Long-Term Ambient Air Monitoring Project Near Permanent Marcellus Shale Gas Facilities

AQTAC Meeting
September 12, 2012
Description of the Project

• A one-year ambient air monitoring project with an emphasis on characterizing near-source concentrations of criteria and hazardous air pollutants from permanent facilities related to the Marcellus Shale gas industry.
Long-Term Air Monitoring Project

• Study focused on Washington County, PA.
• Study consists of four dedicated air sampling sites and a background site.
• Projected study timeframe - July 2012 - July 2013.
• Proposed report publication - October 2013.
Long-Term Air Monitoring Project

• Why these sites?
  • They are permanent facilities, whereas well-installation activities (drilling, fracking, etc.) are more short-term and don’t factor in chronic risk analysis.
  • Have been shown to be a source of methane, nitrogen oxide ($\text{NO}_x$), carbon monoxide (CO) and hazardous air pollutant (HAP) emissions during the PA DEP short-term studies.
  • They are a source of complaints to DEP Regional Offices for malodor and other issues.
  • They are components of an industry that as a whole, could be considered a major new area source and affect Pennsylvania’s attainment of the National Ambient Air Quality Standards.
Long-Term Air Monitoring Project

Sites and Parameters

- Main Site - Meddings Road (Houston Gas Processing Facility)
  - VOC’s, Carbonyl, Ozone, NO\textsubscript{x}, CO, PM\textsubscript{2.5}, Methane/Non-Methane, H\textsubscript{2}S, MET.
- Upwind Site - Welsh Road (Houston Gas Processing Facility)
  - VOC’s, MET
- Satellite Site - Jaspen Way (Brigich Compressor Station)
  - VOC’s, MET
- Satellite Site - Henderson Road (Stewart Compressor Station)
  - VOC’s, Carbonyl, H\textsubscript{2}S ,MET
- Background Site - Florence COPAMS
  - VOC’s, Ozone, PM\textsubscript{2.5}, MET
Site Locations
Meddings and Welsh Road Sites
Wind rose vane length represents the percentage of time from which the wind is blowing. Vane color represents wind speed (dark blue=slow, green=fast).
Henderson Road Site
QUESTIONS??
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