Air Quality and Transportation Conformity

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2011 Louisiana Transportation Conference
Air Quality Session
January 11, 2011
Purpose

- Gather critical partners that are necessary to establish dialogue for implementing transportation conformity for Louisiana areas should it be required.

- Develop a road map for approval of successful conformity determination by U.S. Department of Transportation on/or before due date (which is still to be determined).

  All partners need to understand:

  - Who would do what;
  - When/how should it be done; and
  - How should all efforts be coordinated with the necessary Interagency Consultation Partners.
Outline of Session
January 11, 2011

- Overview of Air Quality for Louisiana Areas
- Overview of Designation Process/Schedule
- Overview of Transportation Conformity Requirements
- Open Discussion/Next Steps - All
Air Quality For Monitored Louisiana Areas
### Louisiana 8-hour Ozone Design Values
Based on 2007-2009 data

<table>
<thead>
<tr>
<th>Current Areas &gt;75 ppb</th>
<th>Additional Areas &gt;70 ppb</th>
<th>Additional Areas &gt;65 ppb</th>
<th>Additional Areas &gt;60 ppb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baton Rouge (80)</td>
<td>Lake Charles (74)</td>
<td></td>
<td>Monroe (62)</td>
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<tr>
<td>Preliminary 2008-2010 (78)</td>
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<tr>
<td>Pointe Coupee Parish (77)</td>
<td>Lafayette (73)</td>
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<td>New Orleans (76)</td>
<td>Lafourche Parish (72)</td>
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<td>Shreveport (72)</td>
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<td>St. James Parish (71)</td>
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Overview of Designation
Process/Schedule
8-Hour Ozone Standards

- 3/12/08 – EPA Revised Ozone primary & secondary standards
  - Lowered both standards from 0.08 ppm to 0.075 ppm
- 9/16/09 - EPA Administrator announced reconsideration of 0.075 ppm standards.
- 1/6/10 - EPA signed proposed reconsidered primary & secondary standards (published on 1/19/10)
Reconsidered 8-Hour Ozone Standards

- 1/6/10 - EPA signed proposed reconsidered primary & secondary standards (published 1/19/10)
  - Primary – a level within range of 0.060 ppm to 0.070 ppm (3rd decimal place no rounding)
  - Secondary – W126 cumulative seasonal standard – a level within range of 7 to 15 ppm-hours
  - 60 day comment period ended 3/22/10
  - Public hearings held
    - 2/2/10 – Arlington, VA & Houston, TX
    - 2/3/10 – Sacramento, CA
  - 7/29/11 - Final standard expected to be signed

- [http://www.epa.gov/ozonedesignations/](http://www.epa.gov/ozonedesignations/)
Accelerated Designation Process

- EPA has 1 year from promulgation of final standard to complete designation process (CAA Section 107(d))

- States have 4 months from promulgation of final standards to make designation recommendations to EPA

- EPA Administrator can modify the state designations recommendation
  - Administrator notifies state no later than 120 days before designation
  - Gives state opportunity to provide additional information
## Timeline for Designation Process for Ozone (Estimated Based on 120-day Consultation Periods)

<table>
<thead>
<tr>
<th>Milestones</th>
<th>2008 8-Hour Ozone NAAQS Dates</th>
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<tbody>
<tr>
<td>Final decision on level of NAAQS changed to ??? ppm</td>
<td>July 29, 2011</td>
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<tr>
<td>State/Tribal Recommendations Due</td>
<td>November 30, 2011 (schedule could change)</td>
</tr>
<tr>
<td>EPA Response</td>
<td>No later than March 31, 2012 (schedule could change)</td>
</tr>
<tr>
<td>State and Tribes provide additional information</td>
<td>Prior to final designations</td>
</tr>
<tr>
<td>Final Designations</td>
<td>No later than July 29, 2012</td>
</tr>
</tbody>
</table>
Factors in Recommending Area Boundaries

- Air quality data
- Emissions data (location of sources and contribution to ozone concentrations)
- Population density and degree of urbanization (including commercial development)
- Traffic and commuting patterns
- Growth rates and patterns
- Meteorology (weather/transport patterns)
- Geography/topography
- Jurisdictional boundaries
- Level of control of emission sources
2010 Reconsidered 8-Hour Ozone Standards (cont.)

- Long-range Next Steps
  (based on previous schedule – final standard 10/31/10)
  - Designations (will include 08-10 data)
  - Nonattainment new source review (Applies on the effective date of designations – 10/31/11)
  - Transportation conformity (Applies 1 year after the effective date of designations – 10/31/12)
  - Development of Attainment Plans (Due 2 years after designation – anticipated deadline no later than end of December 2013)
Overview of Transportation Conformity Requirements
Session Outline

- Roles
- Regional emissions analysis/planning assumptions
- Distribution of Report & Coordination
- Next steps
Roles
Transportation Conformity…

Connects air quality & transportation planning.

The SIP
(State Air Quality Plan)

Transportation Plan,
Transportation Improvement Program (TIP),
and Projects.
Transportation Conformity Rule
Interagency Consultation

- 93.105 (2) reads “Before EPA approves the conformity implementation plan revision required by 51.390 of this chapter, MPOs and State department of transportation must provide reasonable opportunity for consultation with State air agencies, local air quality and transportation agencies, DOT and EPA, including consultation on the issues described in paragraph c (1) of this section, before making conformity determinations.”
Requires a consultation process involving the MPO, State and local air quality planning agencies, State and local transportation agencies, EPA, and DOT for the following:

- (i) Evaluating/choosing a model (or models) and associated methods/ assumptions to be used in regional emissions analyses;
- (ii) Determining which minor arterials and other transportation projects should be considered “regionally significant;”
- (iii) Evaluating whether projects exempt/nonexempt;
- (iv) Implementation of Transportation Control Measures;
- (v) Notification of plan or TIP revisions or amendments which merely add or delete exempt projects listed in 93.126 or 93.127; and
- (vii) Choosing conformity tests and methodologies
General Roles

- **U.S. EPA**
  - Technical support for interpretation of rule and use of emissions model;
  - Approve motor vehicle emission budgets;
  - Reviewer/commenter for conformity determination reports.

- **U.S. Department of Transportation (FHWA/FTA)**
  - Additional technical support for interpretation of rule and use of emissions model;
  - Reviewer/commenter for conformity determination reports;
  - Approve conformity determination.

- **State and local air quality agencies**
  - Technical support for emissions factors development --- may even generate factors for use for conformity determination;
  - Develop motor vehicle emission budgets;
  - Reviewer/commenter for conformity determination reports.

- **State and local transportation agencies, including metropolitan planning organizations**
  - Generate vehicle miles traveled data for conformity determination report;
  - Prepare conformity determination report and supporting technical documentation, including regional emissions analysis for entire nonattainment area.
Things to Keep in Mind:

- Area boundary will determine which partners must be engaged;

- For the purposes of implementing conformity, the entire area designated nonattainment must be considered (no splitting of the area);

- Assumptions must be developed through interagency consultation in advance – some areas have good examples of pre-consensus plans;

- Travel Demand Model (TDM) must be used in area that it is currently being used in; &

- Vehicle Miles Traveled (VMT) methodology in areas without TDM must be made available for review and discussion with interagency partners.

- We need to know how your individual agency will be involved given the federal requirements.
Regional Emissions Analysis/Planning Assumptions
Conformity Test Overview

- EPA will do rulemaking to establish conformity tests for the new 8-hour ozone standard.

- For the 1997 8-hour standard, areas had choice to decide through interagency consultation.
  - Baseline 2002 test; or
  - Action/Baseline (also known as “Build/No Build”)

- Until SIP with budgets that EPA finds adequate/or approved, area must use interim test.

- Possible to have advance budgets through a voluntary SIP known as the Early Progress Plan.
Interim Tests

- These tests are not directly linked to the SIP.

- In an Action/Baseline test, emissions in all analysis years from the transportation system, as modified by the proposed transportation plan/TIP ("build"), must be less than or equal to either the existing transportation system ("no build") in each of those analysis years.

- In a No Greater Than Baseline test, emissions in all analysis years from the transportation system, as modified by the proposed transportation plan/TIP ("build"), must be less than or equal to those analysis years or the transportation system in 2002 ("baseline").
Analysis Years

- EPA’s rule for the new 8-hour standard will determine this.

- For the 1997 8-hour ozone standard, area must use interim emission test unless budgets found adequate or approved prior to U.S. DOT’s conformity approval, so required analysis years are...
  - A near-term year (can choose a year 1-5 years in the future);
  - The last year of the plan; &
  - An intermediate year or years, so that analysis years are no more than 10 years apart.
Regional Emissions Analysis

- Requires use of the latest planning assumptions.

- Use of latest EPA-approved mobile emissions model for development of emissions factors (MOVES2010 must be used after March 2, 2012).

- Must demonstrate emission from transportation plan, transportation improvement plan (TIP), and projects consistent with air quality goals (i.e., meeting interim emission tests).

- TIP conformity demonstrated if the TIP is a subset of the LRTP. Subset implies consistency for the project scope, timing, and description in the LRTP and TIP.
Simplified Flowchart for Development of Regional Emissions Analysis

1. Socioeconomic & Land Use Characteristics, Transportation Networks, etc.
2. Fleet & Fuel Characteristics; Speed, Temperature, etc.
3. Vehicle Fleet Activity
4. Emissions Factors
5. On-road Mobile Emissions
Exempt/Non-exempt Projects

- Consultation per conformity rule for exempt projects. (citation: conformity rule 93.126, 93.127, and 93.128).

- Beneficial to have projects identified/highlighted in the event that project schedule slips – it may not be necessary to redo regional emissions analysis.

- Only exempt projects or TCMs can be advanced during a transportation conformity lapse.
Things to Keep in Mind:

- What will be the interim conformity test used for the entire area?
- What will be the analysis years? Keep in mind there are some required years.
- How will MOVES2010 assumptions be coordinated for entire area, and how will this information be shared with consultation partners?
- What about VMT methodology (if necessary), and information for travel demand model in the nonattainment area?
- How will consultation be achieved for planning assumptions, in general?
- How/when will project listing for MPO and donut areas (if any) be distributed to conformity partners to determine exempt/nonexempt?
Distribution of Report & Coordination
Consultation for Report

- FHWA is lead U.S. DOT agency for each nonattainment area.

- Draft reports can be sent directly to interagency consultation group for review and comment. Agencies are:
  - U.S. EPA; FHWA-LA; FTA-Region 6; LADOT; LDEQ; and others as determined...
  - Informal comments provided to MPO and State DOT (whoever is lead for the project) for report documentation.
  - Complete drafts with at least 2 week review always welcomed & may help avoid last minute problems.

- Final, formal report should be sent to FHWA for distribution to interagency consultation partners.
  - Minimum of 30 day review period for IAC for final reports.
  - Partners send formal comments and finding recommendation to FHWA-LA
Necessary Documents

- Long Range Transportation Plan (LRTP) with supporting documentation (i.e., supporting documentation for regional emissions analysis, latest planning assumptions— including source of information, public involvement procedures and so forth)

- Transportation Improvement Program (TIP)

- Approved board resolution for LRTP/TIP and associated conformity determination

- Discussion on progress of transportation control measures

- MOVES Input/Output files

- Documentation of vehicle miles traveled methodology and planning assumptions used for mobile model and to determine vehicle miles traveled.

- Documentation of interagency consultation efforts and public involvement process.
Additional Information on Report Documentation

- General air quality discussion;
- Written documentation on MOVES assumptions for entire area;
- Written documentation on vehicle miles traveled methodology for entire area;
- Categorizing projects as exempt/nonexempt & regionally significant for MPO & donut areas (if any);
- Documentation of interagency consultation & public participation for LRTP/TIP & associated conformity determination.
Facilitating Interagency Review

- Clear, sufficiently detailed project descriptions including cross-reference labeling for projects in LRTP & TIP. Also ability to identify phased projects.

- Advance ‘final’ draft documents, with associated technical documentation, for review.

- Interagency consultation discussions either through calls or emails to:
  - Come to agreement on assumptions;
  - Gain awareness of time schedules; &
  - Get concurrence on exempt versus nonexempt project status.
Next Steps

All
For More Information in Region 6

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