

October 1, 2020

Malte Schierwater
Siemens Mobility, Inc
7464 French Road
Sacramento, CA 95828-4600, USA

Dear Mr. Schierwater:

This letter responds to the Siemens Mobility Inc. request for a California Air Resources Board (CARB) locomotive verification for the Tier 4 Siemens Charger passenger locomotive. CARB verifies that the Siemens Charger Locomotive achieves U.S. EPA Tier 4 locomotive emission levels. This verification is applicable to the Siemens Charger passenger locomotive.

The Siemens Charger locomotive is powered with a Cummins QSK95 16-cylinder diesel engine that is equipped with a urea based Selective Catalytic Reduction aftertreatment system meeting US EPA Tier 4 line haul standards. Design and technology improvements to the configuration are allowed as long as EPA emissions certification is maintained. Emission compliance and warranty is still covered by Cummins under its Certificate of Conformity with USEPA.

The test CDTX 2120 passenger locomotive accumulated 7,944 in-use hours operating with Amtrak on the Pacific Surfliner Route in Southern California for passenger transportation. West Virginia University Center for Alternative Fuels Engines and Emissions performed all emission tests during this in-use field demonstration. In addition, Cummins obtained a U.S. EPA Tier 4 Certificate of Conformity in October 2019 (Engine family name: LCEXG95.0AAA). For the most current EPA Certificate of Conformity, please see the EPA web site at <https://iaspub.epa.gov/otaqpub/>.

Based on CARB staff evaluation of the application, exhaust emission data, and additional information provided, CARB staff hereby verifies that this locomotive configuration and technology achieves U.S. EPA Tier 4 line haul NO_x, PM, CO, and HC exhaust emission levels.

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If you have any questions or comments, please email Ajay Mangat, Manager, Freight Systems Section at ajay.mangat@arb.ca.gov or Mike Jaczola, Staff Air Pollution Specialist, Freight Approvals Section at michael.jaczola@arb.ca.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Heather Arias". The signature is fluid and cursive, with the first name "Heather" being more prominent than the last name "Arias".

Heather Arias, Chief
Transportation and Toxics Division

cc: Dennis Johnson, Director
Technology Assessment Center
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
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Washington, D.C. 20460