

March 21, 2024

Mr. Randall Pasek
STAX Engineering, Inc.
95 Pine Avenue Suite 943
Long Beach, California 90802
r.pasek@staxengineering.com

Dear Mr. Pasek:

California Air Resources Board (CARB) staff has reviewed STAX Engineering, Inc. (STAX)'s Test Report and request for Executive Order for ro-ro vessels submitted on May 26, 2023, for the STAXbox.A-1 barge-based capture and control system for auxiliary marine diesel engines.

The purpose of the Test Report and Request for Executive Order was to provide emission measurements and associated information to support the development of approved operating conditions for the STAXbox.A-1 for use as a CARB Approved Emissions Control Strategy (CAECS) by ro-ro vessels in accordance with CARB's Control Measure for Ocean-Going Vessels At Berth (2020 At Berth Regulation). CARB staff's review of STAX's Test Report for ro-ro vessels was based on the requirements in the 2020 At Berth Regulation, the guidelines provided in CARB's "Revised Performance and Testing Guidelines for Emissions Control Strategies on Ocean-Going Vessels" (Revised Guidelines) and STAX's Test Plan for ro-ro vessels which was submitted on February 28, 2023, and approved on April 10, 2023.

As stated in CARB's Executive Order approval letter to STAX, dated December 4, 2023, and as explained in CARB's approval letter for STAX's Test Plan for ro-ro vessels, Executive Order approval and approved operating conditions for ro-ro vessels was contingent on successful completion of emissions testing on ro-ro vessels and successful issuance and approval of the operating conditions of an Executive Order for container vessels. CARB issued Executive Order G-23-294 on December 4, 2023, approving the STAXbox.A-1 for use on container vessels.

We are pleased to inform you that we have approved the results of the emissions measurements and are issuing the enclosed Executive Order G-24-054.

Executive Order G-24-054 identifies the monitoring, reporting, and recordkeeping requirements for the STAXbox.A-1 and stipulates the approved operating conditions (Attachment 1 of the Executive Order G-24-054) for the use of the STAXbox.A-1 for ro-ro vessels.

The STAXbox.A-1 has been granted Executive Order G-24-054 under the 2020 At Berth Regulation, California Code of Regulations, title 17, section 93130.5(e)(3) and may operate under the terms specified in the Executive Order for five years as a CAECS before needing to apply for an extension, as specified in section 93130.5(i)(1). Additional vessel source

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testing and an extension application would be necessary to extend the range of approved operating conditions.

In closing, we appreciate the opportunity to work with STAX in its efforts to implement a barge-based capture and control system to treat ro-ro vessel auxiliary engine emissions while at berth. If you have any questions, please contact Angela Csondes, Manager, Marine Strategies Section at angela.csondes@arb.ca.gov or Nick Storelli, Air Resources Engineer, Marine Strategies Section at nicholas.storelli@arb.ca.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Bonnie Soriano".

Bonnie Soriano, Chief, Freight Activity Branch, Transportation and Toxics Division

Attachment: Executive Order G-24-054

cc: Angela Csondes, Manager, Marine Strategies Section