§ 93.122 Procedures for determining regional transportation-related emissions.

(a) General requirements. (1) The regional emissions analysis required by §§93.118 and 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, and the project’s design concept and scope has not changed significantly; or

(2) A new regional emissions analysis including the project and all other regionally significant projects expected in the nonattainment or maintenance area demonstrates that those projects in the statewide transportation plan and statewide TIP which are in the nonattainment or maintenance area would still conform if the project were implemented (consistent with the requirements of §§93.118 and/or 93.119 for projects not from a conforming transportation plan and TIP).

(c) Notwithstanding paragraphs (a) and (b) of this section, in nonattainment and maintenance areas subject to §93.109(l) or (m) for a given pollutant/precursor and NAAQS, no recipient of Federal funds designated under title 23 U.S.C. or the Federal Transit Laws shall adopt or approve a regionally significant highway or transit project, regardless of funding source, unless the recipient finds that the requirements of one of the following are met for that pollutant/precursor and NAAQS:

(1) The project was included in the most recent conformity determination for the transportation plan and TIP and the project’s design concept and scope has not changed significantly; or

(2) The project was included in the most recent conformity determination that reflects the portion of the statewide transportation plan and statewide TIP which are in the nonattainment or maintenance area, and the project’s design concept and scope has not changed significantly.

(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:

(i) The regulatory action is already adopted by the enforcing jurisdiction;
(ii) The project, program, or activity is included in the applicable implementation plan;
(iii) The control strategy implementation plan submission or maintenance plan submission that establishes the motor vehicle emissions budget(s) for the purposes of §93.118 contains a written commitment to the project, program, or activity by the agency with authority to implement it; or
(iv) EPA has approved an opt-in to a Federally enforced program, EPA has promulgated the program (if the control program is a Federal responsibility, such as vehicle tailpipe standards), or the Clean Air Act requires the program without need for individual State action and without any discretionary authority for EPA 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.

(i) Persons or entities voluntarily committing to control measures must comply with the obligations of such commitments.
(ii) The conformity implementation plan revision required in §51.390 of this chapter 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 §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 shall 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 §93.105(c)(1)(i) to incorporate additional or more graphically specific information or represent a logically estimated trend in such factors beyond the period considered in the applicable implementation plan.

(7) Reasonable methods shall 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) through (3) of this section if their metropolitan planning area contains an urbanized area population over 200,000.

(1) By January 1, 1997, 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 §93.105(c)(1)(i). Network-based travel models must at a minimum satisfy the following requirements:

(i) 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 10 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;

(ii) Land use, population, employment, and other network-based travel model assumptions must be documented and based on the best available information;

(iii) 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;

(iv) 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;

(v) 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

(vi) 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) shall 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 §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 section 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 EPA’s recategorization of an ozone or CO nonattainment area that has an urbanized area population greater than 200,000 to serious or above;

(2) The official notice by the Census Bureau that determines the urbanized area population of a serious or above ozone or CO nonattainment area to be greater than 200,000; or,

(3) The effective date of EPA’s action that classifies a newly designated ozone or CO nonattainment area that has an urbanized area population greater than 200,000 as serious or above.

(d) In all areas not otherwise subject to paragraph (b) of this section, regional emissions analyses must use those procedures described in paragraph (b) of this section if the use of those procedures has been the previous practice of the MPO. Otherwise, areas
not subject to paragraph (b) of this section 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) **PM\(_{10}\)** from construction-related fugitive dust. (1) For areas in which the implementation plan does not identify construction-related fugitive \(\text{PM}_{10}\) as a contributor to the nonattainment problem, the fugitive \(\text{PM}_{10}\) emissions associated with highway and transit project construction are not required to be considered in the regional emissions analysis.

(2) In \(\text{PM}_{10}\) nonattainment and maintenance areas with implementation plans which identify construction-related fugitive \(\text{PM}_{10}\) as a contributor to the nonattainment problem, the regional \(\text{PM}_{10}\) emissions analysis shall consider construction-related fugitive \(\text{PM}_{10}\) and shall account for the level of construction activity, the fugitive \(\text{PM}_{10}\) 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 \(\text{PM}_{2.5}\) areas in which the implementation plan does not identify construction-related fugitive \(\text{PM}_{2.5}\) as a significant contributor to the nonattainment problem, the fugitive \(\text{PM}_{2.5}\) emissions associated with highway and transit project construction are not required to be considered in the regional emissions analysis.

(2) In \(\text{PM}_{2.5}\) nonattainment and maintenance areas with implementation plans which identify construction-related fugitive \(\text{PM}_{2.5}\) as a significant contributor to the nonattainment problem, the regional \(\text{PM}_{2.5}\) emissions analysis shall consider construction-related fugitive \(\text{PM}_{2.5}\) and shall account for the level of construction activity, the fugitive \(\text{PM}_{2.5}\) 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 §§93.118 ("Motor vehicle emissions budget") or 93.119 ("Interim emissions in areas without motor vehicle emissions budgets") without new regional emissions analysis if the previous regional emissions analysis also applies to the new plan and/or TIP. This requires a demonstration that:

(i) 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;

(ii) 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 and/or TIP’s regional emissions at the time of the previous conformity determination;

(iii) 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 previous transportation plan; and

(iv) The previous regional emissions analysis is consistent with the requirements of §§93.118 (including that conformity to all currently applicable budgets is demonstrated) and/or 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 §§93.118 or §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, the previous regional emissions analysis is still consistent with the requirements of §§93.118 (including that conformity to all currently applicable budgets is demonstrated) and/or §93.119, as applicable, and if the project is either:

(i) Not regionally significant; or
§ 93.123 Procedures for determining localized CO, PM₁₀, and PM₂.₅ concentrations (hot-spot analysis).

(a) CO hot-spot analysis. (1) The demonstrations required by §93.116 ("Localized CO, PM₁₀, and PM₂.₅ violations") must be based on quantitative analysis using the applicable air quality models, data bases, and other requirements specified in 40 CFR part 51, Appendix W (Guideline on Air Quality Models). These procedures shall be used in the following cases, unless different procedures developed through the interagency consultation process required in §93.105 and approved by the EPA Regional Administrator are used:
   (i) For projects in or affecting locations, areas, or categories of sites which are identified in the applicable implementation plan as sites of violation or possible violation;
   (ii) For projects affecting intersections that are at Level-of-Service D, E, or F, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes related to the project;
   (iii) For any project affecting one or more of the top three intersections in the nonattainment or maintenance area with highest traffic volumes, as identified in the applicable implementation plan; and
   (iv) For any project affecting one or more of the top three intersections in the nonattainment or maintenance area with the worst level of service, as identified in the applicable implementation plan.

(b) PM₁₀ and PM₂.₅ hot-spot analyses. (1) The hot-spot demonstration required by §93.116 must be based on quantitative analysis methods for the following types of projects:
   (i) New highway projects that have a significant number of diesel vehicles, and expanded highway projects that have a significant increase in the number of diesel vehicles;
   (ii) Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles;
   (iii) New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;
   (iv) Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and
   (v) Projects in or affecting locations, areas, or categories of sites which are identified in the PM₁₀ or PM₂.₅ applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.