

National Capital Region Transportation Planning Board

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MEMORANDUM

November 3, 2006

To: Transportation Planning Board Technical Committee

From: Michael J. Clifford
Systems Planning Applications Director

Subject: Transportation Measures / Categories: Emissions Benefits and Application in State Air Quality Implementation Plan (SIP)s and Air Quality Conformity Assessments; Draft Mobile Emissions Budgets

I. INTRODUCTION

The purpose of this memo is to discuss and document the use in either SIPs or transportation conformity assessments of emissions benefits associated with transportation measures. This topic was discussed at the October 24, 2006 meeting of the Travel Management Subcommittee, in response to a current planning activity (8-hour ozone SIP) request from MWAQC staff for 2008 and 2009 emissions benefits for TCMs included in the previous 1-hour ozone SIP. Using data developed through this discussion, the memo also identifies draft mobile emissions budgets for the 8-hour ozone SIP.

Traditionally, we have classified transportation measures with emissions benefits as either transportation emissions reduction measures (TERM)s which are used in transportation conformity assessments, or as transportation control measures which are used in SIPs. TCMs are legally enforceable once they are included in a SIP (see Attachment A for the transportation conformity rule definition of a TCM); TERMS represent commitments as applied in conformity determinations, but may be updated through the transportation planning and programming process. Note that Attachment A excludes vehicle technology / fuel / maintenance-based measures from the TCM definition; in addition, a 'voluntary bundle' of other measures is being utilized in SIP planning and is also discussed below.

Therefore, to more precisely specify the categories of projects being used today we identify the following four mutually exclusive groupings of transportation emissions reducing projects: (1) TCMs, as defined in EPA's conformity rule; (2) vehicle technology, fuel, and maintenance-based measures included for credit in the SIP (called simply 'vehicle-based' measures, hereafter), also from EPA's conformity rule; (3) TERMS, defined as those projects credited in transportation conformity

assessments; and (4) voluntary bundle measures, representing projects advanced to this component of a SIP. Further discussion of these categories appears below.

II. REVIEW OF EXISTING 'TCMs'

This section includes discussion of the topic at the October 24, 2006 meeting of the Travel Management Subcommittee; it is followed by application of TCM (and 'vehicle-based') summary results in the development of draft mobile emissions budgets.

A. Travel Management Subcommittee Discussion

Attachment B contains excerpts from the region's 2004 'severe area SIP' for meeting the 1-hour ozone standards. In the body of that document, p.7 – 66 shows the TCM emissions reductions for 2002 and 2005, and p.9 – 2 shows the mobile emissions budgets once TCMs were applied in the mobile sector. Appendix G lists each TCM and its associated emissions benefits. Given that estimates of existing TCM emissions benefits are now required for the 8-hour ozone SIP years 2008 and 2009, for the determination of 'reasonable further progress' and attainment and for use in setting mobile emissions budgets, MWAQC staff requested such estimates from TPB staff.

Accordingly, staff retrieved the table in Attachment C and presented it at the October 24, 2006 meeting of the Travel Management Subcommittee for discussion. Some questions arose regarding whether some of the line items represented individual projects or continuing programs; review of the table also indicated that some of the entries were 'vehicle-based' measures, not TCMs. Since the meeting, staff completed estimation of 2008 and 2009 emissions benefits for each of the measures. These results are shown as Attachment D; note that the table more properly specifies the measures as TCMs or as vehicle-based measures.

B. Draft Mobile Emissions Budget Calculation

Returning to Attachment B, p.B - 3 illustrates the calculation of the 1-hour ozone mobile emissions budgets in the severe area SIP. TCM emissions estimates are subtracted from the base inventory levels for the 2002 and 2005 rate of progress and attainment years. Now that TCM and vehicle-based measures have been calculated for 2008 and 2009, a similar emissions budget calculation is performed for the 8-hour ozone SIP by applying the emissions reduction estimates to the previously transmitted mobile inventory numbers. These data are shown in Attachment E. It is recommended that, after review and comment by the TPB Technical Committee, these emissions data be formally transmitted by the TPB to MWAQC.

III. TERMS

Attachment F provides an overall summary of the emissions reduction totals by project category in the transportation conformity Tracking Sheet for the 2006 CLRP and FY2007 – 12 TIP. The analysis year is 2010, since 2008 and 2009 benefits have only been calculated for the TCMs and vehicle-based measures to date. The table reflects the credits in 2010 for the SIP measures, as well as the TERMS credits, all of which are

available for transportation conformity.

IV. SIP VOLUNTARY BUNDLE

The fourth category of transportation measures includes any which are being advanced to the 8-hour ozone SIP as a component of the 'voluntary bundle'. Attachment G contains a memo sent from the MWAQC Technical Advisory Committee to MWAQC, from their October 25, 2006 meeting. Such measures are being advanced to the SIP to demonstrate reasonable further progress or attainment. Their use in the SIP, like TCMs or vehicle-based measures, will preclude their later use for conformity purposes. As a bookkeeping task, TPB staff will need to ensure that any of these measures advanced to the SIP are not included in any TERMS reporting.

Attachments (A - G)