

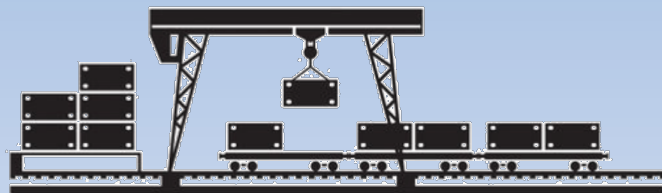
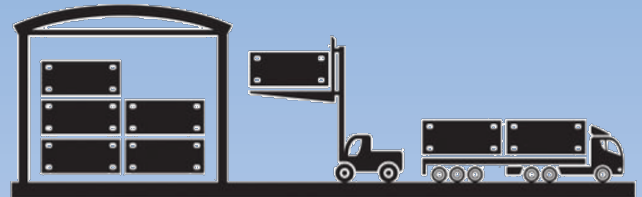
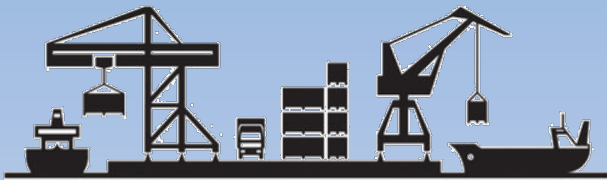
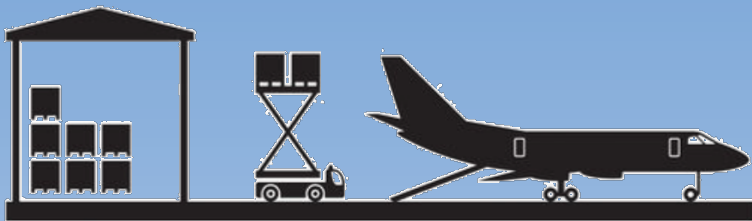


AIR & WASTE MANAGEMENT
ASSOCIATION

Freight & Environment: Ports of Entry

September 29-30, 2022 • Oakland, CA

FINAL PROGRAM



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AIR QUALITY
MANAGEMENT
DISTRICT

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FINAL PROGRAM

GENERAL INFORMATION

CONFERENCE OVERVIEW

The Air & Waste Management Association is proud to continue our focused conference on Freight and Environment: Ports of Entry. This conference will explore many solutions to reduce the environmental impacts of all freight transportation, focusing on air quality, noise, climate change and sustainability.

The technical program will include panel discussions of experts in the field and forward-looking presentations on reducing impacts on the environment. The conference will bring together a community of scientists, regulators, practitioners, and students to share ways to make freight more sustainable.

REGISTRATION

Register online at www.awma.org/ports. Your registration will not be processed without payment. Conference check-in and badge pickup will be held in the Spinnaker Room - Prefunction at the Waterfront Hotel during the following hours:

Thursday, September 29: 7:15 am – 4:30 pm
Friday, September 30: 7:00 am – 12:00 pm

LOCATION AND LODGING

Waterfront Hotel
10 Washington Street
Oakland, CA 94607
Phone: 510-836-3800

REFUND POLICY

If written notice of cancellation is received on or before August 29, 2022 payment will be refunded, less a \$100 cancellation fee. (Cancellation fees apply regardless of payment method). Substitutions may be made at any time; payment for any difference is due at the time of substitution. This refund policy applies to all occurrences, including weather-related events and other natural disasters. In the unlikely occurrence of event cancellation, the Association is not liable for any expenses incurred by the registrant other than the full refund of registration fee(s) paid.

CONFERENCE COMMITTEE

Conference Chair:
Helen Ginzburg, VHB

Committee:

- Brian Bunger, Holland & Knight
- Sara Head, Yorke Engineering, LLC
- Lee Lundberg, Bedrock Enterprises, Inc.
- Robert Mentzer, HMMH
- George Noel, Federal Highway Administration (FHWA)
- Roger Wayson, AECOM

PRESENTERS' MEETING

Presenters and Session Chairs will meet during breakfast on the day of their session involvement in the Spinnaker Room to review program details. Presenters should bring their presentations on a memory stick/USB to this meeting, as well as a brief biography.

CONFERENCE PROCEEDINGS

Conference proceedings will be accessible to all full conference registrants for viewing and download for a limited time following the conference. Attendees will be notified via e-mail when the presentations are available.

CONTINUING EDUCATION UNITS

Conference attendees may be eligible for continuing education credits and can apply to receive a Certificate of Participation for the sessions attended. For more information, please contact Gloria Henning at 1-412-904-6021 or glhenning@awma.org.

SPECIAL ACCOMMODATIONS

The Air & Waste Management Association supports the Americans with Disabilities Act (ADA). Attendees requiring specific equipment, food, or services should contact Cindy Fontanesi at cfontanesi@awma.org to make those needs known in advance. A&WMA will make every reasonable effort to accommodate them.

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

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

Danny W. Wan, Executive Director, Port of Oakland

9:15 am – 9:30 am

Networking Break

Spinnaker Room - Prefunction



Danny W. Wan

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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

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

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

10:10 am – 10:30 am

FE14

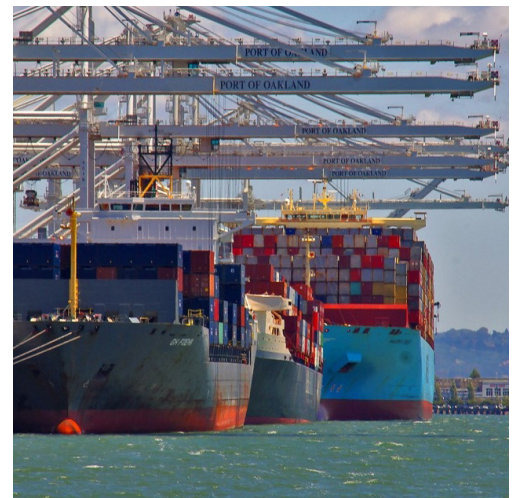
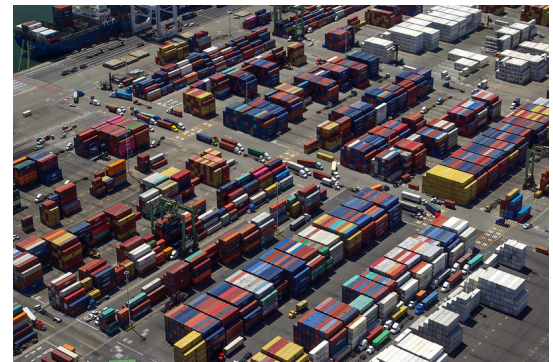
SIFT-MS as a Robust Tool for Real-Time Container Safety Analysis

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

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

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

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

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

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

Nestor Cruz, CALSTART, Pasadena, CA

1:50 pm – 2:10 pm

FE07

Addressing Environmental Justice and Building Collaborations Between Ports and Near-Port Communities

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?

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

T. Baker Smith's Dock Management System

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

Ian MacMillan, South Coast AQMD, Diamond Bar, CA

3:10 pm – 3:30 pm

FE29

Addressing Truck Emissions and Noise at Truck Freight Bottlenecks

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

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**
Carl Millard, FHWA Office of Freight Management and Operations
- **Congestion Mitigation and Air Quality (CMAQ) Program**
George Noel, FHWA Resource Center
- **CMAQ Emissions Calculator Tools**
Abigail Raymond, U.S. DOT Volpe National Transportation Systems Center
- **Airport Grant Successes: Great Freight Takeaways**
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

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

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

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

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)

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

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

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

10:30 am – 10:50 am

FE06

CMAQ Emissions Calculator Tools for Ports of Entry

Abigail Raymond, Matthew Simon, Anjulie 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

Robert Mentzer, HMMH, Auburndale, FL

11:10 am – 11:30 am

FE21

Comparative Study of Air Quality During Freight Management in Afghanistan

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

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

12:00 pm – 1:00 pm

Lunch for all attendees

Regatta Room

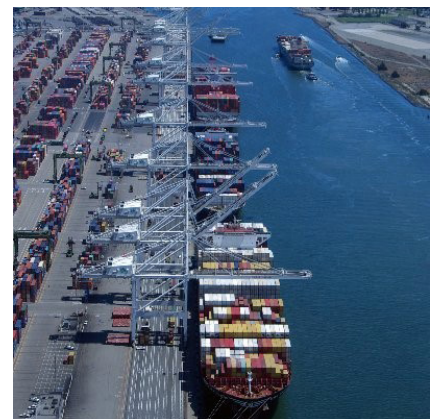
TECHNICAL TOUR – PORT OF OAKLAND

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.



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Since 1955, the Bay Area Air Quality Management District has been the public agency responsible for protecting air quality in the nine counties that surround San Francisco Bay: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, southwestern Solano, and southern Sonoma counties. Air District programs monitor air emissions sources, promote climate protection, provide clean air grants, draft rules and regulate stationary air pollution sources. The Air District's mission is to protect and improve public health, air quality and the global climate. The Air District encourages clean commute alternatives through the Spare the Air program. www.baaqmd.gov

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Kimley-Horn is a full-service design, engineering, planning, landscape architecture, and environmental consulting firm providing services to municipalities, transportation, public agencies, and private developers. Since our founding, Kimley-Horn has grown from a small group of traffic engineers and transportation planners to a firm of more than 5,500 employees with 99 offices nationwide. www.kimley-horn.com

TABLETOP EXHIBITORS

Ambilabs

www.ambilabs.com

Ambilabs specializes in supplying innovative ambient air monitoring technology solutions. Our experienced staff provide instrumentation, systems and solutions for obtaining valid, accurate, and precise air quality data. We directly supply, install, and train on a broad range of gas and particulate monitoring instrumentation for our customers in Canada, USA, and the Caribbean. Please visit our booth to discuss the latest "Airpointer" which is an EPA FEM & FRM designated air monitoring "station in a suitcase", and also the new AqMesh suite of pollutant monitoring sensors packaged together into a tiny pod that is no larger than a football. Also ask about our latest "2WIN" high precision particulate/haze/visibility monitoring sensor solution.

American Ecotech

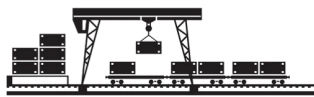
www.americanecotech.com

American Ecotech specializes in supplying state of the art instruments measuring specific gases, aerosols, and particulate airborne matter, including gas analyzers to measure NOx, CO, SO2, CO2, NH3, H2S, NOy, and/or ozone. We supply digital dataloggers, and advanced remote maintenance software for automated field data validation and reporting.

Thank you for attending!

Freight & Environment: Ports of Entry

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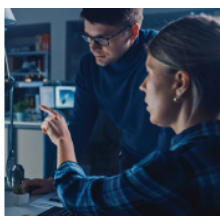


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The Air & Waste Management Association is a not-for-profit, nonpartisan professional organization that enhances knowledge and expertise by providing a neutral forum for technology exchange, professional development, networking opportunities, public education, and outreach to more than 5,000 environmental professionals in 65 countries. A&WMA also promotes global environmental responsibility and increases the effectiveness of organizations to make critical decisions that benefit society. For more information, please visit www.awma.org.

Get STARTED, Get INVOLVED, and Get AHEAD

Become a member or encourage someone you know to join A&WMA today!



With a common goal of sustaining the environment, A&WMA offers exceptional learning, networking, and money-saving benefits for professionals and students.

- Gain access to the latest technical information through *EM Magazine*, the *Journal*, and the monthly EShare page
- Receive discounts at ACE, our focused specialty conferences, workshops, and webinars
- Become a leader and make a difference for the environment, your company, and your career!