROPOSED AMENDMENT, WHICH WOULD AMMEND ARTICLE 4.7, SECTION -2291 - 2296, 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 ON OR ABOUT JANUARY 1, 2008, AFTER THEY HAVE BEEN FILED WITH THE SECRETARY OF STATE.

CALENDAR ITEM NO. C56 (CONT'D)

6. AUTHORIZE THE COMMISSION STAFF TO MAKE MODIFICATIONS IN THE AMENDMENT IN RESPONSE TO RECOMMENDATIONS BY THE OFFICE OF ADMINISTRATIVE LAW.
7. DIRECT THE 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.

**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: Sections 71201.7, 71202 and 71205.3, Public Resources Code

Reference: 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) "Board" means the State Water Resources Control Board
- (c) "Colony Forming Unit" means a measure of viable bacterial numbers.
- (d) "Commission" means the California State Lands Commission.
- (e) "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.
- (f) "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

000297

CALENDAR PAGE

001721

MINUTE PAGE

- (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.

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

Authority: Sections 71201.7 and 71205.3, Public Resources Code

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

**Section 2293. Interim 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, 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:

- (a) No detectable living organisms that are greater than 50 micrometers in minimum dimension;
- (b) Less than 0.01 living organisms per milliliter that are less than 50 micrometers in minimum dimension and more than 10 micrometers in minimum dimension;
- (c) For living organisms that are less than 10 micrometers in minimum dimension:
  - (1) less than 1,000 bacteria per 100 milliliter;
  - (2) less than 10,000 viruses per 100 milliliter;
  - (3) concentrations of microbes that are less than:
    - (A) 126 colony forming units per 100 milliliters of *Escherichia coli*;
    - (B) 33 colony forming units per 100 milliliters of *Intestinal enterococci*; and
    - (C) 1 colony forming unit per 100 milliliters or 1 colony forming unit per gram of wet weight of zoological samples of Toxicogenic *Vibrio cholerae* (serotypes 01 and 0139)

Authority: 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**

Section 2293 applies to vessels in accordance with the following schedule:

- (a) Beginning January 1, 2009, 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, 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, 2009, with a ballast water capacity of less than 1,500 metric tons or greater than 5,000 metric tons.

Authority: 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.

Authority: Sections 71201.7 and 71205.3, Public Resources Code

Reference: Sections 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 adopted pursuant to Section 2294 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.

Authority: Sections 71201.7, 71204.7 and 71205.3, Public Resources Code

Reference: Sections 71201.7, 71204.7 and 71205.3, Public Resources Code

## STATE LANDS COMMISSION

### REGULATIONS ESTABLISHING PERFORMANCE STANDARDS FOR THE DISCHARGE OF BALLAST WATER FOR VESSELS OPERATING IN CALIFORNIA WATERS

#### Initial Statement of Reasons

#### Title 2, Division 3, Chapter 1, Article 4.7

#### SPECIFIC PURPOSE OF THE REGULATION

As mandated by Section 71205.3 of the Public Resource Code (PRC), the purpose of this regulation is to establish performance standards for the discharge of ballast water by marine vessels in California waters. This, in turn, would minimize the transport of nonindigenous species in ballast water discharged into state waters.

#### NECESSITY

A nonindigenous species (NIS) is an organism that has been transported by humans to locations beyond its natural range. Once a species becomes established in a new area, it can cause severe adverse economic, ecological, and public health consequences in its new habitat. The transport of ballast water in marine vessels is recognized as a major mechanism through which aquatic NIS are spread. Current California law requires that vessels manage ballast water to reduce the discharge of nonindigenous organisms into California waters.

The performance standards and implementation schedule prescribed by these proposed regulations are necessary to minimize the transport of NIS into the waters of the State of California.

#### TECHNICAL, THEORETICAL, AND/OR EMPIRICAL STUDY, REPORTS, OR DOCUMENTS.

Falkner, M., L. Takata, and S. Gilmore. 2006. California State Lands Commission Report on Performance Standards for Ballast Water Discharges in California Waters. Sacramento, CA. 120 pgs.

International Maritime Organization (IMO). 2005. International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004. London. 137 pgs.

In the preparation of these proposed regulations, the Marine Facilities Division of the California State Lands Commission (the Commission) formed a cross-interest, multi-disciplinary Panel and facilitated discussions over the selection of standards. Beginning in February 2005, Commission staff solicited invitations for Panel participants. As

000301

CALENDAR PAGE

001725

MINUTE PAGE

specifically mandated in Section 71204.9 of the PRC, representatives of the Department of Fish and Game, State Water Resources Control Board, and the United States Coast Guard (USCG) were contacted. In addition, researchers, representatives from non-government organizations, resource-related government agencies, and the maritime industry were also invited, including the United States Fish and Wildlife Service, The Ocean Conservancy, the Association of California Water Agencies, Matson Navigation, the Pacific Merchant Shipping Association, Chevron Shipping, and the Smithsonian Environmental Research Center. The USCG, as mandated by the National Invasive Species Act of 1996, is involved in efforts to establish federal standards and therefore declined to participate in the Advisory Panel.

Five meetings were held between March 7<sup>th</sup> and August 8<sup>th</sup> 2005, during which information sharing, discussions, and deliberations took place regarding criteria for the selection of ballast treatment performance standards and potential frameworks for their implementation. The Majority Panel voted for and prepared a report recommending a set of performance standards based on organism size class and an implementation schedule. Commission staff considered the recommended performance standards submitted by the Majority Panel in addition to reviewing the most current research and data available and prepared a report titled, "California State Lands Commission Report on Performance Standards for Ballast Water Discharges in California Waters". This report was approved by the Commission on January 29, 2006 and subsequently submitted to the State Legislature. In September 2006, the Governor signed the Coastal Ecosystems Protection Act, which requires the Commission to adopt the recommended performance standards and implementation schedule approved by the Commission.

#### REASONABLE ALTERNATIVES TO THE REGULATION AND THE AGENCY'S REASONS FOR REJECTING THOSE ALTERNATIVES.

The Commission Staff has determined that there are no alternatives which would be more effective in carrying out the purposes of the proposed regulation or would be as effective and less burdensome to affected private parties.

#### SMALL BUSINESS IMPACTS.

The commission finds that the adoption of Title 2, Division 3, Chapter 1, and Article 4.7 will not have a significant adverse impact on small business. None of the businesses that will be governed by these proposed regulations can be considered a "small business" as defined in Government Code Section 11342.610.

#### Title 2, Division 3, Chapter 1, Article 4.7

The following is the initial statement of reasons for each of the regulations. Prior to the explanation for each provision, the text of the regulation is set forth, indented and underlined.

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.

SPECIFIC PURPOSE OF THE REGULATION

This regulation addresses the overall intent of the proposed regulations in Article 4.7

NECESSITY

PRC §71201.7 and 71205.3 authorize the Commission to adopt regulations to implement the provisions of the amendments of the Marine Invasive Species Act (the Act). §2291(a) clearly states the purpose of the regulation.

ALTERNATIVES TO THE PROPOSED REGULATORY ACTION THAT WOULD LESSEN ANY ADVERSE IMPACT ON AFFECTED PRIVATE PERSONS.

The Commission Staff has determined that there are no alternatives which would be more effective in carrying out the purposes of the proposed regulation or would be as effective and less burdensome to affected private persons.

- (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.

SPECIFIC PURPOSE OF THE REGULATION

The purpose of this provision is to make clear that the regulations only apply to vessels that discharge ballast water in California waters and thus specifies the vessels to which these regulations apply.

NECESSITY

The provision differentiates between vessels to which the regulations will apply and to those they will not apply. These regulations shall not apply to vessels of the armed forces, or vessel on innocent passage.

Existing legislation requires an owner or operator of a vessel carrying, or capable of carrying, ballast water that operates in the waters of the state to implement the interim performance standards for the discharge of ballast water. Vessels that retain all ballast water on board while in the waters of the state or those that discharge ballast water to an approved reception facility are not subject to these regulations (PRC §71205.3).

Additionally, existing legislation does not apply to a vessel of the armed forces, as defined in paragraph (14) of subsection (a) of Section 1322 of Title 33 of the United States Code that is subject to the "Uniform National Discharge Standards for Vessels of the Armed Forces". Finally, the existing legislation does not apply to a vessel in innocent passage, defined as a foreign vessel merely traveling the territorial sea of the United States and not entering or departing a United States port, or not navigating the internal waters of the United States, and that does not discharge ballast water into the waters of the state, or into waters that may impact the waters of the state (PRC §71202). This provision clarifies to whom these requirements apply.

#### ALTERNATIVES TO THE PROPOSED REGULATORY ACTION THAT WOULD LESSEN ANY ADVERSE IMPACT ON AFFECTED PRIVATE PERSONS.

The Commission Staff has determined that there are no alternatives which would be more effective in carrying out the purposes of the proposed regulation or would be as effective and less burdensome to affected private persons.

(c) The provisions of these regulations become effective on or before January 1, 2008.

#### SPECIFIC PURPOSE OF THE REGULATION

The purpose of this provision is to make clear the effective date of the regulations.

#### NECESSITY

PRC §71201.7 mandates the Commission adopt these regulations on or before January 1, 2008. This provision will obviate ambiguity.

#### ALTERNATIVES TO THE PROPOSED REGULATORY ACTION THAT WOULD LESSEN ANY ADVERSE IMPACT ON AFFECTED PRIVATE PERSONS.

The Commission Staff has determined that there are no alternatives which would be more effective in carrying out the purposes of the proposed regulation or would be as effective and less burdensome to affected private persons.

#### **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) “Board” means the State Water Resources Control Board
- (c) “Colony Forming Units” means a measure of viable bacterial numbers.
- (d) “Commission” means the California State Lands Commission.
- (e) “Constructed” means a stage of 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.
- (f) “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.
- (g) “Vessel” means a vessel of 300 gross registered tons or more.

## SPECIFIC PURPOSE OF THE REGULATION

The purpose of Section 2292 is to define several key terms that are used throughout the language of the regulation to describe management requirements and regulation applicability. These definitions ensure that the performance standards and implementation schedule are clear to the shipping industry and compliance occurs as intended by the regulation.

## NECESSITY

Sections 2292(a), 2292(e), and 2292(f) are defined directly by Regulation A-1 of the International Convention for the Control and Management of Ships' Ballast Water and

Sediments, 2004 (IMO 2005) and are adopted here to maintain international consistency and preserve the continuity and clarity of Article 4.7. Sections 2292(b), 2292(d), and 2292(g) are defined directly by PRC §71200 and are reiterated here to maintain the continuity and clarity of Article 4.7. Section 2292(c) is a common term used by microbiologists and is adopted here to preserve the continuity and clarity of Article 4.7

Specific terms are used in the regulatory text to describe fundamental components of the regulation. Without clarification, many of these terms can be subject to differing interpretation. These definitions, therefore, are necessary to ensure that these regulations precisely convey the intended interpretation of these specific terms in Article 4.7.

#### ALTERNATIVES TO THE PROPOSED REGULATORY ACTION THAT WOULD LESSEN ANY ADVERSE IMPACT ON AFFECTED PRIVATE PERSONS.

The Commission Staff has determined that there are no alternatives which would be more effective in carrying out the purposes of the proposed regulation or would be as effective and less burdensome to affected private persons.

#### **Section 2293. Interim 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, 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:

- (a) No detectable living organisms that are greater than 50 micrometers in minimum dimension;
- (b) Less than 0.01 living organisms per milliliter that are less than 50 micrometers in minimum dimension and more than 10 micrometers in minimum dimension;
- (c) For living organisms that are less than 10 micrometers in minimum dimension:
  - (1) Less than 1,000 bacteria per 100 milliliter;
  - (2) Less than 10,000 viruses per 100 milliliter;
  - (3) Concentrations of microbes that are less than:
    - (A) 126 colony forming units per 100 milliliters of *Escherichia coli*;

(B) 33 colony forming units per 100 milliliters of *Intestinal enterococci*; and

(C) 1 colony forming unit per 100 milliliters or 1 colony forming unit per gram of wet weight of zoological samples of Toxicogenic *Vibrio cholerae* (serotypes 01 and 0139)

## SPECIFIC PURPOSE OF THE REGULATION

This section provides specific interim performance standards for the discharge of ballast water for vessels that operate in California waters. Through meetings of a Technical Advisory Panel in addition to a review of the most current research and data available and in consultation with the State Water Resources Control Board (SWRCB), the performance standards described here have been deemed as the most biologically effective and economically feasible actions that would move expeditiously toward the elimination of the discharge of nonindigenous species into the waters of the state.

## NECESSITY

The implementation of interim performance standards for the discharge of ballast water for vessels operating in California waters is mandated by §§71205.3(a) (1) of the PRC. Currently, California requires vessels operating in State waters to manage their ballast water utilizing a variety of options including the complete retention of ballast water, the exchange of ballast water, the discharge of ballast water to a shore-base treatment facility, or the use of an approved alternative ballast water treatment technology.

Ballast water exchange, the process of exchanging coastal water for mid-ocean water, is presently the most broadly applicable method for managing the risk of NIS introductions, though studies suggest that it may be of limited usefulness because its efficiency is inconsistent. Ballast water exchange efficiency ranges from 50-90%. Efficiency appears to be dependent on many factors such as ship design, ballast system configuration, and exchange location. Due to these limitations most experts view ballast water exchange as a short-term solution, with the final resolution being a combination of treatment technologies and management options.

Both the regulatory community and the commercial shipping industry look toward the development of an effective ballast water treatment technology as a promising management option. For regulators, such systems could provide NIS prevention, possibly even in situations where exchange may have been impossible. For the shipping industry, an effective ballast water treatment system might allow voyages to proceed along the shortest routes, in all operational scenarios, thereby saving time and money.

Despite these incentives, financial investment for the research and development (R&D) of ballast water treatment systems has been lacking, and the advancement of technologies has been slow. Barriers to furthering ballast water treatment technologies include: the lack of protocols for testing and evaluating performance; inadequate

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CALENDAR PAGE

MINUTE PAGE

communication between the R&D community, governments, and ship designers, builders and owners; cost of technology development; and equipment design limitations. However, the shipping industry, technology developers, and other investors point to the absence of a specific set of technology performance standards as a primary obstacle. Performance standards would set benchmark levels of organism discharge that a technology would be required to achieve for it to be deemed acceptable for use in California. Developers need these targets so they may design technologies to meet them. Investors are reluctant to devote financial resources towards conceptual or prototype systems without some indication that they may ultimately meet future regulations. For the same reason, vessel owners are hesitant to allow installation and testing of prototype systems onboard operational vessels. The adoption of performance standards would address these fears and accelerate the advancement of ballast treatment technologies.

In response to the slow progress of ballast water treatment technology development and the need for effective ballast water treatment options, §§71204.9 of the PRC required the Commission to recommend specific performance standards to the State Legislature, in consultation with the SWRCB and in consideration of recommendations provided by an Advisory Panel. Recommendations were put forward to the Legislature by the Commission in a report produced in January of 2006 (Falkner et al. 2006).

Since submission of the final report to the legislature in January 2006, the recommendations put forward by the Commission were incorporated into new legislation. The Coastal Ecosystems Protection Act of 2006 (Senate Bill 497) was passed by lawmakers and signed by Governor Schwarzenegger in September 2006. This Act requires the Commission to develop and adopt regulations that implement the recommended performance standards by January 2008.

This section is required to define interim performance standards a vessel must adopt to comply with the regulation.

#### ALTERNATIVES TO THE PROPOSED REGULATORY ACTION THAT WOULD LESSEN ANY ADVERSE IMPACT ON AFFECTED PRIVATE PERSONS.

The Commission Staff has determined that there are no alternatives which would be more effective in carrying out the purposes of the proposed regulation or would be as effective and less burdensome to affected private persons.

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

Section 2293 applies to vessels in accordance with the following schedule:

(a) Beginning January 1, 2009, 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, 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, 2009, with a ballast water capacity of less than 1,500 metric tons or greater than 5,000 metric tons.

## SPECIFIC PURPOSE OF THE REGULATION

These sections present and describe the implementation schedule for the interim performance standards described in Section 2293. In consultation with the SWRCB and an Advisory Panel, the implementation schedule described here has been deemed the most economically feasible action that would move expeditiously toward the elimination of the discharge of nonindigenous species into the waters of the state.

## NECESSITY

The implementation schedule for the interim performance standards is mandated by §§71205.3(a)(2) of the PRC and has been adopted by the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004. (IMO 2005).

In 2004, California ports received over 14000 vessel calls by nearly 2000 different vessels. Since July of 2001, over 5000 different vessels have operated in State waters. Depending on the nature of effective emerging technologies, installation of some systems may only be possible in shipyards. Currently, the demand for shipyard services exceeds supply, and scheduling typically occurs years in advance. Therefore, implementation timeframes must be appropriate not only in terms of the speed of technological development, but also shipyard availability for the retro-fit of existing vessels and construction of new vessels.

Based on Commission data, the majority of vessels (>4400) operating in California since July 1, 2001 have ballast water capacities exceeding 5000 metric tons. A sizable percentage of these vessels are over 10-years old and will presumably be nearing the end of their operational lifespan by the time a treatment system would be required to be installed. The vast majority of vessels will have approximately ten years to identify appropriate technologies, schedule necessary shipyard time, and install technology.

These sections are adopted here to maintain international consistency and preserve the continuity and clarity of Article 4.7.

ALTERNATIVES TO THE PROPOSED REGULATORY ACTION THAT WOULD LESSEN ANY ADVERSE IMPACT ON AFFECTED PRIVATE PERSONS.

The Commission Staff has determined that there are no alternatives which would be more effective in carrying out the purposes of the proposed regulation or would be as effective and less burdensome to affected private persons.

**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.

SPECIFIC PURPOSE OF THE REGULATION

This section provides specific final performance standards and an implementation schedule for the discharge of ballast water for vessels that operate in California waters.

NECESSITY

This provision is prescribed directly by PRC §71205.3 (a)(3), and is reiterated here to maintain the continuity and clarity of Article 4.7. §§71204.9 of the PRC required the Commission to recommend specific performance standards to the State Legislature, in consultation with the SWRCB and in consideration of recommendations provided by an Advisory Panel. Final recommendations were put forward to the Legislature by the Commission in a report produced in January of 2006 (Falkner et al. 2006).

Since submission of the final report to the legislature in January 2006, the recommendations put forward by the Commission were incorporated into new legislation. The Coastal Ecosystems Protection Act of 2006 (Senate Bill 497) was passed by lawmakers and signed by Governor Schwarzenegger in September 2006. This Act requires the Commission to develop and adopt regulations that implement the recommended performance standards by January 2008.

This section is required to define the final performance standard and implementation date by which a vessel must comply with the regulation.

ALTERNATIVES TO THE PROPOSED REGULATORY ACTION THAT WOULD LESSEN ANY ADVERSE IMPACT ON AFFECTED PRIVATE PERSONS.

The Commission Staff has determined that there are no alternatives which would be more effective in carrying out the purposes of the proposed regulation or would be as effective and less burdensome to affected private persons.

## **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 adopted pursuant to Section 2294 would apply to that vessel.

(1) 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.

### SPECIFIC PURPOSE OF THE REGULATION

This regulation describes special circumstances under which a vessel may delay the implementation of the performance standards as directed in Article 4.7 of section 2294.

### NECESSITY

This provision is prescribed directly by PRC §71204.7, and is reiterated here to maintain the continuity and clarity of Article 4.7.

The implementation schedule recommended by the Commission Report addressed the retrofitting of existing vessels as well as standards required for future vessel construction. The report identified another important, though very small, group of vessels that should be considered, those whose owners have elected to install prototype treatment technologies in advance of established performance standards. Regulation D-4 of the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (IMO 2005) addresses these vessels, by giving a 5-year extension to vessels that participate in an approved program to test promising ballast water treatment technologies prior to the date that standards become effective. Under this scenario, a vessel with ballast water capacity greater than 5000 MT that has an approved experimental treatment system installed in advance of the adoption of California performance standards would be allowed to use that system until 2021. At which time it must comply with the adopted performance standards. In general, these vessels' owners have worked closely with state, federal, and international entities, adding to our understanding of ballast water treatment

technologies onboard operational vessels. These sections are adopted here to maintain international consistency and preserve the continuity and clarity of Article 4.7.

**ALTERNATIVES TO THE PROPOSED REGULATORY ACTION THAT WOULD LESSEN ANY ADVERSE IMPACT ON AFFECTED PRIVATE PERSONS.**

The Commission Staff has determined that there are no alternatives which would be more effective in carrying out the purposes of the proposed regulation or would be as effective and less burdensome to affected private persons.

**NOTICE OF PROPOSED REGULATORY ACTION**

**TITLE 2. ADMINISTRATION  
DIVISION 3. STATE PROPERTY OPERATIONS  
CHAPTER 1. STATE LANDS COMMISSION  
ARTICLE 4.7. REGULATIONS ESTABLISHING PERFORMANCE  
STANDARDS FOR THE DISCHARGE OF BALLAST WATER FOR VESSELS  
OPERATING IN CALIFORNIA WATERS**

The California State Lands Commission (the Commission) proposes to adopt the regulations described below after considering all comments, objections or recommendations regarding the proposed action.

**PROPOSED REGULATORY ACTION**

The Commission proposes to adopt Section 2291, 2292, 2293, 2294, 2295, and 2286 under new Article 4.7 in Title 2, Division 3, Chapter 1 of the California Code of Regulations (C.C.R.). These sections would create regulations establishing performance standards for the discharge of ballast water for vessels operating in California waters.

**PUBLIC HEARING**

The Commission Staff will hold a public hearing beginning at 10:00 a.m. on June 6, 2007 at the Elihu M. Harris State Building, 1515 Clay Street, First Floor Auditorium, Oakland, CA 94612. This location is wheelchair accessible. At the hearing, any person may present statements or arguments orally or in writing, relevant to the proposed regulatory action described in the Informative Digest. The Commission requests, but does not require, that persons who make oral comments at the hearings also submit a written copy of their testimony.

**WRITTEN COMMENT PERIOD**

Any interested person or his or her authorized representative may submit written comments relevant to the proposed regulatory action to the Commission. The written comment period closes at 5:00 p.m. on June 6, 2007. All written comments must be received at the Commission, by that time. Written comments should be submitted to:

Ravi Varma  
Supervisor, Planning Branch  
California State Lands Commission  
Marine Facilities Division  
200 OceanGate, Suite 900  
Long Beach, CA 90802-4246

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CALENDAR PAGE

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MINUTE PAGE

## **AUTHORITY AND REFERENCE**

P.R.C. Section 71201(d) describes the State program to regulate discharges of ballast water in order to limit the introduction of nonindigenous species. In enforcing the provisions of the Act, the Commission is authorized to adopt the proposed regulations, which would implement, interpret and make specific P.R.C. Section 71205.3.

## **INFORMATIVE DIGEST/POLICY STATEMENT OVERVIEW**

P.R.C. Section 71205.3, which became effective January 1, 2007, requires the Commission to adopt regulations governing interim and final performance standards for the discharge of ballast water in accordance with Tables X-1 and X-2 of the California State Lands Commission Report on Performance Standards for Ballast Water Discharges in California Waters, as approved by the Commission on January 26, 2006.

Accordingly, the proposed regulation would implement and make specific the performance standards for the discharge of ballast water under P.R.C. Section 71205.3. Without the regulations, the purpose of the Act as described in P.R.C. Section 71201(d) cannot be achieved.

Section 2291 would state the purpose of the regulation.

Section 2291(b) would specify the vessels to which these regulations apply.

Section 2291(c) would identify the date of implementation of the regulation.

Section 2292 would narrowly define several key terms that are used throughout the language of the regulation to describe management requirements and regulation applicability. These definitions ensure that the performance standards for the discharge of ballast water are clear to the shipping industry and compliance occurs as intended by the regulation.

Section 2293 would prescribe interim performance standards for the discharge of ballast water that have been deemed the most biologically effective and economically feasible actions moving the state expeditiously toward the elimination of the discharge of nonindigenous species into the waters of the state.

Section 2294 would describe the implementation schedule for interim performance standards for ballast water discharges.

Section 2295 would describe the implementation schedule for the final performance standards for ballast water discharges.

Section 2296 would describe the conditions under which an owner or operator of a vessel could delay the application of the interim performance standards for ballast water discharges.

## **DIFFERENCES FROM FEDERAL REGULATIONS**

Recognizing the severity of the invasive species problem, the federal government implemented a mandatory national ballast water management and reporting program in September 2004 for vessels entering the United States. However, this mandatory program does not include performance standards for the discharge of ballast water. The transport of ballast water in marine vessels is recognized as a major mechanism by which aquatic nonindigenous invasive species (NIS) are spread. Current California law requires that vessels manage ballast water to reduce the discharge of nonindigenous species into California waters.

There are currently no performance standards for the discharge of ballast water for vessels that operate in California waters, even though research has shown that there is a significant threat for such voyages to facilitate the establishment and spread of NIS throughout the region.

The performance standards for the discharge of ballast water prescribed by these proposed regulations are necessary to minimize the transport of NIS into and throughout the waters of the State of California.

## **PLAIN ENGLISH DETERMINATION AND OVERVIEW**

### **Small Business Determination**

The Commission has determined that these regulations do not affect small businesses as defined in Government Code (Gov. C.) Section 11342.610 because all affected businesses are commercial maritime transport owners and operators, as specified under Gov. C. Section 11342.610(c)(7) and having annual gross receipts of more than \$1,500,000.

### **Plain English Policy Overview**

The proposed regulations have been drafted in a plain and straightforward manner and do not contain technical terms that require a plain English policy overview.

## **ESTIMATED COSTS TO THE STATE**

No costs to the State would be incurred in implementing and enforcing these proposed regulations. The programs mandated by the Act are funded

exclusively by the Marine Invasive Species Control Fund through fees collected from the owners of vessels subject to the Act.

## **DISCLOSURES REGARDING THE PROPOSED ACTION**

Mandate on local agencies and school districts: None.

Costs or savings to any state agency: None.

Cost to any local agency or school district which must be reimbursed in accordance with Part 7 (commencing with section 17500) of Division 4 of the Government Code: None.

Other non-discretionary cost or savings imposed upon local agencies: None.

Costs or savings in federal funding to the state: None.

Cost impact on private persons or directly affected businesses: Limited information is available from ballast water treatment technology developers and members of the regulated community. The few studies available provide a glimpse at the potential cost of implementing treatment technology alternatives to ballast water exchange, but only reflect costs associated with research and development. Cost information for a subset of treatment technologies that have been installed onboard operational vessels range from \$150,000 to \$525,000 per vessel (these costs are for equipment and installation and does not include operation costs). These costs are only representative of technologies installed under research and development conditions and are expected to decrease as the technologies become commercially available.

Since year 2000, over 6000 different vessels have operated in state waters. While vessels constructed on or after 2009 will be required to meet the interim standards in 2009, existing vessels will have seven to nine years before they must meet the interim standards.

Creation or elimination of jobs within the State of California: The Commission has determined that the proposed regulations will not have a significant impact on the creation or elimination of jobs within the State of California.

Creation of new businesses or the elimination of existing businesses within the State of California: The Commission has determined that the proposed regulations will not have a significant impact on the creation or elimination of businesses within the State of California.

Expansion of businesses currently doing business within the State of California: The Commission has determined that the proposed regulations would not have a

significant impact upon expansion of businesses currently doing business within the State of California.

The Commission has made an initial determination that the action will not have a significant, statewide adverse economic impact directly affecting business, including the ability of California businesses to compete with businesses in other states.

Significant effect on housing costs: None.

## **CONSIDERATION OF ALTERNATIVES**

In accordance with Gov. C. Section 11346.5, sub. (a)(13), the Commission must determine that no reasonable alternative it considered, or that has otherwise been identified and brought to the Commission's attention, would be more effective in carrying out the purpose for which the action is proposed or would be as effective as and less burdensome to affected private persons than the proposed action.

The Commission invites interested persons to present statements or arguments with respect to alternatives to the proposed regulations at the above-mentioned hearings or during the written comment period.

## **CONTACT PERSON**

Inquiries concerning the substance of the proposed action may be directed to:

Maurya B. Falkner  
Environmental Program Manager I  
State Lands Commission  
Marine Facilities Division  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202  
Telephone: (916) 574-2568

Or to: Mark A. Meier  
Senior Staff Counsel  
State Lands Commission  
100 Howe Avenue, Suite 100 South  
Sacramento, CA 95825-8202  
Telephone: (916) 574-1853

Requests for copies of the proposed text of the regulations, the initial statement of reasons, the modified text of the regulations, if any, or other information upon which the rulemaking is based should be directed to:

Ravi Varma  
Supervisor, Planning Branch  
State Lands Commission  
Marine Facilities Division  
200 Oceangate, Suite 900  
Long Beach, CA 90802-4246  
Telephone: (562) 499-6400

#### **AVAILABILITY OF STATEMENT OF REASONS AND TEXT OF PROPOSED REGULATIONS**

The Commission will have the entire rulemaking file available for inspection and copying throughout the rulemaking process at its offices at either of the above addresses. As of the date this notice is published in the Notice Register, the rulemaking file consists of this notice, the proposed text of the regulations and the initial statement of reasons. Copies may be obtained by contacting Ravi Varma at the address or telephone number listed above.

#### **AVAILABILITY OF CHANGED OR MODIFIED TEXT**

Following the hearing and considering all timely and relevant comments received, the Commission may adopt the proposed regulations substantially as described in this notice. If modifications are made which are sufficiently related to the originally proposed text, the modified text, with changes clearly indicated, shall be made available to the public for at least 15 days prior to the date on which the Commission adopts the regulations. Requests for copies of any modified regulations should be sent to the attention of Ravi Varma at the address indicated above. The Commission will accept written comments on the modified regulations for 15 days after the date on which they are made available.

#### **AVAILABILITY OF THE FINAL STATEMENT OF REASONS**

Upon its completion, copies of the Final Statement of Reasons may be obtained by contacting Ravi Varma at the address or telephone number listed above.

#### **AVAILABILITY OF DOCUMENTS ON THE INTERNET**

Copies of the Notice of Proposed Action, the Initial Statement of Reasons, and the text of the regulations, can be accessed through the Commission's website at:  
[http://www.slc.ca.gov/Division\\_Pages/MFD/MFD\\_Programs/Ballast\\_Water/Ballast\\_Water\\_Default.htm](http://www.slc.ca.gov/Division_Pages/MFD/MFD_Programs/Ballast_Water/Ballast_Water_Default.htm)