

Air Toxics Update

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Air Toxics Update



- I. Air Toxics Workshop Recap
- II. NATTS Program Updates
- III. Air Toxics Method Development work
- IV. Community Scale Grants
- V. Air Toxics Projects

I. Air Toxics Workshop Recap



- Held in Oct. 2015 at RTP
 - 150 attendees
- Training:
 - Data analysis tools
 - Lab training at ERG
 - Aethalometer training
- Discovered burning issues
 - MDL's, data below MDL,
- Heard from users of our data



II. NATTS Program Updates



- 2nd Assessment
- PT Updates
- Technical Assistance Document Guidance (TAD)
- TSA Update

NATTS team vision



- From 1st assessment, created a near term vision:

Goals:

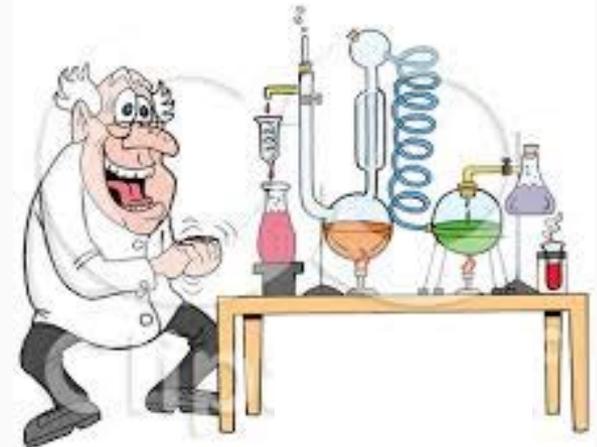
- Increase the quality of the data
- Consistency with all sites and labs within the network
- Find method issues and solve
- Improve communication and discussions



NATTS Proficiency Test



- Critical Part of NATTS Program
 - Lowered concentrations
 - Different concentration
 - 3 Referee Labs
 - Results analysis – 3 way
 - » Nominal Spike
 - » Referee Lab average
 - » NATTS Labs mean
 - Quarterly calls to discuss results



NATTS TAD - “Consistency Across all labs”



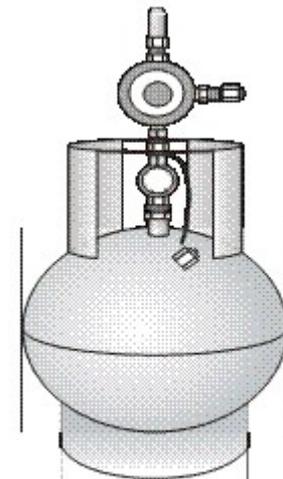
- Received 1200 comments
- New workgroup (EPA, SLT, Battelle)
- More prescriptive, but flexible
- Best practices
- Rationale for decisions
- QA section with data validation template
- Final draft in circulation



NATTS TAD cont...



- Dealt with some of the hard issues
 - Data below MDL
 - MDL procedure (*ASTM conf 8/29-31*)
 - Sampler certification
 - Canister issues
- Other issues to address
 - AQS reporting
 - Pressurized sampling
 - vs
 - Subambient sampling



Increase the Quality of the data



- TSA audits for field sites and labs
 - ✓ Experience auditors doing audits
 - ✓ Audited the entire NATTS network
 - ✓ Helps identify where agencies are not meeting requirements.
 - ✓ Currently have a backlog of reports
 - ✓ Accountability – corrective action





TSA Updates cont.....

- TSAs compared agencies against the new TAD - have 1 year to comply.
- NATTs TSAs will be conducted every 5 years
- Working on plan for follow-up/corrective action

NATTS Assessment



- 2nd Assessment is near completion
- Data years up to 2014
- Now have 2 consecutive 3 yr blocks for PAH
- Trends plots by site/pollutant
 - 3 year block
 - 3 year rolling average
 - annual

III. Air Toxics Methods Issues



- Ongoing research – Acrolein
 - ORD will provide guidance
 - States are doing research
- TO Methods updating
 - TO-15 in progress
- Carbonyls
 - Work group
 - Optimization of TO-11A
 - Looked at all variables
 - SMMW sensor for real time measurements



TO-11A Optimization Exp.



- ✓ % Recovery Experiments
- ✓ Different flow rates (.25 – 1.25L/min)
 - ✓ Breakthrough measurements
- ✓ %RH (30% & 65% + 10% & 85%)
- ✓ NO₂ (25 and 50ppb)
- ✓ Supelco and Waters cartridges
- ✓ Perm Tubes for standard and gas standard
- ✓ Denuder capacity



SubMillimeter Wave Spectroscopy



- Goal: (rack mountable) real time measurement of formaldehyde, acetaldehyde, acrolein
- Current progress:
 - Redesign of white using multipass system
 - 40 mirrors , pathlength 54 meters
 - Began spectroscopy measurement in lab
- Next steps
 - Decrease concentrations
 - Optimize measurements to maximize sensitivity
 - Preconcentration options (if necessary)
 - Design prototypes
 - Build prototypes and pilot studies



IV. Community Scale Air Toxics Grants



- Awarded in 2015/2016
 - Awarded 11 proposals
 - 25 proposals total
 - Funded \$5,190,000
 - 4 Air Toxics at near road
 - 7 community studies
 - PAH's, Formaldehyde, Natural Gas, Refinery, Woodsmoke
 - 2 Tribal
- Planning next RFP in FY2017



V. Community Scale Air Toxics Projects



- Many SLT are seeing an increase in AT projects
- Encourage to reach out to EPA Regions
- Some high profile Regional projects ongoing
 - Art Glass monitoring in Regions 10 & 5
 - Chloroprene in Region 6
 - Mn in OH/PA - Region 3 & 5
 - Aliso Canyon/Porter Ranch - Region 9
 - Bridgeton Landfill in Region 7
- Many others.....

In Summary...



- Success within NATTS
 - PT
 - TSA
- 2nd network assessment
- TAD completed
- Working on Methods issues

- More and More Air Toxics studies



Questions?



Geek!!!

He's
soooo
hot !!

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