

Freight & Environment: Ports of Entry 2024

Corpus Christi, Texas, USA
30 September - 1 October 2024

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Technical Agenda – Monday, September 30

7:30 am – 5:00 pm
Conference Registration
Nueces Foyer

7:30 am – 8:30 am
Continental Breakfast
Nueces Foyer

ALL TECHNICAL SESSIONS WILL BE HELD IN NUECES A

Conference Opening and Welcome

8:30 am – 8:45 am

Opening Remarks

Leah Blinn, A&WMA President-Elect, Civil & Environmental Consultants; Roger Wayson, Conference Chair, AECOM

Session 1: Making Ports Work

Session Chair: Leslie Ruta, Port of Corpus Christi

8:45 am – 9:10 am

FE09

EPA Clean Ports Program 1

Samantha Pryor, U.S. Environmental Protection Agency

9:10 am – 9:35 am

FE23

Potential Emission Reductions from a Successful Clean Programs Grant 9

Roger L. Wayson, AECOM

9:35 am – 9:45 am

Networking Break and Display Viewing

Nueces Foyer

Session 2: Local Impacts and Environmental Justice

Session Chair: Helen Ginzburg, VHB

9:45 am – 10:10 am

FE13

Monitoring to Determine Air Quality at a Near-Port Community N/A

Sally Pang, Vancouver Fraser Port Authority

10:10 am – 10:35 am

FE16

Mitigating and Managing Disproportionate Human Health and Environmental Impact on Disadvantaged Communities 16

Kun Zhao, Ramboll

10:35 am – 11:00 am

FE18

Proactive Emissions Reductions Through Voluntary Efforts - A Port/Community Success Story 36

Sharon Bailey Murphy, Coastal Bend Air Quality Partnership

11:00 am – 11:15 am

Networking Break and Display Viewing

Nueces Foyer

Panel: Stormwater Master Plan and Nature-Based Solutions in a Port Setting

11:15 am – 12:30 pm

Moderator: Sarah Garza, Director of Environmental Planning and Compliance, Port of Corpus Christi

This panel will discuss planning for stormwater management using innovative tools and solutions and using partnerships to facilitate change across the greater area.

Panelists include:

- Yvonne Dives-Gomez, Environmental Permitting Coordinator, Port of Corpus Christi 44
- Chuck Naiser, President, FlatsWorthy 51
- Charriss York, Program Director, Green Infrastructure for Texas, Clean Coast Texas 54

12:30 pm – 1:30 pm

Lunch

Nueces B

Technical Agenda – Monday, September 30, con't.

Keynote Presentation

1:30 pm – 2:30 pm

Leading by Example: Committing to Environmental Stewardship in the Global Energy Marketplace 67

Kent Britton, Chief Executive Officer, Port of Corpus Christi



Kent Britton is the Chief Executive Officer for the Port of Corpus Christi, where he oversees \$200 million in revenue and more than 300 employees. In his role as CEO, Kent leads the largest United States port in total revenue tonnage and the largest gateway for U.S. produced energy exports. Prior to joining the Port of Corpus Christi in 2017, Kent worked as Chief Financial Officer for the Glencore-owned Sherwin Alumina Company. His career spans more than 30 years of progressive experience in the accounting and finance fields, including leadership and executive roles at Alcoa, the world's leading integrated aluminum company, and Blackbaud, Inc., the premiere software provider to non-profit organizations. A seasoned finance executive, Kent was named Chief Financial Officer for the Port of Corpus Christi in 2019. In 2023, the Port of Corpus Christi Commission voted to promote Kent to Chief Executive Officer.

Kent is an advocate for his communities and is a staunch believer in service to others. Currently, Kent serves as a Board Member for the local United Way and is the Chairman of the American Association of Ports Audit Committee. Kent holds a bachelor's degree in industrial management from Georgia Tech and is a licensed CPA.

Technical Tour – Port of Corpus Christi

Monday, September 30, 3:15 pm – 5:15 pm

Pre-registration required.

Join the Port of Corpus Christi for a tour of the Inner Harbor, leaving from the new state-of-the-art Executive Administration Building. The tour will include a one-hour narrated cruise along the Port's Inner Harbor. Have a close-up view of the construction of the new Harbor Bridge, the longest cable stay bridge in the US, upon completion. Other sites to be seen on tour include the Port's public and private docks, where cargo such as bulk materials, bulk liquids, wind cargo, etc., are transferred. Also, see the fourth and final phase of the Channel Improvement Project, which is projected to be completed in early 2025.



Networking Reception for All Attendees

5:30 pm – 6:30 pm

Nueces Foyer

Technical Agenda – Tuesday, October 1

7:30 am – 3:00 pm
Conference Registration
Nueces Foyer

7:30 am – 8:30 am
Continental Breakfast
Nueces Foyer

Session 3: Modeling of Pollutants

Session Chair: Roger Wayson, AECOM

8:30 am – 8:55 am

FE12

Applying the Maritime Energy, Noise, and Emissions Model (MENEM) for U.S. Vessel Fuel Use Scenarios 78

Kirby Ledvina, US Dept. of Transportation, Volpe Center

8:55 am – 9:20 am

FE03

Environmental Considerations, Noise Analysis, and Best Management Practices for Drone Package Deliveries in the U.S. 88

Missi Shumer, HMMH

9:20 am – 9:45 am

FE14

MARINER: Development and Application of a Shipping Emissions Estimation Program 96

Fiona Jiang, Ramboll

9:45 am – 10:10 am

FE05

Improvement in Spatial Allocation of Ship Emissions and Its Impact on CMAQ PM_{2.5} Simulation Results 109

Young Sunwoo, Konkuk University

10:10 am – 10:35 am

FE24

Zero-Emission Railyard (ZERY) Assessment Framework 126

Anjuliee M. Mittelman, Volpe National Transportation Systems Center

10:35 am – 10:45 am

Networking Break and Display Viewing

Nueces Foyer

Session 4: Measurement of Pollutants in the Vicinity of Freight Facilities (Part 1)

Session Chair: Robert Mentzer, HMMH

10:45 am – 11:10 am

FE04

How Ports Can Use Continuous Noise, Particulates and Gas Monitoring to Help Manage and Control Their Environmental Impacts from Freight and Port Operations 139

Will Averdieck, Sonitus Systems Ltd.

11:10 am – 11:35 am

FE17

Real-Time Monitoring of Shipping Emissions: A Case Study from the Balearic Islands 149

Kathleen Masse, APEX Instruments

11:35 am – 12:00 pm

FE01

Air Pollutant Emission Measurements for Vessels at Berth and During Dock Loading and Unloading Operations 178

David Ramirez, Texas A&M University – Kingsville

12:00 pm – 1:00 pm

Lunch

Nueces B

Technical Agenda – Tuesday, October 1, con't.

Session 5: Measurement of Pollutants in the Vicinity of Freight Facilities (Part 2)

Session Chair: Leah Blinn, Civil & Environmental Consultants, Inc.

1:00 pm – 1:25 pm

FE06

Rapid Detection by SIFT-MS of Toxic Inorganic and Organic Compounds Relevant to Worker Safety in the Shipping Industry 188

Nathan Hoppens, Syft Technologies

1:25 pm – 1:50 pm

FE15

Determining the Elemental and Chemical Composition of Ambient Particulate from a Port City (Auckland, New Zealand) 198

Hamesh Patel, Mote

1:50 pm – 2:15 pm

FE08

Prescott Greening: Mitigating Particulate Pollution with Green Infrastructure 208

Mei Visco, Hyphae Desing Lab

2:15 pm – 2:40 pm

FE25

Louisville International Airport Proposed Aircraft Maintenance Facility Ground Noise Study 226

Robert Mentzer, HMMH

2:40 pm – 3:05 pm

FE07

Best Practices for Container Port Air Emission Inventories 237

Leah Blinn, Civil & Environmental Consultants, Inc.

3:05 pm – 3:20 pm

Networking Break and Display Viewing

Nueces Foyer

Session 6: Greening of Ports

Session Chair: Robert Mentzer, HMMH

3:20 pm – 3:45 pm

FE22

Electric Conversion Case Studies and a Framework for Fleet Turnover 250

McKenzie Ward, Port of Corpus Christi

3:45 pm – 4:10 pm

FE10

Implementing Battery Electric Locomotive Project in Port of Baltimore 256

Rebecca Hensley, CSX Transportation

4:10 pm – 4:35 pm

FE21

Planning for Sustainability with Environmental Precepts and an Environmental Sustainability Action Plan 265

Sarah Garza, Port of Corpus Christi

4:35 pm – 5:00 pm

FE20

Developing a Climate-Related Baseline – Best Practices and Methodologies 274

Miranda De La Garza, Port of Corpus Christi

5:00 pm – 5:30 pm

Conference Wrap-Up and Future Planning Discussion

Conference organizers, presenters, and attendees will discuss topics presented at this conference and future issues.

About the Air & Waste Management Association



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.