



April 16, 2021

California Air Resources Board
1001 I Street,
Sacramento, California 95814
Via Electronic submittal

**Re: 100% ZERO-EMISSION PATHWAY FEASIBLE AND NECESSARY FOR
MANY MORE COMMERCIAL HARBOR CRAFT SEGMENTS**

The undersigned organizations are writing to submit comments on California Air Resources Board (“CARB”) Draft Proposed Regulation Order for the Commercial Harbor Craft Regulation (“CHC”). This proposed regulation is critical to protecting public health in California, including by producing real immediate emissions reductions and helping accelerate the zero-emission vessel market within the shipping industry. We appreciate the work that CARB staff have done on the proposal, including taking into consideration the comments that many of the undersigned organization submitted to CARB in February. However, the rule as written still leaves nitrogen oxides (NOx) and fine particulate matter (PM2.5) emissions on the table and generates no significant greenhouse gas emission reductions. In the face of interrelated public health and climate emergencies, the draft CHC rule remains insufficient. Significantly more harbor craft segments can and must be required to achieve 100% zero-emissions by 2034/2035.

Even with the existing harbor craft regulation in the books, harbor craft continue to contribute a large portion of health and cancer risks to communities near ports. According to CARB's latest inventory model, statewide emissions of NOx and PM2.5 from commercial harbor craft have increased by up to 10 percent.¹ In the South Coast Air Basin, NOx and PM2.5 emissions from commercial harbor craft have increased by 40 to 60 percent.² In the areas surrounding the San Pedro Bay Ports, harbor craft constitute one of the top three sources of cancer risk attributable to diesel particulate matter exposure.³ As written, the current CHC rule significantly reduces PM2.5 and NOx emissions from CHC. However, the rule does not eliminate PM2.5 or NOx from the segment completely.⁴ Frontline and fence line port communities in California have a right to zero PM.5 and NOx emissions in their air.

We are particularly concerned that the proposed CHC rule does not meaningfully reduce greenhouse gas emissions from the CHC segment. We are reaching the point of no return on irreversible climate crisis. According to the World Meteorological Organization, the world has warmed to ~1.2C above pre-industrial levels, which means we are dangerously approaching the 1.5C warming threshold that climate scientists tell us to mitigate. New reporting from the Antarctic shows warm water impinging from all sides on pinning points critical to ice-shelf stability. California in April is experiencing July-level wildfire warnings and is looking at another unimaginably destructive, climate-polluting 2021 wildfire season.

In addition, allowing the vast majority of California's commercial harbor craft to upgrade to new generation diesel engines is out of compliance with California Executive Order N-79-20, which directed CARB to develop and propose strategies to achieve 100% zero-emission from off-road vehicles and equipment operations in the State by 2035.⁵

We therefore urge CARB to make the following amendments to its rule:

I. Require 100% zero-emissions deadline for all segments, with a waiver for specific vessel segments as needed

As currently written, the regulation only requires a zero-emission transition for at most 10-13.5% of California's commercial harbor craft segment, with a zero-emission requirement for short run ferries traveling 3 nautical miles and a zero-emission "capable" emphasis for excursion vessels. This is not ambitious climate policy. The rule does not reduce greenhouse gas emissions, risks creating a stranded asset scenario for harbor craft owners who may pay to retrofit to Tier 3/4

¹ California Air Resources Board, *Webinar: Overview of Proposed Concepts for Amendments to the Commercial Harbor Craft Regulation* (Mar. 5, 2020), slide 47, https://ww2.arb.ca.gov/sites/default/files/2020-03/CHC%20Webinar%20Presentation%20March%202020_1.pdf/.

² *Id.* at slide 48.

³ California Air Resources Board, *Public Workshop to Discuss Additional Requirements for the Commercial Harbor Craft (CHC) Regulation* (Dec. 2018), slide 10, <https://ww2.arb.ca.gov/sites/default/files/2020-07/chc120418pres.pdf>.

⁴ California Air Resources Board, *Public Workshop for the Draft Proposed Amendments to the Commercial Harbor Craft Regulation* (Mar. 16, 2021), slide 37, <https://ww2.arb.ca.gov/sites/default/files/2021-03/March%202021%20Workshop%20Slides%20-%20English.pdf>

⁵ California Air Resources Board, *Governor Newsom's Zero-Emission by 2035 Executive Order (N-79-20)* (January 19, 2021): <https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-text.pdf>

engines only to be forced to make a full zero-emission transition in quickly proceeding years later, and risks putting the CHC rule out of compliance with [E.O. N-79-20](#).

We believe that all commercial harbor craft highlighted in yellow can feasibly achieve 100% zero emissions by 2034/2035 and urge CARB to regulate them accordingly:

Vessel Category	Previous Population	Updated Population
Barge-ATB	19	19
Barge-Bunker	31	31
Barge-Other	88	88
Barge-Towed Petrochemical	22	22
Dredge	47	47
Commercial Fishing	1199	1199
Commercial Passenger Fishing	508	352
Ferry-Catamaran	508	32
Ferry-Monohull	32	19
Ferry-Short Run	19	15
Pilot Boat	15	10
Research Boat	10	25
Tugboat-ATB	25	19
Tugboat-Escort/Ship Assist	19	63
Tugboat-Push/Tow	63	147
Work Boat	147	481
Crew/Supply	481	167
Excursion	167	417
Total	3400	3153 ⁶

⁶ Chart compiled with data from CARB March 2021 public workshop report, slide 36:
<https://ww2.arb.ca.gov/sites/default/files/2021-03/March%202021%20Workshop%20Slides%20-%20English.pdf>

We have heard concerns from industry stakeholders regarding the costs to achieving zero-emissions in these categories. While there may be initial investment costs, some of these costs could be passed on to the consumer without undermining the efficiency of shipping.

Operators will also likely see increased efficiencies and fuel savings. For example, the Sandpiper dredge was converted from diesel to electric powered. Besides producing far less pollution, the rebuilt Sandpiper is so efficient it can dredge the harbor in less than half the time of the previous diesel dredge.⁷

Fundamentally, harbor craft manufacturers and equipment developers need regulatory certainty in order to ensure continued investment from the private sector in zero-emission technology.

II. Add technology reopener language in rule to revisit zero-emission options as the commercial market matures to achieve additional reductions

With technology changing so rapidly, we recommend CARB provide the ability to reopen the rule as the commercial market matures. We are attaching with our comment letter and recommend the report Mapping of Zero Emission Pilots and Demonstration Projects by the Getting to Zero Coalition, as well as some examples of ZE commercial harbor craft.⁸

III. Include a State Implementation Plan commitment to revise this rule as technology matures to achieve additional reductions

We recommend that CARB include in the State Implementation Plan an official, time-bound, aggressive commitment on when this next iteration of the rule will be considered and adopted. Prioritizing this commitment is critical to ensuring that new technological developments are taken into account so that the rule can be updated to achieve the additional emissions reductions needed for attainment of federal air quality standards and state and global climate goals.

IV. Include resolution language on zero-emission in rule, and increase funding for deployments of zero-emission commercial harbor craft and related infrastructure

We would like the rule to include intent language mirroring the Governor's E.O. N-79-20 to achieve zero emission on all commercial harbor craft by 2035. We encourage CARB to increase funding allocations, incentives, and subsidies for zero emission harbor craft demonstration projects, retrofits, swap outs, and related infrastructure including shore power.

We note for CARB that U.S. President Biden's American Jobs Plan included \$17,000,000,000 for port modernization and established a Healthy Ports Initiative to accelerate zero-emission technology adoption, including call outs for ferries and shore power. There are also multiple

⁷ Treiberg, Karl. Sandpiper: The Zero Emissions Dredge.

<https://www.santabarbaraca.gov/civicax/filebank/blobdload.aspx?BlobID=227124>

⁸ Getting to Zero Coalition (2021) Mapping of Zero Emission Pilots and Demonstration Projects.

<https://www.globalmaritimeforum.org/content/2021/03/Mapping-of-Zero-Emission-Pilots-and-Demonstration-Projects-Second-edition.pdf>

pieces of legislation in the U.S. Congress to increase federal funding for zero-emission vessel deployments, including for commercial harbor craft, and zero-emission port infrastructure, including both shore power and zero-emission fuels production and storage. California Rep. Barragán's Climate Smart Ports Act, in particular, has now been included in House Democrats CLEAN Futures' Act with an authorization level of \$2,000,000,000 per year for ten years.

V. Strengthen methane performance standard

We welcome CARB's addition of a methane performance standard to the rule. As written, however, the standard will not disincentive LNG vessels and may not actually preclude inadvertent methane slip. 2 g/bhp-hr is still too much methane to allow. We urge CARB to strengthen this standard to discourage LNG CHC vessels and ensure zero methane slip.

In conclusion, we urge CARB to make its CHC rule a zero-emissions, technology-forcing rule for the off-road marine segment, with waivers as needed. Californians, the nation and the world are facing interrelated existential public health, racial justice, and climate crises. The technology to create zero-emission harbor craft is well on its way to achieve 100% zero-emissions by 2035.

It would be a mistake for California's air and climate regulator to endorse a continuation of diesel-powered vessels during the decisive decade of climate and clean air action, and we urgently need technology-forcing regulation for this transportation segment.

Thank you for consideration of these comments.

Sincerely,

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