**Requirements**

Conformity requirement established in 1991 Clean Air Act Amendments

Relevant to “non-attainment areas” and “maintenance” areas for NAAQS
- Criteria pollutants: ozone, CO, NO₂, PM10, PM2.5
- Pollutant precursors: VOCs, NOₓ, others

Plans, programs, and projects can’t…
- Create new violations of NAAQS
- Increase frequency or severity of existing NAAQS violations
- Delay attainment of NAAQS

State Implementation Plan (SIP): for meeting NAAQS in required period of time
- Emissions budgets by pollutant and source, e.g. motor vehicle missions budgets (MVEB)
  - Budget is allowable emissions defined for certain date for purpose of meeting milestones, demonstrating attainment or maintenance
  - MVEB is portion of total allowable emissions allocated to highway and transit vehicle use and emissions
- Transportation Control Measures (TCMs) to reduce emissions; e.g. HOV lanes, transit, signal timing, bike and ped facilities, land use planning
  - For “reducing emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congested conditions”
- Approved by EPA and legally enforceable

“[Conformity] ensures that these transportation activities do not worsen air quality or interfere with the purpose the ‘SIP,’ which is to meet the NAAQS. Meeting the NAAQS often requires emissions reductions from mobile sources.” - Transportation Conformity Reference Guide

**Determinations**

MPO governing board makes formal conformity determination on LRP/TIP prior to submission to US DOT for review and approval.

When conformity determination is required…
- One-year after new non-attainment designation
- Prior to approval of LRP, TIP, or amendments to either
- Prior to federal approval or funding of projects

Frequency of determinations:
- At least every 4 years, when LRP or TIPs are updated
- Within two years of approval of new emissions budget
Process

Requirements:
1. Interagency Consultation: MPO, state DOT, state AQ/environmental agency, state legislature, USDOT – FHWA/FTA, US EPA; lots of requirements and procedures
2. Regional Emissions Analysis: more in a minute
3. Project Level Analysis: more in a minute
4. Timely implementation in LRP and TIP of TCMs in SIP

Regional Emissions Analysis

Requirements…
• For final year of fiscally constrained plan, plus other “horizon” years
• What to include:
  o All Federally funded projects
  o All “Regionally significant projects” even if not federally funded
  o VMT from other projects – “off-model” analysis, i.e. “reasonable professional practice”
• Other requirements:
  o Based on “latest planning assumptions,” i.e. population, employment, vehicle registrations, VMT
  o Based on latest motor vehicle missions factor model (MOBILE6.2 outside California, EMFAC2002 inside California)
• Budget test: LRP and TIP must be consistent with MVEB in SIP, i.e. estimated emissions less than or equal to budget for each pollutant or precursor for which area is nonattainment or maintenance and for which SIP establishes budget.
• Amendments to LRP or TIP, or movement of projects from LRP to TIP may require new conformity analysis (complicated)

If MPO can’t make conformity determination:
- Can change mix of projects in LRP or TIP to meet requirements
- Can request SIP revision of motor vehicle emissions budget

Two kinds of failures:
“Conformity Lapse”
- Definition: (ex. Atlanta, Sacramento…)
  o conformity determination for LRP/TIP has expired plus 12 months
  o control strategy implementation failures, with highway sanctions
- Implications:
  o Can’t go forward with federally funded projects
  o EXCEPT for TCMs in approved SIP, projects phases already authorized (e.g. design), exempt projects (e.g. safety, some transit), traffic synchronization

“Conformity Freeze”
- Definition: Disapproval of SIP (ex. NJ for awhile)
- Implications: can’t approve new LRP or TIP; CAN do projects in 1st 3 years of TIP
Project Level Analysis

FHWA/FTA projects must be found to conform before adopted, accepted, approved, or funded:
- Must come from conforming LRP/TIP.
- Design concept and scope in place at time of conformity finding must be maintained through implementation.
- Design concept and scope sufficiently defined to determine emissions at time of LRP/TIP conformity determination.

Project sponsor (e.g. state DOT, transit agency) and US DOT make conformity determination.

“Hot spot analysis”: for areas in nonattainment for CO and PM10, localized or microscale analysis necessary

Modeling

![Model Diagram]

Emissions Factors – MOBILE6.2 (to be replaced by MOVES) or EMFAC (in California)
Emission Inventory Model (EMFAC) – for CAA requirements
Gridded Emission Model (DTIM or UCDrive) – for conformity analysis

Issues

Clarification:
- Being in conformity does NOT mean region is meeting national standards!
- Being in conformity DOES does mean showing that LRP and TIP projects fall within emissions budgets in SIP

See Howitt and Moore study (March 1999)
- More challenging in high-growth areas - “Emission budget busters” less likely to be put into plans now; limited impact on transit projects, other TCMs, land use policies
- More involvement of transportation planners in air quality planning and vice versa;
- Greater scrutiny of and refinements in data and forecasting techniques.
- Better planning, but… too much emphasis on air quality, vs. other