

MSTRS Ports Workgroup

Update for MSTRS

New Orleans, LA

December 9, 2014





Outline

1. Background on the National Conversation on Ports
2. Work Group formation and progress to date
3. Related EPA work



EPA's Port Initiative Vision

To develop and implement an environmentally sustainable port strategy that:

- identifies opportunities and finds solutions to help build a more sustainable ports system
- creates healthy air quality for communities
- reduces climate risk



Background Timeline

- National Conversation on Ports
 - Sept 24, 2013—Promoting Port Stakeholder Success
 - Jan 14, 2014—Collaborative Solutions & Community
 - Mar 4, 2014—Advancing Sustainable Solutions
- Port Stakeholders Summit—April 8, 2014
- MSTRS Meeting—May 7, 2014
- Ports Work Group Meetings—August, December 2014



National Conversation on Ports

- Sept 24, 2013 – Promoting Port Stakeholder Success
 - Industry stakeholders showcased successes & challenges
- Jan 14, 2014 – Collaborative Solutions & Community
 - Scientists and community groups discussed experiences, concerns and lessons learned about port impacts
- Mar 4, 2014 – Advancing Sustainable Solutions
 - Stakeholder perspectives on assessing port emissions, technical solutions and lessons learned



Port Stakeholders Summit

- Summit held April 8, 2014 in Baltimore, MD
 - 215 experts and stakeholders attended
- EPA convened a Summit to continue dialogue and momentum through face to face interaction with stakeholders
- Goals:
 - Exchange information and insights
 - Take a deeper dive into the challenges and solutions
 - Build and strengthen collaboration



Common Themes

- Ports are a node in the larger goods movement supply chain
 - All nodes have different business/mgmt conditions
- Importance of level playing field
- Program must drive real change, not just “recognition”
- Cross-agency coordination critical
- Best practices/info sharing
- Program needs to be flexible to evolve over time
 - Should eventually include other environmental media
- Interact with communities – support economic viability and reduce cumulative impact



Charge for MSTRS Ports Initiative Workgroup

- EPA asked MSTRS for recommendations on:
 - Development of an EPA-led voluntary environmental port initiative
 - How to effectively measure air quality and GHG performance of ports and/or terminals within ports
- The workgroup should consider:
 - Past MSTRS and other recommendations
 - Existing port environmental improvement programs
 - Ports in the context of the broader transportation supply chain
 - Information from EPA's Assessments as available



EPA Ports Workgroup

MAERSK LINE/ Maersk Agency USA	Manufacturers of Emission Controls Association
U.S. EPA	Burlington Northern Santa Fe Corporation
Port of Long Beach	Environmental Defense Fund
Port of New Orleans	Evans Delivery
Maryland Port Administration	New Jersey Dept of Environmental Protection
Virginia Port Authority	South Carolina Dept of Health & Environ Control
Port of Charleston	Natural Resources Defense Council
American Association of Port Authorities	Greater Southeast Development Corporation
Ports America	East Yard Communities for Environmental Justice
Cargill	Steps Coalition
Target	International Council on Clean Transportation
Walmart	Fond du Lac Environmental Air Program
Caterpillar	

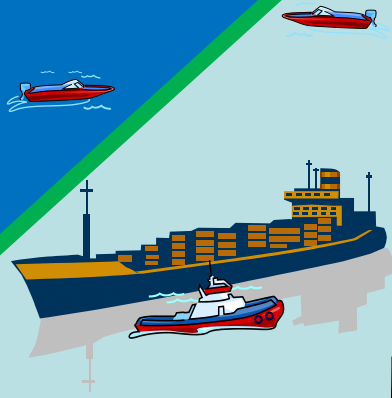


EPA Ports Workgroup - Subgroups

- Definition of a Port
- Federal Agency Coordination
- Strategies for Community-Port Engagement
- Barriers to Technology Implementation
- Port Inventory & Metrics

Definition of a Port

Port Waterside Operations

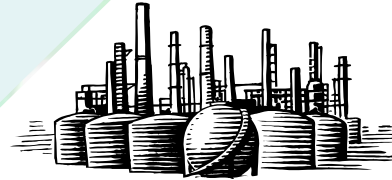
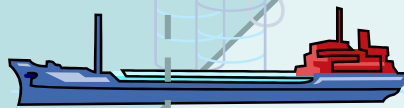


Port Landside Operations

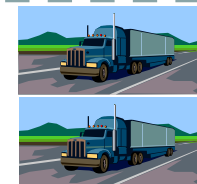
Cruise Terminal



Bulk Terminal



Container Terminal



Intermodal Container Transfer Facility



Definition of a Port



- **This program will focus on maritime activities directly related to the movement of cargo, products, or people associated with either public Port Authority facilities or private terminals.**
- **These activities include operation of vessels, cargo handling, rail, truck/vehicle and warehousing/storage directly related to the transportation of maritime cargo and passengers.**
- **Activities can be related to infrastructure development and maintenance.**



Definition of Port Boundaries: Considerations and Questions

- Landlord vs operating ports
- Public vs private facilities
- Manufacturing on port facilities not included
- Where is the line for vehicles entering/exiting the landside terminals and vessels entering/exiting the marine-side?
 - First/last move outside port
- Responsibility outside the gate – what is controlled or influenced?



Federal Agency Coordination Subgroup

- Alignment and coordination among the many federal agencies
- Federal/State/Local/Private funding and engagement
- Variety of stakeholders recognize significant benefits achieved through DERA

Federal Coordination



Educational Matrix of the Federal Marine Transportation System

FEDERAL INTEREST	MAJOR CATEGORIES	USDA	DOC	DoD	DOE	DOI	DOJ	DOL	DHS	DOS	DOT	Treasury	FMC	NTSB	EPA
Enhance Safety	Safety		X	X		X	X	X	X		X			X	X
Protect the Environment	Environmental Protection	X	X	X	X	X	X		X	x	X				X
Facilitate Commerce	Trade Facilitation	X	X			X	X		X	x	X	X	X		
	Trade Promotion	X	X								X	X	X		X
	Vessel Construction								X		X	X			
	Vessel Operations		X			X	X		X		X				X
	Federal Channels, Waterways, and Sea Lanes		X	X	X	X	X		X	X	X	X			X
	Port/Modal Transfer Infrastructure		X	X	X				X		X	X			X
Ensure National Security	Security		X	X	X	X	X		X	X	X				
Cross-Cutting	Research & Development		X	X	X	X			X		X	X			X
	Human Resources		X	X		X	X		X		X				X

United States Department of Agriculture (USDA)
 United States Department of Commerce (DOC)
 United States Department of Defense (DoD)
 United States Department of Energy (DOE)
 United States Department of the Interior (DOI)
 United States Department of Justice (DOJ)
 United States Department of Labor (DOL)



United States Department of Homeland Security (DHS)
 United States Department of State (DOS)
 United States Department of Transportation (DOT)
 Department of Treasury (Treasury)
 Federal Maritime Commission (FMC)
 National Transportation Safety Board (NTSB)
 Environmental Protection Agency (EPA)



Port-Community Engagement Subgroup

- Defining the stakeholders
- Having transparency and building trust before controversy arises
- Democratizing planning
- Respecting the community's time
- Two-way dialogue



Plan For Work

- Survey of ports
- Build library of best practices
- Recommended principles of engagement
 - Transparency, inclusiveness, trust
- Develop toolbox of ways to engage with communities
- How to conduct a dialogue with a port community to define what works



Barriers to Technology Implementation Subgroup

- How do we get new technologies into use
- How to ensure effectiveness through the full lifecycle
- Infrastructure barriers
- “Getting to ‘yes’”
- Considering the bigger picture



Port Inventory & Metrics Subgroup

- Definition by source categories
- Geographical extent of each
- What to include
- Designing inventories appropriate to each port
- Defining audiences/stakeholders
 - Quantifying differences for communities



Port Inventory & Metrics Subgroup

- Total vs efficiency metrics
- Maturity-level metrics
- Cargo (or coupled with cargo)?
- Impact of efficiency changes

Metrics & Inventories



Qualitative Measures	<ul style="list-style-type: none">●Limit idling of vehicle engines? (y/n)●Inform/issue warnings to ships which emit excessive amounts of smoke?●Completion of an annual report on GHG emissions?
Operational Performance	<ul style="list-style-type: none">●C3 vessel time at berth, a.k.a, hoteling●C3 on-time arrival and departure●Drayage turn time
Best Management Practices	<ul style="list-style-type: none">●Automatic engine shut-off on X percent of switchers●C3 slow steam program●Ban pre-1996 trucks●Community advisory group
Emission Inventory	<ul style="list-style-type: none">●PM 2.5, NOx, SO2, CO2, etc.●Tons per year
Emissions Performance	<ul style="list-style-type: none">●Emissions per TEU●Emissions per ton of cargo



EPA OTAQ Supporting Work

- Industry Characterization
- Macro Emissions Assessment
- Community Outreach



Industry Characterization

- EPA is updating the marine section of the 2006 *Recommendations for Reducing Emissions from the Legacy Diesel Fleet Report*
- Work Group asked to provide input
 - MSTRS input also welcome



Macro Assessment Objectives

- Update our national understanding of future port-related emissions for criteria, air toxics, and climate pollutants
- Assess the effectiveness of technological and operational emission reduction strategies across ports with different emissions profiles
- Inform national policy discussion for voluntary port initiatives



Steps Planned

1. Select port areas from across the country
2. Develop 2011 baseline port area emission inventories for criteria, air toxics, and climate pollutants
3. Identify potential emission reduction strategies and 2020, 2030 and 2050 (CO₂ only) scenarios
4. Estimate emission inventories and reductions for each scenario
5. Discuss other potential modeling
6. Draft final report and document methodology



Community Engagement

- Funding curriculum development to help communities learn to engage effectively with ports
- Coordination with Office of Environmental Justice, NEJAC, and Sustainable Communities work



Next Steps

- Subgroups now meeting via conference calls & webinar
- EPA Macro-Assessment Webinar 2 – Jan.
- Feedback on Industry Characterization requested by Jan. 15
- Next Work Group meeting ~ April
- On schedule for draft recommendations - February 2016