ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 51
[FRL–7663–6]


AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of availability.

SUMMARY: EPA is approving and announcing the availability of the MOBILE6.2 motor vehicle emissions factor model for official use in particulate matter (PM10 and PM2.5) SIPs and transportation conformity determinations outside of California. MOBILE6.2 is an update to MOBILE6 which adds the capability to estimate direct exhaust and brake and tire wear particulate matter emission factors for PM10 and PM2.5, and exhaust emission factors for particulate precursors to the MOBILE6 model. MOBILE6.2 is a substantial improvement over previous methods for estimating PM emissions and incorporates EPA’s most current estimates of PM emissions for use by state and local governments to meet Clean Air Act requirements.

EPA is also approving and announcing the availability of new methods for estimating PM emissions and includes EPA’s most current estimates of PM emissions for use by state and local governments to meet Clean Air Act requirements.

EPA is also approving and announcing the availability of re-entrained road dust emissions from cars, trucks, buses, and motorcycles on paved and unpaved roads for PM10 and PM2.5 state implementation plans (SIPs) and transportation conformity analyses. These new methods are incorporated in the December 2003 edition of Chapter 13 of Compilation of Air Pollutant Emission Factors, AP–42, Fifth Edition, Volume I: Stationary Point and Area Sources.

Today’s action also starts time periods after which MOBILE6.2 and the December 2003 AP–42 methods are required to be used in new transportation conformity analyses for PM10 emissions.

EPA strongly encourages areas to use the interagency consultation process to examine how MOBILE6.2 and the December 2003 AP–42 methods will affect future transportation conformity analyses, so, if necessary, PM10 SIPs and motor vehicle emissions budgets can be revised with MOBILE6.2 and AP–42 or transportation plans and programs can be revised as appropriate prior to the end of the conformity grace period.

DATES: EPA’s approval of the MOBILE6.2 emissions factor model and December 2003 AP–42 methods for re-entrained road dust is effective May 19, 2004. See below for further information regarding how today’s approval starts time periods after which MOBILE6.2 and the December 2003 AP–42 methods are required in new transportation conformity analyses and certain SIP and motor vehicle emissions budget revisions.

FOR FURTHER INFORMATION CONTACT: If you have questions on this notice, please send an e-mail to EPA at mobile@epa.gov or contact EPA at (919) 541–1000 for technical questions about the December 2003 AP–42 methods.

SUPPLEMENTARY INFORMATION:

Availability of Models and Support Materials

Copies of the official version of the MOBILE6.2 model are available on EPA’s MOBILE Web site, http://www.epa.gov/otaq/m6.htm. The MOBILE Web site also contains the following support materials for implementing the new model: a detailed MOBILE6.2 User’s Guide; EPA’s “Policy Guidance on the Use of MOBILE6.2 and the December 2003 AP–42 Method for Re-Entrained Road Dust for SIP Development and Transportation Conformity”; EPA’s “Technical Guidance on the Use of MOBILE6.2 for Emission Inventory Preparation”; and a list of Frequently Asked Questions about MOBILE6.2. EPA will continue to update this Web site in the future as other MOBILE6.2 support materials are developed.

Individuals who wish to receive EPA announcements related to the MOBILE model should subscribe to the EPA-MOBILENEWS e-mail listserver. To subscribe to the EPA-MOBILENEWS listserver, write the following in the body of the e-mail message:

subscribe EPA-MOBILENEWS FIRSTNAME LASTNAME where FIRSTNAME and LASTNAME is your name (for example: John Smith) and send the e-mail to the EPA Listserver at listserver@unixmail.ripsc.epa.gov.

Your e-mail address will then be added to the list of subscribers and a confirmation message will be sent to your e-mail address. Whenever a message is posted to the EPA-MOBILENEWS listserver by the listserver owner (the Assessment and Standards Division of the EPA Office of Transportation and Air Quality), a copy of that message will be sent to every person who has subscribed.

You can remove yourself from the list by sending another message to the listserver address. This message must be sent from the same e-mail address that you used to subscribe, and should contain the message: unsubscribe EPA-MOBILENEWS.


I. What Is MOBILE6.2 and How Is It Different From MOBILE6?

MOBILE is an EPA emissions factor model for estimating pollution from on-road motor vehicles in states outside of California. The model accounts for the emission impacts of factors such as changes in vehicle emission standards, changes in vehicle populations and activity, and variation in local conditions such as temperature, humidity, fuel quality, and air quality programs.

MOBILE is used to calculate current and future inventories of motor vehicle emissions at the national and local level. These inventories are used to make decisions about air pollution policies and programs at the local, state and national level. Inventories based on MOBILE are also used to meet the federal Clean Air Act’s state implementation plan (SIP) and transportation conformity requirements.

The previous version of MOBILE, known as MOBILE6, calculated emissions of volatile organic compounds (VOCs), nitrogen oxides (NOx) and carbon monoxide (CO) from passenger cars, motorcycles, buses, and light-duty and heavy-duty trucks. MOBILE6.2 is an update to MOBILE6 which adds the capability to estimate direct particulate matter (PM) emission factors for PM10 and PM2.5, and emission factors for particulate precursors, to the original MOBILE6 model. In other words, MOBILE6.2 allows the estimation of emission factors for HC (and air toxics), NOX, CO, gaseous SO2, ammonia, and direct PM from vehicle exhaust and brake and tire wear. MOBILE6.2 also corrects some minor coding errors in the portion of the model code that estimates HC, NOX, and CO emission factors, and it adds the capability of entering hourly relative humidity values. MOBILE6.2 also incorporates some revisions to CO emission factors for cars and light-duty trucks that meet national low emission vehicle (NLEV), low emission vehicle (LEV), and Tier 2 vehicle standards.
Functionally, MOBILE6.2 now replaces MOBILE6 as the highway vehicle emission factor model that EPA will maintain and support.

II. What Is the Impact of MOBILE6.2 on Ozone and CO SIPs and Conformity Determinations?

Although MOBILE6.2 includes some corrections and enhancements to parts of the model that estimate emissions of HC, NOx, and CO, the impact of these changes is generally small. Even though MOBILE6.2 is very similar to MOBILE6 for these pollutants, states and local agencies outside of California should use MOBILE6.2 for future HC, NOx, and CO SIPs and conformity analyses in order to take full advantage of the improvements incorporated in this version. SIPs and conformity analyses already in progress with MOBILE6 can be completed using MOBILE6 as determined through the interagency consultation process. Because the changes in HC, NOx, and CO emissions in MOBILE6.2 are generally very small, the release of MOBILE6.2 does not start a new grace period before MOBILE6.2 is required to be used for all new transportation conformity analyses in ozone or CO nonattainment or maintenance areas and it does not trigger the need for any new ozone or CO SIP revisions.

III. What Are the December 2003 AP–42 Methods?

Motor vehicle emissions inventories for PM are comprised of four components: exhaust emissions, emissions from tire wear, emissions from brake wear, emissions from tire wear, and re-entrained road dust. MOBILE6.2 does not include the capability of estimating the emissions of re-entrained road dust as the result of motor vehicle activity. EPA has developed separate revised AP–42 methodologies for estimating re-entrained road dust from paved and unpaved roads. These new methods for estimating road dust emission factors for paved and unpaved roads are being incorporated in EPA’s document AP–42. These new AP–42 methodologies (AP–42, Sections 13.2.1, Paved Roads and 13.2.2, Unpaved Roads, each dated December 2003) replace previous methods for estimating re-entrained road dust emissions for these categories with some limitations. AP–42 is the approved method only for situations for which silt loading, mean vehicle weight, and mean vehicle speed fall within ranges given in AP–42 section 13.2.1.3 and with reasonably free-flowing traffic. For other conditions, areas may use an appropriate method approved by EPA on a case-by-case basis. In some areas, alternate methods may be more appropriate than AP–42 given specific local conditions even within the parameters given in AP–42 section 13.2.1.3. State and local agencies should consult with EPA for approval of alternative approaches. This policy is described in more detail in the document “Policy Guidance on the Use of MOBILE6.2 and the December 2003 AP–42 Method for Re-Entrained Road Dust for SIP Development and Transportation Conformity” (available at http://www.epa.gov/otaq/models/mob6/mob6.2_letter.pdf). The following discussion of the use of AP–42 in SIPs and conformity determinations also applies to approved alternatives to AP–42.

IV. PM10 SIP Policy for MOBILE6.2 and AP–42

EPA has articulated its policy regarding the use of MOBILE6.2 and AP–42 in PM10 SIP development in its “Policy Guidance on the Use of MOBILE6.2 and the December 2003 AP–42 Method for Re-Entrained Road Dust for SIP Development and Transportation Conformity.” Today’s action highlights certain aspects of the guidance, but state and local governments should refer to the guidance for more detailed information on how and when to use MOBILE6.2 and AP–42 in attainment and maintenance PM10 SIPs, inventory updates, and other PM10 SIP submission requirements. See Availability of Related SIP Policies to obtain the MOBILE6.2 and AP–42 policy guidance. PM10 SIPs that EPA has already approved are not typically required to be reviewed again now that EPA has approved MOBILE6.2 and AP–42. Although MOBILE6.2 and AP–42 should be used in new PM10 SIP development as expeditiously as possible, EPA also recognizes the time and level of effort that States have already undertaken in PM10 SIP development with previous models or methods. States that have already submitted PM10 SIPs or will submit PM10 SIPs shortly after EPA’s approval of MOBILE6.2 and AP–42 are not required to revise these SIPs simply because a new motor vehicle emissions model is now available. States can choose to use MOBILE6.2 in these SIPs, for example, if it is determined that future conformity determinations would be ensured through such a SIP revision. However, EPA does not believe that a State’s use of an earlier model such as PART5 should be an obstacle to EPA approval for SIPs that have been or will soon be submitted, assuming that such SIPs are otherwise approvable and significant SIP work has already occurred (e.g., attainment modeling for an attainment SIP has already been completed with an earlier model). It would be unreasonable to require States to revise these SIPs with MOBILE6.2 and AP–42 since significant work has already occurred, and EPA intends to act on these SIPs in a timely manner.

States should use MOBILE6.2 and AP–42 where PM10 SIP development is in its initial stages or hasn’t progressed far enough along that switching to MOBILE6.2 and AP–42 would create a significantly adverse impact on State resources. For example, PM10 SIPs that will be submitted late in 2004 should be based on MOBILE6.2 and AP–42 since there is adequate time to incorporate the new model’s results. MOBILE6.2 and AP–42 should be incorporated into these SIPs since emissions estimates in these models are based on the best information currently available, as required by Clean Air Act section 172(c)(3) and 40 CFR 51.112(a)(1).

V. PM10 Transportation Conformity Policy for MOBILE6.2 and AP–42

Transportation conformity is a Clean Air Act requirement to ensure that federally supported highway and transit activities are consistent with (“conform to”) the SIP. Conformity to a SIP means that a transportation activity will not cause or contribute to new air pollution violations; worsen existing violations; or delay timely attainment of federal air quality standards. The transportation conformity rule (40 CFR part 93) requires that conformity analyses be based on the latest motor vehicle emissions model approved by EPA. Section 176(c)(1) of the Clean Air Act states that “* * * [t]he determination of conformity shall be based on the most recent estimates of emissions, and such estimates shall be determined from the most recent population, employment, travel, and congestion estimates * * *.” When we approve new emissions models such as MOBILE6.2 and AP–42, a grace period is established before the models are required for conformity analyses. The conformity rule provides for a grace period for new emissions models of between 3–24 months.

EPA articulated its intentions for establishing the length of a conformity grace period in the preamble to the 1993 transportation conformity rule (58 FR 62211):

“EPA and [the Department of Transportation (DOT)] will consider extending the grace period if the effects of the new emissions model are so significant that previous SIP demonstrations of what emission levels are consistent with attainment would be substantially affected. In such cases, States should have an
opportunity to revise their SIPs before MPOs must use the model’s new emissions factors.

In consultation with the DOT, EPA is establishing a 2-year grace period, which begins today and ends on May 19, 2006, before MOBILE6.2 and AP–42 are required for new PM\textsubscript{10} conformity analyses in most cases. During this grace period, areas should use the interagency consultation process to examine how MOBILE6.2 and AP–42 will affect their future conformity determinations. However, the grace period will be shorter than 2 years for PM\textsubscript{10} if an area revises its SIP and budgets with MOBILE6.2 and AP–42 and such budgets become applicable for conformity purposes prior to the end of the 2-year grace period. For example, if an area revises a previously submitted (but not approved) PART5-based PM\textsubscript{10} SIP with MOBILE6.2 and AP–42 and EPA finds the revised budgets adequate for conformity, such budgets would apply for conformity on the effective date of the Federal Register notice announcing EPA’s adequacy finding.

During the grace period, areas can use earlier models such as PART5 for PM\textsubscript{10} conformity determinations or choose to use MOBILE6.2 and AP–42 on a faster time frame. When the grace period ends on May 19, 2006, MOBILE6.2 will become the only approved motor vehicle emissions model for new PM\textsubscript{10} transportation conformity analyses outside of California and AP–42 will become the approved method for estimating re-entrained road dust unless an alternate method is approved as described in section III above. In general, this means that all new PM\textsubscript{10} conformity analyses started after the end of the 2-year grace period must be based on MOBILE6.2 and AP–42, even if the SIP is based on PART5. As discussed above, the grace period for new conformity analyses would be shorter for PM\textsubscript{10} if an area revises its SIP and budgets with MOBILE6.2 and AP–42 and such budgets became applicable for conformity purposes prior to the end of the 2-year grace period. EPA strongly encourages areas to use the consultation process to examine how MOBILE6.2 and AP–42 will affect future conformity determinations, so, if necessary, PM\textsubscript{10} SIPs and budgets can be revised with MOBILE6.2 and AP–42 or transportation plans and programs can be revised as appropriate prior to the end of the grace period.

Finally, the conformity rule provides some flexibility for analyses that are started before or during the grace period. Regional conformity analyses that began before the end of the grace period may continue to rely on earlier models such as PART5. Conformity determinations for transportation projects may also be based on an earlier model if the regional analysis was begun before the end of the grace period, and if the final environmental document for the project is issued no more than three years after the issuance of the draft environmental document (see 40 CFR 93.111(c)). The interagency consultation process should be used if it is unclear whether an analysis based on an earlier model was begun before the end of the grace period.

The release of MOBILE6.2 and AP–42 does not trigger the need for quantitative conformity hot-spot modeling to estimate concentrations of PM\textsubscript{10} at this time. However, qualitative hot spot analyses are still required in PM\textsubscript{10} nonattainment and maintenance areas.

VI. PM\textsubscript{2.5} SIP and Transportation Conformity Policy for MOBILE6.2 and AP–42

EPA has not yet finalized implementation policy for the PM\textsubscript{2.5} National Ambient Air Quality Standards (NAAQS). However, when that policy is finalized and PM\textsubscript{2.5} nonattainment areas have been designated, MOBILE6.2 (except in California) and AP–42 (except in areas where another dust methodology has been approved) will be the approved models for estimating motor vehicle exhaust, brake and tire wear, and re-entrained road dust emissions in PM\textsubscript{2.5} SIPs and conformity determinations, until they are replaced by newer models or methods. No PM\textsubscript{2.5} SIPs have previously been done using other models and therefore, the release of MOBILE6.2 and AP–42 does not constitute a change in models which might result in inconsistencies between the SIP and transportation analyses. As a result, there is no need for a PM\textsubscript{2.5} conformity grace period for MOBILE6.2 and AP–42. MOBILE6.2 (except in California) and AP–42 (except in areas where another dust methodology has been approved) must be used in all PM\textsubscript{2.5} conformity analyses, until they are replaced by newer approved methods or models.