



February 10, 2023

Chair Randolph and Members of the Board  
California Air Resources Board  
1001 I Street,  
Sacramento, California 95814  
Via Electronic submittal

**Re: CARB's Ocean Going Vessel At Berth Interim Evaluation Report and the Need for an Advanced Clean Ship Rule**

Dear Chair Randolph and Members of the Board:

The undersigned organizations are writing to submit comments on California Air Resources Board ("CARB") Interim Evaluation Report ("Report") on the Control Measures for Ocean-Going Vessels at Berth ("At Berth Regulation", or "Regulation"). We appreciate the work that CARB staff have done on the Report.

The expanded At Berth Regulation will build upon the health and climate benefits from the original rule, which has achieved an 80% reduction in harmful emissions from more than 13,000 oceangoing vessel visits since 2014. Once fully implemented, the updated regulation will reduce pollution by 90% from an expected additional 2,300 vessel visits per year. **This pollution reduction will offer critical protection for port communities, resulting in a 55 percent reduction in cancer risk for communities near the Ports of Los Angeles, Long Beach, and Richmond.**

Given the significant health and environmental benefits from regulating Ocean Going Vessels (“OGV”), we urge the Board to consider the following actions to further mitigate air pollution from these vessels:

**1. Full implementation of the At Berth Regulation without delay.**

While the shipping industry may face challenges in complying with the Regulation deadlines, CARB staff noted no new significant concerns while creating the Report that warranted weakening the At Berth emissions reduction deadlines for regulated OGVs. There are several compliance flexibilities included in the Regulation available to both vessels and port/terminal operators, further justifying the existing emissions reduction deadlines mandated by the rule. **CARB estimates that the updated At Berth policy will save 237 Californian lives and yield \$2.31 billion in public health benefits for Californians between 2021 and 2032.** We support staff’s recommendation to implement the Regulation without delay and urge the Board to reject any efforts by industry to weaken its implementation.

**2. Adoption of a zero-emission in-transit shipping standard for all marine vessels by 2040, via an Advanced Clean Ship Rule.**

While the At Berth Regulation will deliver important health and environmental benefits from OGVs at berth, air and climate emissions from the transiting, maneuvering, and anchoring of these vessels are not addressed in the rule, as well as emissions from bulk and general cargo vessels. These emissions remain a threat to public health and the environment, therefore CARB must explore all opportunities to achieve additional emission reductions from OGVs.

In-transit pollution is the largest portion of emissions from OGVs, and while emissions from vessels anchoring are typically low, we’ve seen them increase rapidly from high port congestion due to the COVID-19 pandemic. CARB staff noted in the Report that clean vessels are the best option to reduce emissions at anchor, signaling the need for the Board to adopt additional regulations to mandate zero-emission OGVs.

Moreover, while bulk carrier vessels account for only 9% and 7% of DPM and NOx OGVs [emissions in California](#), respectively, these vessels comprise the majority of ship calls to smaller ports, which are often located adjacent to communities that already bear

the brunt of air pollution. At the Port of Stockton, over 50% of [shipping throughput in 2020](#) consisted of dry and liquid bulk cargo. Portside communities in Stockton and Richmond, furthermore, reside in CalEnviroScreen 92<sup>nd</sup> and 98<sup>th</sup> percentiles for air pollution burden in the state, respectively. These vessels are not included in the Regulation but could experience emission reductions if the Board were to promulgate additional regulations requiring cleaner OGVs.

CARB staff recommend that the Board explore other measures to reduce OGV emissions while in-transit, maneuvering, and at anchor. **We urge the Board to follow this recommendation by adopting a zero-emission in-transit shipping standard for all vessels calling on ports in California, requiring ships to reach 100% greenhouse gas (GHG) and criteria pollutant emission reductions by 2040.** This standard will eliminate maritime vessel emissions from all modes of operation, help reduce pollution at the ports, save more lives, and create green jobs.

One way to achieve this would be to **set a progressively tighter GHG carbon intensity and criteria pollutant fuel standard for ships leading up to 2040, but not allowing for LNG.** This should be a 1.5°C-aligned operational carbon dioxide- equivalent (“CO2e”) intensity fuel standard for OGVs to both reduce year-over-year emissions and accelerate the zero-emission vessel market. Similar to CARB’s landmark approach to helping develop zero-emission auto and heavy-duty trucking markets, CARB should require linear CO2e improvements per ship in a year-over-year manner. Improvements should be implemented using the AER metric (gCO2eq/DWT-nm and gCO2eq/GT-nm), and compliance should be measured in three-year cycles, with annual audits.

**Compliance is possible and the commercial zero-emission vessel market is maturing.** Electrification for marine vessels is now considered a proven technology contributing to a decarbonized sustainable maritime sector. We are witnessing a fast-evolving, climate-friendly global technological shift that includes sustainable alternatives to fossil fuels to power ocean travel and zero-emission dockyards.

There are major efforts to decarbonize the shipping industry underway. Cargo owners like Amazon, Target and IKEA have [committed](#) to 100% zero-carbon shipping by 2040 and container companies including Maersk, Hapag Lloyd, and HHM [responded](#) that they’re ready to meet this deadline. Forty-eight zero-carbon, low emission container ships have been ordered by global shipping majors in the last 18-months, catalyzed by Maersk’s first order of 9 e-methanol container ships in August 2021.

### 3. **Act Now to Set Interim Measures to Immediately Reduce Toxic Pollution and Protect Port Communities**

California continues to experience some of the worst air quality in the nation with the South Coast Air Basin and San Joaquin Valley being in extreme nonattainment with the Federal Clean Air Act. This was exacerbated with the recent cargo congestion crisis in

2021 where the Port of Long Beach (POLB) saw record shipping traffic and associated toxic pollution. CO2 increased by 87% from 2020, and diesel particulate matter went up by 77% from 2020. The Port of Los Angeles (POLA) was even worse, with a staggering 147% jump in diesel particulate matter and a 136% increase in greenhouse gas emissions in 2021 over the previous year.

Diesel exhausts from ships carrying goods at ports are known to cause severe illnesses from aggravated asthma, lung cancer, heart disease and neurological disorders, and premature deaths. Port communities cannot afford to wait until 2040 to get air pollution relief. We urge CARB to take immediate action to regulate ships and put them on a path to zero emissions.

One way to achieve this is to **immediately phase out the dirtiest ships, Tier 0/I/II vessels**, and require ships visiting a California port to run on Tier III engines by 2028, or the best available technology, but not allowing for Liquefied Natural Gas (LNG) ships.

As of 2020, only 2% of all port visits at POLA & POLB were made by Tier III vessels, 34% of port calls were made by Tier II vessels, and more than 60% were made by Tier I or unregulated vessels. CARB is already considering through the State Implementation Plan to transition to Tier III engines by 2037 - our public health and climate cannot wait for that long.

In conclusion, we urge CARB to move forward with full implementation of the At Berth Regulation without delay, adopt a zero-emission in-transit shipping standard for all vessels by 2040, and set interim measures to provide immediate pollution reduction. These actions will build upon California's progress in reducing emissions from OGVs at berth while ensuring a clean shipping future for all OGV operations in the state.

Thank you for your consideration of these comments. Future generations will be grateful for your decisive climate action during the 2020's, the most decisive years of world climate history.

Sincerely,

Teresa Bui  
State Climate Policy Director  
Pacific Environment

Peter M Warren  
Spokesman  
San Pedro & Peninsula  
Homeowners Coalition

Brandon Dawson  
Director  
Sierra Club California

Enrique Huerta  
Legislative Director  
Climate Resolve

Marc Carrel  
President and CEO  
Breathe Southern California

Liat Meitzenheimer  
President  
Fresh Air Vallejo

Daniel Chandler  
Steering Committee Member  
350 Humboldt

Kathy Kerridge  
Chair  
Progressive Democrats of Benicia

Ellie Cohen  
Chief Executive Officer  
The Climate Center

Shoshana Wechsler  
Coordinator  
Sunflower Alliance

Eli Lipmen  
Executive Director  
Move LA

Joel Ervice  
Associate Director  
Regional Asthma Management and  
Prevention

Janet Cox  
President and CEO  
Climate Action California

Haley Ehlers  
Director  
Climate First: Replacing Oil & Gas  
(CFROG)

Will Brieger  
Legislation Chair  
350 Sacramento

Regina Hsu  
Senior Associate Attorney  
Earthjustice

Scarlett Russell  
Programs Coordinator  
California Nurses for Environmental Health  
and Justice

John Kaltenstein  
Deputy Director  
Friends of the Earth

Steve Sillen  
Vice-Chair  
United Democrats of Southern Solano  
County

Ellu Nasser  
Sr. Manager, Climate & Health  
Environmental Defense Fund

Andrea Marpillero-Colomina  
Sustainable Communities Program Director  
GreenLatinos

Whit Sheard  
Senior Director, Shipping Emissions  
Ocean Conservancy

Brian Beveridge  
Co-Exec Director  
West Oakland Environmental Indicators  
Project

Ben Eichenberg  
Staff Attorney  
San Francisco Baykeeper

Jason Pfeifle  
Senior Campaigner  
Center for Biological Diversity

Dr. Catherine Garoupa  
Executive Director  
Central Valley Air Quality Coalition

Heather Kryczka  
Staff Attorney  
Natural Resources Defense Council

Nancy Woo  
Hub Coordinator  
Sunrise Long Beach

Kyle Heiskala  
Climate Justice Policy Advocate  
Environmental Health Coalition

Taylor Thomas  
Co-Executive Director  
East Yard Communities for Environmental  
Justice

Durwood Zaelke  
President & Founder  
Institute for Governance & Sustainable  
Development

Amelia Murphy  
Board Director  
Center for Human Rights & Environment

Samuel Sukaton  
State Advocacy Coordinator  
California Environmental Voters

Donald Gilmore  
Executive Director  
Community Housing Development  
Corporation

Kiara Pereira  
Just Transition Organizer  
Urban Tilth