

**EAST TEXAS COUNCIL OF GOVERNMENTS  
NETAC POLICY COMMITTEE**

**Friday, October 16, 2009, 1:00 p.m.  
Longview Public Library, Moeschle Room  
222 W. Cotton Street  
Longview, Texas**

**MINUTES OF MEETING**

**1) Call to Order: NETAC Co-Chair Judge Bill Stoudt, Gregg County**

Judge Stoudt called the meeting to order at approximately 1:00 p.m.

**2) Roll Call: Rick McKnight, ETCOG Environmental Manager**

Policy Committee Members Present

- NETAC Co-Chair Judge Bill Stoudt, Gregg County
- Jim Mathews, NETAC General Counsel
- Mayor Buzz Fullen, City of Henderson
- Winston Robinson, City of Marshall
- Kelly Spencer, AEP/SWEPCO
- David Duncan, Luminant
- Darrell Rachels, Eastman Chemical Company
- Scott Snedden, Westlake Chemical
- Judge Richard Anderson, Harrison County
- Greg Morgan, City of Tyler

Others Present

- Greg Yarwood, ENVIRON
- Sue Kemball-Cook
- Rick McKnight, ETCOG
- Kathy Singleton, TCEQ
- Doug Boyer, TCEQ
- Carrie Paige, EPA Region 6
- Robert Ray, City of Longview
- Karen Owen, Longview MPO
- Rick Hanning, Luminant
- N.N. Dharmarajan, AEP/SWEPCO

**3) Discussion and approval of the NETAC Policy Committee meeting minutes of April 28, 2009: Co-Chair Judge Stoudt**

A motion was made to approve the April 28, 2009 minutes. A second was made and the motion passed without any dissent.

**4) Update on 2009 ozone monitoring data and Northeast Texas' attainment status: Jim Mathews, NETAC General Counsel and Greg Yarwood, ENVIRON**

Three continuous air monitoring stations (CAMS) are located in the East Texas counties. These three monitors are commonly referred to as the Karnack, Longview, and Tyler monitors. All three Northeast Texas monitors saw a decline in their design value and attained the 75 ppb standard as of 2009. The fourth highest 8-hour ozone value was measured at 67 ppb, 73 ppb, and 75 ppb respectively for 2009. This was a slight increase for the Longview and Tyler monitors and a slight decrease at Karnack when compared to the 2008 fourth highest 8-hour ozone value. However these values continue the historical downward trend of monitored ozone for these monitors. This downward trend continues when you analyze the 8-hour ozone design values for each monitor. The 2005-2008 design value for the Longview monitor was 78 and the 2006-2009 design value is 75. The 2005-2008 design value for Tyler was 77 and the 2006-2009 design value is 74. The 2005-2008 design value for Karnack was 71 and the 2006-2009 design value is 68.

**5) Update on EPA decision to review 75 ppb ozone standard: Jim Mathews**

EPA has made the decision to not implement the 2008 8 hour ozone standard that was previously set at 75 ppb and has temporarily postponed designations under this standard. In March 2009, EPA filed a request for a stay in lawsuits filed against them with regard to this standard. In September 2009, EPA filed a notice they would do an expeditious review of the 2008 standard and possibly propose a revision to this standard by the end of December 2009. The revised standard will be adopted by August 31, 2010 and attainment designations under the revised standard made by August 31, 2011. These designations would occur in the middle of the 2011 ozone season and not provide additional time for the 2011 ozone numbers to be included in the process. The standard is being reconsidered because of doubts the 75 ppb standard adequately protects public health and needs to be lowered.

**6) Review of 2009 high ozone days: Sue Kemball-Cook, ENVIRON (Enclosure PC2)**

A total of nine individual days with high ozone have been analyzed in more detail to further understand the causes of high ozone on each individual day. The causes of these high ozone days have been preliminarily identified as a combination of either regional 8-hour background ozone, urban plume impacts, power plant plume impacts, or HRVOC impacts on any analyzed day.

**7) Update on analysis and modeling of HRVOC data collected at CAMS19 in 2008: Greg Yarwood (Enclosure PC3)**

In August-October 2008 HRVOC measurements were taken at CAMS19 near Longview. Ten of the sixty-four studied days showed strong HRVOC measures. Three of these days

corresponded with high ozone levels and northerly winds. These type of conditions would suggest that the Eastman Complex can play a role in high ozone events at CAMS19. Estimates for the Eastman Complex ethene inventory are derived from a 2006 NETAC aircraft flight and are consistent with the emission inventory. NETAC requested information in March 2009 from complex companies. Eastman and Flint Hills Resources investigated 2008 days with HRVOC events and found no unusual activity. AEROMOD and CAMx modeling both suggest that the HRVOC emissions needed to produce observed spikes are greater than the typical day emission inventory. It is estimated ethene emissions of approximately 2500 lbs/hr can cause observed morning ozone spikes at CAMS 19 through interaction with readily available NOx.

**8) Update on emissions from natural gas development in the Haynesville Shale: Sue Kemball-Cook (Enclosure PC4)**

The Haynesville Shale is an unconventional natural gas reservoir which is 10,000-13,000 feet below the surface of Northeast Texas/Northwest Louisiana and may be one of largest natural gas reserves in the U.S. Drilling began in 2008 and despite economic downturn and a fall in the price of natural gas since 2008, development of the Haynesville Shale has continued. This development is likely to generate significant emissions of the ozone precursors NOx and VOCs. NETAC has developed an emission inventory for this development and will determine the potential impact on Northeast Texas Ozone using the NETAC 2012 ozone model.

Inventories will be developed for years 2009-2020 with a detailed inventory for 2012. Projections for future years will be based on the number of wells drilled each year and well productivity formation wide not just those counties located in Texas. The TRRC, TCEQ, and LDNR were contacted regarding exploration and production activity in the Haynesville Shale. Producers operating in the shale were identified and asked to participate in a survey regarding future production levels but all declined to complete the survey. Instead data from the state agencies and available literature was used to estimate future year activity with inventory development based on equipment data from CENRAP and WRAP Phase III oil and gas emission inventories. The Baker-Hughes drill rig database was used to determine the number of current rigs drilling in the shale. Historical records for the nearby Barnett Shale were used to project future activity in the Haynesville.

Three scenarios were developed for low, medium and high production levels. The low level scenario left the number of rigs operating at the March 2009 level through 2020. The high scenario uses the 2001-2008 Barnett Shale rig count growth and caps it at 200. The moderate scenario equals 50% of the aggressive scenario. The decline in production was also calculated selecting the 8 Haynesville wells with longest history and extrapolating using an exponential fit. The number of active wells was then multiplied by the annual production rate determined from the decline curve to estimate total Haynesville Shale production in a given year. Production estimates for 2020 range from 7.6-35 CTF and is within the range of published estimates (7-250 CTF).

Emissions for ozone precursors were estimated for the 2009 base year for each major source category (drill rigs, well venting, etc.). The 2009 emissions were projected for each future year including the effects of growth and applicable controls. Data from CENRAP and WRAP Phase III was used to estimate equipment typically used at wells, emission factors, load, and how many hours of activity per year. The 3 scenarios showed 2012 NOx emissions of 61, 82, and 140 tons/day. The 2020 NOx emissions for the 3 scenarios estimated 64, 127, and 267 tons/day. The moderate scenario of 82 tons/day of NOx in 2012 is equal to the total 2005 NOx emissions from all of the Haynesville Shale counties in Texas or about 30% of the total 5-County Northeast Texas Near Nonattainment area 2005 NOx inventory.

High ozone days in Northeast Texas often have stagnant winds which would tend to keep the Haynesville ozone precursor emissions in the region and available for ozone formation. NETAC is developing an ozone model for the year 2012 for the purposes of control strategy evaluation. This model will be used to quantify the impacts of development of the Haynesville Shale by incorporating the emission inventory developed into the model and determining the contribution of the emissions to Northeast Texas ozone. Wellhead compression emission calculations are likely underestimated, with the underestimate increasing in magnitude from 2010 to 2020. The NOx emissions estimates provided are likely to represent a lower bound, especially for the later years of the inventory. The report was not approved by the Committee to allow further time for individual review.

**9) Update on remaining technical activities for current biennium: Greg Yarwood**

The current biennium's contract ends on March 31, 2010. Projects to be completed include a mobile monitoring project, updating the conceptual model with monitoring data, and analyzing additional data from CAMS 19 found by TCEQ.

**10) Other Business**

No other business was discussed.

**11) Adjournment**

The meeting adjourned at approximately 2:30 p.m.