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## Tech Comm. Item #4

### MEMORANDUM

Date: October 31, 2003

To: TPB Technical Committee

From: Ronald F. Kirby  
Director, Department of  
Transportation Planning

Re: Proposed TPB Comments to MWAQC on the  
Revised State Implementation Plan (SIPs) related  
to Updated 2005 Mobile Budgets, TCM Substitution,  
and the Development of Budgets for Conformity  
under the 8-hour Standard

The attached schedule of activities for the Metropolitan Washington Air Quality Committee (MWAQC) calls for MWAQC to approve revised SIPs for public comment at its meeting in the morning of December 17, 2003, and for the states to schedule public hearings on the revised SIPs during the period January 19-26, 2004. The states would submit the SIPs to EPA by March 1, 2004. Since the only TPB meeting to be held before the December 17, 2003 MWAQC meeting is the November 19, 2003 meeting, the TPB will need to approve any comments it has on the revised SIP at its November 19, 2003 meeting for transmittal to MWAQC.

This memorandum proposes comments that the TPB could make to MWAQC at this stage of development of the revised SIPs. The comments are organized under three topic headings:

- (1) Updates to the 2005 Mobile Budgets
- (2) TCM Substitution Procedures
- (3) Development of Budgets for Transportation Conformity Under the 8-hour Standard

(1) Updates to the 2005 Mobile Budgets

SIP revisions containing new Mobile6-based mobile emissions budgets were submitted to EPA by Virginia, Maryland, and the District of Columbia on August 19,

September 2, and September 5 of this year respectively. These budgets are 98.1 tons per day for VOC and 237.4 tons per day for NOx. Once EPA determines the adequacy of these budgets, they will be used by the TPB in making a conformity determination for the 2003 CLRP and FY2004-2009 TIP. It is expected that this determination will be made at the November 19, 2003 or December 17, 2003 TPB meetings, depending upon when the EPA adequacy determination is received.

In developing the SIP revisions to be submitted to EPA by March 1, MWAQC has the opportunity to update the mobile emissions budgets to reflect the latest planning and network assumptions used in the conformity analysis conducted by TPB staff for the 2003 CLRP and the FY2004-2009 TIP. The use of final Round 6.3 forecasts at the zone level, updated land activity forecasts for the Baltimore region, and updated transportation inputs resulted in lower VOC and NOx emissions estimates than those developed for the mobile budgets included in the September SIP submittals to EPA: VOC emissions dropped by 0.7 tons per day (from 98.1 to 97.4) and NOx emissions dropped by 2.6 tons per day (from 237.4 to 234.8). These lower estimates for mobile emissions in 2005 along with related lower estimates for 2002 are provided in the attached memorandum of October 29, 2003 from Mike Clifford to Joan Rohlf.

The mobile emissions reductions for 2002 and 2005 will be available to MWAQC to assist in meeting the rate-of-progress and attainment requirements for the SIP revisions to be submitted to EPA by March 1, 2004. Inclusion of these reductions in the SIPs would result in updates to the 2005 mobile budgets: the VOC budget would be reduced from 98.1 to 97.4 tons per day, and the NOx budget would be reduced from 237.4 to 234.8 tons per day. It is recommended that the TPB Technical Committee and the TPB support the inclusion of these mobile emissions reductions and the related lower mobile emissions budgets in the March 1, 2004 SIP submittals.

#### (2) TCM Substitution Procedures

In a letter of May 21, 2003 to MWAQC Chairman Phil Mendelson, TPB Chairman Peter Shapiro noted that the MWAQC/TAC Conformity Subcommittee had discussed TCM substitution procedures that have been incorporated into SIPs for the states of New Mexico, Oregon, and Texas. Chairman Shapiro provided the TPB's support for the development of such a TCM substitution procedure for the Washington non-attainment area for inclusion in the SIP revisions to be submitted to EPA by March 1, 2004.

EPA's conformity rule requires that in order for metropolitan planning organizations (MPO's) like the TPB to make a conformity determination there must be a finding that the CLRP and/or TIP "provides for timely completion or implementation of all TCMs in the applicable implementation plan." As a result of this requirement, an ineffective TCM included in the SIP could preclude the MPO from making a conformity

determination even if all other SIP and conformity requirements are met. Removal of an ineffective TCM from the SIP requires a SIP amendment, which can be a time-consuming and uncertain process. In order to avoid the delays and uncertainties of such a SIP amendment process, many MPOs have adopted policies like those of the TPB under which Transportation Emissions Reduction Measures (TERMs) are “hard-wired” into SIPs as TCMs only if it is absolutely certain that they will be implemented as specified.

The TCM substitution procedures developed and incorporated into the SIPs for New Mexico, Oregon, and Texas represented an effort to provide a more flexible alternative to a full SIP amendment. However, incorporation of these provisions into the state SIPs was controversial and took a considerable amount of time. Further, the procedures require most if not all of the steps involved in a full SIP amendment. TPB staff is unaware of any instances in which these procedures have been used to effect the actual substitution of a TCM.

The issue of TCM substitution has been the subject of much discussion and deliberation over the past year during the drafting of legislation to reauthorize federal surface transportation legislation. In the first draft of its reauthorization bill dated October 24, 2003, the United States Senate addressed the TCM substitution issue in “Section 1619. Reduced Barriers to Air Quality Improvements.” (copy attached) This section recognizes that changes are needed in the TCM Substitution procedures, and provides new procedures under which TCMs can be substituted without a SIP amendment or a process like the New Mexico/Oregon/Texas procedure. As long as the MPO, state air pollution agency and the EPA Administrator concur that the substitute TCM achieves equivalent or greater emissions reductions than the TCM to be replaced, and all consultation procedures are followed, the TCM substitution can proceed.

Although the new Section 1619 Senate provisions are unlikely to become law in the near future, there appears to be a clear bi-partisan recognition in Congress that legislative changes are needed to reduce the barriers to air quality improvements presented by current law and procedures. Given the likelihood of such legislative changes, it is recommended that the inclusion of TCM substitution procedures in the SIPs due to EPA on March 1, 2004 not be pursued at this time.

### (3) Development of Budgets for Transportation Conformity Under the 8-hour Standard

It has become clear from the conformity analysis for the 2003 CLRP and the FY2004-2009 TIP that mobile emissions in the out-years of 2015, 2025, and 2030 will be well below the 2005 mobile emissions budgets currently under adequacy review by EPA. In light of these results, concerns have been raised that attention needs to be paid to the mobile emissions levels that might be required for the Washington region to meet the new 8-hour ozone standards. Can we be confident that taken with all other emissions

sources mobile emissions will be low enough to meet the 8-hour requirements, or might further reductions be needed?

On June 2, 2003 EPA issued its implementation proposals for the 8-hour ozone standards, and on October 22, 2003 EPA issued proposed amendments to the transportation conformity rule to address the new 8-hour standards. Under these proposals, EPA anticipates designating areas for the 8-hour ozone standard in April 2004, with an effective date 30 days later in May 2004. Under statutory requirements, transportation conformity under the new standards will have to be conducted before the end of a one-year grace period (that is, by May 2005) to avoid a conformity lapse. In its June 2, 2003 implementation proposals, EPA proposed to revoke the one-hour ozone standard (in whole or in part) one year after the effective date of the 8-hour designation. Under either of EPA's revocation options, conformity for the one-hour standard would be required during the one-year grace period, but would no longer apply once the one-hour standard is revoked.

COG/DEP staff has advised that the Washington area is expected to be classified as a "moderate" non-attainment area under the 8-hour ozone standard, with an attainment date of 2010 and a SIP due date of 2007. The actual delineation of the non-attainment area is expected to change from that for the one-hour standard, with the addition of some additional jurisdictions (and possibly the removal of one jurisdiction).

If these EPA proposals are finalized in their current form (including the selection from several options included in the current proposals), it seems that any future conformity determinations made by the TPB through May 2005 would have to meet the mobile budgets for the one-hour ozone standard. The budgets currently under review by EPA would become effective once an adequacy finding is issued by EPA. If lower revised budgets are included in the SIP revisions to be submitted to EPA by March 1, 2004, those revised budgets would become the effective 1-hour budgets once the SIP revisions are approved by EPA. If the one-hour standard is revoked by May 2005, as proposed by EPA, conformity determinations after that date would no longer be required to meet the conformity requirements under the one-hour standard.

With regard to the 8-hour standard, the TPB would have to make a conformity determination under the conformity requirements associated with the 8-hour standard by May 2005, and after that date all conformity determinations would have to be made in accordance with these 8-hour standards. It is important to note that conformity under the 8-hour standards will have to be demonstrated for the entire 8-hour non-attainment area as designated by EPA – an area that is likely to be different from and somewhat larger than the non-attainment area for the one-hour standard.

Conformity under the 8-hour standard can be conducted using budget tests as under the one-hour standard. In order for such budget tests to be used, however, an 8-

hour SIP must be submitted to EPA with budgets that EPA can find adequate. Such an 8-hour SIP must contain emissions inventories for all emissions sources for the entire 8-hour non-attainment area and must demonstrate a significant level of emissions reductions from the current level of emissions (e.g. a specific percentage of emissions reductions from 2002 baseline year emissions). EPA's conformity proposals of October 24, 2003 encourage the preparation of "early" 8-hour SIPs to provide for the establishment of mobile emissions budgets for use in demonstrating conformity under the 8-hour non-attainment standard.

If conformity has to be demonstrated under the 8-hour standard before adequate or approved 8-hour ozone SIP budgets are in place, EPA is proposing that the 8-hour ozone area be able to select from a menu of options. Assuming the Washington area receives an adequacy determination from EPA on its Mobile6-based budgets for the one-hour standard, the area could choose between

- interim emissions tests (below 2002 baseline, build less than no build, or both) for the entire 8-hour ozone area, or
- the budget test based on the one-hour ozone budgets for the one-hour ozone area, plus the interim emissions tests for the remaining portion of the 8-hour ozone non-attainment area.

Given the complexity of the above options, it is recommended that TPB and MWAQC begin work as soon as possible to develop an early SIP submittal which could permit EPA to make an adequacy finding on new 8-hour ozone mobile budgets for the entire 8-hour non-attainment area. These budgets would presumably be based on emissions estimates from all sources for the expected attainment date for the Washington area of 2010. (Note that Section 93.118(e)(4) of EPA's Conformity rule states that:

(4) EPA will not find a motor vehicle emissions budget in a submitted control strategy implementation plan revision or maintenance plan to be adequate for transportation conformity purposes unless the following minimum criteria are satisfied:

- (iv) The motor vehicle emissions budget(s), when considered together with all other emissions sources, is consistent with applicable requirements for reasonable further progress, attainment, or maintenance (whichever is relevant to the given implementation plan submissions)).

Such budgets would provide for much easier implementation of transportation conformity than the combination of interim and one-hour budget tests described above, and would have more direct relevance to determining the requirements on all emissions sources for

meeting the 8-hour ozone attainment standards for the Washington 8-hour non-attainment area.

**DRAFT Schedule to Develop Severe Area SIP for 2004**

**MWAQC**

<b>Month</b>	<b>SIP Schedule</b>	<b>State Action: Deadlines</b>	
<b>September '03</b>  TAC – 12 MWAQC - 24	Agree on process for selecting contingency measures, addressing additional measures;		
<b>October '03</b>  TAC – 10 MWAQC - 22	TAC: briefing on revised emissions inventories for ozone and CO using Round 6.3; List of control measures to TAC; Need agreement on approach to control and contingency measures;		
<b>November '03</b>  TAC – 14 MWAQC - 24	<b>Draft Revised Severe Area SIP</b> to TAC for approval. Includes: Revised MOB6 mobile inventories for 2002 and 2005 ozone, contingency measures for 2002 and 2005. <b>Draft CO Maintenance Plan</b> to TAC for approval. Includes CO inventories using MOB6	State submit documentation of enforceable contingency measures and fee requirement.; Review EAC photochem. modeling for 1-hr attainment SIP	
<b>December '03</b>  TAC – 12 MWAQC – 17	MWAQC approves <b>Revised SIP</b> and <b>CO Plan</b> for public comment. Draft Revised SIP includes revised mobile inventories, contingency measures and benefits of mobile emissions control programs (cases)	States schedule public hearings for Jan. 19-26	
<b>January '04</b>  TAC – 16	Public Comment Period <b>Public Hearings:Jan 19-26</b>	States introduce legislation for Sec.185 requirement	
<b>February '04</b>  TAC – 13 MWAQC - 25	TAC reviews comments and responses to comments; recommends SIP to EPA		
<b>March '04</b>  TAC – 12 MWAQC - 17		States submit Revised SIP to EPA by March 1; Submit CO Maintenance Plan to EPA	

October 29, 2003

To: Joan Rohlfis

From: Mike Clifford

Subject: Draft 2002 and 2005 ozone season mobile source emissions inventory results:  
uncontrolled and controlled scenarios using adopted round 6.3 cooperative forecasts

This memo transmits the first set of regional (MSA) mobile source emissions inventory totals needed for phase 2 of the severe area SIP. These results are based upon the same technical methods and planning assumptions used in assessing air quality conformity of the 2003 CLRP / FY2004-09 TIP, i.e., using adopted round 6.3 cooperative forecasts, and latest plan and program project submissions.

The attached exhibit contains VOC and NO<sub>x</sub> network and off-network emissions totals for uncontrolled and controlled conditions for each year. The exhibit also reflects relevant TCM emissions reductions, to provide net mobile source emissions totals for each analysis year / scenario.

We are continuing with inventory development for the remaining scenarios for each year and when completed will provide those results to you in a separate transmittal.

Attachment

## Exhibit 1 Summary Table

### 2002 & 2005 Mobile Source Emissions inventory for Rate of Progress

	2002				2005			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	VOC	NOx	VOC	NOx	VOC	NOx	VOC	NOx
M.S. Inventory (t/day)	181.5	335.7	125.4	291.1	178.3	321.2	97.7	235.5
TCMs (t/day)	0.3	0.5	0.3	0.5	0.3	0.7	0.3	0.7
Net (t/day)	181.2	335.2	125.1	290.6	178	320.5	97.4	234.8

108TH CONGRESS  
1ST SESSION

S. \_\_\_\_\_

IN THE SENATE OF THE UNITED STATES

\_\_\_\_\_ introduced the following bill; which was read twice and referred to the Committee on \_\_\_\_\_

**A BILL**

To authorize funds for Federal-aid highways, highway safety programs, and transit programs, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

4 (a) **SHORT TITLE.**—This Act may be cited as the  
5 “[Safe, Accountable, Flexible, and Efficient Transpor-  
6 tation Equity Act of 2003]”.

7 (b) **TABLE OF CONTENTS.**—The table of contents of  
8 this Act is as follows:

- Sec. 1. Short title; table of contents.
- Sec. 2. General definitions.
- Sec. 3. Definitions for title 23.

**TITLE I—FEDERAL-AID HIGHWAYS**

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1 tation plan that includes the project is determined to  
2 conform to the applicable implementation plan.”.

3 **SEC. 1619. REDUCED BARRIERS TO AIR QUALITY IMPROVE-**  
4 **MENTS.**

5 Section 176(c)(2) of the Clean Air Act (42 U.S.C.  
6 7506(c)(2)) (as amended by section 1619(b)) is  
7 amended—

8 (1) by redesignating paragraph (9) as para-  
9 graph (10); and

10 (2) by inserting after paragraph (8) the fol-  
11 lowing:

12 “(9) **SUBSTITUTION FOR TRANSPORTATION**  
13 **CONTROL MEASURES.—**

14 “(A) **IN GENERAL.—**Transportation con-  
15 trol measures that are specified in an imple-  
16 mentation plan may be replaced or added to the  
17 implementation plan with alternate or addi-  
18 tional transportation control measures if—

19 “(i) the substitute measures achieve  
20 equivalent or greater emissions reductions  
21 than the control measure to be replaced, as  
22 demonstrated with an analysis that is con-  
23 sistent with the methodology used for eval-  
24 uating the replaced control measure in the  
25 implementation plan;

1                   “(ii) the substitute control measures  
2 are implemented—

3                   “(I) in accordance with a sched-  
4 ule that is consistent with the sched-  
5 ule provided for control measures in  
6 the implementation plan; or

7                   “(II) if the implementation plan  
8 date for implementation of the control  
9 measure to be replaced has passed, as  
10 soon as practicable after the imple-  
11 mentation plan date;

12                   “(iii) the substitute and additional  
13 control measures are accompanied with evi-  
14 dence of adequate personnel, funding, and  
15 authority under State or local law to im-  
16 plement, monitor, and enforce the control  
17 measures;

18                   “(iv) the substitute and additional  
19 control measures were developed through a  
20 collaborative process that included—

21                   “(I) participation by representa-  
22 tives of all affected jurisdictions (in-  
23 cluding local air pollution control  
24 agencies, the State air pollution con-

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1 trol agency, and State and local trans-  
2 portation agencies);

3 “(II) consultation with the Ad-  
4 ministrator; and

5 “(III) reasonable public notice  
6 and opportunity for comment; and

7 “(v) the metropolitan planning organi-  
8 zation, State air pollution control agency,  
9 and the Administrator concur with the  
10 equivalency of the substitute or additional  
11 control measures.

12 “(B) NO REQUIREMENT FOR EXPRESS  
13 PERMISSION.—The substitution or addition of a  
14 transportation control measure in accordance  
15 with this paragraph shall not be contingent on  
16 there being any provision in the implementation  
17 plan that expressly permits such a substitution  
18 or addition.

19 “(C) NO REQUIREMENT FOR NEW CON-  
20 FORMITY DETERMINATION.—The substitution  
21 or addition of a transportation control measure  
22 in accordance with this paragraph shall not  
23 require—

24 “(i) a new conformity determination  
25 for the transportation plan; or

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1                   “(ii) a revision of the implementation  
2                   plan.

3                   “(D) CONTINUATION OF CONTROL MEAS-  
4                   URE BEING REPLACED.—A control measure  
5                   that is being replaced by a substitute control  
6                   measure under this paragraph shall remain in  
7                   effect until the substitute control measure is ap-  
8                   proved.

9                   “(E) EFFECT OF APPROVAL.—Approval of  
10                   a substitute control measure shall constitute re-  
11                   scission of the previously applicable control  
12                   measure.”.

13 **SEC. 1620. CONFORMING AMENDMENTS.**

14                   Section 176(e)(4) of the Clean Air Act (42 U.S.C.  
15                   7506(e)(4) is amended—

16                   (1) by striking “(4)(A) No later than one year  
17                   after the date of enactment of the Clean Air Act  
18                   Amendments of 1990, the Administrator shall pro-  
19                   mulgate” and inserting the following:

20                   “(4) CRITERIA AND PROCEDURES FOR DETER-  
21                   MINING CONFORMITY.—

22                   “(A) IN GENERAL.—The Administrator  
23                   shall promulgate, and periodically update,”;

24                   (2) in subparagraph (A)—