

Demonstration Requirements of the “Action/Baseline” Test

This explains the steps necessary to perform the “Action/Baseline” Test, better known as the “Build/No-Build” referenced in 40 CFR 93.119. As a starting point it is best to review the appropriate regulatory section governing the “Action/Baseline” Test.

Step 1. Obtain a copy of the Transportation Conformity regulations. August 15, 1997 Federal Register, Vol. 62, No. 158, pages 43780 to 43818.

Step 2. Review the regulatory requirements.

§ 93.119 Criteria and procedures: Emission reductions in areas without motor vehicle emissions budgets.

(a) The transportation plan, TIP, and project not from a conforming transportation plan and TIP must contribute to emissions reductions. This criterion applies as described in § 93.109(c) through (g). It applies to the net effect of the action (transportation plan, TIP, or project not from a conforming transportation plan and TIP) on motor vehicle emissions from the entire transportation system.

(b) This criterion may be met in moderate and above ozone nonattainment areas that are subject to the reasonable further progress requirements of CAA section 182(b)(1) and in moderate with design value greater than 12.7 ppm and serious CO nonattainment areas if a regional emissions analysis that satisfies the requirements of § 93.122 and paragraphs (e) through (h) of this section demonstrates that for each analysis year and for each of the pollutants described in paragraph (d) of this section: (1) The emissions predicted in the “Action” scenario are less than the emissions predicted in the “Baseline” scenario, and this can be reasonably expected to be true in the periods between the analysis years; and (2) The emissions predicted in the “Action” scenario are lower than 1990 emissions by any nonzero amount.

(c) This criterion may be met in PM₁₀ and NO₂ nonattainment areas; marginal and below ozone nonattainment areas and other ozone nonattainment areas that are not subject to the reasonable further progress requirements of CAA section 182(b)(1); and moderate with design value less than 12.7 ppm and below CO nonattainment areas if a regional emissions analysis that satisfies the requirements of § 93.122 and paragraphs (e) through (h) of this section demonstrates that for each analysis year and for each of the pollutants described in paragraph (d) of this section, one of the following requirements is met: (1) The emissions predicted in the “Action” scenario are less than the emissions predicted in the “Baseline” scenario, and this can be reasonably expected to be true in the periods between the analysis years; or (2) The emissions predicted in the “Action” scenario are not greater than baseline emissions. Baseline emissions are those estimated to have occurred during calendar year 1990, unless the conformity implementation plan revision required by § 51.390 of this chapter defines the baseline emissions for a PM₁₀ area to be those occurring in a different calendar year for which a baseline emissions inventory was developed for the purpose of developing a control strategy implementation plan.

(d) Pollutants. The regional emissions analysis must be performed for the following pollutants: (1) VOC in ozone areas; (2) NO_x in ozone areas, unless the EPA Administrator determines that additional reductions of NO_x would not contribute to attainment; (3) CO in CO areas; (4) PM₁₀ in PM₁₀ areas; (5) Transportation-related precursors of PM₁₀ in PM₁₀ nonattainment and maintenance areas if the EPA Regional Administrator or the director of the State air agency has made a finding that such precursor emissions from within the area are a significant contributor to the PM₁₀ nonattainment problem and has so notified the MPO and DOT; and (6) NO_x in NO₂ areas.

(e) Analysis years. The regional emissions analysis must be performed for analysis years that are no more than ten years apart. The first analysis year must be no more than five years beyond the year in which the conformity determination is being made. The last year of transportation plan’s forecast period must also be an analysis year.

(f) “Baseline” scenario. The regional emissions analysis required by paragraphs (b) and (c) of this section must estimate the emissions that would result from the “Baseline” scenario in each analysis year. The “Baseline” scenario must be defined for each of the analysis years. The “Baseline” scenario is the future transportation system that will result from current programs, including the following (except that exempt projects listed in § 93.126 and projects exempt from regional emissions analysis as listed in § 93.127 need not be explicitly considered): (1) All in-place regionally significant highway and transit facilities, services and activities; (2) All ongoing travel demand management or transportation system management activities; and (3) Completion of all regionally significant

projects, regardless of funding source, which are currently under construction or are undergoing right-of-way acquisition (except for hardship acquisition and protective buying); come from the first year of the previously conforming transportation plan and/or TIP; or have completed the NEPA process.

(g) "Action" scenario. The regional emissions analysis required by paragraphs (b) and (c) of this section must estimate the emissions that would result from the "Action" scenario in each analysis year. The "Action" scenario must be defined for each of the analysis years. The "Action" scenario is the transportation system that would result from the implementation of the proposed action (transportation plan, TIP, or project not from a conforming transportation plan and TIP) and all other expected regionally significant projects in the nonattainment area. The "Action" scenario must include the following (except that exempt projects listed in § 93.126 and projects exempt from regional emissions analysis as listed in § 93.127 need not be explicitly considered): (1) All facilities, services, and activities in the "Baseline" scenario; (2) Completion of all TCMs and regionally significant projects (including facilities, services, and activities) specifically identified in the proposed transportation plan which will be operational or in effect in the analysis year, except that regulatory TCMs may not be assumed to begin at a future time unless the regulation is already adopted by the enforcing jurisdiction or the TCM is identified in the applicable implementation plan; (3) All travel demand management programs and transportation system management activities known to the MPO, but not included in the applicable implementation plan or utilizing any Federal funding or approval, which have been fully adopted and/or funded by the enforcing jurisdiction or sponsoring agency since the last conformity determination; (4) The incremental effects of any travel demand management programs and transportation system management activities known to the MPO, but not included in the applicable implementation plan or utilizing any Federal funding or approval, which were adopted and/or funded prior to the date of the last conformity determination, but which have been modified since then to be more stringent or effective; (5) Completion of all expected regionally significant highway and transit projects which are not from a conforming transportation plan and TIP; and (6) Completion of all expected regionally significant non-FHWA/FTA highway and transit projects that have clear funding sources and commitments leading toward their implementation and completion by the analysis year.

(h) Projects not from a conforming transportation plan and TIP. For the regional emissions analysis required by paragraphs (b) and (c) of this section, if the project which is not from a conforming transportation plan and TIP is a modification of a project currently in the plan or TIP, the 'Baseline' scenario must include the project with its original design concept and scope, and the 'Action' scenario must include the project with its new design concept and scope.

Step 3. What data and resources are necessary to perform an analysis? Make sure the MPO or appropriate agency has the data and resources necessary to perform the test outlined above. Use interagency consultation to decide which data and resources are necessary and valid to facilitate the analysis, i.e., define latest planning assumptions (40 CFR 93.110). Also, describe the highway and transit system defined for the transportation plan according to the requirements of 40 CFR 93.106, including demographic and employment factors, and land use forecasts.

Step 4. What projects will be included in the baseline scenario, refer to (f) above? Use the interagency consultation process to decide which projects from the current TIP and plan would need to be in the baseline scenario. Classify projects - exempt, regionally significant, TCMs.

Step 5. What projects will be included in the action scenario, refer to (g) above? Use the interagency consultation process, some of this would be done by telephone, to decide which projects will be analyzed in the action scenario. Note: The Action scenarios builds on the Baseline scenario. Classify projects - exempt, regionally significant, TCMs.

Step 6. What analysis years will projects fall under, refer to (e) above? Use the interagency consultation process to separate projects into appropriate analysis years. The first analysis year must be no more than 5 years from the current year. Analysis years cannot be more than 10 years apart and must include the last year of the transportation plan. If the attainment year is in the timeframe of the transportation plan, this must be an horizon year (have an emission comparison between the “Action” and “Baseline” scenarios - interpolation may be used).

Step 7. Do any projects need off-model analysis? Decide through interagency consultation if any projects need an off-model analysis and the subsequent methodology.

Step 8. Code highway and transit networks for analysis years.

Step 9. Obtain emission factors for analysis years using latest emissions model.

Step 10. Combine emission factors with VMT projections for analysis years and compare the “Action” years to the “Baseline” years.

Step 11. If the emissions in the “Action” years are less than those in the “Baseline” years the “Action/Baseline” test (build/no-build) has been satisfied.

Step 12. Use the FHWA Checklist to document the conformity analysis report.

Disclaimer: These steps are intended solely as an informal guideline to be used in developing the “Action/Baseline” Test for Transportation Plans and TIPS. It is in no way intended to replace or supercede the Transportation Conformity Regulations 40 CFR Parts 51 and 93, Statewide and Metropolitan Planning Regulations 23 CFR Part 450, or any EPA, FHWA, and FTA guidance pertaining to Transportation Conformity or Statewide and Metropolitan Planning. For further information on the correct use of these steps you may contact:

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