

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

**The seventh meeting of the MAC was held on  
Tuesday, February 25, 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](http://www.environ.org/project.html); click on "Bay Area Air Quality Management District"; enter user name and password)

Next meeting: Tuesday, March 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 CAMx runs
- Jim Wilkinson's presentation on emissions processing status

Handouts (all available on the project web site):

- Agenda

**Discussion items:**

Agenda – Two additional agenda items were added:

- Discussion of plans for cooperative effort to develop the July 1999 episode
- CARB's preliminary suggestion for sub-domain model performance

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 discussion on the project status. Presentation began with a summary of CARB's CCOS delivery schedule distributed on or about February 11. Meteorological data for the July/August 2000 episode are fully delivered to the meteorological contractor (ATMET) at Level "1a" (referred to as Level "0" in the CARB document), with some data already at "Level 1b" ("Level 1" in the CARB document). Those variables that will be QA'd to Level 1b include surface winds and temperature and are expected in mid-March. CCOS air quality measurements for July/August and June 2000 are at Level 1a and are now available for distribution to CCOS participants. Level 1b data for the July/August episode should be available by

mid- to late-March. CARB has no plans to further QA the June 2000 air quality measurements.

New funding has been established for modeling the third episode (July 11-12, 1999). This task was added to the project schedule; serious effort by all involved parties will be necessary to keep the compressed project schedule on track. Much discussion was held among the meeting attendees on the need for cooperative efforts, and to define a full period in July 1999 that covers high ozone events throughout central California.

The specific plans for including the July 1999 episode into the modeling program was next discussed. Primarily the results of a February 19 conference call among the CARB, Districts, and others were summarized (see presentation material). An important outcome was the agreement by the Districts to review CCOS and July 1999 inventories for consistency and completeness. Downwind Districts suggest that additional days should be tacked onto the beginning and end of all episodes to assess transport. For example, August 2, 2000, was the worst ozone day for the northern San Joaquin Valley. The other episodes should be evaluated similarly for additional days.

The status summary closed with a discussion of CARB's preliminary suggestion for the definition of sub-regions for air quality (and possibly meteorological) performance evaluation. The Districts will work with CARB to refine the sub-regional map to align along topographic and county/district boundaries as much as possible. In the Bay Area, sub-zones for near-bay, and north/south/east bay areas will likely be necessary. The SJV's current thinking is to include areas for north, central, and south SJV with an elevation demarcation at 3000 feet. Sacramento and mountain counties should also analyze on sub-zones.

Although the downwind Districts realize that the BAAQMD must tailor their SIP modeling to their own specific needs, as much as possible, BAAQMD SIP modeling should strive to be consistent with CCOS modeling to avoid major differences between meteorology, biogenics, spatial and temporal emission distributions, and other photochemical model inputs that will be used for the downwind District SIPs.

### Meteorological Modeling

Chris Emery discussed the status of meteorological modeling and summarized results from a number of new RAMS runs for the July/August episode. General topics included early results from high resolution (1 km) modeling of the Bay Area; the efforts to refine Bay water temperatures, performance in replicating maritime stratus, and continued issues with achieving rather good performance for winds and temperatures at the expense of serious under predictions of humidity.

### Emissions

Jim Wilkinson presented the current status of the July-August 2000 emissions inventory. Area, non-road, point, and fire emissions have been updated and are now

agreeing quite well with CEFS estimates. New on-road emissions are expected in early March. No new problems have been found. Remaining issues for the July-August episode are the inclusion of biogenic NO (already available and easy to include), inclusion of the revised on-road mobile source emissions estimates (dependent on ARB, but should be available by 8-March-2003), and revised shipping emissions. The BAAQMD delivered revised day-specific flare emissions estimates for Phillips/Conoco for the June 2000 episode, but these are apparently still not correct. Work has begun on developing the June 2000 base case model-ready emission inventory. Work has also begun on collecting future year emissions estimates.

Bob Bornstein summarized efforts to gather shipping data for the Bay Area for the periods to be modeled, and offered several possible approaches to estimate shipping emissions. Alpine and Bornstein will provide a written summary of the alternative forms of data and methods for acquisition in about one week.

#### Preliminary CAMx Results

Chris Emery presented ozone fields from a two revised CAMx runs using preliminary meteorological fields delivered in January, and intermediate and the newest revised emissions. The model was run for the 12 and 4 km grids (no 1 km meteorology was available in time for the meeting). The revised area/non-road/point/fire emissions resulted in rather dramatic improvement in modeling high ozone, particularly in the Bay Area. Results from these preliminary runs are now more consistent with CARB modeling of this episode by UC Riverside.

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**Sign-up Sheet**  
**Bay Area Modeling Advisory Committee 2/25/03**

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