

**Minutes of the BAAQMD 2004 SIP Modeling Advisory Committee (MAC)
Sixth Meeting**

**The sixth meeting of the MAC was held on
Tuesday, January 21, 2003, at 1:00 p.m.
at the District office, fourth floor west conference room.**

Attendees: see sign-up listing attached

Agenda: Posted with these minutes on project web site
(www.environ.org/project.html; click on "Bay Area Air Quality Management District"; enter user name and password)

Next meeting: Tuesday, February 25, 2003 (1:00pm at BAAQMD)

Presented overhead/.ppt presentations (all are provided on project web site):

- Chris Emery's presentation on project status and schedule;
- Chris Emery's presentation on meteorological results
- Chris Emery's presentation on first screening CAMx run
- Jim Wilkinson's presentation on emissions processing status

Handouts (all available on the project web site):

- Agenda;
- Hardcopy of Chris Emery's presentations (except for CAMx results)

Discussion items:

Agenda – No additional agenda items were added.

Approval of minutes from last meeting – No comments/corrections offered by attendees to last meeting minutes.

Project Status Summary

Chris Emery led off the meeting with a short discussion on the project status. Given no additional funding, modeling for a third episode (July 11-12, 1999) is being put on hold. Discussion continued with status/problems with CCOS emissions, meteorological, and air quality data. The summary closed with a discussion on contingencies in case CCOS data are not made available to meet the timelines of the project, and a summary of the updated project schedule given the delays in data acquisition. Completion of Tasks 3 (meteorology) and 4 (emissions) have been pushed to the end of April. The schedule for other tasks have not been altered, and we are looking to complete all modeling and provide transfer/training by the end of September.

Emissions

Jim Wilkinson presented the current status of the July-August 2000 emissions inventory. The ARB delivered a new round of point and area source emissions data as well as new area source spatial source surrogates based on the 2000 census. The ARB also delivered day-specific wildfire and prescribed burn emissions estimates. Finally, the ARB delivered the BEIGIS data sets for use by the project team to estimate biogenic NO emissions. A first attempt at computing the biogenic NO with these data has been successful and QA of these emissions is underway. The BAAQMD delivered day-specific flare emissions estimates for Phillips/Conoco for the June 2000 episode. Based on all the applicable data to the July-August 2000 episode, the project team developed new CAMx-ready emissions estimates. Mr. Wilkinson stated that the effort to estimate day-specific emissions for commercial marine vessels was underway.

The project team conducted numerous quality assurance checks on the emissions estimates. These QA checks were summarized and presented in both graphical and tabular form to the MAC. Mr. Wilkinson also presented a brief history of problems and how (or whether) they were fixed. Mr. Wilkinson also described the project team's joint effort with ARB to develop a data tracking log that will be used to track emissions data problems and their resolution. The ARB indicated that it would deliver revised stationary and area source emissions data to the project team by 24-January-2003 for the July-August 2000 episode. The delivery of the on-road mobile source emissions estimates is more uncertain, but the ARB is hoping to have this done by the end of January-2003.

There was general concern among the MAC that serious errors existed in the inventory especially given that the stationary source inventory appeared to be significantly flawed. The project team responded that it too was concerned, but its concern was from the standpoint of schedule impacts. The project team reported that it was working closely with the ARB to correct these problems. The project team believes that most of the problems had been identified and that the ARB was taking corrective action.

Mr. Altshuler asked about biogenic NO₂ emissions particularly from corn silos. Mr. Wilkinson stated that he was unaware of any such emissions and would follow up this issue.

Mr. Wilkinson reported that the day-specific refinery emissions were now included in the CAMx-ready emissions estimates. However, he also reported that there were problems in identifying matches for two refineries: Tesoro and Vallerjo. Mr. Wilkinson reported that the total NO_x from these facilities that were reported in the day-specific emissions were under a ton per day. This initiated a debate about the veracity of the emissions estimates given that these facilities were believed to be 300K+ barrels per day refineries; hence, their emissions should be much larger. The

outcome of the debate was that Mr. Wilkinson would work with Toch Mangat and Tom Perardi from the BAAQMD to fix these problems.

Meteorological Modeling

Chris Emery discussed the status of meteorological modeling and presented results from two RAMS runs for the July/August episode. The team concluded with a positive appraisal of the first two runs, and mentioned that additional RAMS modeling will be attempting to solve remaining issues. Steve Ziman inquired into contradictory performance for temperature (quite good) and humidity (quite low). Chris Emery responded that such issues are often seen in meteorological models, and that attempts are always made to address and explain such behavior within the constraints of the project. However, when such issues cannot be adequately resolved, we usually like to see the best performance for winds and temperature, and are less concerned about humidity, in the context of air quality modeling.

Preliminary CAMx Results

Chris Emery presented ozone fields from a first CAMx run using preliminary emissions and 12-km meteorological data only (no 4-km nest was run). The run was a screening analysis to ensure that systems for supplying emissions, meteorological and ancillary inputs to CAMx are working properly. The conclusion was that no surprising problems or issues are evident from the screening run. Additional CAMx simulations using improved inputs are forthcoming.

Closing Remarks

Peter Hess stressed the need for a compilation of potential control measures contributed by the MAC.

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