

Tech Committee Item #4

The following pages are new materials distributed at the  
March 26, 2003 MWAQC meeting.

## Draft Emission Comparison Round 6.2 Cooperative Forecast v. Draft Round 6.3

### Controlled 2002 VOC Emissions (tpd)

	Round 6.2	Draft Round 6.3	Difference	% change
Point	16.5	16.5	0.0	0.00%
Area	160.7	163.4	2.7	1.68%
Nonroad	72.7	73.8	1.1	1.51%
On-road	121.5	122.8	1.3	1.06%
Total	371.4	376.5	5.1	1.37%

### Controlled 2002 NOx Emissions (tpd)

	Round 6.2	Draft Round 6.3	Difference	% change
Point	181.1	181.1	0.0	0.00%
Area	56.1	57.2	1.1	1.96%
Nonroad	85.1	85.4	0.3	0.35%
On-road	287.5	289.5	2.0	0.71%
Total	609.8	613.2	3.4	0.56%

### Controlled 2005 VOC Emissions (tpd)

	Round 6.2	Draft Round 6.3	Difference	% change
Point	17.6	17.6	0.0	0.00%
Area	166.8	170.2	3.4	2.04%
Nonroad	72.6	74.4	1.8	2.48%
On-road	95.3	96.7	1.4	1.47%
Total	352.3	358.9	6.6	1.87%

### Controlled 2005 NOx Emissions (tpd)

	Round 6.2	Draft Round 6.3	Difference	% change
Point	110.2	110.2	0.0	0.00%
Area	59.1	60.5	1.4	2.37%
Nonroad	81.6	82.7	1.1	1.35%
On-road	235.6	237.0	1.4	0.59%
Total	486.5	490.4	3.9	0.80%

### 1990 to 2002 Growth Factors (Entire Nonattainment Area)

	Round 6.2	Draft Round 6.3	Difference
Population	1.177	1.214	0.037
Employment	1.188	1.189	0.001
Households	1.195	1.277	0.082

### 1990 to 2005 Growth Factors (Entire Nonattainment Area)

	Round 6.2	Draft Round 6.3	Difference
Population	1.221	1.268	0.047
Employment	1.235	1.237	0.002
Households	1.243	1.283	0.040

# DRAFT CONTROL MEASURE REQUIREMENTS FOR RATE OF PROGRESS DEMONSTRATIONS

**March 25, 2003**

## 2002 Control Measures Calculation<sup>1</sup>

	VOC	NO <sub>x</sub>
<i>2002 Target Inventories</i>	342.9	628.7
<i>2002 Controlled Inventories</i>	371.4	609.8
<b><i>2002 Shortfall</i></b>	<b>28.5</b>	<b>0.0</b>

### CORRECTIONS INCREASING EMISSIONS

<i>RACT Fix-up (estimate)<sup>2</sup></i>	0.2
<i>Round 6.3 Area, Stationary &amp; Non-Road Increase</i>	3.8
<i>Round 6.3 Mobile Increase (estimate)<sup>3</sup></i>	1.3
<i>MOBILE6 &amp; Inventory Technical Corrections (worst case)<sup>2</sup></i>	5.0
<b><i>Estimated 2002 Shortfall after corrections</i></b>	<b>38.8</b>

### CONTROL MEASURES DECREASING EMISSIONS<sup>4</sup>

<i>OTC Consumer Products<sup>5</sup></i>	4.0
<i>OTC Portable Fuel Containers<sup>6</sup></i>	2.3
<i>OTC AIM Coatings</i>	12.3
<i>OTC Mobile Repair &amp; Refinishing</i>	2.6
<i>OTC Solvent Cleaning</i>	11.7
<b><i>Total Available Control Measures</i></b>	<b>32.9</b>

***Total Remaining Estimated Shortfall*** 5.9

### Notes:

- 1 The region will meet the 2005 Rate of Progress target once the 2002 target is met.
- 2 These numbers are estimates pending further calculations. Revised numbers will be available in late April.
- 3 This number is an estimate pending further calculations. A revised number will be available in June or July.
- 4 The Ozone Transport Commission (OTC) is comprised of thirteen Northeastern and Mid-Atlantic states plus the District of Columbia. The Commission was formed to develop solutions to the problem of ground-level ozone. The OTC states have committed to adopting five control measures to reduce volatile organic compound (VOC) formation.
- 5 Additional benefits from the OTC Consumer Products rule (3 tpd) are reserved for use as contingency measures due to a later compliance date.
- 6 Additional benefits from the OTC Portable Fuel Containers rule will be available for use as contingency measures due to delayed product replacement.

# DRAFT CONTINGENCY MEASURE REQUIREMENTS FOR RATE OF PROGRESS DEMONSTRATIONS

**March 25, 2003**

## 2002 Contingency Measures Calculation

(Measures must deliver benefits in early 2006)

	VOC		NOx
2002 Adjusted Inventories	414.5	AND	759.6
3% of Adjusted Inventories	12.4		22.8
	<b>12.4</b>	OR	<b>22.8</b>

### MEASURES AVAILABLE AS CONTINGENCY

OTC Consumer Products <sup>1</sup>	3.0	AND	0.0
OTC Portable Fuel Containers <sup>2</sup>	1.0	AND	0.0
<b>Total Available Contingency Measures</b>	<b>4.0</b>	OR	<b>0.0</b>
<b>Total Measures Needed</b>	<b>8.4</b>	OR	<b>15.2</b>

#### Notes:

- 1 Partial credit due to later compliance.
- 2 Partial credit due to phased in compliance.
- 3 The region expects to use the same contingency measures for the 2002 and 2005 demonstrations.

# Possible Control Measures for Rate of Progress

## DRAFT FOR DISCUSSION PURPOSES

DRAFT 20 March 2003

Note: All control measures must be in place no later than November 15, 2005

ID	Measure	Implementation	Description	NOx (tpd)	NOx (\$/ton)	VOC (tpd)	VOC (\$/ton)
32A	Cetane-Enhancing Diesel Additive for On-Road Fuel	-- State regulations	Require all on-road diesel vehicles to use cetane-enhanced fuel Secure an MOU with the Metropolitan Washington Airports Authority (MWAA) to require all aircraft to use preconditioned gate air and electricity instead of idling at gate	1-5	\$0-10K	N/A	N/A
21	Aircraft Gate Idling Restrictions	-- Negotiate MOU with MWAA	Require all construction equipment operating on state or local government contracts to be retrofitted with emissions control equipment	0-1	\$0-10K	0-1	\$10-20K
4B	Construction Retrofits Mandatory in State & Local Contracts	Regionwide Commitments, Funding -- Responsibilities	Require all construction equipment operating on state or local government contracts to be retrofitted with emissions control equipment	0-1		1-5	
17A	Diesel Retrofits for Local School Buses <sup>A</sup>	-- Issues	Retrofit all regional school buses	1-5		0-1	
31A	Percentage of State & Local Government Fleets as Clean Fuel Vehicles	Regionwide Commitments, Budgetary -- Issues	Require state & local governments to make 5% of fleet Clean Fuel Vehicles	0-1	>\$100K	0-1	>\$100K
32B	Cetane-Enhancing Diesel Additive for Off-Road Fuel*	-- State Regulations	Require all non-road diesel vehicles to use cetane-enhanced fuel	1-5	\$0-10K	N/A	N/A
32C	Cetane-Enhancing Diesel Additive for On- and Off-Road Fuel*	-- State Regulations	Require all on-road and non-road diesel vehicles to use cetane-enhanced fuel	5-10	\$0-10K	N/A	N/A
40A	Remote Sensing I/M for On-Road Gasoline Vehicles	-- State Authority, Implementation, Funding	Begin remote sensing program to exempt clean gasoline vehicles from I/M and require dirty vehicles to undergo reinspection and repair	0-1	N/A	0-1	N/A
7	"Cash for Clunkers" Lawn & Garden Program	Regionwide Commitments, Funding -- Issues	Offer cash for consumers to turn in 2-stroke or 4-stroke lawnmowers or lawn tractors and purchase electric or push mowers	N/A	N/A	0-1	\$10-20K
20A	Voluntary Employer Parking Cash-Out <sup>AA</sup>	-- Regionwide Commitments	Implement voluntary program encouraging employers to provide the value of subsidized parking to employees who use alternative commute strategies	0-1	\$0-10K	0-1	\$10-20K
31B	Voluntary Clean Fuel Vehicles Program for Commercial Taxi and Transit Fleets	-- Regionwide Coordination and Funding	Implement voluntary program to replace old, conventionally-fueled taxis and transit buses with clean-fueled vehicles	0-1	\$0-10K	0-1	\$10-20K
17B	Retrofits for State & Local Diesel Vehicles <sup>A</sup>	Regionwide Commitments, Budgetary -- Issues	Require retrofits for all diesel vehicles owned by state or local governments	0-1		0-1	
22	Enhanced Enforcement of Area Source Regs <sup>AA</sup>	State and Local Commitments and -- Coordination, Budgetary Issues	Enhance enforcement of two existing area source regulations: seasonal open burning restrictions and surface cleaning rules	0-1		1-5	
29	Enforce On-Road Idling Restrictions <sup>AA</sup>	-- Local Commitments, Budgetary Issues	Increase enforcement of regional idling restrictions for on-road vehicles	1-5		0-1	
35	Traffic Signal Optimization		emissions	0-1	\$50-100K	0-1	\$50-100K
2C	Recreational Marine Idling Restrictions during Ozone Season <sup>AA</sup>	-- Local Commitments, Budgetary Issues	Ban all idling by recreational marine equipment during ozone season	0-1	>100K	0-1	\$20-50K
14	Control Locomotive Idling	-- Negotiate MOU with CSX, Others MOU With Private Party of State	Require installation of auxiliary power units (APUs) on all locomotives to reduce idling emissions	0-1	\$0-10K	0-1	\$0-10K
15	Truck Stop Electrification	-- Agreements	Electrify regional truck stops to reduce overnight idling.	0-1		0-1	
17C	Diesel Retrofits For All Commercial Vehicles <sup>A</sup>	-- State regulations	Require retrofits for all commercial diesel vehicles registered in the region	0-1		1-5	
17D	Tax Break For Diesel Retrofits <sup>A</sup>	-- State regulations	Offer tax credit for retrofitting commercial vehicles. Credit would be 50% of retrofit cost	0-1		0-1	

20B	Mandatory Employer Parking Cash-Out <sup>^^</sup>	State Regulation, Possibly Local -- Ordinance	<i>Require employers to provide the value of subsidized parking to employees who use alternative commute strategies</i>
4C	Voluntary Retrofits of Construction Equipment	Regionwide Commitments, Funding -- Responsibilities	<i>Voluntary retrofits of all construction equipment operating in the region</i>
44	Voluntary Bundle	Regionwide Commitments, Funding -- Issues	<i>Bundle voluntary measures that motivate individuals to take actions to reduce emissions.</i>
45	"Cash for Clunkers" Gas Can Program	Regionwide Commitments, Funding -- Issues	<i>Offer cash for consumers to turn in old gas cans and purchase new ones</i>
9	"Cash for Clunkers" Outboard Motor Program	Regionwide Commitments, Funding -- Issues	<i>Voluntary moratorium on use of all recreational marine equipment on Code Red Ozone Action Days</i>
34	Cash for Clunkers" On-Road Vehicle Program	Regionwide Commitments, Funding -- Issues	<i>Fund voluntary program paying car owners to scrap old vehicles</i>

		Item #1	
1-5		1-5	
N/A	N/A	0-1	\$10-20K
1-5	\$0-10K	1-5	\$0-10K
N/A	N/A	0-1	\$0-10K
N/A	N/A	0-1	\$0-10K
0-1	\$10-20K	0-1	\$10-20K