

Interim Report re: Implementation of Control Measures in 2005 Ozone Strategy (April 2009)

The Bay Area 2009 Clean Air Plan will report on progress in implementing the control measures contained in the Bay Area 2005 Ozone Strategy. The tables in this document provide an interim status report as of April 2009.

CM # BAAQMD Reg - Rule	Source Category	Description	Status	Reduction Estimated in 2005 Strategy (tons/day)	Reduction achieved (tons/day)
<i>Stationary: Industrial - Commercial Processes</i>					
SS-1 8-45	Auto Refinishing	Reduce VOC limits for some coating categories	Adopted 12/3/08	0.7 ROG	3.7 ROG
SS-2 8-20	Graphic Arts Operations	Reduce VOC limits for flexographic ink & clean up solvent	Adopted 11/19/08	0.15 ROG	1.65 ROG
SS-3	High Emitting Spray Booths	Require additional controls on spray booths that emit > 20 tons ROG/yr	Analysis indicated insufficient emissions reductions to warrant further action.	0.5 ROG ⁽¹⁾	
SS-4 8-50	Polyester Resin Operations	Reduce allowable monomer content for some types of polyester resins	Current rule project, to be completed in Fall 2009	0.3 ROG	
SS-5 8-32	Wood Coating Operations	Reduce VOC limits for some coating categories	Current rule project, to be completed in Summer 2009	0.68 ROG	
<i>Stationary: Petroleum Products and Distribution</i>					
SS-6 12-12	Flares	Minimize flaring at petroleum refineries.	Adopted 7/20/05, 4/5/06	Not estimated	Variable ROG + NOx + PM
SS-7 8-33, 39	Gasoline Bulk Terminals and Plants	Require automatic shutoff and backpressure monitors, set more stringent leak, emission standards	Adopted 4/15/09	0.14 ROG	0.07 ROG
SS-8 8-44, 46	Marine Loading Operations	Control additional cargoes, set more stringent leak standards and/or control housekeeping emissions	Adopted 12/07/05	0.44 ROG	0.6 ROG
SS-9 8-5	Organic Liquid Storage	Tighten existing requirements and/or control lower vapor pressure liquids	Adopted 10/18/06	Not estimated	0.03 ROG
SS-10 8-28	Pressure Relief Devices	Improve enforceability of rule	Adopted 12/21/05	0.001	Variable ROG
SS-11 8-8	Wastewater Systems	Control emissions from wastewater collection systems	Adopted 9/15/04	2.1 ROG	2.1 ROG
<i>Stationary: Combustion Process</i>					
SS-12 9-7	Industrial, Institutional and Commercial Boilers	Extend existing limits to smaller boilers and/or set a more stringent standard	Adopted 7/30/08	0.5 - 1 NOx	3.8 NOx; 0.4 PM _{2.5} ⁽²⁾
SS-13 9-6, 7	Large Water Heaters and Small Boilers	Require new, small boilers and large water heaters to meet NOx limits	Adopted 11/7/07	0.39 NOx	2.5 NOx; 0.36 PM _{2.5} ⁽²⁾
SS-14 9-9	Stationary Gas Turbines	Implement BARCT NOx limits on existing turbines	Adopted 12/06/07	1.2 NOx	0.43 NOx

Notes:

1. Revised emissions estimate indicates only one facility would be subject to a rule, further emissions reductions from the facility are not considered cost effective.
2. Secondary PM calculated from NOx reductions.

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CM #	Source Category	Description	Status
<i>Stationary: Other</i>			
SS-15	Promote Energy Conservation	Develop a voluntary ordinance for adoption by jurisdiction, energy efficiency programs, education & outreach	Energy efficiency has been addressed primarily through the Climate Protection Grant Program, and the Protect Your Climate Curriculum. This measure will be reconfigured in the 2009 CAP.

Mobile Source Measures			
MSM-1	Diesel Equipment Idling Model Ordinance	Reduce emissions from the idling of diesel equipment	District has recently assembled a team of inspectors to help enforce ARB diesel idling rules, with objective of establishing an ongoing presence in communities highly impacted by diesel truck traffic. District's efforts to reduce diesel idling and emissions from diesel engines will be further defined and enhanced in the development of control measures for the 2009 CAP. See also MSM-3 below re: BAAQMD grants to reduce diesel emissions.
MSM-2	Green Contracting Model Ordinance	Develop and promote a model ordinance to help local government agencies to encourage contractors to use clean vehicles, equipment and fuels.	This measure will be reconfigured in the 2009 CAP. BAAQMD provided grants to Sonoma and Marin Counties, and the Town of Hillsborough for development of local ordinances.
MSM-3	Low Emission Vehicle Incentives	Encourage the purchase of new low-emission vehicles to reduce emissions from existing vehicles.	Between 2005 and 2007, BAAQMD has awarded almost \$20 million in grants for the purchase of low-emission vehicles, cleaner engines and retrofit devices for transit buses, school buses, garbage trucks, public and private fleets. Reductions realized estimated at 0.04 tons per day (tpd) of ROG and 0.04 tpd of NOx.
MSM-4	Vehicle Buy Back Program	Accelerate the retirement of older, high emitting vehicles from the region's roadways by providing incentives to scrap them.	Between 2005 and 2008, BAAQMD provided incentives to retire approximately 15,500 passenger vehicles model year 1987 and older for a total cost of approximately \$13 million. Reductions realized estimated at 1.03 tons per day (tpd) of ROG and 0.55 tpd of NOx.

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CM#	Name/Source Category	Description	Implementation
TCM- 1	Support Voluntary Employer Based Trip Reduction Programs	Support and encourage voluntary efforts by Bay Area employers to promote the use of commute alternatives by their employees	BAAQMD has provided grants for 511 Regional Rideshare Program, Marin video-conferencing, Spare the Air employer program, Guaranteed Ride Home Programs in San Francisco, Solano, Napa, and West Contra Costa. Other employer-based programs in San Ramon, West and East Contra Costa, Alameda, San Mateo. MTC is the primary funding source for the annual Bike To Work Day promotion.
TCM- 2	Adopt Employer Based Trip Reduction Rule (Deleted)	Deleted	Deleted per Health & Safety Code Section 40717.9.
TCM-3	Improve Local and Area wide Bus Service	Reduce motor vehicle trips, vehicle miles traveled, and mobile source.	MTC funded three express bus projects, Richmond Bridge, East Bay North, and East Bay South, and the Lifeline Transportation Program. BAAQMD provided grants for Tri-Delta, Muni, Napa, and LAVTA transit. Funding provided to improve bicycle parking at BART stations. Opened Intermodal and Park & Ride lots in Petaluma, Windsor and Cotati (MTC/BAAQMD funded).
TCM-4	Upgrade and Expand Local and Regional Rail Service	Reduce motor vehicle trips vehicle miles traveled and mobile source emissions	MTC funded Third Street Light Rail Project (Phase 1), Caltrain Express/Rapid Rail Phase I, and SCVTA Vasona light rail extension (adds 8 new stations and 5.3 miles).
TCM-5	Improve Access To Rail and Ferries	Reduce motor vehicle trips, vehicle miles traveled and mobile source emissions by reducing auto trips	BAAQMD funded shuttle projects to connect to rail and ferry stations connecting Caltrans, Samtrans, SFO, SCVTA, West Berkeley, PresidGO, Mid-Day Menlo Park, UCSF, Ace Trains to Stoneridge Business Park and Dublin/Pleasanton BART, and from Benicia Industrial Park to Vallejo ferry.
TCM-6	Improve Inter-Regional Rail Service	Reduce motor vehicle travel and emissions for longer distance interregional trips	See TCM-5 for shuttles funded by BAAQMD connecting Ace Train, Caltrans. BAAQMD funded 4 locomotive engines for passenger service. Ongoing plans to improve and expand service underway (MTC funded).

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CM#	Name/Source Category	Description	Implementation
TCM-7	Improve Ferry Service	Reduce emissions from Transbay auto trips, which tend to be longer in length, and will also reduce auto traffic in highly congested bridge corridors	BAAQMD funded 11 ferry engine repower projects. Ongoing plans to improve and expand ferry service are underway under the auspices of Water Emergency Transit Authority and MTC.
TCM-8	Construct Carpool/ Express Bus Lanes on Freeways	Reduce mobile source emissions by encouraging high occupancy vehicles	Regional express buses put in service, completed HOV lanes on SR 87 in SC, 1-880/237 and 85/101, 580 in Alameda and I-80 in Solano; ramp meters 101 in San Mateo completed, under construction 101 in Marin.
TCM-9	Improve Bicycle Access and Facilities	Reduce mobile source emissions by encouraging cycling	MTC adopted Resolution 3765 to encourage routine accommodation of cyclists and pedestrians in projects funded by MTC regional discretionary funds. MTC has provided funding (\$8 million per year) via regional bicycle/pedestrian program. 511 BikeMapper (part of 511 Rideshare) funded by MTC and BAAQMD. BAAQMD provided grants for bicycle parking or lanes in every Bay Area county.
TCM-10	Youth Transportation	Reduce motor vehicle travel and mobile source emissions related to the transportation of youth and students for school and other activities	BAAQMD provided grants for clean school buses throughout region, including San Ramon, Lafayette, Milpitas, River Delta School District, West Sonoma, Pleasant Hill. Subsidized transit passes for students in Sonoma and Marin Counties and San Ramon (BAAQMD)
TCM-11	Install Freeway Traffic Management System	Reduce emissions produced by stop and go congestion	Ongoing Freeway Service Patrols sponsored by MTC, CHP, Caltrans.
TCM-12	Arterial Management Measures	Reduce vehicle idling and acceleration	BAAQMD funded projects completed include on San Tomas Expressway, Matilda in Sunnyvale, Lawrence Expressway, McDowell/Baywood in Petaluma, 14 th Street arterial in Alameda County, Mowry, Stevenson, Blacow in Fremont, Light Rail Controller Upgrade Project in San Jose, and on Constitution Way/Lincoln in City of Alameda.

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CM#	Name/Source Category	Description	Implementation
TCM-13	Transit Use Incentives	Programs to increase transit use and reduce vehicle emissions	Translink on AC Transit and Golden Gate Transit. Real-time transit info on Muni, BART (MTC). (See also TCM-3 for intermodal and Park & Ride facilities and TCM-1, TCM-16.)
TCM-14	Carpool and Vanpool Services and Incentives	Reduce motor vehicle emissions	Ongoing funding for 511 Regional Rideshare Rideshare short-term vanpool subsidy and “start-up” incentive subsidy. See also TCM-1.
TCM-15	Local Land Use Planning And Development Strategies	Reduce motor vehicle use and emissions by promoting land use patterns and new development that facilitate walking, bicycling and transit use	<p>Via FOCUS, regional agencies have implemented partnership with local jurisdictions to define priority development areas (PDAs). In June 2008, MTC in partnership with AC Transit launched TransLink® for TOD, offering residents of select transit-oriented development (TOD) complexes around the East Bay unlimited free travel on AC Transit’s local and transbay buses during a one-year pilot program.</p> <p>BAAQMD grant funding for East 5th Street Project in Benicia that added bicycle lanes, curb extensions, new sidewalks in an area with elementary three schools.</p> <p>See also TCM-3 thru TCM-7, TCM-17, 19 and 20.</p>
TCM-16	Public Education / Intermittent Control Measures	Educate the public about air quality in the Bay Area	<p>Spare the Air notices, webpage, banner, advertisements, free transit rides (BAAQMD)</p> <p>Transit marketing in Sonoma, transit and bicycle marketing in Petaluma (BAAQMD)</p>
TCM-17	Conduct Demonstration Projects	Promote demonstration projects to develop innovative approaches to reduce mobile source emissions	<p>PATH demonstration of electronic bicycle lockers at Pleasant Hill BART Station. (MTC/BAAQMD)</p> <p>Alameda County CMA Dynamic Ridesharing pilot projects (MTC)</p> <p>BAAQMD funded the Travel Choice program pilots in Fruitvale and the City of Alameda. This program was then implemented in Berkeley and San Leandro.</p> <p>SF County Telecommute Pilot Project (BAAQMD)</p> <p>See also TCM-15.</p>

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CM#	Name/Source Category	Description	Implementation
TCM-18	Implement Transportation Pricing Reform	Improving air quality and addressing persistent congestion issues	MTC has proposed to develop a regional High Occupancy Toll (HOT) lane network is included in T2035 regional transportation plan. MTC developed a best parking practices manual and technical resources to assist local governments in revising parking policies. San Francisco is studying congestion pricing and market-based parking pricing.
TCM-19	Improve Pedestrian Access and Facilities	Making pedestrian travel safer, more convenient and more attractive will promote walking, reduce the need to use autos, and therefore reduce mobile source emissions	MTC adopted Resolution 3765 to encourage routine accommodation of cyclists and pedestrians in projects funded by MTC regional discretionary funds. MTC has provided funding (\$8 million per year) via regional bicycle/pedestrian program. BAAQMD grant for Pedestrian Access project in Suisun City, Bayview Gateway in SF, and Sunnyvale, multi-use trails in Morgan Hill, Sebastopol, Suisun, Livermore, Mountain View, American Canyon, Contra Costa, Antioch, and Marin.
TCM-20	Promote Traffic Calming Measures	Reduce motor vehicle emissions	Palo Alto, Menlo Park, Mountain View and Cotati all have plans or studies ongoing. San Francisco has installed curb bulbs, median refuges, lighted crosswalks, ladder crosswalks, and fluorescent yellow crossing signs.

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Stationary: Other

Wood Burning	Reduce wood smoke by limitations on new devices, curtailment on high PM days	6-3	Adopted 7/09/08	2.69 PM2.5 (average)
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Further Study Measures

FSM-1 8-51	Adhesives and Sealants	Reduce VOC limits for architectural adhesives	Currently under evaluation. Remains an FSM.		
FSM-2 8-3	Architectural Coatings	Reduce VOC limits from architectural coatings	Scheduled 2 nd Quarter, 2009	5.4 ROG (proposed)	
FSM-3 6-2	Commercial Cooking Equipment	Reduce NOx and particulate from charboilers	Adopted 12/05/07	0.09 VOC, 0.55 PM10	
FSM-4	Composting Operations	Limit emissions of both VOC and ammonia	Staff recommendation: Develop into control measure for the 2009 CAP.		
FSM-5	Food Product Manufacturing and Processing	Reduce VOC limits for facilities that emit more than 440 pounds/month of organic compound emissions that produces, formulates or configures food or food products, including spices, extracts, flavorings & colorings	Staff recommendation: Delete from Control Strategy due to insufficient emissions reductions to warrant further action.		
FSM-6	Livestock Waste	Reduce emissions of particulate, ammonia (which forms aerosol particulate matter) and VOC	Staff recommendation: Develop into control measure for the 2009 CAP.		
FSM-7 8-33 8-39	Limitation on Solvents Based on Relative Reactivity	Make regulations more effective by replacing VOC limits, measured in mass VOC per volume of product, with limits based on the relative contribution to ozone formation of each of the organic species that make up the VOC of a product, or the "relative reactivity."	Currently under evaluation.		
FSM-8 8-16	Solvent Cleaning and Degreasing	Reduce VOC limits	Currently under evaluation. Remains an FSM.		
FSM-9	Emission from Cooling Towers	Reduce organic emission limits	Currently under evaluation.		
FSM-10 8-8	Refinery Wastewater Treatment Systems	Reduction in ROG from refinery wastewater systems	Staff recommendation: Insufficient emissions reductions to warrant further action.		
FSM-11	Vacuum Trucks	Reduce emissions	Staff recommendation: Develop into control measure for the 2009 CAP.		
FSM-12 8-18	Valves and Flanges	Valves and flanges are typically found at refineries and chemical plants, but also found in other petroleum and gas production facilities.	Currently under evaluation.		

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CM #	Source Category	Description	Status	
FSM-13	Wastewater from Coke Cutting Operations	Determination of whether coke cutting wastewater contains significant quantities of VOC and whether there is any potential for emissions reductions from these operations	Currently under evaluation.	
FSM-14 9-10	NOx Reduction from Refinery Boilers	Reduction of NOx	Staff recommendation: develop rule amendments. Scheduled for Fall 2009.	
FSM-15 9-8	Stationary IC Engines	Reduce NOx limits for IC engines, reduce secondary particulate matter	Adopted 7/25/07	9.6 NOx
FSM-16	Encourage Alternative Diesel Fuels	Exploration of the potential air quality benefits of using biodiesel fuel in place of conventional petroleum diesel	BAAQMD has awarded approximately \$5.4 million in grants for emulsified diesel fuel in shipping and shore power projects. These projects are ongoing.	
FSM-17	Mitigation Fee for Federal Sources	Mitigation Fee Program, adopted into the South Coast AQMD's 2003 AQMP, but not yet implemented, would charge an air quality impact fee to sources pre-empted from State and local air district authority under the federal Clean Air Act	Currently under evaluation.	
FSM-18	Indirect Source Mitigation Program	Indirect sources are development projects that generate vehicle trips and thus indirectly cause air pollutant emissions	Staff recommendation: Develop into control measure for the 2009 CAP.	
FSM-19	Free Transit on Spare the Air Days	The Air District and MTC will study the feasibility of providing free transit service on STA days	Free Transit on Spare the Air (STA) Days was implemented for three years and discontinued when funding ran out. Propose to delete this FSM in the 2009 CAP.	
FSM-20	Episodic Measures	Episodic measures are measures implemented only at times when pollution levels are projected to exceed air quality standards.	District continues to implement the Spare the Air (STA) program. However, STA is evolving to promote clean air choices on an everyday basis. The District's "Don't Light Tonight" program and wood-smoke rule (adopted July 2008) both reduce wood-burning and particulate matter on an episodic basis.	