

2007 AQMP Summit Panel No. 6 – Transportation & ISR Discussion Notes

Unless otherwise noted, the following recommendations and comments reflect the views of panel members and other attendees at the 2007 Air Quality Management Plan (AQMP) Summit

Recommended Control Strategies

Vehicle Miles Traveled (VMT) and Traffic Congestion Reduction

- Reduce VMT
- Create High Occupancy Toll (HOT) lanes or convert High Occupancy Vehicle (HOV) lanes to HOT lanes. HOT lanes are currently available on the I-91 and the I-15.
- Develop a Car Sharing Program. Car sharing refers to a car fleet used by many different people preferably using clean fueled vehicles.
- Develop District enforcement of traffic signal synchronization. The California Air Resources Board's EMFAC model estimates minimal emission benefits from synchronization, but the real benefit could be significantly greater

Fleet Turnover

- Old and dirty trucks need to be replaced ASAP
- Bar introduction of old trucks into fleets
- Develop truck replacement programs that take labor economics into account

Goods Movement

- Improve infrastructure of goods movement
- Create dedicated truck lanes to allow trucks to move more freely. This is strategic because emissions from steady-state driving are significantly lower than during non-steady-state driving.
- Use nightside transport rather than dayside, such as the PierPass program
- Use rails to transport goods inside and from ports, i.e. Pier 400 facility
- Use more rail transportation to move consumer goods
- Use cleaner locomotives
- Develop cleaner switch fleet and rail facilities
- Modernize truck fleet and restrict idling times and turn times
- Create alternative transport systems to inland areas

- Use HOV lanes for trucks during off-peak hours

Ports

- Replace high emission port equipment, don't retrofit
- Require use of cleaner marine fuels
- Require shore side electrification
- Look at on-board, after combustion control opportunities such as fuel emulsions, selective catalytic reduction (SCR), scrubbers
- Use more automation at the ports to reduce congestion. This will improve efficiency in the use of port equipment, and ultimately reduce emissions.
- Continue Gateways Cities fleet modernization program
- Accelerate turn-over of gross polluters in drayage fleets
- Find ways to make drayage operations as clean as possible
- Demonstrate use of hybrid technology in dock transportation
- Reduce container trips by better tracking
- Increase use of current appointment system to improve truck turn times
- Prevent emissions by stopping trucks without valid emission stickers at port gates

Alternative Fuels

- Use cleaner fuels and alternative fuels in the goods movement
- Increase use of hydrogen in transportation systems
- Increase infrastructure for 'plug-in' hybrid electric vehicles (PHEVs) and residential engines such as lawnmowers

Policy

- Create new funding sources, i.e. container fees
- Create streamlined rail crossing process
- Create revolving fund for purchase of new buses and trucks
- Rethink the regulatory treatment of indirect sources
- Aim to reduce VMT in land use emission reductions
- Redirect growth to areas better served by transportation, such as the 2 % Strategy by the Southern California Association of Governments (SCAG)
- Repower construction equipment
- Remove barriers to housing construction downwind of ports

- Increase use of one-way streets to aid traffic flows
- Reduce truck trips created by shippers breaking down container shipments
- Develop inland shuttle service
- Create a container fee to provide funds to upgrade ports
- Prohibit large scale distribution centers in areas such as Riverside. These centers need to be located outside of the basin
- Impose costs of pollution created by distribution centers on truckers servicing them
- Create rewards for low emitting companies

Barriers to the Introduction of Clean Air Technologies

Policy

- Regulations and studies are confusing to end users
- Public and regulated community need better information regarding regulations, rules and which agencies have authority.
- Regulations make it difficult for companies to maintain compliance with 'paper trail' requirements
- Commerce laws often cause conflicts between Regulations and laws
- Cooperation is needed between environmental, business and public groups

Technology

- Lack of integration of different types of transportation systems
- Ships are "custom-made" making it very difficult to retrofit control devices to engines
- Expensive to retrofit to greener technologies
- Lack of uniform emission reduction or control technology that applies to all ship technologies
- Infrastructure of ports and goods transportation needs to be upgraded
- Cargo tracking technology is needed at ports
- Population increases will increase problems with goods movement

- Shippers are changing their method of in-city good transport and are breaking down containers
- Technology trickle down to rail yards is too slow

Economics

- Being a leader in using low emissions technologies and practices makes a company:
 - Non-competitive with other higher emitting companies
 - Often disqualifies company from funds to upgrade equipment
 - Gives an economic advantage to competing companies because agencies often provide funds to high emitting companies instead of low emitting companies
- Lack of funds for upgrades and research
- Economic structure of the drayage business encourages use of old and dirty trucks
- Time restraints to change out or retrofit locomotives creates business difficulties

Recommended Research Priorities for the Next 5 to 10 Years

- Develop ways to integrate hydrogen as a fuel
- Study 24/7 port operations or nightside operations to insure that pollution is truly being reduced
- Study zero or near zero modes of transporting goods
- Study pollution effect of the ageing of the general population on:
 - Housing
 - Finances
 - Transportation
 - Residence location
 - Employment