

DALLAS – FORT WORTH PHOTOCHEMICAL MODELING

TECHNICAL COMMITTEE MEETING

*North Central Texas Council of Governments
616 Six Flags Drive, Centerpoint Two, Arlington, TX*

November 5, 2010; 1:30 – 3:00 p.m.

ATTENDEES

Francisco Pinto, Brian Boermer, Doug Boyer, Fernando Mercado, Steve Davis, David Duncan, Michael Crittenden, Wendi Hammond, Carrie Paige, Kerry Singleton, Cyndi Lewis, Syeda Haque, Whitney Buehrle, Chris Klaus, Amanda Brimmer, Ryan Spicer, Brian Burdorf, Jerry Lotsdill, Madhu Venugopal, Jim Schermbeck, Kathy Singleton

MINUTES

1. Doug Boyer with TCEQ welcomed the group and started the meeting.
2. Doug Boyer with TCEQ presented results of the updated 2006 and 2012 photochemical modeling runs. These runs incorporated the latest estimates of oil and gas emissions based on a new emissions calculator from a 2010 Eastern Research Group contract deliverable. County-specific oil and natural gas production in 2006 and June 2010 were used to calculate the emissions for the 2006 and 2012 modeling. Compared to the previous modeled estimates, NO_x emissions increased in 2006 and decreased in 2012.

Dallas-Fort Worth (DFW) and East Texas compressor engine rules contributed to a significant drop in NO_x emissions from 2006 to 2012. Drill rig counts were shown to be lower in 2010 than 2006, thus lower emissions in 2012 (based on flat growth from 2010 to 2012). Total VOC emissions increased. As the number of active wells increased from 4,000 to 10,000 from 2006 to 2010, the number of natural gas bleeding pneumatic valves increased by the same amount. Condensate tank VOC emissions decreased in the nine-county DFW nonattainment area due to decreased condensate production in Denton County.

Ozone predictions followed the increase in NO_x emissions in 2006, with higher eight-hour maximums observed. In 2012, ozone concentrations were predicted to be lower. With these results, the relative response factors and predicted future design values were smaller at all monitors. The photochemical model was responsive to changes in statewide oil and gas emissions.

TCEQ will continue to evaluate the emission inventories and modeling performance. Additional model performance tasks are expected to include a retrospective analysis with the 1999 emission inventory, a weekend/weekday analysis, and source apportionment runs.

3. Fernando Mercado with TCEQ presented a preliminary analysis of NO_x data from the Eagle Mountain Lake and Parker County monitors placed into service in March 2010. Fernando noted that NO_x concentrations in the DFW nonattainment area have shown a decreasing trend over the past decade while population and Barnett Shale natural gas production have increased. The new NO_x monitors are both on the western side of DFW in proximity to

natural gas production and drilling sources. The Parker County monitor is in a rural area while the Eagle Mountain Lake monitor is rural with a few suburban communities some miles away.

NO_x concentrations from the new monitors were shown to be lower than other NO_x monitors in DFW since they became active except Kaufman, a rural monitor on the east side of DFW. Easterly winds appear to be dominant during the periods of highest concentrations.

4. The next meeting is expected to follow the to-be-determined DFW Clean Air Steering Committee meeting in December.
5. The meeting was adjourned at 3:00 PM.