Federal/State Technical Work Collaboration Group

 Conference Call

Thursday, February 22, 2018

11:00 am– 12:30 pm EST

10:00 – 11:30 am CST

9:00 – 10:30 am MST

8:00 – 9:30 am PST

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Participants:

NESCAUM, EPA Region 1, OTC, NY, MD, EPA Region 3, MARAMA, KY, NC, GA, Metro4-SESARM, EPA Region 4, MN, EPA Region 5, LADCO, EPA Region 6, CENSARA, MO, SD, Region 9, Clark County, Region 10, WESTAR, EPA OAQPS, TX, NACAA, AAPCA

1. Update on EPA's preliminary 2016 modeling based largely on NEI 2014v1

Norm stated that 2016 was selected as the base year through an episode selection process lead by the MJOs during early 2017.  Both 2015 and 2016 were identified as potential years, but 2016 selected as the highest priority. EPA will distribution inventories for all three years: 2014-2016.

John Hornback suggested that the data be readily accessible and that there is a reliable way to distribute data. We should collaborate on a streamlined distribution system for any new platforms. Norm agreed that we should do that.

Norm elaborated on the levels of collaboration involved in the effort—for example, global model runs are being completed only by EPA. By contrast, the emissions inventory work is being completed through a “grassroots” effort between states and EPA. There are different parts of the overall platform with different levels of collaboration.

1. 2016 Emissions modeling inputs from 2014 NEI v2 and 2016 data to be used in alpha version of 2016 Emissions Modeling Platform

Zac Adelman reviewed the Update on the Collaborative 2016 Emissions Modeling Platform powerpoint (see slides for more detail). Focus on preparing emissions for 2016 now, forecast will be developed this summer. Zac and Alison Eyth of EPA are co-leaders. There is a coordination committee to define the process and resolve issues that come up. Alpha version with preliminary 2016 emissions for some sectors available in early March. Beta version with 2016 emissions for most sectors and preliminary projected emissions for 2023 and 2028 available summer/fall 2018. Version 1 will be complete early 2019. 2016 Alpha platform starts with 2014 NEIv2. Workgroup status available on WIKI which is to be updated each month: <http://vibe.cira.colostate.edu/wiki/wiki/9169>. Google drive area has been set up for sharing data. EPA planning a coordinated release of 2014, 2015 and 2016 emissions input for alpha version. Emissions platforms are available at ftp://newftp.epa.gov/Air/emismod. One hope for the collaborative is it will facilitate a new level of innovation in the development/estimation of emissions data because there is a broad group of expertise and perspectives working on the data; a challenge for the inventory workgroup co-leads is to balance the production of usable emissions data with the development of innovative approaches to estimating emissions for different sources; evaluation and sign off of the emissions data products coming out of the workgroups is evolving, working on setting principles for how the data will be evaluated for quality and completeness; and whether the data are appropriate for use in planning applications; we would like to find an objective metric (or set) that satisfies the need for a quantifiable assessment of quality and completeness; this process has never been attempted at the national scale with inventories so in many ways we’re learning as we go, what works/what doesn’t work; we’ve set up an initial process, that has quite a few guiding principles. We need to let the process play out for a while and adjust it as needed, rather than over engineering it at this point because we don’t know how it will proceed. Pushing back against expectations and trying to avoid the situation where perfect is the enemy of good; a large part of emissions evaluation comes through modeling these data in an AQM, so it’s important that we drive production of data that we can model to allow us to these into AQMs for evaluation; as we’ve seen with inventories in the past, iterations are beneficial to the quality of the product. Not to say we need to rush through the data generation process, but we do need to drive a schedule that pushes out data with reasonable frequency to allow us to evaluate using AQMs.

Tom Moore suggested that collaboration has occurred in the past at the MJO level but not with EPA OAQPS. 2016 is a challenge because it is not in the 3-year NEI cycle (2014, 2017). There are many challenges in evaluating data because states are not focused on this NEI year.

MARAMA asked when EPA would be running SMOKE. Alison Eyth said they are going to run a few days of the alpha version for evaluation, but not a full run for all sectors. Mark Janssen noted that states/MJOs have been able to replicate EPA modeling results using the platforms that have been distributed. Mark noted that platform inventories can be shared easily without a need for great storage capacity.

Jeff Vukovich reviewed the biogenic workgroup status. Alpha version will use BEIS 3.61. TCEQ plans to run MEGAN v3. The workgroup will provide both MEGAN and BEIS for beta version.

Jeff reviewed the fire workgroup status. Alpha version will use 2016fc wild and prescribed fire and ag fires.

Jeff reviewed the oil and gas workgroup status. The alpha version will use 2014 NEIv2.

Jeff reviewed the nonpoint workgroup status. The alpha version will use 2014 NEIv2.

Jeff reviewed the EGU workgroup status. The alpha version will initially use 2014NEIv2, but 2016 will be available in late March.

Jeff reviewed the Non-EGU point workgroup status. The alpha version will use 2014NEIv2, but 2016 draft point will be available in late March.

Jeff reviewed the onroad workgroup status. The alpha version will use activity projected from 2014v2 using FHWA data and state DOT data. Some states will submit activity data in time for the beta version.

Jeff reviewed the mobile sources workgroup status. V1.0 will use AIS data, rail will use 2016 activity data and nonroad existing 2016 data.

Other workgroups include meteorology and international. Informational call to be scheduled for mid-March.

1. EPA work products for state and regional use

Barron Henderson and Pat Dolwick are working on global modeling. Norm Possiel ran through their slides (see slides for more detail). Goals are to provide boundary conditions for multiple years, assess international contributions, and assess future changes to international transport. EPA has run GEOS-Chem v 11-01 and is running Hemispheric CMAQ v 5.2. EPA will compare the model results, but will also compare regional model outputs. EPA will explore comparison of global model results to measured data.

MARAMA questioned the use of HTAP 2010 for global emissions. HTAP 2010 is the latest inventory available for outside of North America.

TCEQ asked when EPA would be able to share a GEOS-Chem run. Norm will get back with a date that EPA could share that.

Tom Moore asked about performance evaluation for global models-how will EPA determine which is best? Norm said there is an ongoing effort and the results will be shared in the future. Barron and Pat have a detailed plan that can be shared later. This could be distributed.

Sharon Phillips reviewed the 2016 EPA AQ modeling platform components powerpoint (see presentation for more detail). 2016 alpha/beta will use CAMx 6.40 and CMAQ 5.2.

Tom Moore asked about WRF model evaluation. Chris Misenis said the WRF TSD is almost complete and should be distributed soon [the 12US2 data has already been sent to LADCO]. Tom asked about adequate WRF performance. EPA replied that as the 12-km modeling is reviewed, issues with met performance may be identified. However, initial review indicated that WRF performance was on par with recent EPA meteorological modeling efforts.

Jim Boylan asked if VOC performance would be evaluated and EPA said it would.

1. OTC’s source apportionment work on the 2011 platform

Dave Foerter hoped to have some results to share today, but they are not yet available. We will put this item on the agenda for the next call.

1. WESTAR TEMPO Workshop-April 10-11 in Fort Collins, CO

NASA will launch the TEMPO satellite in 2019. The satellite can collect air pollutant data during daytime hours at high resolution. The workshop will look at how remote sensing data can assist in evaluation of air quality issues. NASA is co-sponsoring the workshop to solicit air agency input on the utility of this data. The WRAP website has registration information. The workshop will be available remotely.

1. NY DEC brought up the utility of the 2016 inventory; is it still something that states and EPA can contribute to with resource/budget issues? What does the February court decision mean to this effort? EPA will be reviewing the court decision and we’ll discuss the impacts and implications on a future call.