



At-Berth Ocean-Going Vessel Regulation

Shore Power Workgroup Meeting

August 28, 2007

California Environmental Protection Agency



Air Resources Board

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Questions Via E-mail

coastalm@calepa.ca.gov

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Topics

- ◆ Proposed revisions to the hotelling emission inventory
- ◆ Proposed revisions to the draft at-berth ocean-going vessel regulation
- ◆ Next steps

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Significant Proposed Revisions

- ◆ Set first milestone at 2014 instead of 2015
- ◆ Defer addressing non-shore power vessel categories and tug boats until 2008
- ◆ Establish goals as percentage of visits or percentage of emissions for container ships and passenger ships
- ◆ Require terminals to provide necessary shore-side infrastructure

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Other Proposed Revisions

- ◆ Set three-hour overall limit to run auxiliary engines
- ◆ Establish emission standards for alternative technologies
- ◆ Reduce reporting requirements

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Proposed 2014 Goal

- ◆ Goods Movement Emission Reduction Plan
 - 20% vessel calls in 2010
 - 60% vessel calls in 2015
- ◆ South Coast PM_{2.5} SIP Target in 2014
- ◆ Proposed Goal – 50% Vessel Calls in 2014

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Deferment of Non-Shore Power Vessel Categories and Tug Boats

- ◆ Alternative technologies undergoing testing
 - portable distributed generation
 - ACTI system
 - emulsified fuel
- ◆ Need additional discussion with smaller affected ports
- ◆ Deferment of consideration, not requirements

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Revised Approach – Limited Engine Option

Prior

“Tagged” vessels that made X number of visits

Proposed

Sets percentage of vessel calls as targets

- 50% by 2014
- 80% by 2020

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Revised Limited Engine Option

- ◆ Applies to container ships and passenger ships
- ◆ Provides greater flexibility and clarity in meeting goals
- ◆ Does not require tracking of vessel turnover

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Revised Approach – Emissions Reduction Option

Prior

Emission reduction targets linked to limited engine (LE) approach

- calculate required LE reductions
- meet that goal with fleet average

Proposed

Emission reduction targets are strictly percentages

- 50% by 2014
- 80% by 2020

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Revised Emission Reduction Option

- ◆ Still a Fleet Average Approach
- ◆ Provides Greater Clarity of Goals
- ◆ More Cost Effective for Some Carriers
 - potentially fewer vessels affected
 - meets overall emission reduction goals

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Baseline/Post-Baseline Calculations

Baseline and Post-Baseline Apply to Each Specific Year

- Identify All Vessel Calls for Year X
- Calculate Emissions If No Control Applied (Baseline)
- Calculate Emissions with Controls Applied
- Determine Percent Emission Reductions (Post-Baseline)

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Revised Shore-Side Requirements

Prior

Terminal submits plan regarding shore-side infrastructure

Proposed

Terminal submits plan

Terminal required to provide shore-side infrastructure

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Shore-Side Requirements

- ◆ Carriers have requirements to reduce emissions
- ◆ Must have shore-side requirements to accommodate the vessels
- ◆ Will require coordination between terminals, ports, and utilities

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Revised Auxiliary Engine Time Limit

Prior

Shut off engines
within one hour of
tying up

Restart engines
within two hours of
departure

Proposed

Provide three hours
of total engine
operation

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Revised Auxiliary Engine Time Limit

- ◆ Provides greater flexibility
- ◆ Still has allowances
 - emergency events
 - Homeland Security delays
 - Coast Guard delays

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Alternative Technology Emission Standards

- ◆ Limited Engine Option
 - must be connected to grid, or
 - meet ARB DG certification standards
- ◆ Emission Reduction Option
 - allows other technologies
 - electrical generation must meet BACT standard for natural gas IC engines

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Reduced Reporting

- ◆ Status Reports for Terminal Infrastructure Progress Minimized and Moved to Updates of 2010 Plan
- ◆ Less Detail Required

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Regulatory Schedule

- ◆ First Workshop
 - September 24, 2007
 - Cal/EPA Building, 9:30 a.m. to 12:30 pm
- ◆ Staff Report – October
- ◆ Board Hearing - December

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- ◆ **Web Pages:**
Shore Power:
www.arb.ca.gov/ports/shorepower/shorepower.htm
Goods Movement Emission Reduction Plan:
www.arb.ca.gov/planning/gmerp/gmerp.htm



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