

# AQ

## *Air Quality Conformity Determination and Documentation*

### *Conformity Determination Users Guide for the Inter Agency Consultation Group*

Prepared by:

Inter Agency Consultation Group

and



**EAST-WEST GATEWAY**  
**Council of Governments**

Creating Solutions Across Jurisdictional Boundaries

June 25, 2013

# Conformity Determination Users Guide

June 25, 2013

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## **Acronyms**

**AQAC** – Air Quality Advisory Committee

**AADT** – Average Annual Daily Traffic

**BRT** – Bus Rapid Transit

**CAA** – Clean Air Act as amended in 1990

**CMAQ** – Congestion Mitigation/Air Quality Program

**EPA** – U.S. Environmental Protection Agency

**EWG** – East-West Gateway Council of Governments

**FHWA** – Federal Highway Administration (U.S. Department of Transportation)

**FIP** – Federal Implementation Plan

**FTA** – Federal Transit Administration (U.S. Department of Transportation)

**HPMS** – Highway Performance Monitoring System

**IACG** – Inter Agency Consultation Group

**IDOT** – Illinois Department of Transportation

**Illinois EPA** – Illinois Environmental Protection Agency

**MPO** – Metropolitan Planning Organization (EWG)

**MAP-21** – Moving Ahead for Progress in the 21<sup>st</sup> Century (2012)

**MoDNR** – Missouri Department of Natural Resources

**MoDOT** – Missouri Department of Transportation

**MOVES** – MOrtor Vehicle Emissions Simulator model

**NAAQS** – National Ambient Air Quality Standard

**NEPA** – National Environmental Policy Act of 1969

**NO<sub>x</sub>** – Oxides of Nitrogen

**OTAQ** – Office of Transportation and Air Quality (USEPA)

**PM<sub>2.5</sub>** – Particulate Matter (2.5 micrometers or smaller in diameter)

**RTP** – Regional Long Range Transportation Plan

**SIP** – State Implementation Plan

**STIP** – Statewide Transportation Improvement Plan

**TCM** – Transportation Control Measure

**TIP** – Transportation Improvement Program

**USDOT** – U.S. Department of Transportation

**USEPA** – U.S. Environmental Protection Agency

**VMT** – Vehicle Miles Traveled

**VOC** – Volatile Organic Compounds (May also be referred to as Volatile Organic Material.)

## Guide Purpose

The purpose of this Guide is to provide guidance for Interagency Consultation members in the St. Louis non-attainment and maintenance areas. Interagency consultation requirements are outlined at 40 CFR 93.105, and are a crucial element of the transportation and air quality planning process.

This Guide is to be reviewed and updated as necessary to ensure all new rules and regulations are accessible to Interagency Consultation members. It is the responsibility of members to update the manuals and add local procedures as necessary. **All changes will be discussed and approved at the Interagency Consultation meetings.**

USEPA Original – June 2004

USEPA Update – 2007

EWG Update (contact list only) – 2009

IACG Update – June 25, 2013

## Conformity Determination Process for East-West Gateway Council of Governments (EWG)

### Prepare Transportation Improvement Program (TIP):

**Who** – Transportation Department

**When** – The TIP is prepared annually and covers four years (fiscal year basis). It is a financial and implementation schedule for projects receiving federal transportation funding in the St. Louis metropolitan area. Projects identified in the TIP have been given priorities based on and are consistent with, the region's 20-year long range Regional Transportation Plan (RTP). The RTP is prepared every four years. The TIP will either be amended into the current RTP or developed in conjunction with a new RTP. Projects contained in TIP have also demonstrated reasonable assurance that federal, state and local funds will be available to implement them.

**How** – In **Month 1** a call for local project applications (requesting federal funds) is posted on the East-West Gateway Council of Governments (EWG) website and included in electronic Local Government Briefings document. Projects can request funds from the Surface Transportation Program suballocated (STP-S) or the Congestion Mitigation Air Quality Program (CMAQ). (See CMAQ discussion on page 8.) Project applications and instructions/workbook are then posted on the EWG website. A notice of the availability of these items is also included in the electronic Local Government Briefings document. The Illinois Department of Transportation (IDOT), Missouri Department of Transportation (MoDOT), Metro and Madison County Transit District are requested to submit their proposed projects/program by end of **Month 3**. Programs will not be released to the public without permission from applicable state or transit agency. IDOT submission occurs after the release of transportation projects by Governor.

In **Month 1**, a request for information about transportation projects which will be constructed using only local funding is posted on the EWG home page. This request is also included in Briefings. Information on these non-federally funded projects is due to EWG by the end of **Month 3**.

At the end of **Month 1** or beginning of **Month 2**, TIP Project Development workshops are held for local sponsors (governments). There is a workshop in Missouri and one in Illinois.

At the end of **Month 2** an optional Project Review (Expert Panel) Workshop is held for potential local project sponsors. Potential project sponsors with at least a specific project concept can meet with representatives from IDOT, MoDOT, EWG as well as experts in ADA/accessibility and bicycle and pedestrian elements.

Sponsoring local agencies have until the beginning of **Month 3** to submit final project applications, application fees, signatures and supplemental information.

During **Month 3** EWG staff review and evaluate project applications. During this period work on the draft TIP document will have begun. Also, the conformity determination process will have started. Information on state transportation and transit programs is due as is information on non-federally funded projects. EWG staff will classify all newly submitted projects as either regionally significant (include in the travel demand model and regional emissions analysis for Conformity), not regionally significant but not exempt (include in travel demand model and regional emissions analysis for Conformity) or exempt from regional emissions analysis. The February 2012 Regionally Significant Project Screening Criteria document will be consulted.

During **Month 4**, staff will present the proposed projects to be included in the TIP to the Illinois and Missouri Transportation Planning Committees.

At their meeting in **Month 5**, the East-West Gateway Board of Directors approves the release of the draft of the TIP document and the draft air quality Conformity Determination for public review and comment.

The public comment period will run a minimum of 30 days. The draft TIP will be available on the East-West Gateway web site and a series of open houses will be held throughout the region in **Month 6**.

The Board of Directors will take action on the TIP at their meeting in **Month 7**.

In **Month 7**, the St. Louis area TIP is formally transmitted to IDOT and MoDOT for state approval and inclusion in their respective State TIP and then on to FHWA and FTA for review and approval. The federal transportation partners then request USEPA to review the conformity determination for comment on the finding by EWG.

## **Prepare TIP Amendment(s):**

**Who** – Transportation Department

**When** – Amendment(s) to the currently approved TIP can occur at any time. The internal process to amend the TIP takes approximately one month.

**How** – A project sponsor submits a request to EWG to add a new project or modify a project already in the TIP. Amend the TIP. Such a request results in a TIP amendment.

For Conformity Determination purposes, EWG Transportation staff reviews the request to determine if the new project or project modification would be classified as regionally significant (include in travel demand model and regional emissions analysis for Conformity), not regionally significant but not exempt (include in travel demand model and regional emissions analysis for Conformity) or exempt from regional emissions analysis. A project modification would be considered regionally significant if the completion date of the project was to move across an analysis year of the regional emissions analysis or if there was a change in the project's scope requiring the travel demand model to be rerun and then the Conformity Determination redone. The February 2012 Regionally Significant Project Screening Criteria document will be consulted.

Inter Agency Consultation Group has to concur on the classification. EWG staff prepares and sends a memo describing the project(s) to be included in the amendment, its classification and requesting concurrence from the IACG. A summary of project details is included. The IACG has approximately two weeks to respond back to EWG. No response is considered concurrence with the classification.

At the same time, EWG staff prepares a TIP amendment memo for the EWG Executive Advisory Committee and Board of Directors describing the proposed action and including project summary details. This information is included in the meeting packets. The EAC and Board have opportunity to review information and then act upon the request. Board approval would take place at their meeting at the end of the month. EWG then forwards the TIP amendment to the specific State DOT and request that it be added to the State TIP.

All regionally significant projects cannot be included in the TIP until a Conformity Determination is conducted on the TIP which includes that project. If project is determined to be regionally significant or not regionally significant but not exempt, then the project has to be included in a Conformity Determination (current, Annual or Mid Year).

## **CMAQ Projects**

**Who** – Transportation Department

**When**- Usually in conjunction with development of TIP or an amendment to TIP

**How** – The 2012 Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21) has a Congestion Mitigation and Air Quality Improvement (CMAQ) Program. CMAQ funds can be used for projects in areas not meeting national air quality standards. Program funding is directed toward transportation projects or services having air quality benefits and which will contribute to attainment of national ambient air quality standards, focusing on ozone, particulate matter and carbon monoxide. The development, selection and implementation of CMAQ projects is a process involving agencies at the local, state and federal levels. Interaction, coordination and consultation is required for a project to go from development to implementation.

The CMAQ project solicitation, analysis and selection process/schedule usually occurs as part the TIP development process. Project sponsors are responsible for developing CMAQ project proposals and submitting them to EWG. Project submissions should be completed according to the guidelines in the CMAQ Project Development Workbook. EWG then reviews and evaluates them. All CMAQ funded projects and programs require assessment and documentation of air quality benefits.

After evaluation by EWG, project applications are transmitted to FHWA and FTA for their review and concurrence that the projects are eligible for CMAQ funds. USEPA has a consultative role in the federal agencies' review of CMAQ applications. Once EWG staff, in consultation with the states and citizens of the region, has reviewed, evaluated and ranked the CMAQ candidate projects, the selected projects are included in the draft TIP. CMAQ project information is included in the public participation/engagement activities for the draft TIP.

After the approval of the TIP by OneDOT, projects included therein are eligible to receive federal funds.

## **Conduct Conformity Determinations:**

**Who** – Community Planning Department; Transportation Department; Input of Interagency Consultation Group

**When** – Conformity Determination takes place in conjunction with development of TIP and/or LRTP. It should be noted that Federal regulation requires that Conformity Determinations must be made:

- Each time a new RTP or TIP is adopted;
- Each time a new RTP or TIP is amended, unless the amendment merely adds or deletes exempt projects;
- Within 24 months of the effective date of a USEPA finding that motor vehicle emissions budgets from an initially submitted control strategy SIP or maintenance plan are adequate for Conformity Determination purposes;
- Within 24 months of the effective date of a USEPA approval of a control strategy SIP revision or maintenance plan which establishes or revises a motor vehicle emissions budget if that budget has not yet been used in a conformity determination prior to approval;
- Within 24 months of the effective date of a USEPA promulgation of an implementation plan which establishes or revises a motor vehicle emissions budget;
- Not less frequently than every four years; and
- Within 12 months of a newly designated non-attainment area

**How** – The Inter Agency Consultation Group (IAGC) meets on a regular basis to discuss the following items: Conformity Determination process and timing; federal conformity rule and EPA guidance; date when conformity determination begins; concurrence on regionally significant projects; mobile source emissions model and inputs; and comment periods. Process and consultation occurs at EWG on a year-round basis. Discussions can occur at meetings, by conference call or e-mails. An Annual Conformity Determination takes place at the same time as the development of the Annual TIP. Mid Year Conformity Determination will only take place if a project that is to be part of a TIP amendment is identified as being regionally significant.

**Month 1- Month 3**, at the beginning of Conformity Determination development process (coincides with beginning of TIP process) discussions begin to reach agreement/consensus with fellow consultees on latest planning assumptions and components of Regional Emissions Analysis. The TIP (Annual or Amendment) and conformity determination development (Annual or Mid Year) schedule is described. With information provided by EWG, the IACG is to agree on the date at which the conformity determination is considered to begin. This the date at which the conformity determination begin is considered to be when the travel demand model began to generate data for conformity determination purposes. These discussions can continue through **Month 5** for the Annual Conformity Determination or **Month 3** for the Mid Year. There is discussion/concurrence on the emissions model to be used in the conformity analysis and associated model inputs. The Mid Year Conformity Determination will utilize a shorter time frame (approximately four months).

**Month 1** – Regional emissions analysis components identified by EWG. Regional emissions analysis components presented to IACG for review, comment and concurrence.

**Month 1** – TIP and conformity schedule delineated by EWG. TIP and conformity schedule presented to IACG.

**Month 1- Month 2** – Assumptions for Conformity Determination identified by EWG.

**Month 2** – Assumptions for Conformity Determination presented to IACG for review, comment and concurrence.

**Month 2** – Emissions model input files reviewed and assembled by EWG. Through interagency consultation the emissions modeling methodology has also been updated to reflect the current conditions and parameters needed to run the mobile source vehicle emissions model

**Month 2** – Emissions model input files transmitted to IACG for review, comment and concurrence.

During **Month 3**, EWG staff will classify all newly submitted projects as either regionally significant (include in travel demand model and regional emissions analysis for Conformity), not regionally significant but not exempt (include in travel demand model and regional emissions analysis for Conformity) or exempt from regional emissions analysis. The February 2012 Regionally Significant Project Screening Criteria document will be consulted.

**Month 4** – Table delineating project classification will be transmitted to IACG for review, comment and concurrence. Concurrence is needed only on the classification of projects as: regionally significant; not regionally significant; or exempt from regional emissions analysis. If additional information is needed, complete project applications will be available on the EWG FTP download site. There is a two week review period for IACG. Meeting of IACG can be scheduled for discussion on this, if needed.

**Month 1 – Month 4** – Travel Demand Model is run by EWG. Information on proposed projects, population and employment projections and multi-modal transportation information are used to estimate vehicle travel by analysis years.

Population and employment projections and transportation information are used to forecast emissions by analysis year. The U.S. Environmental Protection Agency's MOtor Vehicle Emissions Simulator (MOVES) model will be used to estimate emissions. MOVES model is run in the emissions rates mode.

Using VMT estimates from the travel demand model and the emission factors from emissions model, regional emissions analysis is performed by EWG.

Draft Conformity Determination and Documentation report is prepared by EWG.

**End of Month 4 – Month 5** – Approximately 30 days before the Draft Conformity Determination is to be released for public comment, EWG transmits the draft to the IACG for a two week preview period. (Adjustments to text can be made, if necessary.)

**Month 5** – EWG presents draft TIP and draft Conformity Determination to EAC and Board of Directors. Board authorizes the release of the draft TIP and Conformity Determination for public review and comment.

**Month 6** – The public comment period for the draft TIP and Conformity Determination runs for a minimum of 30 days and occurs in conjunction with the TIP review and comment period. The drafts are posted on the EWG web site along with information on public engagement opportunities. A series of open house meetings are held around the region at which the public can learn about and comment on these documents. Throughout the comment period, information about the drafts and public engagement activities are reported in EWG's electronic Local Government Briefings. The IACG is informed of the posting of documents and the start and end dates of the public comment period. Substantive comments are addressed and included in the document.

**Month 7** – EWG staff makes presentations to the EAC and Board of Directors. The final Conformity Determination and TIP are adopted by the Board.

**Month 7** – EWG assembles the final Conformity Determination and TIP packets and formally submits them to the state DOTs for approval and inclusion in their respective State TIP and to FHWA and FTA for review and approval. The federal transportation partners then request USEPA to review and comment on the conformity determination finding by EWG.

## **Inter Agency Consultation Group (IACG)**

**Who** – Community Planning Department and Transportation Department

As required by the final rule under section §93.105, the transportation conformity process includes a significant level of cooperative interaction among the many regional, state, and federal agencies in the bi-state non-attainment area.

East-West Gateway (EWG) facilitates and coordinates a peer group, the Inter Agency Consultation Group (IACG) in relation to conformity determination of Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP). The IACG is made up of representatives from: State air agencies; State transportation agencies; USEPA Regions 5 and 7; FHWA Missouri and Illinois Divisions; FTA Region 7; Metro; local air pollution control agencies; and selected local transportation/transit agencies. The intent is to focus on air quality conformity issues. Inline with the requirements under section §93.105, IACG deliberates on issues such as air quality model and method selection, assumptions to be used in hot spot and regional emissions analysis.

The Missouri Transportation Air Quality Conformity Rule forms the operational structure for the Interagency Consultation Group and its activities.

## **Develop and Maintain Travel Data and Models and Socioeconomic Data**

**Who** – Socioeconomic data is developed and maintained by the Research Services Department, Research and Analysis Section of EWG. Travel data sets and demand model are developed and maintained by the Transportation Department, Systems Evaluation Section.

**When** – Future socioeconomic and travel pattern data sets are prepared and evaluated on an ongoing basis. The projections used in the Conformity Determination will be based on those prepared for the most recent RTP. The multi-modal travel demand model continues to be updated and utilizes state-of-the art modeling techniques and the most recent household travel survey and on-board passenger survey data.

**How** – Models are used in a sequence of steps to answer questions about future land use, travel patterns and emissions. The first step in the process is to determine what the future community might look like. To accomplish this, the socioeconomic model produces population and economic forecasts and land use development patterns for a future year. To estimate the travel patterns of this community and its VMT, the population and economic forecasts are input into the travel demand model. The VMT data is then combined with appropriate vehicle type emissions factors generated from the MOVES model (emissions rates mode) to calculate regional vehicle emissions. The projected emissions are then compared to the motor vehicle emissions budgets contained in the respective state's state implementation plans.

For more information the appendices from Conformity Determination and Documentation discuss population and employment forecasts and travel demand modeling procedures, assumptions and forecasts.

### **Population and Employment Forecasts**

Population and employment projections are a key input into the Conformity Determination/regional emissions analysis. These projections are used to determine future travel demand and travel patterns and the effect these will have on mobile source emissions. The population and employment projections used in the regional emissions analysis are based upon those developed for the *Regional Transportation Plan (RTP) 2040*. The projections extend out in ten-year increments to the year 2040 which is the horizon year of the Plan.

The base year for this analysis is 2010. The baseline for population-incorporated population counts is from the 2010 Census. EWG Research Services staff created employment baselines using a blending of sources, including the Census Transportation Planning Package (CTPP), the Longitudinal Employer-Household Dynamics (LEHD) data set and commercial business lists, as well as county and regional employment estimates from the U.S. Bureau of Labor Statistics and the U.S. Bureau of Economic Analysis.

EWG Research Services staff developed population and employment projections at regional, county, and small-area scales. The regional population projection was based on a cohort-survival model. The regional employment projection was developed by consultants at the LEAMGroup,

using a regional input-output model. Regional population and employment projections were then allocated to the county level by the LEAMGroup using a nonlinear dynamic model that draws on historical patterns to project county shares of regional growth. Forecasts were then compared with local plans and county forecasts prepared by state government agencies, with input from local planners.

County-level employment and population projections were allocated to the transportation analysis zone level, which is the disaggregate level of geography used in travel demand forecasting. This was achieved with the Land Use Evolution and Assessment Model (LEAM). Assumptions guiding the allocation model included zonal development attractiveness or probability values, the influence of existing development patterns and development trends, and zonal holding capacity. Aggregate development attractiveness values were derived for each zone via a spatial analysis process which considered distances of 30 meter by 30 meter cells from various spatial interaction factors. The factors considered during this process included employment location, interstate highway interchanges, major highway intersections, bus service, MetroLink service and free-standing communities.

### **Travel Demand Model**

The EWG Systems Evaluation staff is responsible for the development, operation and maintenance of the regional travel demand model. The “TransEVAL” model has been developed for use in regional transportation planning and corridor planning. It provides multi-modal travel demand forecasts for motorized and non-motorized modes for the entire EWG planning area.

The outputs from this model are used in the conformity determination. The base year for the model is 2010. EWG has developed an accurate base year network, and is continuously making updates to highway and transit networks to accurately represent the future analysis year networks.

### **Model Inputs**

As the first step, local travel patterns are surveyed and documented. In 2002, EWG conducted a household survey that formed the basis of the new travel model. This effort was paralleled by an on-board passenger survey to observe and document transit travel patterns. These local travel patterns and conditions form the basis for model development and guide the process. Transportation staff performed a limited scope validation for the base year 2010. In 2012 an on-board transit survey will be conducted. Latest planning assumptions and land use information are applied, as well as making use of American Community Survey data.

Primary inputs for TransEval model include regional land use, population and employment data as well as the highway and transit networks. These projections are used to determine future travel demand and travel patterns and the effect these will have on the various travel options available. The baseline for 2010 incorporates population counts from the 2010 Census. Employment baselines were created using a blending of sources, including the Census Transportation Planning Package (CTPP), the Longitudinal Employer-Household Dynamics (LEHD) data set,

and commercial business lists, as well as county and regional employment estimates from the U.S. Bureau of Labor Statistics and the U.S. Bureau of Economic Analysis. Data collection and coding is an ongoing process.

For forecasting purposes, the St. Louis region is disaggregated into 2,527 traffic analysis zones (TAZ) aggregated into either a 35 district or 17 super-district systems. Land use, population, and economic activities in each TAZ is estimated for each forecast year. A network is a computerized representation of the highway and transit systems in place and projected to occur. Highway networks are directionally coded for divided highways and arterials and include any roadway functionally classified as a collector or higher. Transit networks for a.m. and p.m. peaks include bus (local and express) and light rail systems operated by Metro, St. Clair County Transit District, and Madison County Transit District and includes walk access and egress routes and park and ride lots as well.

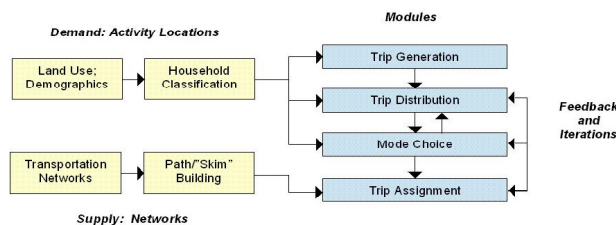
EWG staff gathers information on current and proposed transit operations (service structure, ridership, transit fares) from Metro (formerly the Bi-State Development Agency) and the Madison County (IL) Transit District. Information on the existence of road and bridge tolls is obtained from the MoDOT and IDOT.

For a Conformity Determination, the development of a TDM network begins with EWG staff identifying the type and location of the “regionally significant”, capacity modifying transportation projects recommended for inclusion in the current TIP and the latest RTP for the St. Louis Region, for each non-attainment area in each state. The projects included in the long-range plan were drawn from past long-range planning efforts, Major Transportation Investment Analysis (MTIA), other corridor and subarea planning studies, and an assessment of future network conditions. The definition of “regional significance” is that contained in the *St. Louis Transportation Conformity SIP* (MO 10 CSR 10-5.480), as amplified through the inter-agency consultation procedures established in that document and in 40 CFR Part 93 §93.101. The February 2012 Regionally Significant Project Screening Criteria document will be utilized.

For a Conformity Determination, EWG staff categorizes projects by anticipated year of completion, and built into a network representing each of the analysis years used in the regional emissions analysis. Appendix A in the Conformity Determination lists projects that are included in the network development. Each analysis year network forms the basis for the next future year network, ensuring that all projects in the prior years are captured as the starting point or base network for that year. This way the changes in the highway and transit network keep rolling forward in a compounding manner.

### **TransEVAL Model**

The TransEVAL model used by EWG is a traditional four-step trip-based travel demand model. Inputs and modules are shown below. (Estimate of time needed to run model for a single analysis year/evaluate output/trouble shoot, etc.)



### **Estimates of Vehicle Miles Traveled**

The assignment of vehicle trips (model output) to the roadway network can be summarized in terms of vehicle miles of travel (VMT), to present the general effect of changes in the roadway network in relation to the population and employment growth for each horizon year and network scenario. The base year 2010 roadway network represents, as best as possible, all the roads functionally classified as collectors or higher. The centroid connectors reflect an accurate estimate of time and distance for each intrazonal trip and provide a reasonable reflection of intrazonal activity, or local road travel, for emission estimation purposes.

Future year highway and transit networks are built by adding the regionally significant projects, SIP, TIP and RTP projects to the base network, as well as any locally funded project that the IACG deemed as significant or staff considered as impacting the VMT or travel patterns.

The production of exhaust emissions is actually highest during the colder months of the year. However, increased temperatures and sunlight contribute to increased photochemical production of ozone with the result that ozone concentrations typically reach their peak in the summer. Since the travel demand model projects annual average travel, the output of the model is adjusted to provide an estimate of the travel that takes place under typical summer conditions.

EWG uses the approach described under the conformity rule §93.122 (b)(3). This allows areas with network-based travel models to develop factors 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 adjustment factors are applied consistently for all analysis years and scenarios.

### **Travel Demand Model Calibration and Validation**

EWG conducts calibration and validation of the TransEval model. It involves the comparison of base year model results with observed data from home interview and transit on-board surveys and traffic counts. The goal is to match, with reasonable accuracy, the model-estimated results with those observed from survey data while maintaining a logical and defensible model design. Ultimately, an additional comparison is made with observed traffic counts and transit boardings. This is achieved through systematic and justifiable adjustments to model parameters, including trip rates, distribution impedance parameters, mode choice coefficients and volume-delay functions.

The model is reflective of the recent changes in global economy and societal shifts. This was done in 2012 through a limited scale in-house recalibration of the model for the base year 2010, corresponding to the Census Bureau survey year for population. In 2012 an on-board transit survey will be conducted. The calibration and validation process is an on-going, systematic analysis of each model step as that step was being developed. This is important since errors in initial steps will be propagated to subsequent model steps due to the sequential nature of the modeling process. Therefore, available observed data has been used to compare trip generation, distribution and mode choice results, in addition to comparing assigned highway volumes against observed counts.

An important aspect of calibration and validation is the development and use of observed target values. Observed traffic counts, transit ridership and travel time surveys were used in the validation process. The conformity regulation 40 CFR §§ 93.122 (b) (3) states that Highway Performance Monitoring System (HPMS) estimates of vehicle miles traveled (VMT) shall be considered the primary measure of VMT for the classes of roadways included in HPMS. The regulation also allows the use of locally developed count-based programs. EWG used both these sources as a part of calibration and validation.

## **IACG Members Roles and Responsibilities**

### **East-West Gateway Council of Governments**

#### **Prepare Transportation Improvement Program (TIP)**

Transportation Department, Planning and Programming Section

The TIP is prepared annually and covers four years (fiscal year basis). It is a financial and implementation schedule for projects receiving federal transportation funding in the St. Louis metropolitan area. Projects identified in the TIP have been given priorities based on and are consistent with, the region's 20-year long range Regional Transportation Plan (RTP). The RTP is prepared every four years. The TIP will be amended into the current RTP or is prepared in conjunction with a new RTP. Projects contained in TIP have also demonstrated reasonable assurance that federal, state and local funds will be available to implement them.

#### **Prepare TIP Amendment**

Transportation Department, Planning and Programming Section

Amendment(s) to the currently approved TIP can occur at any time. The internal process to amend the TIP takes approximately one month.

#### **Congestion Mitigation Air Quality (CMAQ) Projects**

Transportation Department, Planning and Programming Section

Federal Highway Administration, Federal Transit Administration, U.S. Environmental Protection Agency

Solicitation and evaluation of projects requesting funding through CMAQ program is included in the development of TIP or amendment to TIP. After review by EWG, project applications are transmitted to FHWA and FTA for their review and concurrence that the projects are eligible for CMAQ funds. USEPA has a consultative role in the review of CMAQ applications.

#### **Conduct Conformity Determinations**

Community Planning Department, Environmental Services Section; Transportation Department, Planning and Programming Section and Systems Evaluation Section; Input of Interagency Consultation Group. Occurs in conjunction with development of TIP and/or RTP.

It should be noted that Federal regulation requires that Conformity Determinations must be made:

- Each time a new RTP or TIP is adopted;
- Each time a new RTP or TIP is amended, unless the amendment merely adds or deletes exempt projects;
- Within 24 months of the effective date of a USEPA finding that motor vehicle emissions budgets from an initially submitted control strategy SIP or maintenance plan are adequate for Conformity Determination purposes;
- Within 24 months of the effective date of a USEPA approval of a control strategy SIP revision or maintenance plan which establishes or revises a motor vehicle emissions

budget if that budget has not yet been used in a conformity determination prior to approval;

Within 24 months of the effective date of a USEPA promulgation of an implementation plan which establishes or revises a motor vehicle emissions budget;

Not less frequently than every four years; and

Within 12 months of a newly designated non-attainment area

### **Inter Agency Consultation Group**

Community Planning Department and Transportation Department

As required by the final rule under section §93.105, the transportation conformity process includes a significant level of cooperative interaction among the many regional, state, and federal agencies in the bi-state non-attainment area.

East-West Gateway facilitates and coordinates a peer group, the Inter Agency Consultation Group (IACG) in relation to conformity determination of Regional Transportation Plan (RTP) and Transportation Improvement Program (TIP). The IACG is made up of representatives from the State air agencies, State transportation agencies, USEPA Regions 5 and 7, FHWA Missouri and Illinois Divisions, FTA Region 7, Metro, local air pollution control agencies and selected local transportation/transit agencies. The intent is to focus on air quality conformity issues. IACG discusses and reaches consensus on issues such as air quality model and method selection, classification of projects as regionally significant, Conformity Determination and assumptions to be used in hot spot and regional emissions analysis.

The Council staff in close collaboration with the IACG is responsible for screening and identifying TIP projects that may require a Hot-Spot Analysis by the project sponsor. The State transportation agencies can use the March 2013 “CO or PM2.5 “Hot-Spot” Analysis Considerations for Project Sponsors” as a reference document. In those site specific instances, the Council staff, with IACG assistance, may provide the project sponsor with travel data and other applicable transportation information that may apply to the project in question. The development of a Hot-Spot Analysis is the responsibility of the project sponsor and not EWG.

### **Develop and Maintain Travel Data and Models and Socioeconomic Data**

Research Services Department, Research and Analysis Section and Transportation Department, Systems Evaluation Section

Future socioeconomic and travel pattern sets are prepared on an ongoing basis. The projections used in the Conformity Determination will be based on those prepared for the most recent RTP. The multi-modal travel demand model continues to be updated and utilizes state-of-the art modeling techniques and the most recent household travel survey and on-board passenger survey data.

## **Missouri Department of Natural Resources**

### **Prepare State Implementation Plan (SIP)**

State environmental agency is the responsible for development of the eight-hour ozone SIP and the fine particulate SIP, as needed. The latest emissions factors and planning assumptions are to be used. SIP is to be complete and control measures delineated are to be enforceable under the CAAA of 1990. Agency is to ensure interagency involvement during development of SIP (State DOT and MPO). Public hearings to be held prior to adoption of SIP. After adoption, SIP is forwarded on to USEPA for Federal review and approval.

### **Prepare Motor Vehicle Emissions Budgets**

Coordinate with MPO on development of Motor Vehicle Emissions Budgets to include in SIP, if necessary. Consultation will occur as required through Inter Agency Consultation Group.

### **Transportation Control Measures (TCMs)**

Coordinate with MPO on Transportation Control Measures (TCMs) to include in SIP, if necessary, and implementation. Coordination will occur as required.

Coordinate the TCM substitution process, if needed, with input of MPO, State transportation agency and USEPA.

### **Participate in Conformity Determination Process**

Participate in conformity determination process for regional transportation plan/TIP/project development process as part of Inter Agency Consultation Group. This can include: setting Regional Emissions Analysis tests, analysis years, budgets to use and baseline emissions inventories to use; consensus on planning assumptions; consensus on classification of new project(s) for TIP or modification of project(s) as needing to be included in travel demand model; preview of draft document. Consultation will occur during development of TIP which would be prior to regional approval of a new or revised transportation plan or transportation improvement program, and at other times as required by state rule. Have a consultative role in hot-spot analysis process for project level conformity, if needed.

## **Illinois Environmental Protection Agency**

### **Prepare State Implementation Plan (SIP)**

State environmental agency is the responsible for development of the eight-hour ozone SIP and the fine particulate SIP, as needed. The latest emissions factors and planning assumptions are to be used. SIP is to be complete and control measures delineated are to be enforceable under the CAAA of 1990. Agency is to ensure interagency involvement during development of SIP (State DOT and MPO). Public hearings to be held prior to adoption of SIP. After adoption, SIP is forwarded on to USEPA for Federal review and approval.

### **Prepare Motor Vehicle Emissions Budgets**

Coordinate with MPO on development of Motor Vehicle Emissions Budgets to include in SIP, if necessary. Consultation will occur as required through Inter Agency Consultation Group.

### **Transportation Control Measures**

Coordinate with MPO on Transportation Control Measures (TCMs) to include in SIP, if necessary, and implementation. Coordination will occur as required.

Coordinate the TCM substitution process, if needed, with input of MPO, State transportation agency and USEPA.

### **Participate in Conformity Determination Process**

Participate in Conformity Determination for regional transportation plan/TIP/project development process as part of Inter Agency Consultation Group. This can include: setting Regional Emissions Analysis tests, analysis years, budgets to use and baseline emissions inventories to use; consensus on planning assumptions; consensus on classification of new project(s) for TIP or modification of project(s) as needing to be included in travel demand model; preview of draft document. Consultation will occur during development of TIP which would be prior to regional approval of a new or revised transportation plan or transportation improvement program, and at other times as required by state rule. Have a consultative role in hot-spot analysis process for project level conformity, if needed.

## **Missouri Department of Transportation**

### **Participate in Conformity Determination Process**

Throughout conformity determination process consult with partner agencies on: planning assumptions; regional emissions analysis components; classification (as pertains to travel demand model) of new/modified projects; and draft Conformity Determination document.

### **Hot-Spot Analysis**

In any applicable non-attainment or maintenance areas, conduct “hot-spot” analysis, if necessary, as part of project level conformity determination. Review and approve staff regional and hot-spot analysis.

### **State Transportation Improvement Program (STIP)**

Prepares STIP which is then submitted to the FHWA and FTA for approval. The STIP incorporates EWG’s Governor-approved TIP by reference. The EWG TIP cannot be included in the STIP until FHWA and FTA, with comments received from EPA, have made a finding of conformity on the TIP, pursuant to federal law and regulations.

### **State Implementation Plan (SIP)**

Consult on the development of State Implementation Plan (SIP) and motor vehicle emissions budgets by State environmental agency.

### **Transportation Control Measures (TCMs)**

Ensure the timely implementation of Transportation Control Measures (TCMs) included in the SIP. Participate in the TCM substitution process led by State environmental agency with input of MPO and USEPA.

All occur as needed.

## **Illinois Department of Transportation**

### **Participate in Conformity Determination Process**

Throughout conformity determination process consult with partner agencies on: planning assumptions; regional emissions analysis components; classification (as pertains to travel demand model) of new/modified projects; and draft Conformity Determination document.

### **Hot-Spot Analysis**

In any applicable non-attainment or maintenance areas, conduct “hot-spot” analysis, if necessary, as part of project level conformity determination. Review and approve staff regional and hot-spot analysis.

### **State Transportation Improvement Program (STIP)**

Prepares STIP which is then submitted to the FHWA and FTA for approval. The STIP incorporates EWG’s Governor-approved TIP by reference. The EWG TIP cannot be included in the STIP until FHWA and FTA, with comments received from EPA, have made a finding of conformity on the TIP, pursuant to federal law and regulations.

### **State Implementation Plan (SIP)**

Consult on the development of State Implementation Plan (SIP) and motor vehicle emissions budgets by State environmental agency.

### **Transportation Control Measures (TCMs)**

Ensure the timely implementation of Transportation Control Measures (TCMs) included in the SIP. Participate in the TCM substitution process led by State environmental agency with input of MPO and USEPA.

All occur as needed.

## **U.S. Environmental Protection Agency (USEPA)**

**USEPA Headquarters** develops conformity rules, regulations and guidance documents and designates “guideline” dispersion models for project-level emissions analysis.

**USEPA Region 7** (lead USEPA Region for Conformity) ensures compliance with the Clean Air Act on a continual basis and when rules are revised that include conformity issues. USEPA Region 7 is the lead USEPA Region for Conformity Determination purposes for the St. Louis (Mo-IL) ozone and PM<sub>2.5</sub> non-attainment areas.

### **State Implementation Plan (SIP)**

USEPA Region 7 consults with Missouri on the development of the SIP and motor vehicle emissions budgets. USEPA Region provides technical guidance on TCMs. USEPA Region reviews and provide comments to Missouri on draft SIPs. After SIP is submitted by Missouri, USEPA Region reviews, comments and acts on SIP.

USEPA Region 7 determines if motor vehicle emission budget is adequate for use in Conformity Determination to be performed by MPO. When Missouri submits a SIP, it is reviewed for completeness. If a motor vehicle emission budget (MVEB) is included in the SIP submittal, EPA implements the adequacy review and finding process. Finding is posted on the adequacy web page and in the Federal Register and a letter is sent to Missouri.

USEPA Region 7 participates in the process to substitute TCMs in the SIP, if needed, along with State air agency, MPO and State transportation agency. USEPA Region 7 is to concur on TCM substitutions and when received to codify substitute TCM into specific SIP.

### **Conformity Determination Process**

USEPA Region 7 participates in the interagency consultation process for metropolitan plan/TIP/project development and conformity determinations. USEPA Region 7 reviews and comments on proposed conformity determinations prepared by MPO. USEPA Region 7 is the lead USEPA Region for Conformity Determination purposes for the St. Louis (Mo-IL) ozone and PM<sub>2.5</sub> non-attainment areas.

USEPA Region 7 reviews conformity determination and comments on conformity finding. USEPA Region 7 is to review and comment on conformity determinations within 30 days of receipt of the final materials. This occurs prior to regional approval by FHWA/FTA of a new or revised transportation plan or TIP, and at other times as required by state rule.

All occur as needed

## **U.S. Environmental Protection Agency (USEPA)**

**USEPA Headquarters** develops conformity rules, regulations and guidance documents and designates “guideline” dispersion models for project-level emissions analysis.

**USEPA Region 5** ensures compliance with the Clean Air Act on a continual basis and when rules are revised that include conformity issues. USEPA Region 7 is the lead USEPA Region for Conformity Determination purposes for the St. Louis (Mo-IL) ozone and PM<sub>2.5</sub> non-attainment areas.

### **State Implementation Plan (SIP)**

USEPA Region 5 consults with Illinois on the development of the SIP and motor vehicle emissions budgets. USEPA Region provides technical guidance on TCMs. USEPA Region reviews and provide comments to Illinois on draft SIPs. After SIP is submitted by Illinois, USEPA Region 5 reviews, comments and acts on SIP.

USEPA Region 5 determines if motor vehicle emission budget is adequate for use in Conformity Determination to be performed by MPO. When Illinois submits a SIP, it is reviewed for completeness. If a motor vehicle emission budget (MVEB) is included in the SIP submittal, EPA implements the adequacy review and finding process. Finding is posted on the adequacy web page and in the Federal Register and a letter is sent to Illinois.

USEPA Region 5 participates in the process to substitute TCMs in the SIP, if needed, along with State Air Agency, MPO and State transportation agency. USEPA Region is to concur on TCM substitutions and when received to codify substitute TCM into specific SIP.

### **Conformity Determination Process**

USEPA Region 5 participates in the interagency consultation process for metropolitan plan/TIP/project development and conformity determinations. USEPA Region 5 reviews and comments on proposed conformity determinations prepared by MPO. USEPA Region 7 is the lead USEPA Region for Conformity Determination purposes for St. Louis (MO-IL) ozone and PM<sub>2.5</sub> non-attainment areas.

Consultation on the Conformity Determination takes place prior to the final submittal of the Conformity Determination. Region 5 has a MOU with U.S. DOT to review and comment on Conformity Determinations within 30 days of receipt of the final materials. All materials are reviewed for compliance with conformity regulations in 40 CFR part 93.

All occur as needed.

## **U.S. Department of Transportation**

Federal Highway Administration (FHWA) Missouri Division (Lead Division)

**FHWA Headquarters** develops technical guidance on traffic demand and forecasting, and Federal aid program guidance

**FHWA Missouri Division** is the lead for the St. Louis (Mo-IL) eight county region.

### **Conformity Determination Process**

FHWA Missouri Division participates in the interagency consultation process for metropolitan transportation plan/TIP development and conformity determinations as needed. FHWA Missouri Division review and approve conformity determination on metropolitan transportation plans/TIPs updates/amendments and projects as needed. FHWA Missouri Division ensures that all other conformity requirements are met.

### **MPO Planning Activities**

FHWA Missouri Division ensures that MPOs allow for adequate public involvement and that metropolitan transportation planning requirements are met. FHWA Missouri Division and Illinois Division perform MPO planning certification review. Certification review (desk audit and site visit with face-to-face review) occurs every four years.

### **State Implementation Plan (SIP)**

FHWA Missouri Division ensures timely implementation of Transportation Control Measures (TCMs). FHWA Missouri Division consults with Missouri on the development of SIP and motor vehicle emissions budgets.

### **Project Funding**

FHWA Missouri Division obligates and releases Federal Funds for Missouri as needed.

## **U.S. Department of Transportation**

Federal Highway Administration (FHWA) Illinois Division

**FHWA Headquarters** develops technical guidance on traffic demand and forecasting, and Federal aid program guidance

**FHWA Missouri Division** is the lead for the St. Louis (Mo-IL) eight county region.

### **Conformity Determination Process**

FHWA Illinois Division participates in the interagency consultation process for metropolitan transportation plan/TIP development and conformity determinations as needed. FHWA Illinois Division review and approve conformity determination on metropolitan transportation plans/TIPs updates/amendments and projects as needed. FHWA Illinois Division ensures that all other conformity requirements are met.

### **MPO Planning Activities**

FHWA Illinois Division ensures that MPOs allow for adequate public involvement and that metropolitan transportation planning requirements are met. FHWA Missouri Division and Illinois Division perform MPO planning certification review. Certification review (desk audit and site visit with face-to-face review) occurs every four years.

### **State Implementation Plan (SIP)**

FHWA Illinois Division ensures timely implementation of Transportation Control Measures (TCMs). FHWA Illinois Division consults with Illinois on the development of SIP and motor vehicle emissions budgets.

### **Project Funding**

FHWA Missouri Division obligates and releases Federal Funds for Illinois as needed.

## **U.S. Department of Transportation**

### **Federal Transit Administration (FTA) Region 7**

#### **Conformity Determination Process**

FTA Region 7 participates in the interagency consultation process for metropolitan transportation plan/TIP development and conformity determinations as needed. FTA Region 7 reviews and approves conformity determination on metropolitan transportation plans/TIPs updates/amendments and projects as needed. This occurs prior to approving the State Transportation Improvement Program (STIP).

#### **MPO Planning Activities-Related**

FTA Region 7 ensures that MPOs allow for adequate public involvement and that metropolitan transportation planning requirements are met. FTA Region 7 participates in MPO planning certification review. Certification review (desk audit and site visit with two to three days of face-to-face review) occurs every four years.

**Transit Operators – Metro**

Sponsor projects in the plan and TIP.

Designated recipient for FTA funds.

Metro is represented on the East-West Gateway Council of Governments with a vote on the Board.

**County Governments – St. Louis County Department of Health**

Participate as MPO member. Primarily a reporting function to the organization.

## **IACG Members – February 2013**

### **Metropolitan Planning Organization**

East-West Gateway Council of Governments

### **Federal and State Agencies**

Missouri Department of Natural Resources, Air Pollution Control Program

Illinois Environmental Protection Agency, Bureau of Air

Missouri Department of Transportation, Central Office and District 6

Illinois Department of Transportation, Central Office and District 8

U.S. Environmental Protection Agency Region 7

U.S. Environmental Protection Agency Region 5

Federal Highway Administration, Missouri

Federal Highway Administration, Illinois

Federal Transit Administration Region 7

### **Transit**

METRO

### **Local Agencies**

City of St. Louis Health Department, Air Pollution Control Program

St. Louis County Department of Health, Air Pollution Control Program

St. Louis County Department of Transportation

Madison County Transit District

St. Clair County Transit District

Madison County Highway Department

St. Clair County Department of Roads and Bridges

## Appendix A

### Regionally Significant Project Screening Criteria (February 28, 2012)

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**East-West Gateway Council of Governments  
Regionally Significant Project Screening Criteria  
For Use in the Transportation Regional Emissions Analysis  
And Conformity Process  
For Transportation Plan and Transportation  
Improvement Program  
St. Louis Non-Attainment and Maintenance Areas**

**1. Background**

This document is intended to serve as a tool for assisting with determining whether a transportation project in the St. Louis Region is “Regionally Significant” with respect to the air quality conformity requirements for Transportation Plan and Transportation Improvement Program (TIP) found in the Transportation Conformity Regulations (40 CFR Part 93). The purpose is to provide pertinent information to the Inter Agency Consultation group (IACG) on the characteristics that would normally be used to determine whether a transportation project is regionally significant especially if a roadway facility does not meet the definition of regionally significant project in the transportation conformity regulations. As defined in 40 CFR 93.101 transportation projects (other than exempt projects) located on transportation facilities that are classified as principal arterial or higher are regionally significant. Pursuant to all applicable regulations, the IACG will make the final determination of regional significance<sup>1</sup> on a case-by-case basis if needed and additional criteria beyond what is being presented in this document may be used at the IACG’s discretion. Transportation conformity is required by the Clean Air Act section 176(c) (42 U.S.C. 7506(c)) to ensure that federal funding and approval are given to highway and transit projects that are consistent with ("conform to") the air quality goals established by a state air quality implementation plan (SIP). Conformity, to the purpose of the SIP, means that transportation activities will not cause new air quality violations, worsen existing violations, or delay timely attainment of the national ambient air quality standards.

The St. Louis MO-IL area is currently a non-attainment area for the 1997 National Ambient Air Quality Standards (NAAQS) of fine particulate matter (PM<sub>2.5</sub>) and the 1997 NAAQS for Ozone (O<sub>3</sub>). Part of the region, consisting of the City of St. Louis and that portion of St. Louis County within the I-270 loop, is classified as a limited maintenance area for Carbon Monoxide (CO). The Missouri Limited Carbon Monoxide Maintenance Plan option allows plan conformity without a technical analysis. However, individual projects remain subject to the requirement for “hot-spot” analysis by their project sponsor which is beyond the lead responsibility of the MPO and is not covered by this document.

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<sup>1</sup> See Missouri Transportation Conformity Regulations 10 CSR 10-5.480

The East-West Gateway Council of Government (EWG), as the Metropolitan Planning Organization (MPO,) is the lead agency for developing transportation air quality conformity determination, 1997 ozone NAAQS and 1997 PM<sub>2.5</sub> NAAQS, for the long range Transportation Plan, TIP and TIP amendments. U.S. DOT makes the final determination of conformity.

Vehicle mile traveled (VMT) for transportation projects (non-regionally significant, non-exempt projects) which cannot be captured by EWG's travel demand model will be analyzed according to reasonable professional practice according to 40 CFR 93.122 Procedures for determining regional transportation-related emissions. According to 93.122, the regional emissions analysis for a transportation plan or TIP must include all regionally significant projects expected in the non-attainment areas, including those that are non-federal (those that need no federal funding or approval). Notwithstanding the other requirements of 40 CFR 93.126, 93.127 and 93.128, all non-exempt road improvement projects, including those not requesting federal funds, will be considered for regional significance and subject to inclusion in an air quality conformity analysis.

Definitions of potential project classifications and their criteria are outlined below. The MPO and IACG will follow the definition in Federal Transportation Conformity Regulations. Please note that for cases in which the regional significance of a project is unclear the IACG will consult to determine the classification of a project.

## **2. Federal Transportation Conformity Regulations Definition of Regional Significance**

### **40 CFR § 93.101 Definitions. (Verbatim from Federal Regulations)**

***Regionally significant project*** means a transportation project (other than an exempt project) that is on a facility which serves regional transportation needs (such as access to and from the area outside of the region, major activity centers in the region, major planned developments such as new retail malls, sports complexes, etc., or transportation terminals as well as most terminals themselves) and would normally be included in the modeling of a metropolitan area's transportation network, including at a minimum all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel.

### **3. Examples of Projects that are Regionally Significant**

Below are examples of projects which must be included in the network modeling, regional emissions analysis and conformity analysis for Transportation Plan, TIP and amendments to Plan and TIP.

#### **Interstates and Expressways**

New segment

Added through lane

Continuous auxiliary lane

New interchange

#### **Principal Arterial**

New segment

Added through lane

Continuous auxiliary lane

New interchange

#### **Rail and Fixed Guide-Way Transit**

Major expansion of fixed rail or fixed guide-way system

### **4. Examples of Projects that are not -Regionally Significant (Non-Exempt)**

- Addition of thru traffic lanes on arterial roads that do not extend the full distance between major intersections
- Addition of thru traffic lanes on roads that are not functionally classified as an arterial or higher and do not serve regional transportation needs
- New collector roads that serve minor developments
- New or expanded park-and-ride lots that do not serve regional transportation needs
- New collector road overpasses

As aforementioned, VMT for projects (non-regionally significant, non-exempt projects) as listed above which cannot be captured by EWG's travel demand model will be analyzed according to reasonable professional practice according to 40 CFR 93.122 Procedures for determining regional transportation-related emissions. All non-regionally significant (non-exempt) projects still need to be included in the Regional Emissions Analysis even if the VMT cannot be captured in the travel demand model. In the future and as applicable, EWG will consult with the IACG and document the use of "off-model" methods for determining VMT and emissions in Transportation Conformity Determination documentation.

## **5. Examples of Projects that May be Regionally Significant**

Listed below are examples of the types of projects that the IACG is to determine whether or not they are regionally significant, non-exempt. If a project is determined to be a regionally significant non-exempt project, it is to be included in the transportation network modeling and conformity analysis.

### Interstates and Expressways

Modification of an existing interchange

### Principal Arterial

Modification of an existing interchange or intersection

### Minor Arterial

New segment

Added through lane

Continuous auxiliary lane

Modification of an existing interchange or intersections

### Rail and Fixed Guide-Way Transit

New stations or terminals that serve major regional transportation needs

## **6. Exempt Projects**

Sections 93.126 –128 of the Transportation Conformity Regulations (March 2010) identify highway and transit project types which are exempt from the requirement to determine conformity altogether (93.126 and 93.128) or exempt from regional emissions analysis (93.127) and key caveats to be considered. These sections are presented in their entirety at the end of this section. The most recent version of the Transportation Conformity Regulations can be found at: <http://www.epa.gov/otaq/stateresources/transconf/regs/420b10006.pdf>.

Table 2 in Section 93.126 lists projects which are exempt and may proceed toward implementation even in the absence of a conforming transportation plan and Transportation Improvement Program (TIP). A particular action of the type listed in Table 2 is not exempt if EWG, in consultation with other agencies in the IACG, concurs that it has potentially adverse emissions impacts for any reason. The Missouri Department of Transportation (MoDOT), the Illinois Department of Transportation (IDOT), the Missouri Department of Natural Resources (MDNR), the Illinois Environmental Protection Agency (Illinois EPA) and EWG must ensure that exempt projects do not interfere with transportation control measure (TCM) implementation.

Please note that in Section 93.127, sentences two, three and four are referring to project-level conformity determination which is the responsibility of the project sponsor, not the Metropolitan Planning Organization (MPO). Although it is true that certain situations trigger the necessity for hot-spot/project level analysis per 40 CFR93, it was determined that this obligation is not led by the MPO and is not covered by this document. Moreover, any necessary hot-spot/project level analysis is generally performed by the project sponsor. A particular action of the type listed in

Section 93.127, Table 3 is not exempt from regional emissions analysis if EWG, in consultation with other agencies in the IACG, concurs that that has potential regional impacts for any reason.

#### **40 CFR § 93.126 Exempt projects. (Verbatim from Federal Regulations)**

Notwithstanding the other requirements of this subpart, highway and transit projects of the types listed in Table 2 of this section are exempt from the requirement to determine conformity. Such projects may proceed toward implementation even in the absence of a conforming transportation plan and TIP.

A particular action of the type listed in Table 2 of this section is not exempt if the MPO in consultation with other agencies (see 93.105(c)(1)(iii)), the EPA, and the FHWA (in the case of a highway project) or the FTA (in the case of a transit project) concur that it has potentially adverse emissions impacts for any reason. States and MPOs must ensure that exempt projects do not interfere with TCM implementation. Table 2 follows:

#### **40 CFR §93.126 - Table 2—Exempt Projects (Verbatim from Federal Regulations)** *Safety*

- ☐ Railroad/highway crossing.
- ☐ Projects that correct, improve, or eliminate a hazardous location or feature.
- ☐ Safer non-Federal-aid system roads.
- ☐ Shoulder improvements.
- ☐ Increasing sight distance.
- ☐ Highway Safety Improvement Program implementation.
- ☐ Traffic control devices and operating assistance other than signalization projects.
- ☐ Railroad/highway crossing warning devices.
- ☐ Guardrails, median barriers, crash cushions.
- ☐ Pavement resurfacing and/or rehabilitation.
- ☐ Pavement marking.
- ☐ Emergency relief (23 U.S.C. 125).
- ☐ Fencing.
- ☐ Skid treatments.
- ☐ Safety roadside rest areas.
- ☐ Adding medians.
- ☐ Truck climbing lanes outside the urbanized area.
- ☐ Lighting improvements.
- ☐ Widening narrow pavements or reconstructing bridges (no additional travel lanes).
- ☐ Emergency truck pullovers.

#### *Mass Transit*

- ☐ Operating assistance to transit agencies.
- ☐ Purchase of support vehicles.
- ☐ Rehabilitation of transit vehicles<sup>1</sup>.
- ☐ Purchase of office, shop, and operating equipment for existing facilities.
- ☐ Purchase of operating equipment for vehicles (e.g., radios, fareboxes, lifts, etc.).

- ☐ Construction or renovation of power, signal, and communications systems.
- ☐ Construction of small passenger shelters and information kiosks.
- ☐ Reconstruction or renovation of transit buildings and structures (e.g., rail or bus buildings, storage and maintenance facilities, stations, terminals, and ancillary structures).
- ☐ Rehabilitation or reconstruction of track structures, track, and trackbed in existing rights-of-way.
- ☐ Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet<sup>1</sup>.
- ☐ Construction of new bus or rail storage/ maintenance facilities categorically excluded in 23 CFR part 771.

#### ***Air Quality***

- ☐ Continuation of ride-sharing and van-pooling promotion activities at current levels.
- ☐ Bicycle and pedestrian facilities.

#### ***Other***

- ☐ Specific activities which do not involve or lead directly to construction, such as:
  - Planning and technical studies.
  - Grants for training and research programs.
  - Planning activities conducted pursuant to titles 23 and 49 U.S.C. Federal-aid systems revisions.
- ☐ Engineering to assess social, economic, and environmental effects of the proposed action or alternatives to that action.
- ☐ Noise attenuation.
- ☐ Emergency or hardship advance land acquisitions (23 CFR 710.503).
- ☐ Acquisition of scenic easements.
- ☐ Plantings, landscaping, etc.
- ☐ Sign removal.
- ☐ Directional and informational signs.
- ☐ Transportation enhancement activities (except rehabilitation and operation of historic transportation buildings, structures, or facilities).
- ☐ Repair of damage caused by natural disasters, civil unrest, or terrorist acts, except projects involving substantial functional, locational or capacity changes.

**Note:**<sup>1</sup> In PM10 and PM2.5 nonattainment or maintenance areas, such projects are exempt only if they are in compliance with control measures in the applicable implementation plan.

**40 CFR § 93.127 Projects exempt from regional emissions analyses. (Verbatim from Federal Regulations)** (Please see paragraph 3 on page 4 for discussion about this portion of the Federal Regulations)

Notwithstanding the other requirements of this subpart, highway and transit projects of the types listed in Table 3 of this section are exempt from regional emissions analysis

requirements. The local effects of these projects with respect to CO concentrations must be considered to determine if a hot-spot analysis is required prior to making a project-level conformity determination. The local effects of projects with respect to PM10 and PM2.5 concentrations must be considered and a hot-spot analysis performed prior to making a project-level conformity determination, if a project in Table 3 also meets the criteria in §93.123(b)(1). These projects may then proceed to the project development process even in the absence of a conforming transportation plan and TIP. A particular action of the type listed in Table 3 of this section is not exempt from regional emissions analysis if the MPO in consultation with other agencies (see §93.105(c)(1)(iii)), the EPA, and the FHWA (in the case of a highway project) or the FTA (in the case of a transit project) concur that it has potential regional impacts for any reason. Table 3 follows:

**Table 3—Projects Exempt From Regional Emissions Analyses (Verbatim from Federal Regulations)**

- ☐ Intersection channelization projects.
- ☐ Intersection signalization projects at individual intersections.
- ☐ Interchange reconfiguration projects.
- ☐ Changes in vertical and horizontal alignment.
- ☐ Truck size and weight inspection stations.
- ☐ Bus terminals and transfer points.

**40 CFR § 93.128 Traffic signal synchronization projects. (Verbatim from Federal Regulations)**

Traffic signal synchronization projects may be approved, funded, and implemented without satisfying the requirements of this subpart. However, all subsequent regional emissions analyses required by §§93.118 and 93.119 for transportation plans, TIPs, or projects not from a conforming plan and TIP must include such regionally significant traffic signal synchronization projects.

## **7. Regional Significant Screening Criteria Interrogatories**

The following questions can be used to assess whether projects are regionally significant, when it is unclear, such as when projects are on facilities smaller than a principal arterial.

- 1.) What are the exempt status and functional classification of the roadway project?
  - A non-exempt project on a roadway facility classified as a principal arterial or higher is considered regionally significant.
  - A project listed under 40 CFR 93.126 or 93.127 is exempt unless the IACG determines that it should be treated as non-exempt because it has potentially adverse emissions for any reason, or regional impacts for any reason.
- 2.) Is the facility either included in the regional travel demand forecasting model, or would it be if it does not currently exist?
  - East-West Gateway includes most “major” roadways (most major collectors and above) in order to improve model performance so if a roadway is not modeled it can generally be considered to be non-regionally significant.
- 3.) Does the facility provide direct connection between two roadways classified as a principal arterial or higher?
  - Direct connections between major principal arterials and in particular connections to the interstate can generally be considered regionally significant.
- 4.) Does the facility provide the primary regional connectivity to a “major activity center”?
  - This is a criterion listed in the federal regional significance definition; however there can be different interpretations as to what constitutes a major activity center. East-West Gateway suggests the following as general types of major activity centers, with specific locations to be determined on a case-by-case basis:
    - Major hospitals and regional medical centers
    - Central business districts of cities with greater than 5,000 population
    - Major regional retail centers and malls (greater than 1,000,000 square feet)
    - Major colleges and universities
    - Tourist destinations
    - Airports
    - Freight terminals and intermodal transfer centers
    - Sports complexes

5.) Does the project add significant vehicular capacity?

- A project adding general purpose through lanes will typically be regionally significant more often than one that is adding a continuous center turn lane or other projects that do not add significant roadway capacity.

6.) What is the length of the roadway segment being improved and what is the overall corridor length?

- Projects extending (or completing) long sections (typically greater than one mile) is more likely to be regionally significant.
- If the corridor is lengthy and there is an absence of other principal arterials in the vicinity then the roadway is more likely to be regionally significant.
- Collectively, when a series of smaller projects on a regionally significant facility are completed, the overall improvements can be regionally significant.

7.) What is the current Annual Average Daily Traffic (AADT) of the roadway segment?

- This is less important in determining regional significance although it will provide additional information to be considered along with the above criteria. High traffic segments will tend to be more correlated with the increased regional significance of a roadway.

## **8. Acronyms**

AADT	Average Annual Daily Traffic
BRT	Bus Rapid Transit
CAA	Clean Air Act Amendments of 1990
EPA	U.S. Environmental Protection Agency
EWG	East-West Gateway Council of Governments
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
IACG	Inter Agency Consultation Group
IDOT	Illinois Department of Transportation
Illinois EPA	Illinois Environmental Protection Agency
L RTP	Long-Range Transportation Plan
MDNR	Missouri Department of Natural Resources
MoDOT	Missouri Department of Transportation
MPO	Metropolitan Planning Organization (EWG)
NAAQS	National Ambient Air Quality Standards
SIP	State Implementation Plan
TCM	Transportation Control Measure
TIP	Transportation Improvement Program

Appendix B

Checklist Conformity Determination Document

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Checklist Conformity Determination Document

Example - Conformity for FY 2014-2017 TIP and Related Amendments to *RTP* 2040

<b>Item</b>	<b>Location</b>
Reference to Current Applicable Policy and Regulations	Overview Section 3.0 (pages 2-7)
Pollutant /Precursors Non-Attainment/Maintenance Area Description	Executive Summary Overview Sections 2.0 & 3.0 (pages 1-7) Figures 1 & 2 (pages 4-5)
Date Conformity Determination Approved	Overview Section 2.0 (page 1)
Declaration of Conformity	Overview Section page 23
Consultation – Inter Agency and Public	Overview Sections 5.0 – 5.5 (pages 19-22)
Date Conformity Determination Began	Overview Section 5.2 (page 20)
Latest Planning Assumptions (LPA)	Overview (pages 1-22)
LPA - Current and future population and employment	Appendix B – Population and Employment Forecasts
LPA - Current and future travel and congestion (see Travel Demand Model)	Appendix C – Travel Demand Modeling Procedures, Assumptions and Forecasts
LPA - Transit operating policies and ridership	Appendix C – Travel Demand Modeling Procedures, Assumptions and Forecasts
LPA - Transit fares, road and bridge tolls	Appendix C – Travel Demand Modeling Procedures, Assumptions and Forecasts
Travel Demand Model – Overview & Specifics	Appendix C – Travel Demand Modeling Procedures, Assumptions and Forecasts
Regional Emissions Analysis (REA) – MO Ozone	Overview & Appendix E - Eight-Hour Ozone Air Quality Conformity Determination
MO - Ozone budget test description, applicable pollutants	Overview Sections 4.1.2 & 4.1.4 (pages 7-9)
MO - Years with budgets	Overview Sections 4.1.1 & 4.1.2 (pages 7-8)
MO - Date budgets found adequate/approved by USEPA	Overview Sections 4.1.1 & 4.1.2 (pages 7-8)
MO - Analysis years	Overview Sections 4.1.3 & 4.1.4 (pages 8-9)
MO - REA results	Table 2 (page 10)

<b>Item</b>	<b>Location</b>
Regional Emissions Analysis (REA) – IL Ozone	Overview & Appendix E - Eight-Hour Ozone Air Quality Conformity Determination Appendix G - Jersey County
IL - Ozone budget test description, applicable pollutants	Overview Sections 4.2.2 & 4.2.4 (pages 11-13)
IL - Years with budgets	Overview Sections 4.2.1 & 4.2.2 (pages 10-12)
IL - Date budgets found adequate/approved by USEPA	Overview Sections 4.2.1 & 4.2.2 (pages 10-12)
IL - Analysis years	Overview Sections 4.2.3 & 4.2.4 Pages (12-13)
IL - REA results	Table 4 (page 14)
REA – MO & IL PM <sub>2.5</sub>	Overview & Appendix F - PM <sub>2.5</sub> Air Quality Conformity Determination Appendix H - Baldwin Township
MO & IL - PM <sub>2.5</sub> interim test description and type, applicable pollutants	Overview Sections 4.3.2 & 4.3.3 (pages 14-16)
MO & IL - Analysis years	Overview Sections 4.3.4 & 4.3.5 (pages 16-17)
MO & IL - REA results	Tables 6 & 7 (page 18)
Emissions Model – Overview & Specifics	Appendix D – MOtor Vehicle Emission Simulator (MOVES) Mobile Source Emissions Modeling and Forecasts Appendix I – MOVES Documentation
Documentation TIP and RTP Projects Classification and Inclusion in Travel Demand Model	Appendix A – Transportation Planning Assumptions
Project Exemptions/Exempt Checklist	Section in 2012 Regionally Significant Project Screening Criteria document Appendix A contains table of new/carryover projects classified as exempt

## Appendix C

### East-West Gateway Semi Annual Conformity Determination Policy

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Memo to: East-West Gateway Board of Directors

From: Staff

Subject: Semi-Annual Conformity Determination

Date: March 12, 2013

The conformity process is intended to ensure that the programs and activities proposed in the region's long-range transportation plan and Transportation Improvement Program (TIP) conform to State Implementation Plans (statewide air quality plans), which set out benchmarks against which progress is measured in meeting national goals for cleaner and healthier air. Under the transportation conformity regulations, the Council is the agency responsible for conducting the conformity determination.

The conformity analysis typically is completed during the annual update of the TIP and the long-range transportation plan. Projects that receive the most scrutiny during the conformity process are those that add capacity to the transportation system by building new roads, new interchanges or by adding through lanes to existing roads. Whenever modifications are made to the TIP that includes projects that add capacity to the system, the Council is required to make a new conformity determination. If a capacity-adding project is not included in a conformity analysis, it cannot be added to the TIP.

The development of the conformity determination is a time consuming process that can take four to five months from beginning to end. This includes one month to run the travel demand model, complete the regional emissions analysis and publish a draft conformity determination document. The draft conformity determination is released to the Interagency Consultation Group (IACG) for their review fifteen days prior to the document's release for public comment. The IACG consists of representatives from East-West Gateway, State, and local air quality planning agencies as well as Federal Highway Administration, Federal Transit Administration, and the Environmental Protection Agency. Following the IACG review, the document is released for public comment for a minimum of thirty days. Following the public comment period, the document is submitted to the Board of Directors for approval. When the Board of Directors approves the conformity determination, it is submitted to the Federal Highway Administration and Federal Transit Administration for review. The federal agencies require 30 days to review and approve the conformity determination.

If more than two conformity determinations are performed during a single year, there exists a possibility of having multiple versions of a conformity determination document out for public comment and federal review at the same time. To ensure this situation is avoided, staff proposes a semi-annual conformity determination schedule to limit the number of conformity determination documents to two each year. An exception would be made if a major transportation funding program outside of the current transportation law is approved (i.e. American Recovery and Reinvestment Act of 2009).

The table below details the schedule for the semi-annual conformity determination.

Proposed Semi-Annual Conformity Determination		
	Annual	Semi-Annual <sup>1</sup>
Projects due	March 31	October 15
Prepare and run travel demand model/complete draft conformity determination	April 1 – April 30	October 16 – November 15
IACG review	May 1 – May 15	December 1 – December 15
Board review	May (last Wed)	mid December <sup>2</sup>
Public participation	June 1 – July 1	December 16 – January 15
Board approval	July (last Wed)	January (last Wed)
Federal Approval	August 1 – August 31	February 1 – February 28
Notes		
1. Will only be conducted if there are projects submitted by the project due date		
2. Draft conformity determination to be emailed. No Board of Directors meetings in November or December.		
All dates are illustrative and subject to change. A revised schedule will be provided at the beginning of each year.		

**Staff Recommendation:** Staff recommends approval of the semi-annual conformity determination schedule. An exception would be made if a major transportation funding program outside of the current transportation law is approved (i.e. American Recovery and Reinvestment Act of 2009).

**Board Action** – Board of Directors adopted this policy at their March 27, 2013 meeting.

## Appendix D

FHWA Transportation Conformity: A Basic Guide for State and Local Officials  
Exhibit 4 - Roles and Responsibilities of Federal, State and Local Transportation and Air Quality  
Agencies in Transportation Conformity and SIP Development Process

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***Transportation Conformity: A Basic Guide for State and Local Officials***

***Responsibility for Making a Conformity Determination***

The policy board of a Metropolitan Planning organization (MPO) must formally make a conformity determination on its metropolitan transportation plans and TIPs prior to submitting them to FHWA/FTA for an independent review and conformity determination. The conformity process is done in accordance with the required interagency consultation process described below. For individual projects including those in rural areas, the State department of Transportation (DOT) or project sponsor usually prepares the conformity analysis. FHWA or FTA must make a project-level conformity determination prior to project approval and/or funding. Exhibit 4 on the next page shows the typical roles and responsibilities of the various agencies.

Exhibit 4

*Roles and Responsibilities of Federal, State and Local Transportation and Air Quality Agencies in Transportation Conformity and SIP Development Process*

(Specific States and metropolitan areas may have negotiated different assignments of responsibility tailored to local conditions.)

Agencies	Roles and Responsibilities	When
<b>MPO</b>	<ul style="list-style-type: none"> <li>• Conduct analysis on metropolitan transportation plan/TIP</li> <li>• Incorporate latest emissions factors, planning assumptions, and emissions models</li> <li>• Circulate draft metropolitan transportation plan/TIP for interagency and public comment based on public involvement procedures adopted by the MPO</li> <li>• Ensure public involvement procedures are followed</li> <li>• Ensure timely implementation of TCMs</li> <li>• Respond to significant comments on TIP/metropolitan transportation plan conformity documents</li> <li>• Determine conformity on metropolitan transportation plan/TIP</li> <li>• Consult with agencies throughout the conformity determination process</li> <li>• Consult on the development of the SIP and motor vehicle emissions budgets</li> <li>• May elect to shorten conformity horizon after consultation with air agency and public comment</li> <li>• Participate in TCM substitution process</li> <li>• Concur on TCM substitutions</li> </ul>	<ul style="list-style-type: none"> <li>• At least every 4 years or when a metropolitan transportation plan/TIP is updated or amended with non-exempt projects</li> <li>• 24 months after certain SIP actions</li> <li>• 12 months after new nonattainment designations become effective</li> <li>• As needed</li> </ul>
<b>State/Local Transportation Agency</b>	<ul style="list-style-type: none"> <li>• Consult with agencies throughout the conformity determination process</li> <li>• Conduct regional conformity analysis on projects not in metropolitan areas, based on interagency consultation</li> <li>• In CO and PM nonattainment and maintenance areas, conduct “hot-spot” analysis, if necessary as part of a project-level conformity determination</li> </ul>	<ul style="list-style-type: none"> <li>• As needed</li> </ul>

Agencies	Roles and Responsibilities	When
	<ul style="list-style-type: none"> <li>• Provide for public involvement/respond to significant comments</li> <li>• Ensure timely implementation of TCMs</li> <li>• Review and approve staff regional and hot-spot analysis</li> <li>• Consult on the development of the SIP and motor vehicle emissions budgets</li> <li>• Participate in the TCM substitution process</li> <li>• Concur on TCM substitutions in isolated rural areas</li> </ul>	
<p><b>State/Local Air Quality/Environmental Agency</b></p>	<ul style="list-style-type: none"> <li>• Prepare SIP for each relevant pollutant</li> <li>• Ensure interagency involvement during SIP development (including the State DOR and MPO(s))</li> <li>• Hold public hearing prior to SIP adoption</li> <li>• Ensure SIPs are complete and control measures enforceable under the 1990 CAA, prior to board approval action</li> <li>• Ensure latest emissions factors and planning assumptions are used for SIP development</li> <li>• Review and approve SIP, forward to EPA for Federal approval</li> <li>• Participate in the interagency consultation process for metropolitan transportation plan/TIP/project development and conformity determinations</li> <li>• Consult on shortened conformity horizon</li> <li>• Participate in the TCM substitution process and submit substitute TCM to EPA</li> <li>• Concur on TCM substitutions</li> </ul>	<ul style="list-style-type: none"> <li>• As needed</li> </ul>

Agencies	Roles and Responsibilities	When
<b>State Legislature</b>	<ul style="list-style-type: none"> <li>• Adopt State legislation to develop and enforce applicable CAA provisions</li> <li>• Ensure funding available for implementation of programs and projects</li> </ul>	<ul style="list-style-type: none"> <li>• As needed</li> </ul>
<b>FHWA/FTA</b>	<ul style="list-style-type: none"> <li>• Make conformity determinations on metropolitan transportation plans/TIPs updates/amendments and projects</li> <li>• Participate in the interagency consultation process for metropolitan transportation plan/TIP development and conformity determinations</li> <li>• Ensure timely implementation of TCMs</li> <li>• Ensure MPOs allow for adequate public involvement</li> <li>• Ensure that all other conformity and metropolitan transportation planning requirements are met</li> <li>• Develop technical guidance on traffic demand and forecasting, and Federal aid program guidance</li> <li>• Consult on the development of the SIP and motor vehicle emissions budgets</li> </ul>	<ul style="list-style-type: none"> <li>• At least every 4 years or when a metropolitan transportation plan/TIP is updated or amended with non-exempt projects</li> <li>• 24 months after certain SIP actions</li> <li>• 12 months after new nonattainment designations become effective</li> <li>• As needed</li> </ul>
<b>EPA</b>	<ul style="list-style-type: none"> <li>• Develop conformity rules, regulations, and guidance documents</li> <li>• Consult on the development of the SIP and motor vehicle emissions budgets</li> <li>• Review submitted budgets for adequacy and implement adequacy process</li> <li>• Provide technical guidance on TCMs and SIP development</li> <li>• Review and comment on draft and submitted control strategy and maintenance SIPs</li> <li>• Review, comment, and approve SIPs</li> <li>• Participate in the interagency consultation process for metropolitan transportation plan/TIP/project development and conformity determinations</li> <li>• Review and comment on proposed conformity determinations</li> <li>• Designate approved emissions models for use in SIP development and conformity determinations</li> </ul>	<ul style="list-style-type: none"> <li>• As needed</li> </ul>

Agencies	Roles and Responsibilities	When
	<ul style="list-style-type: none"> <li>• Designate “guideline” dispersion models for project-level emissions analysis</li> <li>• Participate in the TCM substitution process and codify substitute TCM into SIPs</li> <li>• Concur on TCM substitutions</li> </ul>	

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## Appendix E

CO or PM2.5 “Hot-Spot” Analysis Considerations for Project Sponsors (March 26, 2013)

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# CO or PM<sub>2.5</sub> “Hot-Spot” Analysis

## Considerations for Project Sponsors

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Initial considerations for determining if a “Hot Spot” analysis is needed

- Determine whether or not the project is actually located within a CO or PM 2.5 nonattainment or maintenance area based upon the project's geographical location.
- Classify projects as exempt or non-exempt or regionally significant for purposes of conformity to screen projects that are exempt from conformity requirements (regardless of geographic location).
- Establish project level benchmarks based upon EWG’s long-range transportation plan/TIP regional conformity determination (and the project's current design concept and scope). The project level benchmark, for CO, is the standard 35 ppm for the 1-hour and 9 ppm for the 8-hour average concentration. The project level benchmark, for PM 2.5, is the standard 12 micrograms per cubic centimeter. The project level air quality benchmark should be documented in the project file to be carried forward into the preliminary design phase. Exempt projects and projects located in attainment areas require no further assessment actions.

### PM<sub>2.5</sub>

For a project in the PM<sub>2.5</sub> area, is the project of “local air quality concern” listed in 40 CFR 93.123(b)(1)?

A PM hot-spot analysis must be based on quantitative analysis methods for the following types of projects:

- 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;
- 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 related to the project;
- New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;
- Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location;
- Projects in or affecting locations, areas, or categories of sites which are identified in the SIP or SIP submission as sites of violation or possible violation.

Questions that should be considered in consultation on particular projects:

1. What is the annual average daily traffic (AADT) of the affected roadways? If greater than 125,000 total AADT and at least 10,000 of that AADT is diesel truck traffic consult with IACG.
2. What is the percentage and AADT of diesel truck traffic of the affected roadways? If diesel truck traffic constitutes greater than 10% of total AADT or at least 10,000 trucks consult with IACG.
3. What is the level of service of the affected facility? If LOS is D, E or F, consult with IACG.
4. Does the project involve new bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location or expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location? If yes, consult with IACG.

If the IACG determines that the project requires a project level hot spot analysis, consult EPA's Quantitative PM Hot-Spot Modeling Guidance for performing the analysis.

## CO

For a project in the CO non-attainment or maintenance area, is a quantitative hot-spot analysis required under 40 CFR 93.123(a)(1)?

Questions that should be considered in consultation on particular projects:

1. Is the project in or affecting locations, areas, or categories of sites which are identified in the SIP as sites of violation or possible violation?
2. Does the project affect 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?
3. Does the project affect one or more of the top three intersections in the nonattainment or maintenance area with highest traffic volumes, as identified in the applicable SIP? If yes, consult IACG.

4. Does the project affect 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 SIP? If yes, consult IACG.

If no, a qualitative CO hot-spot analysis is required (under 40 CFR 93.123(a)(2)).<sup>2</sup>

If yes, consult EPA's MOVES Project-level CO Modeling Guidance and other applicable guidance for performing the analysis.

### Streamlining Considerations for Projects that Require a Hot-spot Analysis

DOT, in consultation with EPA, may also choose to make a categorical hot-spot finding that 40 CFR 93.116(a) is met without further hot-spot analysis for any project described in paragraphs 40 CFR 93.123(a) and (b)(1). When a project is determined to require a hot-spot analysis, the IACG will determine whether any such finding has been made by the DOT HQ offices, and whether such a finding applies to a particular project.

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<sup>2</sup>A quantitative CO hot-spot analysis can also be done to satisfy this requirement for applicable projects.

## Attachment A: Exempt Projects 40 CFR 93.126.

### Safety

Railroad/highway crossing

Projects that correct, improve, or eliminate a hazardous location or feature

Safer non-Federal-aid system roads

Shoulder improvements

Increasing sight distance

Highway Safety Improvement Program implementation

Traffic control devices and operating assistance other than signalization projects

Railroad/highway crossing warning devices

Guardrails, median barriers, crash cushions

Pavement resurfacing and/or rehabilitation

Pavement marking

Emergency relief (23 U.S.C. 125)

Fencing

Skid treatments

Safety roadside rest areas

Adding medians

Truck climbing lanes outside the urbanized area

Lighting improvements

Widening narrow pavements or reconstructing bridges (no additional travel lanes)

Emergency truck pullovers

### Mass Transit

Operating assistance to transit agencies

Purchase of support vehicles

Rehabilitation of transit vehicles <sup>1</sup>.

Purchase of office, shop, and operating equipment for existing facilities

Purchase of operating equipment for vehicles (e.g., radios, fare boxes, lifts, etc.)

Construction or renovation of power, signal, and communications systems

Construction of small passenger shelters and information kiosks

Reconstruction or renovation of transit buildings and structures (e.g., rail or bus buildings, storage and maintenance facilities, stations, terminals, and ancillary structures)

Rehabilitation or reconstruction of track structures, track, and trackbed in existing rights-of-way

Purchase of new buses and rail cars to replace existing vehicles or for minor expansions of the fleet <sup>1</sup>

Construction of new bus or rail storage/maintenance facilities categorically excluded in 23 CFR part 771

### Air Quality

Continuation of ride-sharing and van-pooling promotion activities at current levels

Bicycle and pedestrian facilities

## Other

Specific activities which do not involve or lead directly to construction, such as:

Planning and technical studies

Grants for training and research programs

Planning activities conducted pursuant to titles 23 and 49 U.S.C.

Federal-aid systems revisions

Engineering to assess social, economic, and environmental effects of the proposed action or alternatives to that action

Noise attenuation

Emergency or hardship advance land acquisitions (23 CFR 710.503)

Acquisition of scenic easements

Plantings, landscaping, etc.

Sign removal

Directional and informational signs

Transportation enhancement activities (except rehabilitation and operation of historic transportation buildings, structures, or facilities)

Repair of damage caused by natural disasters, civil unrest, or terrorist acts, except projects involving substantial functional, locational or capacity changes

## Notes

<sup>1</sup> In PM2.5 nonattainment or maintenance areas, such projects are exempt only if they are in compliance with control measures in the applicable SIP.

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## **Appendix F**

### Glossary of Air Quality Terms

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## **Acronyms**

**AQAC** – Air Quality Advisory Committee

**AADT** – Average Annual Daily Traffic

**BRT** – Bus Rapid Transit

**CAA** – Clean Air Act as amended in 1990

**CMAQ** – Congestion Mitigation/Air Quality Program

**EPA** – U.S. Environmental Protection Agency

**EWG** – East-West Gateway Council of Governments

**FHWA** – Federal Highway Administration (U.S. Department of Transportation)

**FIP** – Federal Implementation Plan

**FTA** – Federal Transit Administration (U.S. Department of Transportation)

**HPMS** – Highway Performance Monitoring System

**IACG** – Inter Agency Consultation Group

**IDOT** – Illinois Department of Transportation

**Illinois EPA** – Illinois Environmental Protection Agency

**MPO** – Metropolitan Planning Organization (EWG)

**MAP-21** – Moving Ahead for Progress in the 21<sup>st</sup> Century (2012)

**MoDNR** – Missouri Department of Natural Resources

**MoDOT** – Missouri Department of Transportation

**MOVES** – MOtor Vehicle Emissions Simulator model

**NAAQS** – National Ambient Air Quality Standard

**NEPA** – National Environmental Policy Act of 1969

**NO<sub>x</sub>** – Oxides of Nitrogen

**OTAQ** – Office of Transportation and Air Quality (USEPA)

**PM<sub>2.5</sub>** – Particulate Matter (2.5 micrometers or smaller in diameter)

**RTP** – Regional Long Range Transportation Plan

**SIP** – State Implementation Plan

**STIP** – Statewide Transportation Improvement Plan

**TCM** – Transportation Control Measure

**TIP** – Transportation Improvement Program

**USDOT** – U.S. Department of Transportation

**USEPA** – U.S. Environmental Protection Agency

**VMT** – Vehicle Miles Traveled

**VOC** – Volatile Organic Compounds (May also be referred to as Volatile Organic Material.)

## Definitions

Following definitions include many aspects of air quality planning and requirements beyond the scope of conformity determination.

**CAA** – the Clean Air Act, as amended (42 U.S.C. 7401 et seq.).

**Cause or contribute to a new violation** for a project means:

- 1) To cause or contribute to a new violation of a standard in the area substantially affected by the project or over a region which would otherwise not be in violation of the standard during the future period in question, if the project were not implemented, or
- 2) To contribute to a new violation in a manner that would increase the frequency or severity of a new violation of a standard in such area.

**Clean data** – complete quality assured and certified ambient air monitoring data for applicable monitoring time period determined by EPA that indicate attainment of the national ambient air quality standard.

**Design concept** – the type of facility identified by the project, e.g., freeway, expressway, arterial highway, grade separated highway, reserved right-of-way rail transit, mixed traffic rail transit, exclusive busway, etc.

**Design scope** – the design aspects of a facility which will affect the proposed facility's impact on regional emissions, usually as they relate to vehicle or person carrying capacity and control, e.g., number of lanes or tracks to be constructed or added, length of project, signalization, access control including approximate number and location of interchanges, preferential treatment for high-occupancy vehicles, etc.

**EWG** – the East-West Gateway Council of Governments is the Metropolitan Planning Organization (MPO) designated as being responsible, together with the State, for conducting the continuing, cooperative, and comprehensive planning process under 23 U.S.C. 134 and 49 U.S.C. 1607. It is the forum for cooperative transportation decision-making.

**Exempt Project** – Sections 93.126 –128 of the Transportation Conformity Regulations (April 2012) identify highway and transit project types which are exempt from the requirement to determine conformity altogether (93.126 and 93.128) or exempt from regional emissions analysis (93.127) and key caveats to be considered.

**FHWA/FTA project** – is any highway or transit project which is proposed to receive funding assistance and approval through the Federal-Aid Highway program or the Federal mass transit program or requires FHWA or FTA approval for some aspect of the project, such as connection to an interstate highway or deviation from applicable design standards on the interstate system.

**Forecast period** with respect to a transportation plan is the period covered by the transportation plan pursuant to 23 CFR part 450.

**Highway project** – an undertaking to implement or modify a highway facility or highway-related program. Such an undertaking consists of all required phases necessary for implementation. For analytical purposes, it must be defined sufficiently to: (1) connect logical termini and be of sufficient length to address environmental matters on a broad scope; (2) have independent utility or significance, i.e., be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made; and (3) not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

**Horizon year** – a year for which the transportation plan describes the envisioned transportation system in accordance with section 106 of this agreement.

**Hot-spot analysis** – is an estimation of likely future localized CO, PM10, and/or PM2.5 pollutant concentrations and a comparison of those concentrations to the national ambient air quality standards. Hot-spot analysis assesses impacts on a scale smaller than the entire non-attainment or maintenance area, including, for example, congested roadway intersections and highways or transit terminals, and uses an air quality dispersion model to determine the effects of emissions on air quality.

**Increase the frequency or severity** – to cause a location or region to exceed a standard more often or to cause a violation at a greater concentration than previously existed and/or would otherwise exist during the future period in question, if the project were not implemented.

**Lapse** – the conformity determination of a transportation plan or TIP has expired, and thus there is no currently conforming transportation plan or TIP.

**Maintenance area** – any geographic region previously designated non-attainment pursuant to the CAA Amendments of 1990 and subsequently redesignated to attainment subject to the requirement to develop a maintenance plan under §175A of the CAA, as amended. In June 2012 Madison, Monroe, St. Clair and Jersey Counties in Illinois were designated as a maintenance area under the 1997 ozone standard.

**Maintenance plan** – an implementation plan under §175A of the CAA, as amended, intended to describe how an area that has been redesignated from non-attainment will maintain the standard and outlines what actions, if any, will be undertaken in the event of a recurring violation.

**Maintenance period** – with respect to a pollutant or pollutant precursor means that period of time beginning when US EPA approves a request by a State for redesignation from non-attainment to an attainment area, and lasting for 20 years, unless the applicable implementation plan specifies that the maintenance period shall last for more than 20 years.

**MAP-21** – Moving Ahead for Progress in the 21<sup>st</sup> Century is the transportation bill signed in to law on July 2012 and supercedes SAFETEA-LU, the Intermodal Surface Transportation Efficiency Act of 1991 and the Transportation Equity Act for the 21<sup>st</sup> Century.

**Milestone.** A milestone consists of an reduction in emissions and the date on which it is required to be achieved (§ 182(g)(1) of the CAA.).

**Motor vehicle emissions budget** – the total allowable emissions allocated to highway and transit vehicle use defined in the submitted or approved control strategy implementation plan revision or maintenance plan for a certain date for the purpose of meeting reasonable further progress milestones or demonstrating attainment or maintenance of the NAAQS for any criteria pollutant or its precursors.

**MOVES2010b** – Mobile source emission model required by USEPA for use after March 2, 2013 outside the State of California.

**NO<sub>x</sub>** – Oxides of Nitrogen as defined in the CAA or any regulation promulgated thereunder.

**National Ambient Air Quality Standards (NAAQS)** – those standards established pursuant to §109 of the CAA.

**NEPA** – the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.).

**NEPA process completion** – with respect to FHWA or FTA, means the point at which there is a specific action to make a formal final determination that a project is categorically excluded, to make a Finding of No Significant Impact, or to issue a record of decision on a Final Environmental Impact Statement under NEPA.

**OTAQ** – The EPA Office of Transportation and Air Quality is the office responsible for adopting and revising the transportation conformity regulations. It is also responsible for posting information on proposed motor vehicle emissions budgets for the purposes of determining “adequacy”.

**PM<sub>2.5</sub>** – Fine particulate matter 2.5 micrometers or smaller.

**Project** – a highway project or transit project.

**Protective finding** – a determination by EPA that a submitted control strategy implementation plan revision contains adopted control measures or written commitments to adopt enforceable control measures that fully satisfy the emissions reductions requirements relevant to the statutory provision for which the implementation plan revision was submitted, such as reasonable further progress or attainment.

**Public Involvement Plan** – the procedures developed by EWGCOG to collect early, continuing and meaningful input from the public to the transportation decision-making process in compliance with 23 CFR part 450.

**Recipient of funds designated under title 23 U.S.C. or the Federal Transit Laws** – any agency at any level of State, county, city, or regional government that routinely receives title 23 U.S.C. or Federal Transit Laws funds to construct FHWA/FTA projects, operate FHWA/FTA

projects or equipment, purchase equipment, or undertake other services or operations via contracts or agreements. This definition does not include private landowners or developers, or contractors or entities that are only paid for services or products created by their own employees.

**Regionally significant project** - a transportation project (other than an exempt project) that is on a facility which serves regional transportation needs (such as access to and from the area outside of the region, major activity centers in the region, major planned developments such as new retail malls, sports complexes, etc., or transportation terminals, as well as most terminals themselves) and would normally be included in the modeling of a metropolitan area's transportation network, including at a minimum all principal arterial highways; and all fixed guideway transit facilities that offer an alternative to regional highway travel.

**St. Louis Non-attainment area ozone (2008 standard)** – the Illinois counties of Madison, Monroe and St. Clair and the Missouri Counties of Franklin, Jefferson, St. Louis, and St. Charles and the City of St. Louis. These counties were designated in 2012 as non-attainment for ozone under Section 107 of the CAA. For the 1997 ozone standard, the non-attainment area was defined in 2004 as the Illinois counties of Jersey, Madison, Monroe and St. Clair and the Missouri Counties of Franklin, Jefferson, St. Louis, and St. Charles and the City of St. Louis, under Section 107 of the CAA. In June 2012 Madison, Monroe, St. Clair and Jersey Counties in Illinois were designated as a maintenance area under the 1997 ozone standard.

**St. Louis Non-attainment area PM<sub>2.5</sub> (1997 annual standard)** – in 2005 the non-attainment area was designated as the Illinois counties of Madison, Monroe, St. Clair and Baldwin Township in Randolph County and the Missouri counties of Franklin, Jefferson, St. Charles and St. Louis and the City of St. Louis.

**Safety margin** - the amount by which the total projected emissions from all sources of a given pollutant are less than the total emissions that would satisfy the applicable requirement for reasonable further progress, attainment, or maintenance.

**Standard** – a national ambient air quality standard.

**State Implementation Plan (SIP)** – is a plan for each State which identifies how that state will attain and/or maintain the primary and secondary National Ambient Air Quality Standards set forth in section 109 of the CAA and 40 CFR 40.4 through 50.12 and which includes federally-enforceable requirements. Each State is required to have a SIP which contains control measures and strategies which demonstrate how each area will attain and maintain the standards. These plans are developed through a public process, formally adopted by the State and submitted by the Governor's designee to USEPA. The CAA requires USEPA to review each plan and any plan revisions and to approve the plan or plan revisions if consistent with CAA.

The contents of a typical SIP fall into several categories: (1) State-adopted control measures which consists of either rules/regulations or source-specific requirements (e.g., orders and consent decrees); (2) State-submitted comprehensive air quality plans, such as attainment plans, maintenance plans, rate of progress plans and transportation control plans demonstrating how these state regulatory and source-specific controls, in conjunction with federal programs, will

bring and/or keep air quality in compliance with federal air quality standards; (3) State-submitted “non-regulatory” requirements, such as emission inventories, small business compliance assistance programs; statutes demonstrating legal authority, monitoring networks, etc. (or Transportation Conformity Rule); and (4) additional requirements promulgated by USEPA (in the absence of a commensurate State provision) to satisfy a mandatory section 110 or part D (CAA) requirement.

**Statewide transportation improvement program (STIP)** – a staged, multi-year, intermodal program of transportation projects covering the State, which is consistent with the statewide transportation plan and metropolitan transportation plans, and developed pursuant to 23 CFR part 450.

**Statewide transportation plan** – the official intermodal statewide transportation plan that is developed through the statewide planning process for the State, developed pursuant to 23 CFR part 450.

**Title 23 U.S.C.** – title 23 of the United States Code.

**Transit** – mass transportation by bus, rail, or other conveyance which provides general or special service to the public on a regular and continuing basis. It does not include school buses or charter or sightseeing services.

**Transit project**- an undertaking to implement or modify a transit facility or transit-related program; purchase transit vehicles or equipment; or provide financial assistance for transit operations. It does not include actions that are solely within the jurisdiction of local transit agencies, such as changes in routes, schedules, or fares. It may consist of several phases. For analytical purposes, it must be defined inclusively enough to: (1) connect logical termini and be of sufficient length to address environmental matters on a broad scope; (2) have independent utility or independent significance, i.e., be a reasonable expenditure even if no additional transportation improvements in the area are made; and (3) not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

**Transportation control measure (TCM)** – any measure that is specifically identified and committed to in the applicable implementation plan that is either one of the types listed in § 108 of the CAA, or any other measure for the purpose of reducing emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions. Notwithstanding the first sentence of this definition, vehicle technology-based, fuel-based, and maintenance-based measures which control the emissions from vehicles under fixed traffic conditions are not TCMs for the purposes of this agreement.

**Transportation improvement program (TIP)** - a program of intermodal projects to be implemented over several years that grows out of the regional transportation plan process and designed to improve transportation in the metropolitan planning area which was developed pursuant to 23 CFR part 450.

**Transportation plan** – a document that is an assessment of a region’s intermodal transportation facility, service and policy needs over the next 25-30 years. The plan considers a wide range of social, environmental, energy and economic factors. The plan considers overall regional goals and how transportation can meet those goals within financial limits. It is developed through the metropolitan planning process for the metropolitan planning area, developed pursuant to 23 CFR part 450.

**Transportation project** – a highway project or a transit project.

**VOC** – Volatile Organic Compounds as defined in the CAA or any regulation promulgated thereunder. May also be referred to as Volatile Organic Material (VOM).

## Pollutants

Acronym	Pollutant	Notes
<b>Criteria Pollutants</b>		
<b>VOC</b>  <b>Ozone</b>	<p>Volatile organic compounds</p>	<p>Regulated in lieu of ozone</p> <p>Ground level ozone is not emitted directly into the air, but is created by chemical reactions between hydrocarbons, also known as volatile organic compounds (VOC), and oxides of nitrogen (NO<sub>x</sub>) with oxygen in the lower atmosphere in the presence of strong sunlight and high temperatures. Emissions from industrial facilities and electric utilities, motor vehicle exhaust, gasoline vapors and chemical solvents are some of the major sources of VOC and NO<sub>x</sub>.</p>
<p><b>PM</b></p> <p><b>PM<sub>10</sub></b></p> <p><b>PM<sub>2.5</sub></b></p>	<p>Particulate matter</p> <p>Coarse particulate matter less than 10 microns in diameter and more than 2.5 microns in diameter</p> <p>Fine particulate matter less than 2.5 microns in diameter</p>	<p>Also referred to as total suspended particulates (TSP). It is a complex mix of extremely small solid particles and liquid droplets suspended in the air. Includes both filterable and condensable material. Inhalable coarse particles. Can be found near roadways and dusty industries.</p> <p>Fine particles include both filterable and condensable material. Can be directly emitted from sources, like a forest fire, or can form when gases emitted from power plants, industry and automobiles react in the air.</p> <p>Fine PM is made up of a variety of components including acids (such as nitrates or sulfates), organic chemicals, metals, soil or dust particles. Some particles are directly emitted from sources (construction sites, unpaved roads, fields, smokestacks or fires) and others form indirectly from chemical reactions in the atmosphere of gases, such as sulfur dioxide, nitrogen oxides and volatile organic compounds (from power plants, industries, automobiles).</p>
<b>NO<sub>2</sub> or NO<sub>x</sub></b>	Nitrogen dioxide or nitrogen oxides	<p>NO<sub>x</sub> is converted to NO<sub>2</sub> in the atmosphere. NO<sub>2</sub> is the regulated pollutant. Highly reactive gases</p> <p>Nitrogen oxide or oxides of nitrogen group. NO<sub>2</sub> serves as indicator for larger group of nitrogen oxides. Forms quickly from emissions from cars, trucks and buses, power plants and off-road equipment. Contributes to the formation of ground-level ozone and fine particulate</p>

Acronym	Pollutant	Notes
		pollution.
<b>SO<sub>2</sub></b>	Sulfur dioxide	Sometimes pronounced as “socks”. Highly reactive gases. Oxides of sulfur group with SO <sub>2</sub> as the regulated pollutant. Major sources come from fossil fuel combustion at power plants and other industrial facilities. Smaller sources include industrial processes extracting metal from ore and the burning of high sulfur fuel by locomotives, ships and non-road equipment.
<b>CO</b>	Carbon monoxide	Has the highest thresholds of all the criteria pollutants. Colorless, odorless gas emitted from combustion processes. Majority of CO emissions are from mobile sources.
<b>Pb</b>	Lead	Not as severe a public health problem since the switch to unleaded gasoline. Found naturally in environment as well as in manufactured products. Major sources of lead emissions in air today are ore and metal processing and piston-engine aircraft operating on leaded aviation gasoline.
<b>Greenhouse Gases</b>		
<b>GHGs</b>  <b>CO<sub>2</sub></b> <b>CO<sub>2</sub>e</b>	Greenhouse gases      Carbon dioxide Carbon dioxide equivalent	A comprehensive group of chemical gases that contribute to the “greenhouse” effect. Trap heat in the atmosphere. The largest source of GHG emissions from human activities in the U.S. is from burning fossil fuels for electricity, transportation, industry, heating and agriculture. Also can enter atmosphere as a result of certain chemical reactions. The most common GHG is CO <sub>2</sub> . Metric measurement used to compare the emissions from various GHGs based upon their global warming potential. Metric is derived by multiplying the tons of the specific gas by the associated global warming potential.
<b>Air Toxics</b>		
<b>HAPs</b>	Hazardous air pollutants	USEPA has identified 187 toxic air pollutants, or hazardous air pollutants. Regulated based on maximum individual HAP and total of all HAPs summed. These are pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects.

Sources - Burns & McDonnell TECHBriefs 2012 No. 4 and U.S. Environmental Protection Agency

### Air Pollution Control Device and Limit Requirements

<b>Acronym</b>	<b>Control Requirement</b>	<b>Type of Sources</b>	<b>Location of Sources</b>	<b>Applicable Pollutants</b>	<b>Notes</b>
<b>BACT</b>	Best Available Control Technology	New and modified major sources	Attainment areas	Criteria	Case-by-case
<b>BART</b>	Best Available Retrofit Technology	Existing	Near Class 1 areas	SO <sub>2</sub> , NO <sub>x</sub> , PM	Goal is to improve visibility in 156 national parks and wilderness areas protection under the Regional Haze Program.
<b>CAIR</b>	Clean Air Interstate Rule	New and existing electric generating units	Eastern U.S.	SO <sub>2</sub> , NO <sub>x</sub>	Goal is to reduce ozone and PM <sub>2.5</sub> in air. Struck down by courts but remains in place until USEPA replaces it with another regulation.
<b>CSAPR</b>	Cross State Air Pollution Rule	New and existing electric generating units	Eastern U.S.	SO <sub>2</sub> , NO <sub>x</sub>	Goal is to reduce ozone and PM <sub>2.5</sub> in eastern U.S. regional airshed. Was to replace CAIR. Recently vacated by courts..
<b>LAER</b>	Lowest Achievable Emission Rate	New	Non-Attainment areas	Criteria	Goal is to improve air quality.
<b>MACT</b>	Maximum Achievable Control Technology	New and existing major sources of HAPs	All	Hazardous Air Pollutants (HAPs)	Specific to different source categories.
<b>MATS</b>	Mercury and Air Toxics Standards	Coal and oil-fired electric generating units with a capacity of 25	All	Mercury and other hazardous air pollutants	Replaced court vacated Clean Air Mercury Rule (CAMR).

<b>Acronym</b>	<b>Control Requirement</b>	<b>Type of Sources</b>	<b>Location of Sources</b>	<b>Applicable Pollutants</b>	<b>Notes</b>
		megawatts or greater			
<b>NAAQS</b>	National Ambient Air Quality Standard	All	All	Criteria	The numerical values for criteria air pollutants which determine if air quality is healthy.
<b>NESHAP</b>	National Emission Standards for Hazardous Air Pollutants	Specific to different source categories	All	HAPs	Umbrella for regulations under 40 CFR 61 and 62.
<b>NNSR</b>	Non-Attainment New Source Review	New	Non-Attainment areas	The pollutant(s) for which the area is out of attainment.	Most common pollutant is ozone.
<b>NSPS</b>	New Source Performance Standard	New	All	Any	Specific to different source categories. Some modifications can make an “existing” unit “new”.
<b>NSR</b>	New Source Review	New	All	Criteria	Umbrella program for PSD and NNSR.
<b>PSD</b>	Prevention of Significant Deterioration	New	Attainment areas	Criteria	Goal is to maintain air quality.
<b>RACT</b>	Reasonably Available Control Technology	Existing	Non-Attainment areas	Criteria	Target is grandfathered units.

Sources - Burns & McDonnell TECHBriefs 2012 No. 4 and U.S. Environmental Protection Agency

## Web Sites

[www.epa.gov](http://www.epa.gov)

[www.dot.gov](http://www.dot.gov)

[www.fhwa.dot.gov](http://www.fhwa.dot.gov)

[www.dnr.state.mo.us](http://www.dnr.state.mo.us)

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[www.epa.gov/otaq/transp/conform/adequacy.htm](http://www.epa.gov/otaq/transp/conform/adequacy.htm)

[www.modot.mo.gov](http://www.modot.mo.gov)

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