

## ATTACHMENT B

### **PUBLIC HEARING TO CONSIDER THE ADOPTION OF PROPOSED REGULATIONS TO REDUCE EMISSIONS FROM DIESEL AUXILIARY ENGINES ON OCEAN-GOING VESSELS WHILE AT BERTH AT A CALIFORNIA PORT**

#### Staff's Suggested Modifications to the Original Proposal

TO BE PRESENTED AT THE DECEMBER 6, 2007 HEARING  
OF THE AIR RESOURCES BOARD

Note: Shown below are the staff's suggested modifications to the originally proposed regulatory text set forth in Appendix A to the Staff Report: Initial Statement of Reasons, released October 9, 2007. Only those portions containing the suggested modifications are included.

#### **Comments and Suggested Modifications to the Original Regulatory Proposal Set Forth in Attachment A to Resolution 07-57**

This document is printed in a style to indicate changes from the originally proposed regulatory language. All originally proposed regulatory language is indicated by plain type. Staff's suggested modifications to the original proposal are shown in underline to indicate additions to the original proposal and ~~strike through~~ to indicate deletions. All proposed modifications will be made available to the public for a fifteen-day comment period prior to final adoption.

#### **Definitions (subsection (c)).**

It has been suggested that the definition for "fleet" be clarified so that each fleet is based on one type of vessel and that the master's control of a vessel does not constitute "direct control" as that term pertains to fleet operators. It was also suggested that the definition for "person" be clarified to include consortiums and other business relationships that are found in the shipping industry. Further, it was suggested that a definition for "Regulated California Waters" is needed because that term is used in the "innocent passage" exemption. Staff agrees and proposes to modify the definitions as follows:

Amend title 13, California Code of Regulations (CCR), § 2299.3 and title 17, CCR, § 93118.3, to read:

- (c)(14) "Fleet" means all container, passenger, and refrigerated cargo (reefer) vessels, visiting a specific California port, which are owned by or ~~operated~~ otherwise under the direct control of the same person. Direct control includes, but is not limited to, vessels that are operated under a contract, lease, or other arrangement with a third-party for the third-party to operate the

vessel. For purposes of this definition, "direct control" does not include the vessel master or any other member of the vessel crew, unless the crewmember is also the owner of the vessel. For the purposes of this section, a person shall be deemed to have separate fleets for each California port visited and each fleet is composed of one type of vessel. For example, if a person owns or operates vessels that visit both the Port of Los Angeles and Port of Oakland, that person is deemed to have two fleets, one a "POLA-based fleet" and the other a "Port of Oakland-based fleet."

(c)(25) "Person" includes all of the following:

- (A) Any person, agent, firm, association, organization, partnership, business trust, corporation, limited liability company, ~~or~~ company, consortium, or any other commercial relationship;
- (B) Any state or local governmental agency or public district, or any officer or employee thereof;
- (C) The United States or its agencies, to the extent authorized by federal law.

(c)(28) "Regulated California Waters" means all of the following:

- (A) all California internal waters;
- (B) all California estuarine waters;
- (C) all California ports, roadsteads, and terminal facilities (collectively "ports");
- (D) all waters within 3 nautical miles of the California baseline, starting at the California-Oregon border and ending at the California-Mexico border at the Pacific Ocean, inclusive;
- (E) all waters within 12 nautical miles of the California baseline, starting at the California-Oregon border and ending at the California-Mexico border at the Pacific Ocean, inclusive;
- (F) all waters within 24 nautical miles of the California baseline, starting at the California-Oregon border to 34.43 degrees North, 121.12 degrees West; inclusive; and
- (G) all waters within the area, not including any islands, between the California baseline and a line starting at 34.43 degrees North, 121.12 degrees West; thence to 33.50 degrees North, 118.58 degrees West; thence to 32.48 degrees North, 117.67 degrees West; and ending at the California-Mexico border at the Pacific Ocean, inclusive.

### **Vessel In-Use Operational Requirements (subsection (d)).**

It has been suggested that operational requirements based on a combination of vessel visits and engine power reduction, along with a more technology-neutral approach, would better serve the goals of reducing emissions while providing flexibility to the affected stakeholders than the original proposal's engine shutoff restrictions based on specified percentages of vessel visits. Staff agrees and proposes to replace the original proposal's schedules with a schedule based on a combination of both vessel visits and engine power reductions, along with a schedule for a technology-neutral, equivalent emission reduction option, as illustrated below:

<b>Date</b>	<b>Reduced Onboard Power Option (Grid)</b>	<b>Equivalent Emission Reduction Option <sup>1</sup></b>
January 1, 2010	Ships must use shore power if available	10% reduction
January 1, 2012	Ships must use shore power if available	25% reduction
January 1, 2014	50% visits and power demand <sup>1</sup>	50% reduction
January 1, 2017	70% visits and power demand <sup>1</sup>	70% reduction
January 1, 2020	80% visits and power demand <sup>1</sup>	80% reduction

1. In addition, all ships must use shore power if available.

It has been suggested that the 2010 and 2012 requirements for the "Equivalent Emission Reduction Option" be met on an annual basis and subsequent requirements be met on a quarterly basis. Staff agrees and proposes to modify the regulatory language to reflect this.

It has been suggested that a provision for addressing on-board equipment failures be added. Staff agrees and proposes to modify the regulatory language to reflect this.

It has been suggested that a provision be added to incentivize the early application of the "Equivalent Emission Reduction Option." Staff agrees and proposes to allow time averaging as a way to incentivize such early use of the "Equivalent Emission Reduction Option." Specifically, staff proposes to modify the regulatory language to allow reductions achieved earlier than, or in excess of, the 2010 requirement to be used as specified toward meeting the 2010, 2012, or 2017 requirements. Similarly, staff proposes to modify the regulatory language to allow reductions achieved in excess of the 2012 requirement to be used as specified toward meeting the 2017 requirement. However, staff is proposing to modify the proposal so that the 2014 and 2020 requirements would need to be met under either option.

It has been suggested that the amount of ammonia slip from the use of certain alternative technologies be limited. Staff agrees and proposes to add language to limit the ammonia slip from technologies using selective catalytic reduction (SCR) not related to shore-based electrical generation (e.g., SCR on-board vessels).

#### **Calculations for Reduction of Engine Power Generation and Equivalent Emission Reductions Option (subsection (f)).**

As noted, staff is proposing to replace the original proposal's vessel-visits based schedule with one based on a combination of vessel visits and engine power reduction, along with a schedule for an equivalent emission reductions option. Accordingly, staff is proposing to add the calculation methodology necessary for determining the power-load reduction requirements under the "Reduced Onboard Power Option." Staff is also proposing to add the calculation methodology necessary for determining excess emission reduction credits under the "Equivalent Emission Reduction Option." Because the staff is proposing the "Equivalent Emission Reduction Option" to provide for excess emission reductions, staff is also proposing to add language that would specify how such excess emission reduction credits could be accumulated and depleted.

It has been suggested that the original proposal be modified to allow for the use of alternative test methods for measuring an engine's emissions. Staff agrees and proposes to modify the proposal to allow alternative test methods upon written approval from the Executive Officer.

#### **Terminal Plan Requirements (subsection (g)).**

It has been suggested that the schedule for terminals to submit their plans be aligned with the staff's proposal to include a vessel visit-engine power reduction schedule and equivalent emission reductions option schedule. It has also been suggested that the terminal plan requirement be clarified by specifying additional criteria to apply to such plan submittals. Staff agrees and proposes to align the requirements for submittal of terminal plans to reflect this.

#### **Recordkeeping and Reporting Requirements (subsection (h)).**

As noted, staff is proposing to replace the original proposal's vessel-visits based schedule with one based on a combination of vessel visits and engine power reduction, along with a schedule for an equivalent emission reductions option. Accordingly, staff proposes to modify the reporting and recordkeeping requirements consistent with the proposed revised schedules.

It has been suggested that some fleet operators would initially choose the "Reduced Onboard Power Option," then switch to the "Equivalent Emission Reduction Option," thereby circumventing the earlier emission reduction requirements. Staff agrees and proposes to modify the proposal to provide for immediate compliance with the requirement under the "Equivalent Emission Reduction Option" that applies at the time

of the switchover. Further, staff proposes to disallow any excess emission credits that may be generated after the switch by the fleet operator that made the switch. To further discourage these late switches, staff proposes to require that fleet operators who make this switch compensate for the applicable equivalent emission reduction requirement that would have applied had the fleet operator originally chosen the equivalent emission reduction option.

**Violations (subsection (i)).**

As noted, staff is proposing to modify the regulatory language to allow for annual or quarterly compliance periods, depending on the option chosen. It has been suggested that, because of the proposed annual and quarterly compliance periods, the violations provision needs to be clarified to specify a method for determining the point in the compliance period at which a violation has occurred. Staff agrees and proposes to modify the regulatory language to reflect this.