

Transportation Air Quality Issues

2014 WVDOT/MPO/FHWA Transportation Planning and Programming Conference

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NAAQS

National Ambient Air Quality Standards

- NAAQS exist for the following pollutants:
 - Ozone (O_3)* [precursors: Nitrogen Oxides (NO_x) & Volatile Organic Compounds (VOC)]
 - Sulfur Dioxide (SO₂)
 - Nitrogen Dioxide (NO₂)*
 - Carbon Monoxide (CO)* - has not been an issue in WV
 - Lead (Pb)
 - Particulate Matter (PM) [main precursors: SO₂, NO_x
Others: Ammonia and VOC]
 - PM₁₀
 - PM_{2.5}*

* = Key Transportation-Related Pollutant



NAAQS and Attainment

- When an area violates a NAAQS standard it is designated as a “Nonattainment Area”
 - Attainment / Nonattainment designations are made individually for each NAAQS pollutant
 - Once designated, plans must be created to bring the area back into attainment
 - When an area achieves attainment of the NAAQS
 - Area is redesignated as a “Maintenance Area”
 - Maintenance areas are required to have a plan to achieve attainment for 20 years (10 + 10)

1997 PM_{2.5} NAAQS SIP Status

Area	Attainment Determination	Redesignation Request Submitted	EPA Redesignation Proposed	EPA Redesignation Final
Charleston	11 OCT 2011 76 FR 62640	12/6/2012	24 JAN 2014 79 FR 4121	31 MAR 2014 79 FR 17884
Huntington	07 SEP 2011 76 FR 55542	6/30/2011	15 NOV 2012 77 FR 68076	28 DEC 2012 77 FR 76415
Martinsburg	20 NOV 2009 74 FR 60199	8/5/2013	05 MAY 2014 79 FR 25540	
Parkersburg	20 NOV 2009 74 FR 60199	3/5/2012	11 DEC 2012 77 FR 73560	12 SEP 2013 78 FR 56168
Weirton	14 SEP 2011 76 FR 56641	4/13/2012	09 DEC 2013 78 FR 73769	18 MAR 2014 79 FR 15019
Wheeling	20 NOV 2009 74 FR 60199	3/8/2012	11 DEC 2012 77 FR 73575	30 SEP 2013 78 FR 59841

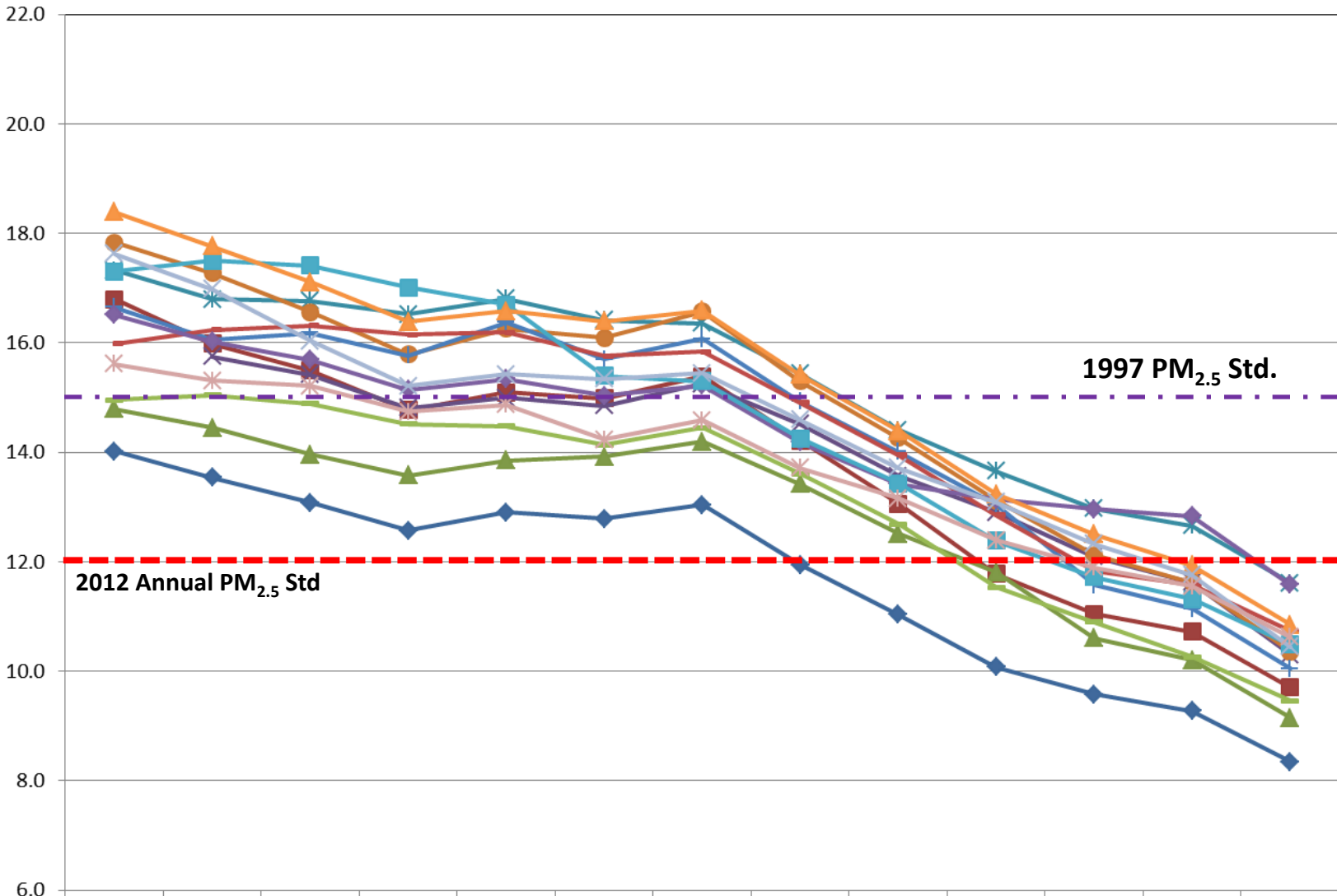
2006 (24-hr) PM_{2.5} NAAQS SIP Status

Area	Attainment Determination	Redesignation Request Submitted	EPA Redesignation Final	Effective Date
Charleston	18 NOV 2011 76 FR 71450	12/6/2012	31 MAR 2014 79 FR 17884	04/30/2014
Weirton	04 OCT 2011 76 FR 61291	4/13/2012	18 MAR 2014 79 FR 15019	04/17/2014

West Virginia PM2.5

Annual Design Values *(Final and Certified thru 12/31/2013)*

µg/m³



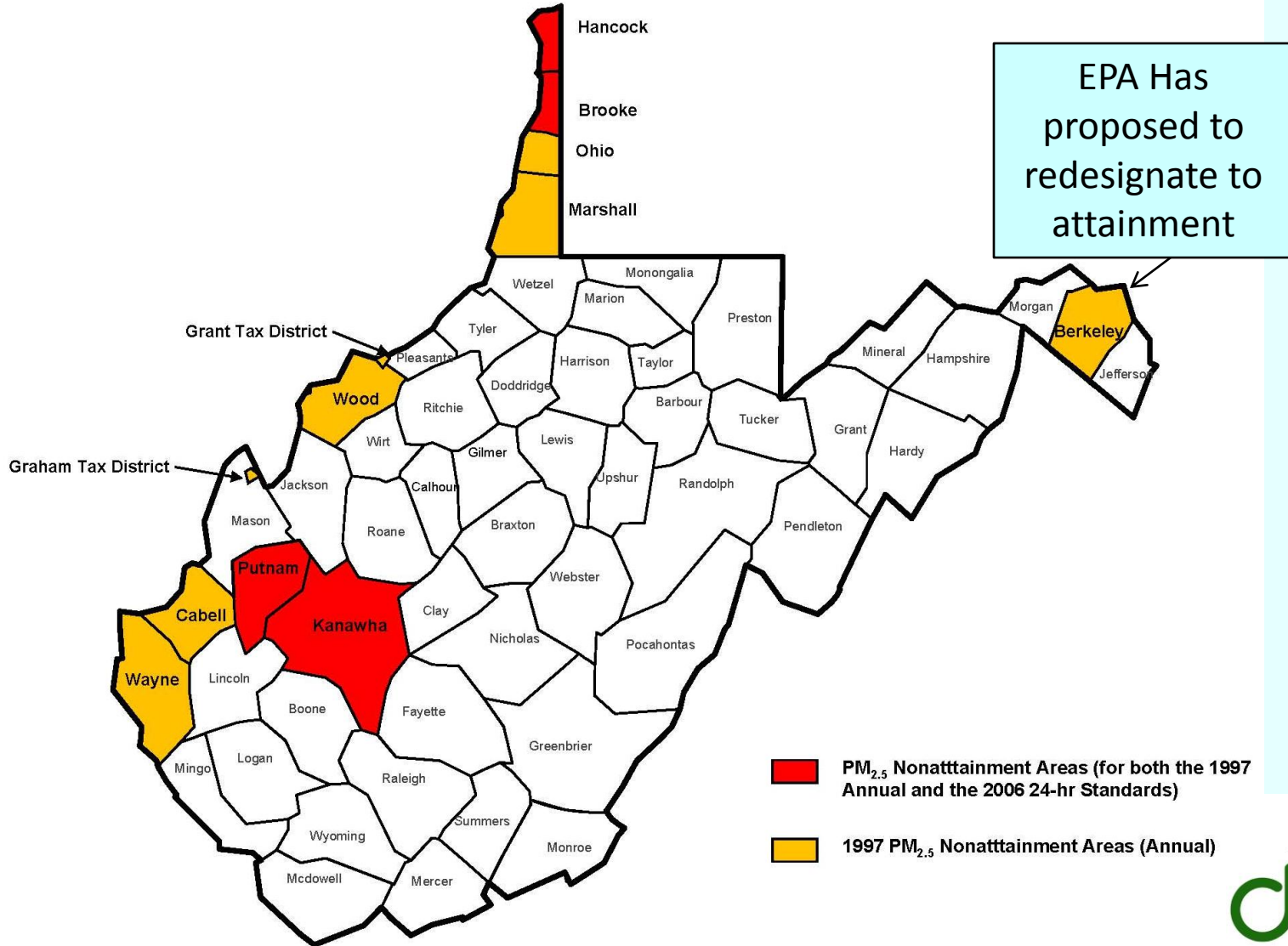
1997 PM_{2.5} Std.

2012 Annual PM_{2.5} Std

3 Year Average Period

- ◆ Beckley
- Charleston
- ▲ Clarksburg
- × Fairmont
- * Follansbee
- Huntington
- + Marl Hgts
- Martinsburg
- Morgantown
- ◆ Moundsville
- Oak St
- ▲ So Charleston
- + Vienna
- * Wheeling

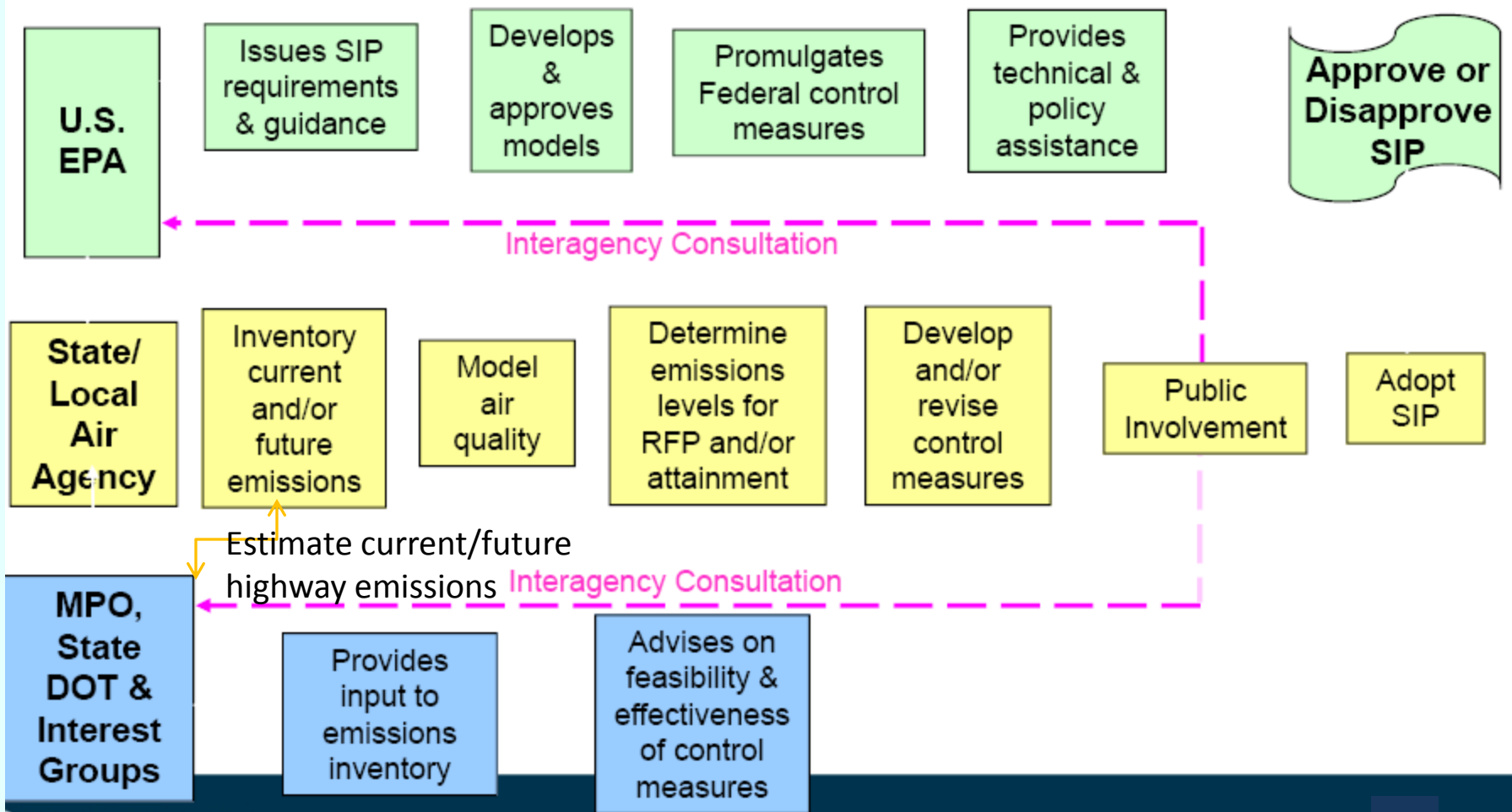
Former PM_{2.5} Non-Attainment Areas in WV



Annual PM_{2.5} Design Values

County	11-13	County	11-13
Berkeley	10.7	Marion	10.3
Brooke	11.6	Marshall	11.6
Cabell	10.4	Monongalia	9.5
Hancock	10.5	Ohio	10.6
Harrison	9.2	Raleigh	8.3
Kanawha	10.8	Wood	10.4

Typical State Implementation Plan (SIP) Development Process



Mobile Emissions

- **Criteria Pollutants:** Nitrogen Oxides (NO_x), Volatile Organic Compounds (VOC), Particulate Matter (PM), Sulfur Dioxide (SO₂)
- **Toxic/Hazardous Air Pollutants**
- **Green House Gases**
- **On-Road:** Cars, trucks, buses, etc.
- **Off-Road:** Planes, trains, marine, recreational
- **Emission Inventories (WV DAQ & EPA)**
- **Transportation Conformity (DAQ, DOT & Metropolitan Planning Organizations)**

Transportation-Related Elements of a SIP

- Major transportation-related elements include:
 - On-road mobile source inventory
 - **Motor vehicle emissions budget (MVEB)**
 - **Used for subsequent transportation conformity determinations**
 - **Developed using latest planning assumptions: TDM, MOVES, Inter-Agency Consultation**
 - Transportation control measures (optional)

Transportation Conformity

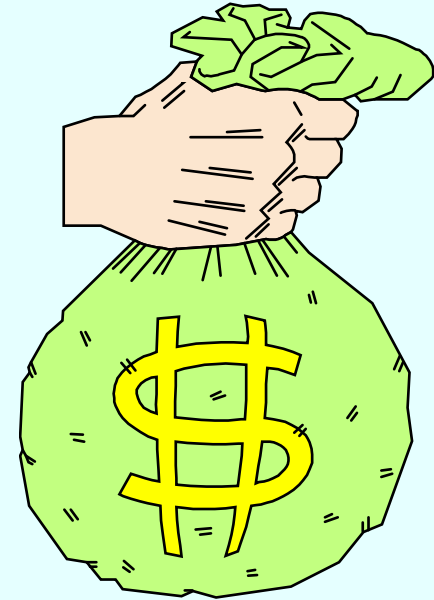
- The 1990 Clean Air Act Amendments (CAAA) prohibit any Federal agency from supporting activities that do not conform to the applicable air quality State Implementation Plan (SIP).
- Specifically, the CAAA prohibits Metropolitan Planning Organizations (MPOs) from approving transportation plans, projects or programs that do not conform to a SIP.

Conformity Linked to Funding

“Under the metropolitan planning requirements of Titles 23 and 49 U.S.C., projects cannot be:

- approved,
- funded,
- advanced through the planning process, or
- implemented

unless projects are in a conforming plan and TIP”



Conformity to an implementation plan means—

- Conformity to an implementation plan's purpose of eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards and achieving expeditious attainment of such standards; and
- that such activities will not—
 - Cause or contribute to any new violation of any new standard in any area;
 - Increase the frequency or severity of any existing violation of any standard in any area; or
 - Delay timely attainment of any standard or any required interim reductions or other milestones in any area.
 - The determination of conformity shall be based on the most recent estimates of emissions, and such estimates shall be determined from the most recent population, employment, travel and congestion estimates as determined by the metropolitan planning organization or other agency authorized to make such estimates.

Conformity Rule

- EPA: First transportation conformity rule - NOV 1993, codified at 40 CFR 93, subpart A; many revisions over the next decade & beyond, some prompted by court decisions
- States are required to adopt three specific SIP elements:
 - Consultation procedures [40 CFR §93.105]; and
 - Procedures for determining regional transportation-related emissions [40 CFR §93.122(a)(4)(ii)]; and
 - Enforceability of design concept and scope and project-level mitigation and control measures [93.125(c)]
- EPA published a direct final approval of West Virginia's most recent transportation conformity SIP in the May 2, 2008 *Federal Register* (73 FR 24175).
- Includes a series of MOUs detailing the responsibilities for the many entities involved in the evaluation & approval process. These include EPA, FHWA, FTA, state DOTs, state air agencies and various MPOs

CONFORMITY DETERMINATION REQUIREMENTS

updated 08/11/14

ACTIONS	REGIONAL EMISSIONS ANALYSIS		
	Not Required - Exempt Projects	Rely on Previous Emissions Analysis	New Emission Analysis Required
MPO Initiated IAC Consultation	Statement to IAC *	Required	Required
MPO Conformity REPORT	Statement to IAC	<p style="text-align: center;">Short Conformity Report</p> <ul style="list-style-type: none"> • Describe whether the TIP/MTP amendment will hinder TCM implementation • Ability of this TIP/MTP amendment to rely on a previous regional emission analysis per 93.122 • Minutes from InterAgency Consultation (IAC) • Discussion of Fiscal Constraint • Discussion of Public Involvement Efforts 	<p style="text-align: center;">Full Conformity Report</p> <ul style="list-style-type: none"> • All elements of Short Conformity Report • Regional emission analysis (TDF and Emissions model runs)
Public Participation	As required by Participation Plan **, ***	Required	Required
MPO Resolution	Required	Required	Required
MPO request to FHWA for Conformity Determination	Not Required	Required	Required
Federal 30-Day Review	Not Required	Required	Required
Federal Conformity DETERMINATION	Not Required	Required	Required

* If the IAC feels the project is not exempt then further actions are required.

** If the Participation Plan specifies public review of exempt projects is not required, then none is needed.

***If the "Grouped Project" list in the TIP includes exempt projects, and the TIP has had public review, then additional public participation is not required.

AMENDMENT (23 CFR 450.104):

Amendment means a revision to a LRSTP/MTP or STIP/TIP that involves a *major* change to a project included in the LRSTP/MTP or STIP/TIP including the:

• Addition or deletion of a project, or	• Major change in project cost,	• Project/project phase initiation dates, or a	• Major change in design concept or design scope (e.g. changing project termini or the number of through traffic lanes).
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An amendment is a revision that **does** require:

• Public review and comment,	• Redemonstration of fiscal constraint, or a	• Conformity Determination (for MTPs and TIPs involving "non-exempt" projects in nonattainment and maintenance areas.)	
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ADMINISTRATIVE MODIFICATION (23 CFR 450.104):

Administrative modification means a *minor** revision to a LRSTP/MTP or STIP/TIP that includes a *minor* changes to:

• Project/project phase costs,	• Minor changes to funding sources of previously-included projects, and	• Minor changes to project/project phase initiation dates.	
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An administrative modification is a revision that **does not** require:

• Public review and comment,	• Redemonstration of fiscal constraint, or a	• Conformity Determination (in nonattainment and maintenance areas)	
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REMINDER: The IAC must be notified of Administrative Modifications (i.e. \$ thresholds might allow adm. mods, but conformity might still be required).



- If you are in a nonattainment or maintenance area, you must use the interagency consultation procedures every time you update your Tip or Long Range Plan.
- This is true even if there has been a regional insignificance finding that makes it unnecessary to perform a regional emissions analysis.
- Still need to show that you considered whether a local hotspot analysis is needed.
- Still need to meet all local, state and federal requirements for TIP and LRTP (e.g. latest planning assumptions; public participation)

Section 93.123(b)(1) of the conformity rule defines the projects that require a PM2.5 or PM10 hot-spot analysis as:

- “(i) New highway projects that have a significant number of diesel vehicles, and expanded highway projects that have a significant increase in the number of diesel vehicles;
- (ii) Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;
- (iii) New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;
- (iv) Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and
- (v) Projects in or affecting locations, areas, or categories of sites which are identified in the PM2.5 or PM10 applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.”

A PM hot-spot analysis is not required for projects that are not of local air quality concern.

Some examples of projects of local air quality concern that would be covered by 40 CFR 93.123(b)(1)(i) and (ii) are:

- A project on a new highway or expressway that serves a significant volume of diesel truck traffic, such as facilities with greater than 125,000 annual average daily traffic (AADT) and 8% or more of such AADT is diesel truck traffic;
- New exit ramps and other highway facility improvements to connect a highway or expressway to a major freight, bus, or intermodal terminal;
- Expansion of an existing highway or other facility that affects a congested intersection (operated at Level-of-Service D, E, or F) that has a significant increase in the number of diesel trucks; and,
- Similar highway projects that involve a significant increase in the number of diesel transit busses and/or diesel trucks.

Some examples of projects of local air quality concern that would be covered by 40 CFR 93.123(b)(1)(iii) and (iv) are:

- A major new bus or intermodal terminal that is considered to be a “regionally significant project” under 40 CFR 93.101²; and,
- An existing bus or intermodal terminal that has a large vehicle fleet where the number of diesel buses increases by 50% or more, as measured by bus arrivals.

A project of local air quality concern covered under 40 CFR 93.123(b)(1)(v) could be any of the above listed project examples.

EPA-APPROVED TENNESSEE NON-REGULATORY PROVISIONS

Name of nonregulatory SIP provision	Applicable geographic or nonattainment area	State effective date	EPA approval date	Explanation
110(a)(1) and (2) Infrastructure Requirements for the 1997 8-Hour Ozone National Ambient Air Quality Standards—Elements 110(a)(1) and (2)(C) and (J).	Tennessee	12/14/2007	3/14/2012 [insert citation of publication].	

Transportation Conformity Regulations as of April 2012

<http://www.epa.gov/otaq/stateresources/transconf/regs/420b12013.pdf>

Transportation and Climate Division
Office of Transportation and Air Quality
U.S. Environmental Protection Agency

NOTICE

This document includes the current transportation conformity rule that reflects all transportation conformity rulemakings promulgated by EPA as of April 2012, including the Restructuring Amendments final rulemaking (77 FR 14979) and the MOVES Regional Grace Period Extension final rulemaking (77 FR 11394).

EPA intends to update this reference document upon publication of any final transportation conformity rules.

This document is for informational purposes only, and you should not use the page numbers of this document for citation purposes. This document does not supersede existing conformity regulations that currently apply for conformity determinations.

[FR Doc. 2012-5764 Filed 3-13-12; 8:45 am]
BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 93

[EPA-HQ-OAR-2009-0128; FRL-9637-3]

RIN 2060-AP57

Transportation Conformity Rule Restructuring Amendments

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA is amending the transportation conformity rule to finalize provisions that were proposed on August 13, 2010. These amendments restructure several sections of the transportation conformity rule so that they apply to any new or revised National Ambient Air Quality Standards. EPA is also finalizing several clarifications to improve implementation of the rule. EPA is not taking a final action at this time on the proposal that areas analyze a near-term analysis year when using the budget test.

The Clean Air Act requires federally supported transportation plans, transportation improvement programs, and projects to be consistent with (conform to) the purpose of the state air

quality implementation plan. EPA consulted with the U.S. Department of Transportation and they concur in the development of this final rule.

DATES: This final rule is effective on April 13, 2012.

ADDRESSES: EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2009-0128. All documents in the docket are listed in the www.regulations.gov index. Although listed in the index, some information may not be publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in www.regulations.gov or in hard copy at the Air and Radiation Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave. NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744 and the telephone number for the Air and Radiation Docket is (202) 566-1742.

FOR FURTHER INFORMATION CONTACT: Patty Klavon, Transportation and Regional Programs Division, Environmental Protection Agency, 2000 Traverwood Drive, Ann Arbor, MI 48105, email address: klavon.patty@epa.gov, telephone number: (734) 214-4476.

fax number: (734) 214-4052; or Laura Berry, Transportation and Regional Programs Division, Environmental Protection Agency, 2000 Traverwood Drive, Ann Arbor, MI 48105, email address: berry.laura@epa.gov, telephone number: (734) 214-4858, fax number: (734) 214-4052.

SUPPLEMENTARY INFORMATION: The contents of this preamble are listed in the following outline:

- I. General Information
- II. Background on the Transportation Conformity Rule
- III. Restructure of Section 93.109—Tests of Conformity for Transportation Plans, TIPS, and Projects—and Changes to Related Sections
- IV. Additional Option for Areas That Qualify for EPA's Clean Data Regulations or Policies
- V. Restructure of the Baseline Year Test for Existing NAAQS and Baseline Year Test for Future NAAQS
- VI. How do these amendments affect conformity SIPs?
- VII. Statutory and Executive Order Reviews

I. General Information

A. Does this action apply to me?

Entities potentially regulated by the transportation conformity rule are those that adopt, approve, or fund transportation plans, programs, or projects under title 23 U.S.C. or title 49 U.S.C. Chapter 53. Regulated categories and entities affected by today's action include:

Category	Examples of regulated entities
Local government	Local transportation and air quality agencies, including metropolitan planning organizations (MPOs).
State government	State transportation and air quality agencies.
Federal government	Department of Transportation (Federal Highway Administration (FHWA) and Federal Transit Administration (FTA)).

This table is not intended to be exhaustive, but rather provide for readers regarding entities affected by this final rule. The table lists the types of entities of which we are aware that potentially could be regulated by the transportation

<http://www.gpo.gov/fdsys/pkg/FR-2012-03-14/pdf/2012-6207.pdf>

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