

June 28, 2024

Michael Walker, CEO
STAX Engineering, Inc.
65 Pine Avenue, Suite 943
Long Beach, California 90802
m.walker@staxengineering.com

Dear Michael Walker:

California Air Resources Board (CARB) staff have reviewed the "Addendum to Test Plan B Research Test Plan to Expand Containership CAECS and Test Xcap Connector" document submitted to CARB on June 25, 2024.

STAX submitted Test Plan B on December 23, 2023, which includes testing for the purposes of demonstrating equivalency of two additional STAXbox.A-1 purification trains (STAXbox1-2 and STAXbox2-1) to the train approved under Test Plan A so the two additional trains can be used for compliance with the 2020 At Berth Regulation.

CARB staff reviewed Test Plan B and provided comments to STAX on January 19, 2024. To address CARB staff's comments, STAX revised and resubmitted Test Plan B on January 21, 2024 (though this document is dated January 22, 2024). CARB staff met with STAX on February 8, 2024, to discuss Test Plan B and the process for approving duplicate systems (that are identical to an already approved system), and CARB provided comments following the meeting. To address CARB staff's comments, STAX revised and resubmitted Test Plan B on February 8, 2024 (though this document is dated February 9, 2024).

On February 16, 2024, CARB approved STAX's Test Plan B and issued STAX a Test Plan approval letter. On June 12, 2024, STAX submitted an Addendum to Test Plan B to request additional testing since modifications were made to the continuous emissions monitoring system (CEMS) system on STAXbox2-1 following Test Plan B approval. Modifications to the CEMS included adding a Fourier-transform infrared spectroscopy (FTIR) spectrometer at the inlet of the system and O₂ monitors at the inlet and outlet. Industrial flowmeters were also added at the inlet and outlet of the system. The CEMS modifications on STAXbox2-1 under the Amended Test Plan B make STAXbox2-1 a duplicate of STAXbox1-1, the system approved under Executive Order G-23-294. On June 24, 2024, CARB provided comments to STAX on the Addendum to Test Plan B submitted on June 12, 2024. On June 25, 2024, STAX submitted an updated version of the Addendum to Test Plan B, attached and requested five additional vessel visits on STAXbox2-1 to conduct the additional testing.

Based on CARB staff's review, and pursuant to Health and Safety Code section 93130.5(f) of the 2020 At Berth Regulation, STAX's Addendum to Test Plan B (submitted June 25, 2024, attached) is hereby approved in accordance with testing requirements under the 2020 At Berth Regulation. To complete the testing outlined in the Addendum to Test Plan B

(submitted June 25, 2024), a total of five additional vessel visits on STAXbox2-1 are approved to utilize the research exception for compliance with the 2020 At Berth Regulation set forth in section 93130.8(d) or 93130.10(e).

CARB approval is based on the system description, design, and operational procedures outlined in STAX's Addendum to Test Plan B (submitted June 25, 2024). No changes or modifications are permitted to the STAXbox system, including the capture system design and operation, without prior CARB approval. STAX will need to complete all testing outlined in their Addendum to Test Plan B (submitted June 25, 2024) and provide all reports generated from these tests.

The application requirements that STAX must meet to submit test results are outlined in section 93130.5 of the 2020 At Berth Regulation. Per section 93130.5(i) of the 2020 At Berth Regulation, if testing deviates from the approved Test Plan without prior CARB approval, the Executive Officer may deem the application incomplete or disapprove the application. An example of deviating from the Test Plan includes conducting testing on additional vessel visits beyond those approved in the Test Plan and claiming such visits qualify for the research exception set forth in section 93130.8(d) or 93130.10(e) of the 2020 At Berth Regulation. CARB reserves the right to request the results of any testing conducted beyond the testing described in the approved Test Plan.

Vessel visits that coincide with the tests specified in the approved test plan may count as a compliant visit under the research exceptions in section 93130.8(d) or 93130.10(e) of the 2020 At Berth Regulation; however, these sections only apply for testing identified in the Addendum to Test Plan B (submitted June 25, 2024) and conducted after the date of this letter when the Addendum to Test Plan B was approved. All testing must adhere to the system description, design, and operational procedures outlined in the approved Addendum to Test Plan B.

STAX is responsible for tracking the usage of the five additional approved vessel visits that may utilize the research exception, and STAX must provide a copy of the approved Addendum to Test Plan B to each vessel participating in the research. STAX is also responsible for communicating with the vessel operator to ensure the operator knows what tests are being performed during the visit, and which number out of the five additional approved visits the vessel is participating in. As noted above, any tests completed in excess of those approved in the Addendum to Test Plan B would not be eligible for the research exception for compliance with the 2020 At Berth Regulation set forth in section 93130.8(d) or 93130.10(e).

Michael Walker
June 28, 2024
Page 3

If you have any questions, please contact Angela Csondes, Manager, Marine Strategies Section, at angela.csondes@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: [Addendum to Test Plan B "Research Test Plan to Expand Containership CAECS and Test Xcap Connector" .pdf]

cc: Angela Csondes, Section Manager, Marine Strategies Section