

Freight & Environment: Ports of Entry 2022

Oakland, California, USA
29-30 September 2022

ISBN: 979-8-3313-3139-9

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Red Hook, NY 12571



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FINAL PROGRAM

TECHNICAL AGENDA – Thursday, September 29

7:15 am – 4:30 pm
Conference Registration
Spinnaker Room - Prefunction

7:15 am – 8:15 am
Continental Breakfast
Regatta Room

7:15 am – 8:15 am
Presenters' Meeting
Spinnaker Room

OPENING KEYNOTE SESSION

ALL SESSIONS WILL BE HELD IN THE SPINNAKER ROOM

8:15 am – 9:15 am

Conference Opening and Welcome...N/A

Brian Bunger, Holland & Knight, A&WMA Immediate Past President;
Helen Ginzburg, VHB, Conference Chair

Port Environmental Projects and the Path to a Zero Emissions Seaport...N/A

Danny W. Wan, Executive Director, Port of Oakland

9:15 am – 9:30 am

Networking Break

Spinnaker Room - Prefunction



Danny W. Wan

Sponsored By:



SESSION 1: HEALTH IMPACTS OF FREIGHT OPERATIONS

Session Chair: George Noel, FHWA

9:30 am – 9:50 am

FE09

Quantifying and Characterizing the Nationwide Population Living Near Potential Port-related Sources of Air Pollution...1

Ali Kamal, Sarah Froman, Marion Hoyer, Chad Bailey, Anne Neale, Jeremy Baynes, Jeremy Schroeder, US EPA; Laurina Bird, ORISE

9:50 am – 10:10 am

FE19

Health Risk Assessment for Heavy Truck Freight Operations in Sutter County...12

Cheri Velzy, Bailey Setzler, Christopher Easter, Environmental Science Associates, Walnut Creek, CA

10:10 am – 10:30 am

FE14

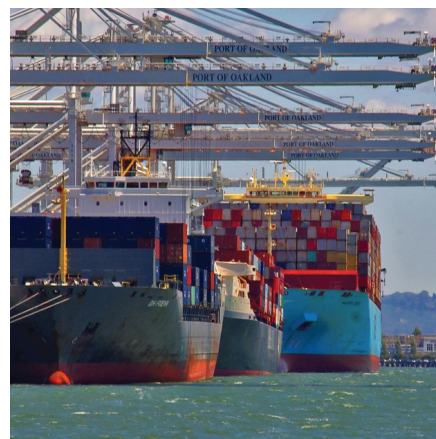
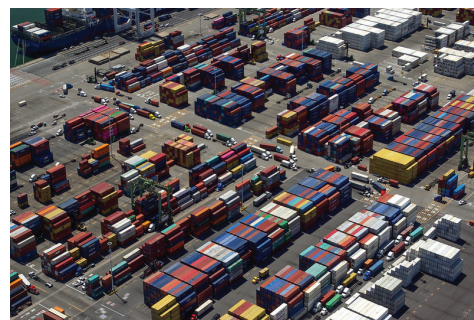
SIFT-MS as a Robust Tool for Real-Time Container Safety Analysis...19

Leslie P. Silva, Syft Technologies, Ltd, San Francisco, CA

10:30 am – 10:45 am

Networking Break

Spinnaker Room - Prefunction



FINAL PROGRAM

TECHNICAL AGENDA – Thursday, September 29, con't.

SESSION 2: MARINE EMISSIONS

Session Chair: Helen Ginzburg, VHB

10:45 am – 11:05 am

FE08

Best Practices for Reducing Emissions at Ports...33

Sarah Froman, US EPA, Washington, DC

11:05 am – 11:25 am

FE16

Monitoring for Compliance with the Fuel Sulfur Standards of the North American (and related) Emissions Control Area...40

Matt Haber, Seema Kakade, Eastern Research Group, San Francisco, CA

11:25 am – 11:45 am

FE22

Emission Inventories and Air Quality Planning at the Port of Oakland...N/A

Tracy Fidell, Andrea Gardner, Richard Sinkoff, Port of Oakland, Oakland, CA; Till Stoeckenius, Chris Lindhjem, John Grant, Ramboll US Consulting, Oakland, CA

11:45 am – 12:05 pm

FE31

Evaluating NOx Emission Inventories for Ocean-Going Vessels Using Real Emissions Data...49

Bettina Knudsen, Arturo Lewis Lallana, Luca Ledermann, Explicit ApS, Virum, Denmark; I-Ling Elaine Shen, South Coast AQMD, Diamond Bar, CA

12:05 pm – 12:25 pm

FE15

Emission Measurement Challenges for Vessels at Berth in California...55

Kevin Crosby, Montrose Air Quality Services, LLC, Antioch, CA

12:30 pm – 1:30 pm

Lunch for all attendees

Regatta Room

SESSION 3: POLLUTION REDUCTION AND ENVIRONMENTAL JUSTICE ISSUES

Session Chair: Roger Wayson, AECOM

1:30 pm – 1:50 pm

FE02

California Clean-Off Road Equipment Voucher Incentive Project...67

Nestor Cruz, CALSTART, Pasadena, CA

1:50 pm – 2:10 pm

FE07

Addressing Environmental Justice and Building Collaborations Between Ports and Communities...73

Harold Rickenbacker, Sarah Froman, Rob Schweinfurth, US EPA, Washington, DC

2:10 pm – 2:30 pm

FE23

California's 2020 Mobile Source Strategy for Mass Scale Zero Emission Vehicle Transition: Is this the Right Approach?...80

Varalakshmi Jayaram, Akshay Ashok, Jeremy Horne, Julia Lester, Scott Weaver, Ramboll US Consulting; Christina Chen, Massachusetts Institute of Technology, Cambridge, MA

2:30 pm – 2:50 pm

FE28

Environmental Planning Benefits Resulting from Vessel Safe Under Keel System...85

Kyle Clark, Boyd Boswell, T. Baker Smith, LLC, Galveston, TX

2:50 pm – 3:10 pm

FE30

Innovation in Air Quality Regulation - South Coast AQMD's Warehouse Indirect Source Rule...94

Ian MacMillan, South Coast AQMD, Diamond Bar, CA

3:10 pm – 3:30 pm

FE29

Addressing Truck Emissions and Noise at Truck Freight Bottlenecks...103

David Kall, U.S. Department of Transportation, Federal Highway Administration (FHWA); Christopher Porter, Daniel Beagan, Elizabeth Welch, Cambridge Systematics; John Koupal, ERG; Roger Wayson, AECOM; Victoria Martinez, Aileen Varela-Margolles, Jeff Purdy, Cecilia Ho, FHWA

3:30

pm

–

3:50

pm

Networking

Break

Spinnaker Room - Prefunction

FINAL PROGRAM

TECHNICAL AGENDA – Thursday, September 29, con't.

SESSION 4: PANEL – APPLICATIONS OF EMISSION REDUCTION TECHNOLOGIES AND PROGRAMS

3:50 pm – 5:10 pm

Moderator: George Noel, FHWA

This panel will discuss the Bipartisan Infrastructure Law's (BIL) Reducing Truck Emissions at Port Facilities Program, a \$400 million competitive grant program intended to test, evaluate, and deploy projects that reduce port-related emissions. The panel will also discuss the funding opportunities, application process, and tools associated with the Federal Highway Administration's (FHWA) Congestion Mitigation and Air Quality (CMAQ) Improvement Program, as well as discuss examples of successful projects funded with other federal grant programs.

Panelists include:

- **BIL's Reduction of Truck Emissions at Port Facilities Program...N/A**
Carl Millard, FHWA Office of Freight Management and Operations
- **Congestion Mitigation and Air Quality (CMAQ) Program...N/A**
George Noel, FHWA Resource Center
- **CMAQ Emissions Calculator Tools...N/A**
Abigail Raymond, U.S. DOT Volpe National Transportation Systems Center
- **Airport Grant Successes: Great Freight Takeaways...114**
Alice Richard, HMMH

5:15 pm – 6:15 pm

Networking Reception
Regatta Room

TECHNICAL AGENDA – Friday, September 30

7:00 am – 12:00 pm

Conference Registration
Spinnaker Room - Prefunction

7:00 am – 8:00 am

Continental Breakfast
Regatta Room

7:00 am – 8:00 am

Presenters' Meeting
Spinnaker Room

SESSION 5: CARBON FOOTPRINT REDUCTION

Session Chair: Roger Wayson, AECOM

8:00 am – 8:20 am

FE04

Expert Assessments of Future Marine Shipping Decarbonization Pathways...118

Imranul I. Laskar, Bryan Comer, Hadi Dowlatabadi, Amanda Giang, The University of British Columbia, Vancouver BC, Canada

8:20 am – 8:40 am

FE25

Understanding the CO₂ Impacts of Zero Emission Trucks...N/A

Jeffrey Short, Danielle Crownover, American Transportation Research Institute (ATRI), Atlanta, GA

8:40 am – 9:00 am

FE17

Quantification of Carbon Sequestration and Storage in San Diego Bay's Eelgrass Beds...128

Alicia Juang, Lindsey Sheehan, Environmental Science Associates; Keith Merkel, Merkel & Associates; Heather Kramp, Port of San Diego, San Diego, CA

9:00 am – 9:20 am

FE20

Roadmap to Carbon Neutrality and Net Zero with Resilient, Sustainable Infrastructure for Port Operations...N/A

Christopher Easter, Michelle Le, Tim Sturtz, Jeff Caton, Environmental Science Associates, Walnut Creek, CA; Joseph Gale, EXP, Seattle, WA

9:20 am – 9:40 am

FE10

Port of Vancouver Adopted and Began Implementation of a Climate Action Plan (CAP)...139

Amnon Bar-Ilan, Amy Malick, Ramboll US Consulting, Novato, CA

9:40 am – 9:50 am

Networking Break

Spinnaker Room - Prefunction

FINAL PROGRAM

TECHNICAL AGENDA – Friday, September 30, con't.

SESSION 6: FREIGHT TRUCK EMISSIONS AND ENVIRONMENTAL JUSTICE IMPLICATIONS

Session Chair: George Noel, FHWA

9:50 am – 10:10 am

FE26

ATRI Research on Electric Truck Infrastructure for Long-Haul Trucking...N/A

Jeffrey Short, Danielle Crownover, American Transportation Research Institute (ATRI), Atlanta, GA

10:10 am – 10:30 am

FE35

The 7th Street Grade Separation Project: Improving Access and Air Quality at the Port of Oakland...N/A

Harold Brazil, Bay Area Metro Center, San Francisco, CA

10:30 am – 10:50 am

FE06

CMAQ Emissions Calculator Tools for Ports of Entry...N/A

Abigail Raymond, Matthew Simon, Anjuliee Mittelman, William Chupp, Andrew Eilbert, Alexis Zubrow, U.S. DOT Volpe National Transportation Systems Center, Cambridge, MA; Mark Glaze, David D'Onofrio, Karen Perritt, Edward Dancausse, Cecilia Ho, U.S. DOT Federal Highway Administration, Washington, DC

SESSION 7: STUDIES OF FREIGHT IMPACTS ON AIR QUALITY AND NOISE

Session Chair: Robert Mentzer, HMMH

10:50 am – 11:10 am

FE36

Airport Noise Programs and Mitigation...150

Robert Mentzer, HMMH, Auburndale, FL

11:10 am – 11:30 am

FE21

Comparative Study of Air Quality During Freight Management in Afghanistan...N/A

Mohammad Hashim Pashtun, Ohio University, Athens, OH

11:30 am – 11:50 am

FE33

Environmental Noise and Air Quality Considerations for Ports and Points of Entry...159

Paul Burge, Roger Wayson, AECOM, Cottonwood Shores, TX

12:00 pm – 1:00 pm

Lunch for all attendees

Regatta Room

TECHNICAL TOUR – PORT OF OAKLAND

Friday, September 30, 1:00 pm – 2:30 pm

The Port of Oakland approved its Maritime Air Quality Improvement Plan (MAQIP) in 2009. The MAQIP included goals for substantial reductions in criteria pollutants, most notably an 85% reduction goal in diesel particulate matter over 2005 levels to reduce excess cancer health risk in the nearby West Oakland community.

This tour will highlight strategies that enabled the Port to surpass its emissions reductions goals in 2020, and new strategies set forth in its Maritime Air Quality 2020 & Beyond Plan – the Pathway to Zero Emissions. The tour also includes a site visit to see Class 8 battery-electric trucks, electric top-picks, and associated charging equipment.

Cost: \$35. Pre-registration required by September 23.

