

Procedures for determining regional transportation-related emissions.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions referenced in this rule, see the last paragraph of rule 3745-101-02 of the Administrative Code titled "Incorporation by reference."]

(A) General requirements.

- (1) The regional emissions analysis required by 40 CFR 93.118 and 40 CFR 93.119 for the transportation plan, TIP, or project not from a conforming plan and TIP must include all regionally significant projects expected in the nonattainment or maintenance area. The analysis must include FHWA/FTA projects proposed in the transportation plan and TIP and all other regionally significant projects which are disclosed to the MPO as required by 40 CFR 93.105. Projects which are not regionally significant are not required to be explicitly modeled, but vehicle miles traveled (VMT) from such projects must be estimated in accordance with reasonable professional practice. The effects of TCMs and similar projects that are not regionally significant may also be estimated in accordance with reasonable professional practice.
- (2) The emissions analysis may not include for emissions reduction credit any TCMs or other measures in the applicable implementation plan which have been delayed beyond the scheduled date(s) until such time as their implementation has been assured. If the measure has been partially implemented and it can be demonstrated that it is providing quantifiable emission reduction benefits, the emissions analysis may include that emissions reduction credit.
- (3) Emissions reduction credit from projects, programs, or activities which require a regulatory action in order to be implemented may not be included in the emissions analysis unless:
 - (a) The regulatory action is already adopted by the enforcing jurisdiction;
 - (b) The project, program, or activity is included in the applicable implementation plan;
 - (c) The control strategy implementation plan submission or maintenance plan submission that establishes the motor vehicle emissions budget(s) for the purposes of 40 CFR 93.118 contains a written commitment to the project, program, or activity by the agency with authority to implement it; or
 - (d) USEPA has approved an opt-in to a federally enforced program, USEPA has promulgated the program (if the control program is a federal responsibility,

such as vehicle tailpipe standards), or the CAA requires the program without need for individual state action and without any discretionary authority for USEPA to set its stringency, delay its effective date, or not implement the program.

- (4) Emissions reduction credit from control measures that are not included in the transportation plan and TIP and that do not require a regulatory action in order to be implemented may not be included in the emissions analysis unless the conformity determination includes written commitments to implementation from the appropriate entities.
 - (a) Persons or entities voluntarily committing to control measures must comply with the obligations of such commitments.
 - (b) The conformity implementation plan revision required in 40 CFR 51.390 must provide that written commitments to control measures that are not included in the transportation plan and TIP must be obtained prior to a conformity determination and that such commitments must be fulfilled.
 - (5) A regional emissions analysis for the purpose of satisfying the requirements of 40 CFR 93.119 must make the same assumptions in both the "baseline" and "action" scenarios regarding control measures that are external to the transportation system itself, such as vehicle tailpipe or evaporative emission standards, limits on gasoline volatility, vehicle inspection and maintenance programs, and oxygenated or reformulated gasoline or diesel fuel.
 - (6) The ambient temperatures used for the regional emissions analysis must be consistent with those used to establish the emissions budget in the applicable implementation plan. All other factors, for example the fraction of travel in a hot stabilized engine mode, must be consistent with the applicable implementation plan, unless modified after interagency consultation according to 40 CFR 93.105(C)(1)(i) to incorporate additional or more geographically specific information or represent a logically estimated trend in such factors beyond the period considered in the applicable implementation plan.
 - (7) Reasonable methods must be used to estimate nonattainment or maintenance area VMT on off-network roadways within the urban transportation planning area, and on roadways outside the urban transportation planning area.
- (B) Regional emissions analysis in serious, severe, and extreme ozone nonattainment areas and serious CO nonattainment areas must meet the requirements of paragraphs (B)(1) to (B)(3) of this rule if their metropolitan planning area contains an urbanized area population over two hundred thousand.
- (1) Estimates of regional transportation-related emissions used to support conformity determinations must be made at a minimum using network-based travel models

according to procedures and methods that are available and in practice and supported by current and available documentation. These procedures, methods, and practices are available from DOT and will be updated periodically.

Agencies must discuss these modeling procedures and practices through the interagency consultation process, as required by 40 CFR 93.105. Network-based travel models must at a minimum satisfy the following requirements:

- (a) Network-based travel models must be validated against observed counts (peak and off-peak, if possible) for a base year that is not more than ten years prior to the date of the conformity determination. Model forecasts must be analyzed for reasonableness and compared to historical trends and other factors, and the results must be documented;
 - (b) Land use, population, employment, and other network-based travel model assumptions must be documented and based on the best available information;
 - (c) Scenarios of land development and use must be consistent with the future transportation system alternatives for which emissions are being estimated. The distribution of employment and residences for different transportation options must be reasonable;
 - (d) A capacity-sensitive assignment methodology must be used, and emissions estimates must be based on a methodology which differentiates between peak and off-peak link volumes and speeds and uses speeds based on final assigned volumes;
 - (e) Zone-to-zone travel impedances used to distribute trips between origin and destination pairs must be in reasonable agreement with the travel times that are estimated from final assigned traffic volumes. Where use of transit currently is anticipated to be a significant factor in satisfying transportation demand, these times should also be used for modeling mode splits; and
 - (f) Network-based travel models must be reasonably sensitive to changes in the time(s), cost(s), and other factors affecting travel choices.
- (2) Reasonable methods in accordance with good practice must be used to estimate traffic speeds and delays in a manner that is sensitive to the estimated volume of travel on each roadway segment represented in the network-based travel model.
 - (3) Highway performance monitoring system (HPMS) estimates of vehicle miles traveled (VMT) must be considered the primary measure of VMT within the portion of the nonattainment or maintenance area and for the functional classes of roadways included in HPMS, for urban areas which are sampled on a separate urban area basis. For areas with network-based travel models, a factor (or

factors) may be developed to reconcile and calibrate the network-based travel model estimates of VMT in the base year of its validation to the HPMS estimates for the same period. These factors may then be applied to model estimates of future VMT. In this factoring process, consideration will be given to differences between HPMS and network-based travel models, such as differences in the facility coverage of the HPMS and the modeled network description. Locally developed count-based programs and other departures from these procedures are permitted subject to the interagency consultation procedures of 40 CFR 93.105(c)(1)(i).

- (C) Two-year grace period for regional emissions analysis requirements in certain ozone and CO areas. The requirements of paragraph (B) of this rule apply to such areas or portions of such areas that have not previously been required to meet these requirements for any existing NAAQS two years from the following:
- (1) The effective date of USEPA's reclassification of an ozone or CO nonattainment area that has an urbanized area population greater than two hundred thousand to serious or above;
 - (2) The official notice by the United States census bureau that determines the urbanized area population of a serious or above ozone or CO nonattainment area to be greater than two hundred thousand; or
 - (3) The effective date of USEPA's action that classifies newly designated ozone or CO nonattainment area population greater than two hundred thousand as serious or above.
- (D) In all areas not otherwise subject to paragraph (B) of this rule, regional emissions analyses must use those procedures described in paragraph (B) of this rule if the use of those procedures has been the previous practice of the MPO. Otherwise, areas not subject to paragraph (B) of this rule may estimate regional emissions using any appropriate methods that account for VMT growth by, for example, extrapolating historical VMT or projecting future VMT by considering growth in population and historical growth trends for VMT per person. These methods must also consider future economic activity, transit alternatives, and transportation system policies.
- (E) PM₁₀ from construction-related fugitive dust.
- (1) For areas in which the implementation plan does not identify construction-related fugitive PM₁₀ as a contributor to the nonattainment problem, the fugitive PM₁₀ emissions associated with highway and transit project construction are not required to be considered in the regional emissions analysis.
 - (2) In PM₁₀ nonattainment and maintenance areas with implementation plans which identify construction-related fugitive PM₁₀ as a contributor to the nonattainment problem, the regional PM₁₀ emissions analysis must consider construction-

related fugitive PM_{10} and must account for the level of construction activity, the fugitive PM_{10} control measures in the applicable implementation plan, and the dust-producing capacity of the proposed activities.

(F) $PM_{2.5}$ from construction-related fugitive dust.

- (1) For $PM_{2.5}$ areas in which the implementation plan does not identify construction-related fugitive $PM_{2.5}$ as a significant contributor to the nonattainment problem, the fugitive $PM_{2.5}$ emissions associated with highway and transit project construction are not required to be considered in the regional emissions analysis.
- (2) In $PM_{2.5}$ nonattainment and maintenance areas with implementation plans which identify construction-related fugitive $PM_{2.5}$ as a significant contributor to the nonattainment problem, the regional $PM_{2.5}$ emissions analysis shall consider construction-related fugitive $PM_{2.5}$ and shall account for the level of construction activity, the fugitive $PM_{2.5}$ control measures in the applicable implementation plan, and the dust-producing capacity of the proposed activities.

(G) Reliance on previous regional emissions analysis.

- (1) Conformity determinations for a new transportation plan and/or TIP may be demonstrated to satisfy the requirements of 40 CFR 93.118 "Criteria and procedures: Motor vehicle emissions budget" or 40 CFR 93.119 "Criteria and procedures: Interim emissions in areas without motor vehicle emissions budgets" without new regional emissions analysis if the regional emissions analysis already performed for the plan also applies to the TIP. This requires a demonstration that:
 - (a) The new plan and/or TIP contain all projects which must be started in the plan and TIP's timeframes in order to achieve the highway and transit system envisioned by the transportation plan;
 - (b) All plan and TIP projects which are regionally significant are included in the transportation plan with design concept and scope adequate to determine their contribution to the transportation plan's regional emissions at the time of the transportation plan's conformity determination;
 - (c) The design concept and scope of each regionally significant project in the new plan and/or TIP are not significantly different from that described in the transportation plan; and
 - (d) The previous regional emissions analysis is consistent with the requirements of 40 CFR 93.118 (including that conformity to all currently applicable budgets is demonstrated) and/or 40 CFR 93.119 as applicable.

- (2) A project which is not from a conforming transportation plan and a conforming TIP may be demonstrated to satisfy the requirements of 40 CFR 93.118 or 40 CFR 93.119 without additional regional emissions analysis if allocating funds to the project will not delay the implementation of projects in the transportation plan or TIP which are necessary to achieve the highway and transit system envisioned by the transportation plan, and if the project is either:
 - (a) Not regionally significant; or
 - (b) Included in the conforming transportation plan (even if it is not specifically included in the latest conforming TIP) with design concept and scope adequate to determine its contribution to the transportation plan's regional emissions at the time of the transportation plan's conformity determination, and the design concept and scope of the project is not significantly different from that described in the transportation plan.
- (3) A conformity determination that relies on paragraph (G) of this rule does not satisfy the frequency requirements of paragraph (J) or (K) of rule 3745-101-03 of the Administrative Code.

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