



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Mr. Gary L. Henderson
Divisional Administrator
Federal Highway Administration,
District of Columbia Division
1900 K Street, NW, Suite 510
Washington, D.C. 20002

February 15, 2005

Dear Mr. Henderson:

The United States Environmental Protection Agency, Region III has reviewed the Conformity Determination for the 2004 Constrained Long-Range Plan and the FY 2005-2010 Metropolitan Washington Transportation Improvement Program (TIP) as adopted by the National Capital Region Transportation Planning Board (TPB) and submitted to us by the Federal Highway Administration (FHWA) on January 22, 2004. EPA has reviewed the Conformity Determination in accordance with the procedures and criteria of the Transportation Conformity Rule contained in 40 CFR part 93, sections 93.106, 93.108, 93.110, 93.111, 93.112, 93.113(b), 93.113(c) and 93.118.

Based upon our review, we concur with the Conformity Determination for the 2004 Constrained Long-Range Plan and the FY 2005-2010 Metropolitan Washington Transportation Improvement Program as adopted by the National Capital Region Transportation Planning Board. Enclosed please find a copy of our detailed evaluation entitled, "Technical Support Document for Review of the Conformity Determination of the 2004 Constrained Long-Range Plan and the FY 2005-2010 Metropolitan Washington Transportation Improvement Program." It should be noted that in our technical support document we are deferring to the FHWA on the question of whether the modeling is acceptable and whether the Plan and TIP are fiscally constrained. Therefore, our concurrence on the overall conformity determination is predicated upon FHWA determining that the modeling is acceptable and that the Plan and TIP are fiscally constrained.

Please feel free to call Carol Febbo, Chief, Energy, Radiation and Indoor Environment Branch at (215) 814-2076 or Martin T. Kotsch, at (215) 814-3335 to discuss this review.

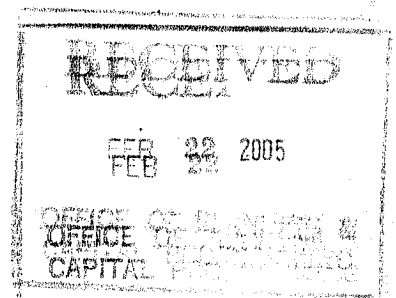
Sincerely,

A handwritten signature in black ink, appearing to read "Judith M. Katz".

Judith M. Katz, Director
Air Protection Division

Enclosure

cc: Valencia Thomson (FHWA, MD)
Sandra Jackson (FHWA, DC)
Ed Sundra (FHWA, VA)
Howard Simons (MDOT)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103

February 14, 2005

SUBJECT: Technical Support Document for Review of the Conformity Determination of the 2004 Constrained Long Range Plan and the FY 2005-2010 Metropolitan Washington Transportation Improvement Program

FROM: 
Martin T. Kotsch, P.E. (3AP23)

TO: Administrative Record of EPA's Review of the Conformity Determination of the 2004 Constrained Long Range Plan and the FY 200-2010 Metropolitan Washington Transportation Improvement Program

THRU: Carol Febbo, Chief 
Energy, Radiation and Indoor Environment Branch (3AP23)

The purpose of this document is to review the November 17, 2004 air quality conformity determination of the 2004 Constrained Long Range Plan (CLRP) and the FY 2005-2010 Metropolitan Washington Transportation Improvement Program (TIP) prepared by the Metropolitan Washington Council of Governments, National Capital Region Transportation Planning Board (TPB). The TIP and CLRP conformity determination entitled, "Air Quality Conformity Determination of the 2004 Constrained Long Range Plan and the FY2004-2009 Transportation Improvement Program for the Washington Metropolitan Region" was submitted to the Environmental Protection Agency (EPA) on December 21, 2004 by the District of Columbia Division of the United States Federal Highway Administration (FHWA).

The conformity determination was reviewed in accordance with the procedures and criteria of the Transportation Conformity Rule, 40 CFR Part 93, Sections 93.106, 93.108, 93.110, 93.111, 93.112, 93.113(b), 93.113(c) and 93.118.

Evaluation of the 2004 Constrained Long Range Plan and the FY2005-2010 Metropolitan Washington Transportation Improvement Program

GENERAL CRITERIA APPLICABLE TO THE TIP AND CLRPP

SECTION of 40 CFR Part 93	CRITERIA	Y/ N	COMMENTS
93.110	<p>Is the conformity determination based upon the latest planning assumptions?</p> <p>(a) Is the conformity determination, with respect to all other applicable criteria in §§93.111 - 93.118, based upon the most recent planning assumptions in force at the time of the conformity determination?</p> <p>(b) Are the assumptions derived from the estimates of current and future population, employment, travel, and congestion most recently developed by the MPO or other designated agency? Is the conformity determination based upon the latest assumptions about current and future background concentrations?</p>	Y	<p>(a) & (b) The conformity determination is based upon latest planning assumptions in force and approved by the TPB at the time of the determination. The assumptions include:</p> <p>1) Travel Demand Modeling Assumptions: - Use of newer Version 2.1D travel demand model process -New travel survey data incorporated. - Development of new forecast years for analysis</p> <p>2) Emissions Model Assumptions: MOBILE6.2 modeled emissions factors were developed for years; 2005, 2015, 2025, 2030 for Ozone and 2007, 2016, 2025, 2030 for CO</p> <p>3)Emissions Factor Assumptions -Enhanced I/M was assumed in DC, MD, VA -Low emission vehicle program was modeled -No oxygenated fuels were assumed for wintertime -Tier 2 / low sulfur vehicle controls were modeled</p> <p>4) Vehicle Registration Data: 2002 data for Maryland, DC and Virginia</p> <p>5) Land Activity Assumptions (growth forecasts): -In November, 2004 Round 6.4A forecasts were approved by the TPB for use in the conformity determination. As a result, household data as well as employment data have been updated. New growth figures between 2005 and 2030 used in this determination are shown below: -Household: 27% increase -Employment: 37% increase</p>

Evaluation of the 2004 Constrained Long Range Plan and the FY2005-2010 Metropolitan Washington Transportation Improvement Program

GENERAL CRITERIA APPLICABLE TO THE TIP AND CLR

93.110	<p>(c) Are any changes in the transit operating policies (including fares and service levels) and assumed transit ridership discussed in the determination?</p> <p>(d) The conformity determination must include reasonable assumptions about transit service and increases in transit fares and road and bridge tolls over time.</p> <p>(e) Does the conformity determination use the latest existing information regarding the effectiveness of the TCMs and other implementation plan measures which have already been implemented?</p> <p>(f) Are key assumptions specified and included in the draft documents and supporting materials used for the interagency and public consultation required by §93.105?</p>	<p>Y</p> <p>Y</p> <p>Y</p> <p>Y</p>	<p>(c) Transit policies such as frequency and hours of operation were updated from the last conformity determination</p> <p>(d) Transit ridership and services were adjusted to reflect increased fares from several providers within the affected region. No changes in bridge tolls are anticipated at this time</p> <p>(e) All of the TCMs listed in the Phase II Attainment Plan for the Metropolitan Washington D.C. area have been implemented. The latest information regarding TCMs and other implementation plan measures effectiveness have been used.</p> <p>(f) Appendix A of the conformity determination provides key assumptions for this conformity determination. This document and its earlier drafts were developed through the interagency and public consultation process detailed in the chart on pages A8-A9 of Appendix A.</p>
93.111	Is the conformity determination based upon the latest emissions model?	Y	This conformity determination used the mobile emissions model: MOBILE6.2, the latest EPA emissions model available to do the emissions analysis.

Evaluation of the 2004 Constrained Long Range Plan and the FY2005-2010 Metropolitan Washington Transportation Improvement Program

GENERAL CRITERIA APPLICABLE TO THE TIP AND CLRP

93.112	Did the MPO make the conformity determination according to the consultation procedures of the conformity rule or the state's conformity SIP?	Y	<p>Consultation procedures were followed in accordance to the TPB consultation procedures. These procedures are based on the procedures of the Federal Conformity Rule.</p> <p><u>Interagency Consultation</u> The TPB has consulted with all appropriate agencies. This includes the District of Columbia Environmental Regulation Administration, Maryland Department of the Environment, Maryland Department of Transportation, Maryland Office of Planning, Virginia Department of Environmental Quality, Virginia Department of Transportation, Federal Highway Administration, EPA, and county representatives of the counties of the Metropolitan Washington D.C. area.</p> <p><u>Public Consultation</u> The TPB has provided opportunities for public comment on the TIP and the CLRP. The public was invited to comment on the proposed TIP and CLRP amendments between April 10, 2004 and May 16, 2004. On October 1, 2004 the TPB released for public comment, the draft air conformity analysis for the TIP and CLRP for thirty days. Several public comments relevant to air quality that were received are summarized below:</p> <p>1) Several comments stated that the proposed Inter County Connector Project in Maryland would have adverse air quality impacts and was not sufficiently developed to allow a complete air quality analysis. The MPO responded by indicating that the ICC was analyzed in the conformity analysis by including both potential alignments for the project and showing that with either alignment selected that the TIP /Plan would still conform .</p> <p>2) Several comments were received that stated that the transportation modeling was flawed and therefore the air quality modeling results were also flawed. The MPO responded that the modeling effort was acceptable based on as a statistical analysis of the model results compared with "observed" data. The MPO also indicated that they have an ongoing effort to continually to improve the model as new and better data becomes available. EPA notes,</p>
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		<p>however, that the comments and the TPB responses provided raise issues and contain technical analyses that require expert judgement that is in the domain of FHWA, rather than EPA. EPA therefore will defer to the judgement of the FHWA to make a final determination of the adequacy of the TPB responses to these comments on the modeling in FHWA's review of the Plan and TIP.</p> <p>3) Several comments were made concerning whether the Plan and TIP were fiscally constrained. The MPO provided a detailed response which indicated that they believed that the Plan and TIP met the fiscal constraint requirements based on their analysis. EPA notes, however, that the comments and the TPB responses provided raise issues and contain technical analyses that require expert judgement that is in the domain of FHWA, rather than EPA. EPA therefore will defer to the judgement of the FHWA to make a final determination of the adequacy of the TPB responses to these comments on the Fiscal constraint of the Plan and TIP in FHWA's review of the Plan and TIP.</p>
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Evaluation of the 2004 Constrained Long Range Plan and the FY2005-2010 Metropolitan Washington Transportation Improvement Program

CRITERIA APPLICABLE ONLY TO THE CLRП

93.106(a) (1)	Are the horizon years correct?	Y	Conformity was demonstrated for the years 2005, 2015, 2025, and 2030 for Ozone and 2007, 2016, 2025, 2030 for CO.
93.106(a) (2)(i)	Does the plan quantify and document the demographic and employment factors influencing transportation demand?	Y	Pages 18- 19 of the conformity determination summarizes population, employment, and households for the Metropolitan Washington D.C. area. These forecasts were based upon the Round 6.4A. forecast.
93.106(a) (2)(ii)	Is the highway and transit system adequately described in terms of the regionally significant additions or modifications to the existing transportation network which the transportation plan envisions to be operational in the horizon years?	Y	Appendix B, page B-3 of the conformity determination shows that there are: 1 significant new project (ICC), 7 facility widening projects, and 1 new construction starts.
93.108	Is the transportation plan fiscally constrained?		Several comments were made during the public comment period concerning whether the Plan and TIP were fiscally constrained. The MPO provided a detailed response which indicated that they believed that the Plan and TIP met the fiscal constraint requirements based on their analysis. EPA notes, however, that the comments and the TPB responses provided raise issues and contain technical analyses that require expert judgement that is in the domain of FHWA, rather than EPA. EPA therefore will defer to the judgement of the FHWA to make a final determination of whether the Plan and TIP are fiscally constrained

93.113(b)	Are TCM's being implemented in a timely manner?	Y	All the TCMs listed in the Phase II Attainment Plan for the Metropolitan Washington D.C. area have been implemented. The latest information regarding TCMs and other implementation plan measures effectiveness have been used.
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Evaluation of the 2004 Constrained Long Range Plan and the FY2005-2010 Metropolitan Washington Transportation Improvement Program

CRITERIA APPLICABLE ONLY TO THE CLRP

<p>93.118</p>	<p>For areas with SIP Budgets: is the Transportation Plan, TIP or Project consistent with the motor vehicle emissions budget(s) in the applicable SIP?</p>	<p align="center">Y</p>	<p>Analysis for Ozone:</p> <p>EPA has determined that the 2005 Rate of Progress (ROP) budgets are the applicable budgets for transportation conformity purposes for the first analysis year . The TPB had presented their conformity analysis against both the revised attainment demonstration and the new ROP budgets. Thus, They have demonstrated conformity against the applicable 2005 ROP budgets</p> <p>As a result of the Inter County Connector Project in Maryland, two analyses were run for the milestone years of 2015, 2025 and 2030, utilizing the two alternative routes proposed for the project which will produce two slightly different emission results depending on the final route alternative chosen.</p> <p>Based on their analysis, the CLRP is consistent with those VOC and NOx budgets for the mobile budget year of 2005.</p> <p>Analysis for CO:</p> <p>We also have concurred with the demonstration that the CLRP is consistent with the applicable CO budget in the CO Maintenance Plan. This budget was approved on January 30, 1996. The specific data are as follows:</p> <table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td colspan="2"><u>2005 Mobile Budget:</u></td> <td colspan="2"><u>2005 Analysis Year Emissions</u></td> </tr> <tr> <td>98.1 T/D (VOC)</td> <td></td> <td>91.47 T/D (VOC)</td> <td></td> </tr> <tr> <td>237.4 T/D (NOx)</td> <td></td> <td>218.13 T/D (NOx)</td> <td></td> </tr> <tr> <td colspan="2"> <u>2005 Mobile Budget:</u></td> <td colspan="2"> <u>2007 Analysis Year Emissions</u></td> </tr> <tr> <td>1671.7 T/D (CO)</td> <td></td> <td>825.98 T/D (CO)</td> <td></td> </tr> <tr> <td colspan="4" style="text-align: center;"> <u>ICC Alternative 1 Included</u></td> </tr> <tr> <td colspan="2"> <u>2005 Mobile Budget</u></td> <td colspan="2"> <u>2015 Analysis Year Emissions</u></td> </tr> <tr> <td>98.1 T/D (VOC)</td> <td></td> <td>48.3 T/D(VOC)</td> <td></td> </tr> <tr> <td>237.4 T/D (Nox)</td> <td></td> <td>79.3T/D (Nox)</td> <td></td> </tr> </table>	<u>2005 Mobile Budget:</u>		<u>2005 Analysis Year Emissions</u>		98.1 T/D (VOC)		91.47 T/D (VOC)		237.4 T/D (NOx)		218.13 T/D (NOx)		 <u>2005 Mobile Budget:</u>		 <u>2007 Analysis Year Emissions</u>		1671.7 T/D (CO)		825.98 T/D (CO)		 <u>ICC Alternative 1 Included</u>				 <u>2005 Mobile Budget</u>		 <u>2015 Analysis Year Emissions</u>		98.1 T/D (VOC)		48.3 T/D(VOC)		237.4 T/D (Nox)		79.3T/D (Nox)	
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ICC Alternative 2 Included

<u>2005 Mobile Budget</u>	<u>2015 Analysis Year Emissions</u>
98.1 T/D (VOC)	48.3 T/D(VOC)
237.4 T/D (Nox)	79.3T/D (NOx)

<u>2005 Mobile Budget</u>	<u>2016 Analysis Year Emissions</u>
1671.5 T/D (CO)	774.2 T/D (CO)

ICC Alternative 1 Included

<u>2005 Mobile Budget</u>	<u>2025 Analysis Year Emissions</u>
98.1 T/D (VOC)	48.3 T/D(VOC)
237.4 T/D (Nox)	79.3T/D (Nox)
1671.5 T/D (CO)	727.1 T/D (CO)

ICC Alternative 2 Included

<u>2005 Mobile Budget</u>	<u>2025 Analysis Year Emissions</u>
98.1 T/D (VOC)	48.3 T/D(VOC)
237.4 T/D (Nox)	79.3T/D (NOx)
1671.5 T/D (CO)	727.1 T/D (CO)

ICC Alternative 1 Included

<u>2005 Mobile Budget</u>	<u>2030 Analysis Year Emissions</u>
98.1 T/D (VOC)	48.3 T/D(VOC)
237.4 T/D (Nox)	79.3T/D (Nox)
1671.5 T/D (CO)	727.1 T/D (CO)

ICC Alternative 2 Included

<u>2005 Mobile Budget</u>	<u>2030 Analysis Year Emissions</u>
98.1 T/D (VOC)	48.3 T/D(VOC)
237.4 T/D (Nox)	79.3T/D (NOx)
1671.5 T/D (CO)	727.1 T/D (CO)

Evaluation of the 2004 Constrained Long Range Plan and the FY2005-2010 Metropolitan Washington Transportation Improvement Program

CRITERIA APPLICABLE ONLY TO THE TIP

93.113(c)	Are TCM's being implemented in a timely manner?	Y	All the TCMs listed in the Phase II Attainment Plan for the Metropolitan Washington D.C. area have been implemented. The latest information regarding TCMs and other implementation plan measures effectiveness have been used.										
93.118	For areas with SIP Budgets: is the Transportation Plan, TIP or Project consistent with the motor vehicle emissions budget(s) in the applicable SIP?	Y	<p>Analysis for ozone:</p> <p>EPA has determined that the 2005 Rate of Progress (ROP) budgets are the applicable budgets for transportation conformity purposes. The TPB had presented their conformity analysis against both the revised attainment demonstration and the new ROP budgets. Thus, They have demonstrated conformity against the applicable 2005 ROP budgets</p> <p>Based on their analysis, the TIP is consistent with those VOC and NOx budgets for all analysis years for the 2005 ROP Plan budgets.</p> <p>Analysis for CO:</p> <p>We also have concurred with the demonstration that the TIP is consistent with the applicable CO budget in the CO Maintenance Plan. This budget was approved on January 30, 1996. The specific data are as follows:</p> <p align="center">2005 RATE OF PROGRESS BUDGETS</p> <table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td><u>2005 Mobile Budget:</u></td> <td><u>2005 Analysis Year Emissions</u></td> </tr> <tr> <td>98.1.5 T/D (VOC)</td> <td>97.4 T/D (VOC)</td> </tr> <tr> <td>237.4 T/D (NOx)</td> <td>234.7 T/D (NOx)</td> </tr> </table> <table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td><u>2005 Mobile Budget:</u></td> <td><u>2007 Analysis Year Emissions</u></td> </tr> <tr> <td>1671.7 T/D (CO)</td> <td>989.5 T/D (CO)</td> </tr> </table>	<u>2005 Mobile Budget:</u>	<u>2005 Analysis Year Emissions</u>	98.1.5 T/D (VOC)	97.4 T/D (VOC)	237.4 T/D (NOx)	234.7 T/D (NOx)	<u>2005 Mobile Budget:</u>	<u>2007 Analysis Year Emissions</u>	1671.7 T/D (CO)	989.5 T/D (CO)
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CONCLUSION

Pursuant to FHWA's December 21, 2004 request, we have reviewed the transportation conformity determination for the 2004 Constrained Long Range Plan and the FY2005-2010 Metropolitan Washington Transportation Improvement Program prepared by the Metropolitan Washington Council of Governments, National Capital Region Transportation Planning Board. We have determined that the 2004 Constrained Long Range Plan and the FY2005-2010 Metropolitan Washington Transportation Improvement Program meet the requirements of the federal conformity rule. Therefore, we recommend that EPA concur with the transportation conformity determination for the 2004 Constrained Long Range Plan and the FY2005-2010 Metropolitan Washington Transportation Improvement Program.