

**JACOBSEN PILOT SERVICE, INC.
LOS ANGELES AND LONG BEACH HARBORS**

==== PILOT SERVICE ====
U.S. FEDERAL LICENSED PILOTS

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LONG BEACH, CALIFORNIA 90832-2248

November 15, 2021

Ms. Liane Randolph, Chair
c/o Harborcraft
California Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: CARB's Proposed Revisions to the Commercial Harbor Craft Regulations

Dear Madam Chair,

Jacobsen Pilot Service, Inc. has been in business since 1924 and provides the port piloting service for the Port of Long Beach and the Seal Beach Naval Weapons Center. We operate 24/7 and pilot roughly 7,000 ships per year. **I am writing to express our serious concern with the agency's proposed revisions to the commercial harbor craft regulations.**

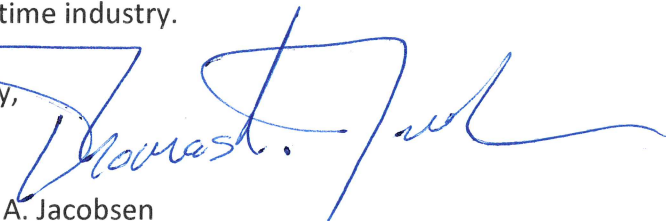
CARB has proposed engine emission regulations that require technology that has not been developed or tested to be reliable and safe at sea. Our three pilot boats deliver pilots to inbound ships, and the transfer process out in the open ocean can be dangerous. It is paramount for us to have reliable and safe engines.

Our company has been proactive in upgrading engines whenever possible to keep the cleanest available engines possible. Our two newest vessels, which are only one and three years old, were specially designed to reduce weight so we could use smaller cleaner engines. These two boats cost over 4 million each and have a service life of 30 years. We took advantage of carbon fiber technology and utilizing water jet drives. These boats reduce fuel consumption by 33% and reduce NOX by 35%, CO by 55%, CO2 by 37%, and PM by almost 100%. Each of our new boats has two Tier 3 engines rated at 800 HP.

Your proposed regulations would phase out our Tier 3 engines in a few years, but unfortunately there is no available engine technology that could replace these engines and fit in our new boats. The current Tier 4 engines would require a much bigger boat, which would be heavier and would require larger engines that burn a lot more fuel. This doesn't any make sense.

Our company supports cleaner engine technology when it is proven to be safe, reliable and practical for the maritime industry.

Sincerely,



Thomas A. Jacobsen
President / CEO