

# **CARB and AB32: Status Update on Ports**

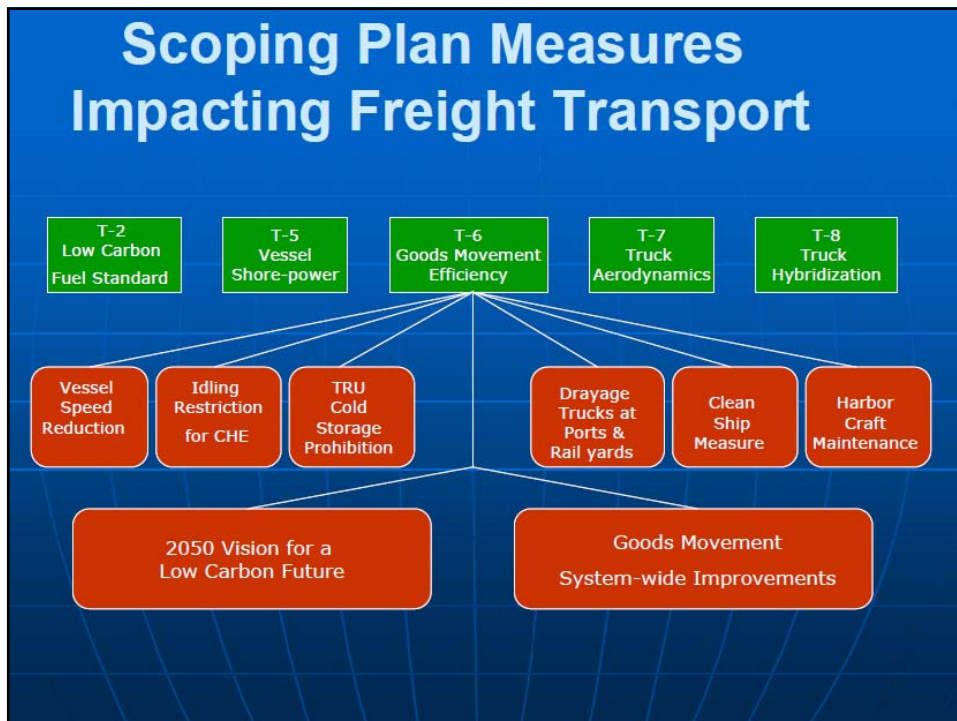
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## **AB 32 and Ports**

- Still too early to know exactly how regional emissions targets will apply to Ports
- Ports are not directly regulated under AB32 (not required to register a GHG inventory)
- Ports are impacted, however, by 2 early action items on diesel engine operations:
  - Updating port-based cargo-handling equipment (yard trucks, container handlers, etc.)
  - Reducing emissions from ocean going vessels while within 24 nautical miles of the CA Coast

## Ports Affected by Measures T-5 and T-6 under ARB's AB32 Scoping Plan

- T-5 Vessel Shore Power
- T-6 "Freight Transport Efficiency Measures" includes:
  - vessel speed reductions (under study),
  - idling restrictions (under study),
  - TRU cold storage prohibition (tentative adoption 2010),
  - drayage trucks at ports (became law in 12/08),
  - clean ship measure (under study),
  - harbor craft maintenance (under study),
  - system-wide goods movement improvements (under study)
- Full overview available at <http://www.arb.ca.gov/cc/freight/meetings/overviewpresentation.pdf>
  - Includes specialist contacts at ARB on each issue



## Summary of T-6 Early Action Measures & More

Measure	Status	Implementation	CA Emission Reductions (2020 CO2E)
Vessel Speed Reduction	Under Study	Pending	TBD
Idling Limits for Cargo Handling Equipment	Under Study	Pending	TBD
TRU's – Cold Storage Prohibition	Tentative Adoption 2010	Tentative 2012	<0.02 MMT
Drayage Truck Rule	Became Law 12/2008	January 1, 2010	Not quantified for 2020
Clean/Green Ships	Under Study	Pending	TBD
Harbor Craft Maintenance & Design Efficiency	Under Study	Pending	TBD

### Expect a CARB toolkit for Goods Movement, with a section for Ports

- Toolkit will probably be based on best practices going on at various ports now.
- SB375 Regional Targets Advisory Committee (RTAC) provided its recommendations in a report to ARB on September 29, 2009.
  - Ports receive basic mentions by RTAC in context of the overall goods movement system.
  - SANDAG called out as one of few MPOs with ability to model emissions impacts of goods movement policies.
- ARB must propose draft targets by June 10, 2010, and adopt final targets by September 30, 2010.

## A Toolkit for Ports Already Exists!

- **International Association of Ports and Harbors (IAPH) TOOL BOX FOR PORT CLEAN AIR PROGRAMS**
- Toolkit (<http://www.iaphworldports.org>) includes:
  - Four "Case Studies" to learn more about the best port clean air programs
  - Cutting edge strategies that help reduce diesel emission from cargo handling equipment and trucks "Improving Air Quality Through Effective Strategies"
  - Toolkit for creating your own port clean air program "Creating Your Clean Air Program"
  - Tool Box for engine standards, glossary of terms, etc. "Tools and Resource Library"
  - All can be downloaded as PDFs

## IAPH Toolkit: Key Learning

- Case studies are from:
    - San Pedro Bay Ports Clean Air Action Plan (CAAP) (Los Angeles and Long Beach)
    - Puget Sound Maritime Air Emissions Inventory (Seattle, Tacoma, and British Columbia)
    - New York and New Jersey
    - Rijnmond Regional Air Quality Action Plan (Netherlands)
  - Measures laid out general categories:
    - ocean going vessels
    - harbor vessels
    - cargo handling equipment
    - on-road heavy duty vehicles
    - on-terminal fleet vehicles
    - rail operations
- Military operations, equipment usually not included due to security issues

## Other Ports' Experience and Plans

- **Seattle/Tacoma/BC: Puget Sound Maritime Air Emission Inventory, 2005**
  - **Included** EPA criteria pollutants and precursors, **GHGs**, and particulate matter for all diesel equipment
  - Conducted voluntarily and proactively in advance of any regulatory directive
  - Cost roughly \$520,000 (Consultant, support from EPA, others)
  - Data was collected from ports, individuals, and companies that own, operate, maintain and/or charter the equipment and vessels
  - Full report @ [www.maritimeairforum.org/emissions.shtml](http://www.maritimeairforum.org/emissions.shtml)
  - 5 pages of specific actions taken are available at [http://www.maritimeairforum.org/EI/PSEI\\_Protocols.pdf](http://www.maritimeairforum.org/EI/PSEI_Protocols.pdf)

## Ports of LA and Long Beach

- **San Pedro Bay Ports Clean Air Action Plan, 2006**
  - Expedites use of new/innovative methods of reducing emissions prior to any federal/state requirements
  - **Not focused on GHG emissions** – but none of the measures proposed would increase GHG emissions (they reduce them)
  - Done in cooperation with EPA, CARB, and the South Coast Air Quality Management District
  - Regulatory agency cooperation ensures that plan is consistent with state, regional, local emission reduction plans and rules
  - Reviewed and updated often – current plan covers 2006-2011
  - Aggressive approach - accelerates emission reductions from previous plans
  - Ports established uniform air quality standards at 3 key levels: San Pedro Bay level, Project Specific level, and Source Specific Performance level
  - Relies primarily on lease requirements, but will include tariff changes, CEQA mitigation & incentives

## **Ports of LA and Long Beach [2]**

- Specific Actions Outlined (Port of LA does report its GHG emissions via CCAR voluntarily)
- Addresses all major sectors -ships, trucks, trains, cargo-handling equipment and harbor craft
- Specific measures consistent with Seattle - eliminating “dirty” diesel trucks, shore power, reduced speeds, low-sulfur fuels, etc.
- Full report @ [www.cleanairactionplan.org](http://www.cleanairactionplan.org)

## **Initiatives relevant to Ports in CA:**

- Comprehensive energy efficiency audit and retrofit
- Periodic retrocommissioning of existing buildings
- Renewable energy at/near Ports – solar, wind, fuel cells
- Combined Heat and Power (properly designed and maintained)
- Heat recovery systems
- High-efficiency exterior lighting upgrade programs
  
- Vessel speed reduction
- Anti-idling operational policies – reducing queue time – improved traffic flow
- Alternative fuel expansion – LNG, biodiesel, propane
- Automobile purchase policies
- Fleet Maintenance programs
- Water efficiency improvements
- Low-cost financing programs (CEC)
  
- Waste audits and reduction
- Recycling/recovery of ship’s waste - sale of scrap metal – primarily cargo strappings
- Paperless gates – congestion reduction