



Dec. 3, 2019

Submitted VIA PORTAL

California Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: Proposed Control Measure for Ocean-Going Vessels at Berth

Dear Mr. Corey:

We at Friends of the Earth—an environmental nonprofit organization with over 1.6 million members and activists across the nation and over 200,000 in California—commend ARB for its proposed Control Measure for Ocean-Going Vessels at Berth. The expansion of vessel shore power and emission capture and control systems is needed in California—and in the rest of the country and world, for that matter.

We agree with the need to introduce and broaden, as proposed, requirements for cruise ships, containerships, reefers, ro-ro's, and tankers to reduce harmful emissions at berth. The public health benefits of this extension are significant, with ARB estimating that 230 premature deaths could be avoided by implementing the measure. Moreover, the effort is in accord with shore power expansion initiatives in Europe and Asia,¹ as well as internationally,² which intend to curb emissions of traditional air pollutants and greenhouse gases in port areas.³

Nevertheless, we do have some recommendations for the proposed rule, and the rest of this letter will focus on areas where it can be improved. First, the compliance timelines for ro-ro's and tankers are too conservative. Compliance start dates for both vessel categories, especially tankers, should be advanced by several years.

Second, general cargo and bulk cargo vessels (also known as bulk carriers) are not included in the proposal. This decision raises concerns not only about emission reductions forgone but also the equity of including some ship types and not others. General cargo and bulk cargo ships made 812 combined visits, in 2016, to California ports, and tend to stay at berth, on average, for long periods of time. Statewide port calls for these two ship types exceeded 10 percent of overall vessel calls, in 2016. And, from 2021 to 2031, their combined auxiliary and boiler PM_{2.5} emissions are projected to climb from 5.3 to 7.2 tons per year, a 36 percent increase.

¹ See e.g., Directive 2014/94/EU; ICCT, Action Plan for Establishing China's National Emission Control Area, March 2019, at https://theicct.org/sites/default/files/publications/DECA_China_policy_update_20190304.pdf.

² Onshore power supply (preferably from renewable sources) is listed as a possible provision in the International Maritime Organization's recent resolution, MEPC.323(74), which encourages voluntary cooperation between the shipping industry and ports to reduce greenhouse gas emissions from vessels.

³ The OECD estimated port emissions from ocean-going vessels, for 2011, to be two percent of global shipping emissions, producing 18 million metric tons of carbon dioxide, 0.4 million metric tons of nitrogen oxide, and 0.03 million metric tons of particulate matter (PM_{2.5}). O. Merk (2014). Shipping emissions in ports – Discussion paper no. 2014-20, at 17, OECD International Transport Forum: Paris, France.



Third, the proposed rule does not apply to ships at anchorage. A considerable number of these vessels are using anchorage sites that are, relatively, proximate to the California coastline and affected communities.

Finally, boiler emissions, with the exception of emissions from boiler-powered, steam-driven pumps of tankers, are not included in the proposed rule. While particular matter emissions from vessel boilers are not considered diesel particulate matter, they are by no means benign and should be mitigated further. Another ship category ripe for boiler emission reductions is the containership segment, which produces more than 0.04 tons per day of PM_{2.5}, an amount greater than its auxiliary engine PM_{2.5} output. Between 2021 and 2031, containership boiler PM_{2.5} emissions are anticipated to rise from 19.5 to 26.6 tons per year, an increase of 36 percent.

A greater emphasis by ARB on the role of emission capture and control systems, as a supplement to grid-based shore power in reducing harmful vessel air emissions, particularly in light of the preceding criticisms of the proposed rule, is warranted. Concerns about cost-effectiveness of capture and control systems for certain vessel categories should, of course, be taken into account; however, these systems could likely be scaled to desired sizes and capacities, thereby improving these calculations. And, on issues such as vessel emission reductions at anchorage, emission capture and control systems are a viable option—as opposed to shore power, for instance—and ought to be integrated in a comprehensive proposed rule.

We appreciate your consideration of these comments, and if you should have any questions, please contact John Kaltenstein at jkaltenstein@foe.org, or at (510) 900-3142.

Sincerely,

A handwritten signature in black ink that reads "John Kaltenstein".

John Kaltenstein
Deputy Director, Oceans & Vessels