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METROPOLITAN
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**AMPO Air Quality Work Group Meeting
September 22-23, 2011
Chicago Metropolitan Agency for Planning
Meeting Summary**

AMPO's Air Quality Work Group met on September 22-23, 2011 in Chicago, IL at the offices of the Chicago Metropolitan Agency for Planning. The list of participants is attached.

Day 1 – September 22

Welcome and Introductions

Rich Denbow, DeLania Hardy and Ross Patronsny welcomed the Work Group participants. On behalf of AMPO and the Work Group, they thanked CMAP for hosting the meeting,

MOVES Implementation Status and Discussion

Rich opened a discussion on MOVES. He stated that EPA is expected to issue their rulemaking to extend the grace period for using MOVES2010a in a regional conformity analysis, within a week.

Rich gave a presentation on the results of a recent AMPO survey (data is still in draft form) on MOVES implementation. AMPO sent the survey in early summer to all MPOs in nonattainment and maintenance areas as well as all state DOTs (through AASHTO). AMPO received 68 responses. A total of 43 were from MPOs, 23 from state DOTs, and 2 from state air agencies. Of note:

- Almost half of the respondents were from CO nonattainment or maintenance areas. One area noted that it had a MOVES motor vehicle emissions budget (MVEB) for CO.
- About 2/3 of respondents were in nonattainment or maintenance for ozone. About 80% had a MOBILE6 MVEB. One area had a MOVES MVEB.
- For PM2.5, about 60% were in nonattainment or maintenance. Seven respondents had a MOBILE6 MVEB budget, and 3 had a MOVES budget.
- No PM10 areas had an approved MOVES MVEB.
- The majority of respondents were the lead agency for conformity. Slightly over half have begun using MOVES for emissions analysis.
- Many respondents did not feel proficient with MOVES and noted their staffs' need for training.
- Only 25% of respondents that developed a MOVES emission inventory could meet existing MOBILE6 MVEBs.
- About half of the respondents are concerned they will not be able to meet the March 2012 conformity grace period deadline.
- Respondents were asked how long it will take to update their SIP and get it ready to submit to EPA for approval. Answers ranged from 3 months to 3 years, and many were unsure.
- About 80% of respondents said someone from their agency has attended MOVES training. Most want to see more training offered, including beginner, intermediate, and advanced training, peer exchanges on data, MYSQL training, and practitioner forums.

- Issues and suggestions from respondents for EPA and FHWA include:
 - Model run time is too long.
 - Interagency consultation members do not have MOVES experience.
 - Modeling may be too far ahead of data collection capabilities.
 - Need a completed user guide and technical guidance prior to MOVES requirement.
 - Extension of the grace period would be helpful.
 - Clarify issues related to inventory vs. rate mode.
 - Perform sensitivity tests on all input parameters.

The group began discussion on MOVES and the survey findings. Kansas City noted that they have been doing voluntary air quality planning; they were classified as a maintenance area in 1992. They are using MOVES now. They recognize the need for good input data.

The group discussed whether it is good practice to split emission budgets in multi-state areas. Of note, DC has a combined budget for its nonattainment area. It is possible to get emission results by jurisdiction but typically multi-state regions combine their budgets into an overall budget.

The focus turned to how often MPOs are doing conformity determinations. DC noted that they typically do conformity annually, but the states often add projects so there is likely one at least amendment period during a year.

The group discussed issues related to the aging of vehicle fleets due to economic conditions. The vehicle fleet is getting older in most regions due to economic conditions. Elena Constantine stated that in the DC region, VMT has increased and the vehicle fleet has aged, so modeled emissions have increased. However, lower congestion has helped to offset emissions somewhat. In Houston, the fleet age has gone up but VMT has decreased.

The group noted the need for information on the sensitivity of various MOVES variables. This information will help agencies focus their time and resources on collecting and applying the most important data for emissions analysis and evaluation of control measures.

Madhu Venugopal gave a presentation titled “MOVES2010a Model: MPO Transition, Challenges, and Needs.” He highlighted the number of changes in EPA models since MOBILE1 was introduced in 1978 and the various types of data inputs required by the models. In Texas, the inputs come from a variety of sources—state air agency, TXDOT, HPMS, etc. Madhu noted challenges running MOVES2010a, including:

- Longer run time.
- Transportation conformity: higher emissions with MOVES 2010a.
- Acquiring and developing local data for MOVES 2010a.
- Reliance of default data.
- Error reporting.
- SIP revisions.

Madhu presented information comparing MOVES2010a runs using emission rate vs. inventory method. The differences in absolute emissions between the two methods were very minor in the Dallas-Fort Worth region. Model run times can differ significantly.

The group discussed emission rate vs. inventory method. Mike Conger stated that his MPO is following guidance that says the SIP and conformity analysis should be done using the same method. He asked for feedback on which method is recommended. A number of participants are using inventory mode.

Atlanta is using county data for its inventory mode. Chicago echoed the same, noting the regional nature of the analysis. EPA has noted that if modelers are seeing a big difference in emissions between rate and inventory modes it is often due to a mistake.

CMAQ

Mike Koontz, FHWA, gave a presentation on the CMAQ program. Mike highlighted 5 types of CMAQ-funded project types giving FHWA a “run for its money”:

- Alternative Fuels—eligible with conditions, private sector vehicles, and the air quality portion of general government vehicles.
- Diesel Retrofits—eligible, replacements must result in emissions reductions, and equipment retrofits are eligible only if tied to Title 23 construction highway projects.
- Fill Federal Funding Flexibility—CMAQ projects remain available for 100% federal share. State flexibility is provided by Energy Independence and Security Act of 2007 and continues at least through current SAFETEA extension.
- Operating Cost Limitations—still restricted to three years of start up costs; no exceptions for year four when funding is targeted for the following years, and capital cost support is available in the three years of start-up.
- Port and Intermodal—stand-alone freight projects are eligible, an added highway element, e.g., port and TSE, is not a must, and emission reductions are required from tailpipes or highway trips.

Rich asked if MPOs in states with 100% federal funds and no match requirements are seeing an increase in project requests or different types of projects. This is happening to some extent in Tennessee, Michigan, and Illinois.

Day 2 – September 23

Transportation Authorization Update

DeLania Hardy provided an update on action in Congress and the Administration regarding transportation bills and related funding issues. She discussed the 2 year Senate outline for a new bill and the 6 year House outline. She stated that so far the primary focus on the Hill has been on funding levels, MPO population thresholds, and performance based planning. However, AMPO has had several discussions with Hill staff and with USDOT about other planning issues. The group discussed the idea of a VMT tax.

Climate Change

Rich provided a brief mention of AMPO’s project with FHWA to develop and conduct webinars that will assist MPOs with integrating climate change into the planning process. AMPO is pleased to be working with Cindy Burbank, formerly with FHWA and now with PB, on this effort. Webinar development is currently underway. We will hold our first webinar in late November 2011.

MARC is currently working on a HUD sustainability grant that ties growth, transportation options and other elements to climate change along six corridors. Some pieces are tied to complete streets.

Sarah Siwek reported that she has given climate change workshops in 17 different states. She observed that much of the climate change work is happening at the MPO level or in cities, although a handful of

states are working in the climate change area. The webinars are available for viewing on AASHTO's website under the Center for Environmental Excellence. She also mentioned a new project underway with ICF to look at performance measures and climate change.

ARC noted a forthcoming climate change workshop in DC being conducted by ICF. MWCOG referenced the recent 2011 Southern Transportation and Air Quality summit's presentations with slides available from Heather Holsinger at FHWA, who may be reached at 202-366-6262 or heather.holsinger@dot.gov.

MWCOG is currently working on climate change and related weather events, due to an active period in 2011 with a major snowstorm, an earthquake, and a hurricane. They are also looking at climate change/adaptation from an asset management approach.

NCTOG is actively involved in sustainable development initiatives in the Dallas region and is examining procedures for completing a greenhouse gas (GHG) inventory. They have received several requests from member jurisdictions to complete an inventory. They are also looking at the GHG effects of several NOx reduction measures.

H-GAC is researching control strategies for GHG, such as truck traffic measures, idling, etc. Information on the research will be available in a month.

CMAP's Goto2040 plan addresses sustainability. It does not get into climate change that much. The city of Chicago has actively addressed climate change through many initiatives.

Atlanta will be estimating GHG emission calculations when doing conformity analysis, looking at emissions on network links. ARC is also hosting a FHWA workshop on GIS and climate change.

MTC has been addressing climate change even prior to SB 375. The efforts continue and elements include safe routes to school, electric vehicles, and transit.

Sarah Siwek discussed analysis she performed on the reductions in GHG in California from various efforts. The reductions from SB 375 were relatively small. Most of the reductions come from technology changes. Madhu commented that he did an analysis that showed VMT in the Dallas region will have to be reduced to meet the 80% targets. They looked at per capita VMT.

SEMCOG is looking at climate change through the lens of energy efficiency. Michigan developed a climate change action plan under a previous governor but those efforts stopped under the current governor. Michigan has had a 12% VMT reduction since 2003 due to economic conditions. The Detroit region received a HUD Sustainability grant. That project originally had a regional GHG inventory component but that was removed. A land cover assessment will be completed as part of a green infrastructure task. They are looking at reducing road capacity through road diets and other measures. A primary goal is fiscal sustainability.

Knoxville TPO is looking at sustainability in their planning process, without specifically addressing GHGs.

NAAQS Changes and Related Air Quality Planning Issues

Joan Weidner discussed how SEMCOG submitted comments about air quality planning requirements to EPA as well as to their congressional delegation in the past few years. Many of the comments address how the Clean Air Act (CAA) mandates things that are no longer feasible or have limited practicality. One example is PM hot spot analysis. It is resource intensive but provides very little benefit. She believes

MPOs need to work together to make proposed rules and/or guidance more reasonable and effective. In addition to sending comments to EPA, they should be shared with each region's congressional delegation. They can sometimes affect change that MPOs on their own cannot. She also stated that we can't be shy about pushing for changes to the CAA if we feel they are necessary. She acknowledged this would not be easy but stressed that we won't get anywhere if we don't at least try.

Sarah Siwek talked about additional topics that have come up, including areas that have both PM and ozone boundaries and the challenges of planning. One suggestion is to align the use of new on-road emission models for SIPs and conformity with transportation planning schedules, so that new models are first used when creating an emissions budget, and then for conformity purposes. That would eliminate the need to update conformity budgets with the new model (e.g., MOVES2010) until the SIP is changed.

Ross added that Illinois DOT is doing a study of a sketch tool to determine if a hot spot analysis will be required for projects.

Good Practices in Conformity Implementation

Sarah Siwek completed documentation of examples of conformity processes across the country. The results are now posted on FHWA's website. Seven categories of examples are posted, including CO screening protocols, conformity determination reports, interagency consultation, procedures for determining whether projects require hot spot analysis, PM qualitative analysis, on-road mobile source measures in SIPs, and statewide information sharing.

Clean Construction

Sarah gave a presentation on a bill introduced by Senator Carper in May 2011, the Clean Construction Act of 2011. The Senate Environment and Public Works Committee held hearings on the bill. The bill would allow all major program category funds in SAFETEA-LU to be used for diesel retrofit costs. This would apply in PM2.5 nonattainment and maintenance areas, and to any off-road and on-road diesel equipment operated on highway or public transportation projects, with some exclusions.

Sarah worked under contract to a client to estimate costs. Eleven case studies were conducted on road and transit projects where retrofitted construction equipment was/is being used. Three key findings are: A retrofit requirement would cost less than one percent of contract costs, and in most cases less than one-half of one percent; newer control technologies cost more but are more effective; and installation of retrofit equipment will not impact project schedules.

Open Discussion

Before closing, the Work Group had the opportunity to discuss items of interest. One participant asked about working relationships between the MPOs and their EPA regions. Several responded that they work well with their counterparts in the EPA regional offices. Some stated that the working relationship is smoother with conformity than with SIP issues.

The meeting was adjourned.

**AMPO Air Quality Work Group Meeting Participants
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